

# Single Use Plastics Reduction Strategy



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<sup>2</sup>Plastics can cause the injury and death of many different marine species – including seabirds, turtles and mammals such as whales and dolphins – mainly as a consequence of entanglement and ingestion. Since 2003, the Australian Government has identified marine debris as a key threatening process



causing injury and fatality to vertebrate marine life as a result of ingestion of, or entanglement in, harmful marine debris.

Most marine debris is plastic, which of course is not biodegradable and therefore remains in the environment. Instead they break up into smaller and smaller fragments (microplastics).

In addition, pollutants can accumulate and form a thin layer on these plastics. Concentrations of persistent organic pollutants on microplastic particles can reach several orders of magnitude higher than the surrounding sea water. When these pieces of plastic are ingested by animals, these pollutants accumulate in their tissues and may then enter the human food chain (e.g. by way of fish).

This Strategy aims to look at sustainable options for the City in an effort to reduce its use of plastics in line with government direction.

<sup>2</sup> Source: Department of Water and Environmental Regulation – Reducing single-use plastics in WA-Issues paper

## 2 Background

Following a request from a City Councillor and in the knowledge of other Councils opting to develop and implement a plan to phase out single-use plastics, at the Waste Advisory Group (WAG) meeting held in August 2018, consideration was given to introducing a ban on single-use plastics for the City of Karratha as an organisation, to be in line with current topical environmental and legislative changes. The WAG requested:

- that a determination be made on the definition of what it considers single use plastic to be;
- an audit be conducted to understand the expected financial implications and available options; and
- a report be provided to Council to consider a single use plastic ban strategy with a view to implementing a plan to phase out the use of single use plastics within all business units within 12 months.

A Single Use Plastic Working Group (SUP) was formed in September 2018, with officer representation from core units within the City, including; Airport, 7 Mile Waste Disposal Facility, Red Earth Arts Precinct, Karratha Leisureplex, Administration Building, Annex Building, Youth Centres (Indoor Play, Youth Shed and The Base), Depot, Roebourne Aquatic Centre and Wickham Recreational Precinct.

Officers were requested to conduct an audit for their respective areas over a one month period. The audit was based on the five most used plastics within the organisation, with the exception of; commercial businesses that operate out of Council facilities (e.g. Airport Café, Karratha Leisureplex, Pam Buchanan, Dampier Hub and Pavilions), and plastic bags that are used by commercial cleaners at Dampier Hub, Karratha Leisureplex and Airport). The audit findings were presented to the WAG in November 2018, which included:

- Quantities of stock in each area;
- Annual quantities purchased; and
- Approximate associate annual costs.

It was determined that the business units with the highest plastics in stock are:

- Water bottles - Administration building and Red Earth Arts Precinct
- Coffee/Water Cups - Red Earth Arts Precinct and Youth Centres
- Straws & Cutlery – Youth Centres
- Plastic bags – used across all business units predominately by cleaners and litter pickers. Various bag sizes are used depending on intended function.

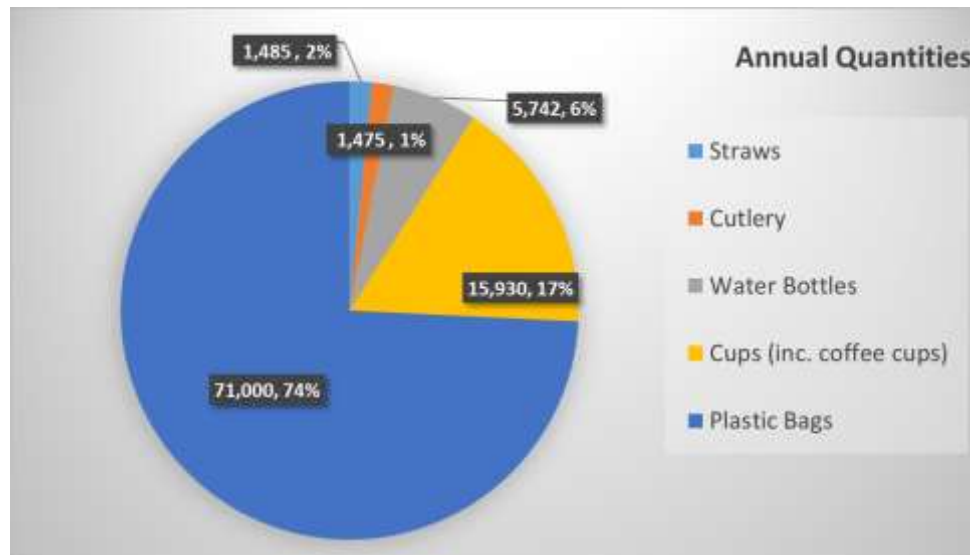
Findings were presented to Council at its meeting in January 2019 and are included in the Findings section of this Strategy. Council subsequently resolved to support the development of a single use plastics reduction strategy with a view to replace single use plastics with biodegradable or alternative products, and investigate making the Red Earth Arts Festival (REAF) 2019, a single use plastics free event.



