



Acknowledgement of Country

Sunshine Coast Regional Council acknowledges the traditional Country of the Kabi Kabi Peoples and the Jinibara Peoples of the coastal plains and hinterlands of the Sunshine Coast and recognise that these have always been places of cultural, spiritual, social and economic significance. We wish to pay respect to their Elders – past, present and emerging – and acknowledge the important role Aboriginal and Torres Strait Islander people continue to play within the Sunshine Coast community.

Council is committed to ongoing communications and consultation with the Traditional Owners and the broader Aboriginal and Torres Strait Islander community of the Sunshine Coast in the implementation of the Environment and Liveability Strategy.

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Acknowledgements

Council would like to acknowledge the contributors of a number of images in this document, including:

Front cover: Bree Anderson, Colton Tree Friday Afternoon; Inside cover: Kye McWaters, Shelly Beach; Page 7: Alex Roper, Crystal Ball; Page 11: Sam Letchford, Coolum Solar Farm Rainbow; Page 13: Sam Williams, Moffat Beach - Moffat Gold; Page 19: Dave Wilcock, Landsborough - Ewen Maddock Dam.

Disclaimer

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Reference document

This document should be cited as follows:
Sunshine Coast Regional Council. 2019.
Organisational Environmental Sustainability Benchmarking Annual Review 2018-2019



What is benchmarking?

This is the fourth annual Sunshine Coast Council Organisational Environmental Sustainability Benchmarking report. It measures Council's performance on environmental sustainability for the 2018/19 financial year. The report shows trends and changes by comparing this year's performance against previous years and from the baseline year (2014/15).

This report measures our progress to become a zero-net emissions organisation by 2041. This is a key commitment of our Environment and Liveability Strategy.

The report also contributes to the monitoring of our Corporate Plan 2019–2020 to reduce Council's greenhouse gas emissions.

Why benchmark?

Benchmarking allows Council to track its performance over time. This enables us to see whether we are on track to meet our sustainability and zero-net emissions target. Benchmarking provides a transparent look at our operations to help identify and prioritise areas where we can be more efficient and improve our environmental outcomes. Importantly, by monitoring trends and changes over time - and as we implement new sustainability initiatives - we gain insights into what has worked well and what hasn't.

Benchmarking also allows us to consider these trends and changes within the broader context of population and organisational growth.

This report provides a transparent look at Council's use of resources allowing for more focused efforts, cost savings and better sustainability outcomes.

Benchmarking benefits

- Highlights investment opportunities to improve environmental sustainability outcomes.
- Provides evidence-based insight into business performance to develop or adjust targets, actions and resources.
- Demonstrates Council leading by example and sharing best practice.
- Provides a transparent insight into Council's progress towards meeting its vision and target.

Approach to benchmarking

We use indicators to identify trends and track performance of broader environmental sustainability areas.

These indicators are selected based on the availability of data, and how well the indicator represents broader trends and changes.

The benchmarking covers the following key areas:

- Carbon (greenhouse gas) emissions
- Waste
- Energy (electricity and fuel)
- Renewable energy
- Transport
- Water
- Environmental sustainability programs
- Environmental sustainability embedded into systems and processes.

We have two types of indicators:

- Primary indicators - provide the most accurate indication of trends and changes in the relevant area, and
- Other indicators - provide additional context and a comprehensive picture of trends and changes.

Each year, we review the indicators. We consider the availability of new datasets, improvements in Council's measurement and monitoring activities, changes in policy, legislation and standards, and emergence of additional priorities. Periodically, this results in indicators being revised and added.

As our region, and Council as an organisation, grows over time, the indicators are standardised against either the number of full-time equivalent (FTE) staff working for Council, and (where appropriate) the regional population. This standardisation of indicators ensures we distinguish between trends that relate to having a larger population and organisation versus trends that relate to the continued improvement of our processes, systems and actions.

Indicators that are standardised against the regional population (i.e. per resident) relate to greenhouse gas emissions. We own and operate two landfill sites, which are the most significant contributor to our carbon footprint and largely reflect community waste. This means standardising greenhouse gas emissions against the regional population gives a more accurate understanding of changes over time.¹

Table 1 below shows FTE and population figures used to standardise the data.²

	2014/15	2015/16	2016/17	2017/18	2018/19
Population	289,133	289,389	303,400	319,500	328,000
Council FTE (staff) ³	1,450	1,553	1,661	1,654	1,668

¹ Note that some local governments own and operate water and sewerage services for the community which influence their greenhouse gas emissions. Council does not own or operate water and sewage services.

² One FTE is equal to one full-time workload that might be conducted by a single full-time employee or by several part-time employees.

³ This figure represents FTE hours paid for all established, non-established positions and agency staff for the financial year.

Carbon (greenhouse gas) emissions

Indicators	2017/18	2018/19				Put into perspective
	Total	Total	% change	Change per resident	Change per resident	
Primary indicator						
Total greenhouse gas emissions (with community waste + additional emissions sources)* (This is the new indicator for measuring the organisational greenhouse gas emissions, with the new benchmark baseline year of 2017/18.)	188,393 tCO ₂ e (0.59tCO ₂ e/resident)	206,303 tCO ₂ e	↑ 10% (17,910 tCO ₂ e increase)	0.63 tCO ₂ e	↑ 0.04 tCO ₂ e	<p>Since 2017/18, additional emission sources have been included in the calculation of this indicator. Council has continued to update these calculations as data has become available to become compliant with the National Greenhouse Gas Protocol Standards in preparation for achieving our net-zero emissions organisation target.</p> <p>These additional emission sources include emissions from electricity transmission and distribution losses, goods and services produced by a third party but consumed by Council, and refrigerant losses (however refrigerant losses are under reporting thresholds).</p> <p>As emissions from landfills remain the largest contributor to these total greenhouse gas emissions, addressing waste-to-landfill and increasing landfill gas flaring are significant opportunities for reducing Council's greenhouse gas footprint.</p>
Other indicators						
Methane captured and flared at Nambour and Caloundra landfills ⁵	46,431 tCO ₂ e (0.15tCO ₂ e/resident)	42,226 tCO ₂ e	↓ 9% (4,205 tCO ₂ e reduction)	0.12 tCO ₂ e	↓ 0.03 tCO ₂ e	<p>Annual variations in methane flaring largely reflect the amount of methane produced by landfills. Improved diversion of green waste, combined with lower rainfall and varying composition and age of landfill waste contribute to these variations in methane production.</p> <p>There has been a 97% increase in methane captured and flared since 2014/15. This increase since 2014/15 is largely due to additional flaring systems having been installed at the landfills.</p> <p>Landfill gas flaring rates at both the Caloundra and Nambour landfills was 25%.</p>

⁴ Council emissions include emissions from waste generated by Council activities, electricity including street lights, fuel, liquid petroleum gas, electricity transmission and distribution losses and goods and services produced by a third party but consumed by Council. Emissions are generated from waste (including community waste) disposed at Caloundra and Nambour landfill sites. In addition, Council also measures GHG emissions from refrigerants, these were under the NGER reporting threshold so not included in this figure.

⁵ The gas flared was from emissions generated from both community waste and waste generated by Council activities.

Change in greenhouse gas emissions (tCO₂e)



Figure 1: Sunshine Coast Council's annual greenhouse gas emissions.
 To comply with the National Greenhouse Gas Protocol, additional emission sources have been measured since 2017/18 and incorporated into this indicator, with 2017/18 becoming the new baseline.

Greenhouse gas emissions per resident (tCO₂e)

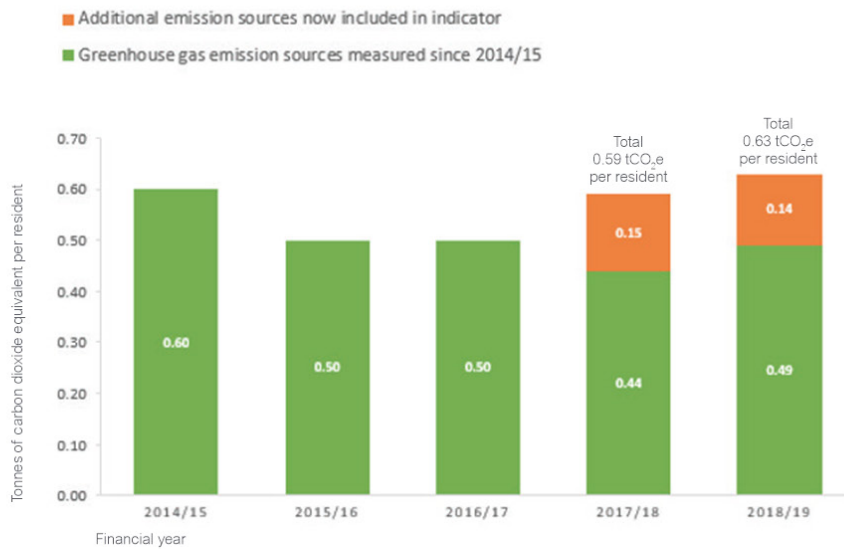


Figure 2: Sunshine Coast Council's greenhouse gas emissions per resident.
 To comply with the National Greenhouse Gas Protocol, additional emission sources have been measured since 2017/18 and incorporated into this indicator, with 2017/18 becoming the new baseline.