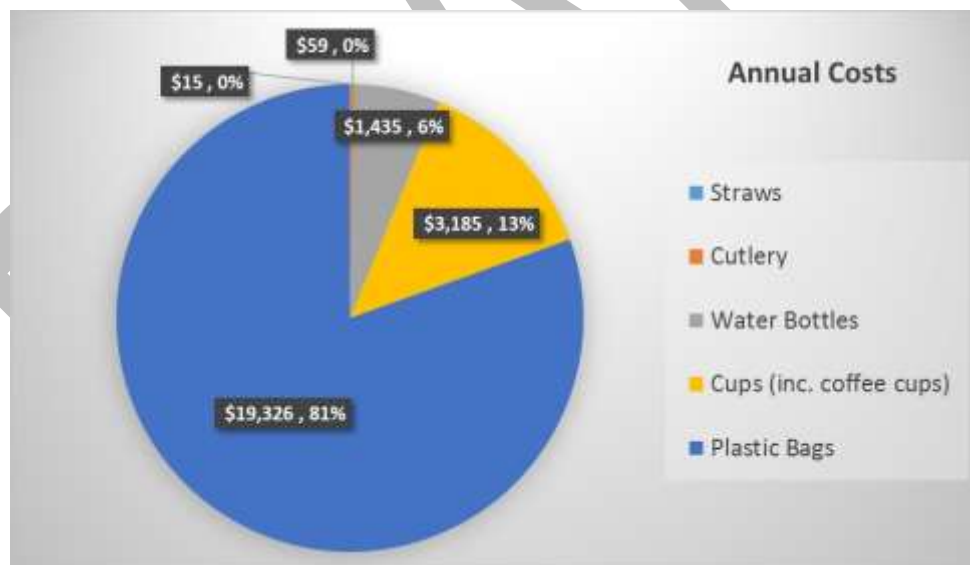
### 3 Current situation

Through data provided by the SUP, the below graphs represent the annual quantities and annual costs for each of the plastic categories:

Graph 1



Graph 2



These graphs highlight the quantities and costs which are largely attributed to plastic bags and cups, and to a lesser degree water bottles. The total annual expenditure for these plastics is approximately \$24,000. It should be noted that soft drinks and other energy drinks etc. that are also purchased in plastic bottles did not form part of this audit, but indicative numbers at the Red Earth Arts Precinct are 5,700 units per year at a cost of \$11,700.

## 4 Identified challenges and solutions

As there are already some challenges with educating the community on recycling correctly to avoid contamination, there are also foreseeable challenges with the City's implementation of a single use plastics reduction strategy, which are expected to include:

- Educating staff in the practice of not purchasing/using single use plastics
- Commercial businesses that operate within Council facilities are not obliged to use non-plastic products, however the City may consider developing practices that encourages businesses to purchase alternatives
- Exploring alternatives like biodegradable and compostable options
- Potential difficulty in distinguishing alternatives to plastic, from other plastics which could be viewed as a contaminant
- Increased associated costs with alternatives
- Remembering to bring personal coffee cups and reusable water bottle wherever you go
- Costs with installing and maintaining water filling stations

Although there will be challenges, the City has adopted some practices that are already addressing the single use plastic issue e.g. issuing Councillors and staff with reusable water bottles and coffee cups, and not providing straws (except if required as an aid to assist in drinking) and plastic cutlery in most cases. More recently, the City looks to install water filling stations at the REAP and inclusion in the development of Welcome Park and the Wickham Community Hub.

In February 2019, the SUP Working Group were requested to provide possible solutions for reducing or eliminating plastics for their respective work places and identify costs for alternatives (including biodegradable options).