Greenhouse gas footprint for 2018/19

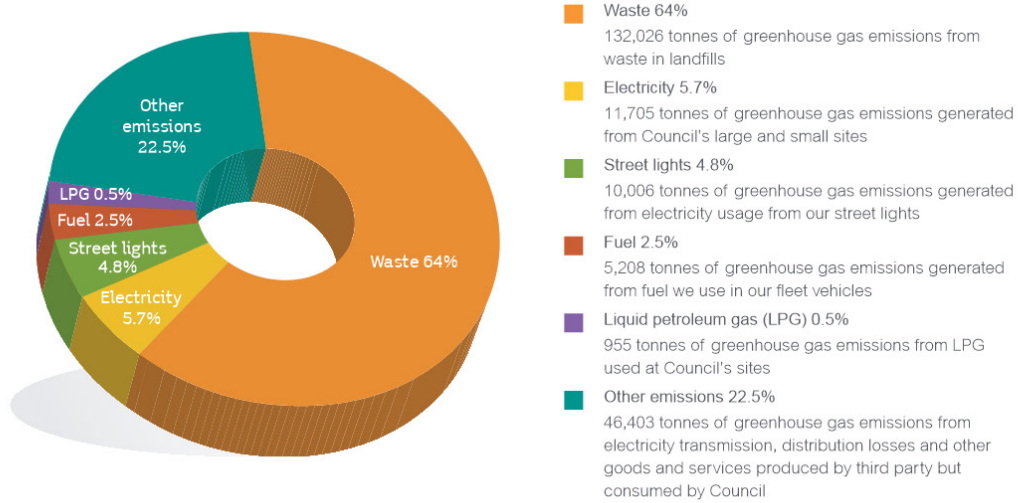


Figure 3: Sunshine Coast Council's greenhouse gas footprint (tCO₂e) for the 2018/19 financial year.⁷

⁶ Street lighting has been separated out from the 'Electricity' area as it is a significant source of greenhouse gas emissions and it is calculated as a different emissions source.



Waste

Indicators	2017/18	2018/19			Put into perspective	
	Total	Total	% change	Per FTE		Change per FTE
Primary indicator						
Waste generated by Council activities ⁷	7788t (5 t/FTE)	7061t	↓ 9% (727t decrease)	4t	↓ 1t	This decrease partly reflects Council's diversion and reuse of construction and demolition waste, cleanfill and green waste before these materials reach landfills. 104% increase in waste generation since the baseline year in 2014/15.
Other indicators						
Waste generated by Council activities diverted from landfill	4402t (3t/FTE)	3816t	↓ 13% (586t decrease)	2t	↓ 1t	Of the total waste generated in 2018/19, 54% was diverted from landfill compared to 57% in 2017/18.

Waste generated by Council activities (tonnes)

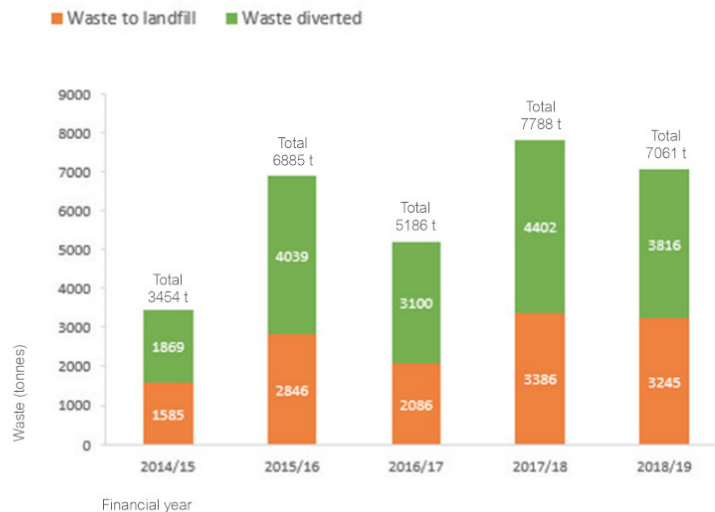


Figure 4: Change in waste generated by Council activities (compared against the baseline year 2014/15).