Table 1 below provides findings and recommendations from an organisational perspective, for each of the targeted plastics across the following workplaces (including the upcoming Red Earth Arts Festival (REAF) event) and includes timeframes and financial impacts associated with implementation:

- Administration Office
- Administration Annex
- Red Earth Art Precinct (REAP)
- Wickham Recreational Precinct
- Roebourne Aquatic Centre
- Youth Centres
- Depot Services
- 7 Mile Waste Disposal Facility
- Airport

Table 1

	Identified Solutions	Likely Timeframe for Implementation	Associated Costs	Exceptions / Challenges
<b>Water Bottles</b>	Reduce and do not replace current stocks used by Councillors for Briefings and Council Meetings. Metal water bottles have been provided to all Councillors for this use	When stocks are depleted.	Nil	No challenges identified as water filler and glasses are provided if reusable bottles are not used
	Replace with water coolers (Eskys) where possible for external events	Immediate	Nil	Larger events may pose some problems
	For meetings – advise Stakeholders to provide their own reusable water drink bottles	Can be implemented as part of advising Stakeholders when setting up meeting	Nil	People forget to bring their own bottles. Reusable cups can be used if this occurs
	Provide refrigerated water filling stations	Depending on nominated sites and required plumbing associated with refrigeration. Est. 6 months	Supply & installation costs – To be determined	May be susceptible to damage. Costs for plumbing and refrigeration, need to be budgeted in the future
	Performers at REAP are supplied with reusable water bottles and stage manager is responsible to refill as required	Immediate	Existing stocks	None identified
	REAF – Use vendors and suppliers that comply with no single use plastics for events	Stipulate that this is a condition of trading		May have some resistance from vendors due to increased costs incurred by supplying water in non-plastic bottles
				Water bottles supplied for REAP – companies advise they use recycled materials. There is no plan to phase these out, due to high sales



Table 1 Continued

				Environmental Health use plastic bottles for water sampling that are supplied by the laboratory. It is unlikely this practice can/will change
<b>Coffee / Water Cups</b>	For meetings - advise Stakeholders to provide their own reusable coffee cup	Immediate		
	Provide water jugs and glasses where possible	Immediate		
	Provide biodegradable cups when reusable cups are not available	Options to be sourced	Bioplastic cups x 1000 \$120 Further costs to be determined	
	Perhaps offer discounts to incentivise patrons to bring their own cup to City run facilities	Further discussions required		
<b>Plastic Bags</b>	Remove desk bins from all desks and encourage staff to place their rubbish in central locations	Staff to be advised of practice	Less bags used and therefore less costs	New habits to be formed. Relying on staff to place rubbish in central bins and not accumulate any waste at desks
	Avoid bin liners where possible		As above	
	Investigate other biodegradable options across all facilities and different uses	Options to be sourced	Cost to be determined	
<b>Straws &amp; Cutlery</b>	Ban straws, with exception for use by disabled patrons	Immediate		
	Purchase biodegradable cutlery	Already happening in some locations.	Wooden teaspoons x 2000 \$66. Further costs to be determined	
	Vendors/suppliers advised that this is a stipulation of trading			May have some resistance from vendors due to increased costs incurred by supplying non-plastic items

## 5 Conclusion

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Council has supported the development of a single use plastics reduction strategy with a view to replacing single use plastics with biodegradable or alternative products, and investigating making the Red Earth Arts Festival (REAF) 2019, a single use plastics free event.

The following is recommended for Council's consideration in adopting this single use plastics reduction strategy document:

- All City of Karratha Staff, Councillors and Stakeholders to be encouraged in:
  - the practice of recycling correctly and not using single use plastics wherever possible,
  - bringing their own water bottles and reusable coffee cups to work and/or business meetings whenever possible to avoid the use of plastic and single use coffee cups
- Staff to
  - continually explore purchasing value for money alternatives to plastic, like biodegradable and compostable options that have minimal environmental impact;
  - centralise a bin/s in work areas, so desk bins are no longer used that require bin liners. This will also result in less labour impact on cleaning contractors and cleaning staff
- Immediately stop providing plastic water bottles where other options are available
- Commercial businesses that operate within Council facilities are not obliged to use non-plastic products, however the City will advise operators that the City is supporting a single use plastics reduction strategy and strongly encourages business owners to do the same
- Stipulate to vendors that plastic alternatives are to be strongly considered as a condition of trading or include in agreements for service at City run events
- Whenever possible in the future, include water filling stations at Council facilities

It is not fully known at this stage the financial implications as further research is required on best value for money alternatives.