⁷ Waste generated by Council activities for contract collected waste is calculated based on bin size, service frequency and regional audit data. Self-haul waste generated by Council's activities is based on actual weighbridge data; however, it excludes some green waste, and construction and demolition waste that is handled separately at Council depots.

Sustainability and innovation in action

Bollards made from soft plastics

The challenge:

Many of our parks, open spaces and stormwater management facilities use bollards to protect these spaces from vehicle access. As these bollards are weather exposed, the traditional timber bollards required regular maintenance and replacement to address rotting, splintering and termite damage.

The solution:

Council now uses Replas bollards as standard in our parks, open spaces and stormwater management facilities. These are made from 98% recycled plastic material, which is collected through the REDcycle program which collects soft plastic waste from consumers.

Outcomes:

The use of Replas bollards as standard in all weather-exposed areas has reduced maintenance

requirements, replacement costs and associated waste to landfill - while also supporting the recycling of soft-plastic waste in Australia.

This approach provides more shade for residents and reduces material usage and costs.



Recycling our signs

The challenge:

Reduce the number of corflute signs disposed at landfill.

The solution:

We changed our processes and introduced removable vinyl stickers so we can reuse the sign multiple times. Then, once the signs are too damaged to be used again, we give them to Corex Plastic - a Brisbane-based company - who recycle them into new corflute signs or other products such as plant pots or compost bins.

Outcomes:

Since we started this initiative, we have collected one pallet of signs. This means 1.7m³ of waste diverted from landfill. (We're also pleased to say

that the collection bin (pictured) is also made from recycled corflute material.)



Energy (electricity)

Indicators	2017/18	2018/19			Put into perspective	
	Total	Total	% change	Per FTE		Change per FTE
Primary indicator						
Total electricity consumption (including street lighting)	28,770MWh (17,394kWh/ FTE)	27,138 MWh	↓ 6% (1632 MWh reduction)	16,270kWh	↓ 1124kWh	This indicator has been added this year to provide the Council's total consumption.
Other indicators						
Electricity consumption (excluding street lights)	16,491MWh (9970kWh/ FTE)	14,631 MWh	↓ 11% (1860MWh reduction)	8772 kWh	↓ 1156kWh	Council has been installing efficient lighting and building management systems as well as solar PV on many buildings and facilities to reduce electricity consumption. Total electricity consumption (excluding street lights) has decreased by 51% since 2014/15.
Street lighting consumption	12,279MWh (7424kWh/ FTE)	12,507 MWh	↑ 2% (increase 228MWh)	7498 kWh	↑ 74kWh	This represents a 11% increase since 2014/15. Council is testing energy-smart street lights with sensors that regulate when the lights turn on.
Total electricity costs (including all costs such as network charges and including street lights)	\$7,900m (\$4,776/ FTE)	\$6,939m	↓ 1.2% (\$961,000 reduction)	N/A	N/A	Reductions in electricity costs reflect both reduced consumption, and reduced electricity costs due to Council's solar farm.





Renewable energy

Indicators	2017/18	2018/19			Put into perspective	
	Total	Total	% change	Per FTE		Change per FTE
Primary indicator						
Total installed solar PV capacity, including the Sunshine Coast Solar Farm and solar PV on buildings and facilities	15,209kW	15,324kW	↑ 1% (115kW increase)	N/A	N/A	The increase largely reflects the addition of 102kW at Buderim, Caloundra and Nambour Resource Recovery Centres.
Other indicators						
Capacity of solar (PV) panel systems on Council buildings and facilities	209kW (0.1kW/FTE)	324kW	↑ 55% (115kW increase)	0.2kW	↑ 0.1kW	The increase largely reflects the addition of 102kW at Buderim, Caloundra and Nambour Resource Recovery Centres.
Energy generated by Sunshine Coast Solar Farm	25,117MWh	29,528MWh	↑ 18% (4,411MWh increase)	N/A	N/A	Increased energy generation since 2017/18 is partly due to the solar farm having reached full production and grid export in October 2017, therefore there was not a full year of electricity production in the 2017/18. The solar farm was fully operational in 2018/19. The solar farm offset 109% of Council's electricity operational requirements.
Electricity cost savings against 'business as usual' after all costs	\$1.7m	\$429,400	↓ 75%	N/A	N/A	The change in cost savings from the solar farm reflect Council having taken on full maintenance costs from December 2017, as well as annual variations in the wholesale electricity price, and the price of Large Generation Certificates.

Caloundra Indoor Stadium

Reduced electricity use by 22%
 thanks to a lighting upgrade and enhancements to the building management system (BMS)

Kawana Sports Precinct

The eastern field, which includes the clubhouse and lighting reduced electricity use by **27%**

Electricity usage, solar farm generation and total electricity costs

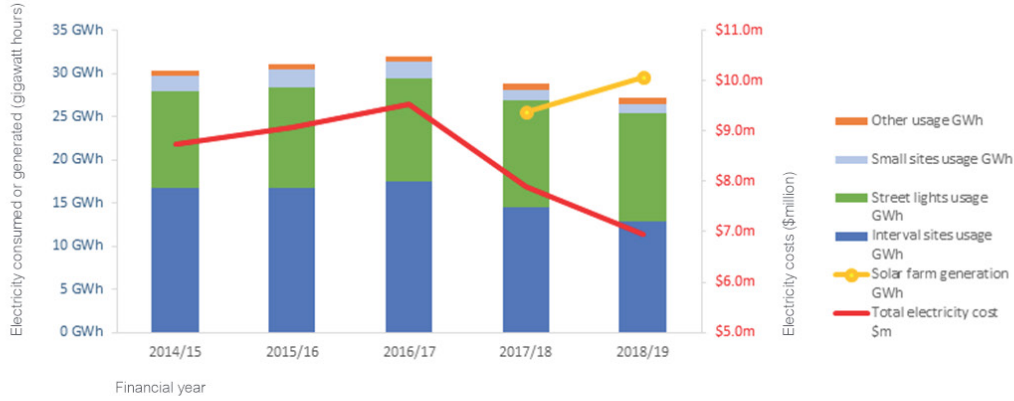


Figure 5: Generation, usage and total electricity cost (compared against the baseline year 2014/15).⁸

⁸ Generation is from the Sunshine Coast Solar Farm, before generated losses are applied.
 Interval sites include administration buildings, holiday parks, aquatic centres, community buildings, sports grounds, waste facilities and constructed waterways.
 Small sites include community facilities, public amenities and barbeques.
 Other sites include unmetered supply to traffic lights and watchmen lights.





Energy (fuel)

Indicators	2017/18	2018/19				Put into perspective
	Total	Total	% change	Per FTE	Change per FTE	
Primary indicator						
Litres of fuel used ⁹	1,944,00L (1175L/FTE)	1,926,457L	↓ 1% (17,544L decrease)	1155L	↓ 20L	Fuel consumption has reduced by 7% since the baseline year (2014/15). Council increased its fleet by 19 vehicles, however, fuel consumption has decreased by 17,544L demonstrating that Council continues to economise its fuel usage where possible.
Other indicators						
Fuel costs	\$2,280,762 (\$1379/FTE)	\$2,556,033	↑ 12% (\$275,271 increase)	\$1,532	↑ \$153	This increase reflects an increase in fuel prices in the 2018/19 year. There has been a 1% reduction in costs since the baseline year 2014/15).
Alternative-fuel and advanced technology fleet vehicles	2	2	No change	N/A	N/A	Council has two electric vehicles that represent 0.4% of the total fleet vehicles. There are potential opportunities for Council to purchase electric and hybrid vehicles when replacing fleet vehicles.

Total fuel usage and number of fleet vehicles

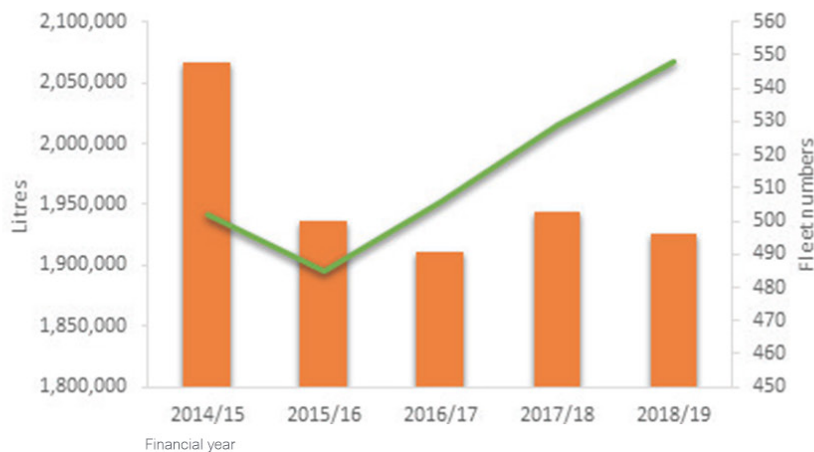


Figure 6: Council's fuel usage in litres and fleet number trends (compared against the baseline year 2014/15).

⁹ Fuel includes diesel, unleaded petrol for vehicles and bulk diesel used by heavy plant and equipment such as graders, rollers, tractors and mowers. Small sites include community facilities, public amenities and barbecues. Other sites include unmetered supply to traffic lights and watchmen lights.

Transport

Indicators	2017/18	2018/19				Put into perspective
	Total	Total	% change	Per FTE	Change per FTE	
Primary indicator						
Fleet vehicles ¹⁰	529	548	↑ 3.6% (increase of 19 vehicles)	N/A	N/A	Overall there has been a 9% increase in the number of fleet vehicles since the baseline year 2014/15.
Other indicators						
Fleet vehicles that are four-cylinder	374	391	↑ 5% (increase of 17 vehicles)	N/A	N/A	This represents 71% of vehicles being four-cylinder, which are more efficient. This increase in four-cylinder vehicles largely reflects an increase in the total number of fleet vehicles. This is a 3% increase since the baseline year 2014/15.
Total distance saved by staff using alternative transport (car pool, cycling, walking or public transport) ¹¹	142,104 km (166km/FTE)	236,023 km	↑ 66% (93,919km increase)	142 km	↓ 24 km	In 2018/19, an average of 43 users logged green transport per month, compared to 35 in 2017/18. The average number of green travel kms per month increased 40% to 20,097km/month (2018/19) from 11,890km/month (2017/18). There has been a 120% increase in green travel kms since 2014/15.

¹⁰ This figure includes passenger and light commercial vehicles as well as two hybrid (electric/fuel) passenger vehicles.

¹¹ This was the result of Travel Smart's 'Green Travel' program for staff. Alternative transport, outside of what has been registered through this program has not been included.





Smart sprinklers for our parks and sports grounds

The challenge:
 Managing the irrigation of parks, sports grounds and open space areas across the Sunshine Coast to meet the required service levels.

The solution:
 To keep these areas looking their best we have installed a network of smart irrigation systems. These systems track our watering, monitor weather conditions and automatically irrigate each of our sites, only when needed.

We've also used the smart systems, which operate in real-time, to track when faults occur within irrigation systems. Flow meters help us to identify problems and leaks and this saves the unintended

waste of water. Further, our officers remotely control sites and watering systems, which reduces staff time in the field and costs associated with visiting sites in person.

Outcomes:
 Through the use of smart sprinklers we're reducing water consumption while improving the way we manage our parks, sporting grounds and open space and delivering ongoing cost savings as a result.




Cleaning our waterways

The challenge:
 Plastic bags and plastic bottles polluting our oceans and waterways.

The solution:
 In an effort to reduce the amount of litter in the environment - including our oceans and waterways - the Queensland Government introduced a ban on single-use plastic bags (1 July 2018) and the container refund scheme (1 November 2018). Subsequently, Council encouraged staff through a Notice of Motion to reduce the use of single-use plastics at its facilities and events.

Outcomes:
 Our waterways team recorded a 51% reduction in the number of whole plastic bags that end up in

our waterways compared to the 2017/18 financial year. During the same time there has been a 13% reduction in the number of plastic bag remnants and a 48% reduction with the number of plastic bottles littering our waterways. The legislative changes and leadership have had a positive impact on our region.





Water

Indicators	2017/18	2018/19				Put into perspective
	Total	Total	% change	Per FTE	Change per FTE	
Primary indicator						
Water consumed by Council ¹²	646,721kL (389kL/ FTE)	618,650kL	↓ 4% (28,071kL decrease)	371kL	↓ 18kL	Reduced water consumption partly reflects the installation of Council's smart water management system across many parks and gardens. Council is also working towards monitoring water assets and water consumption more effectively. Council's water consumption has increased by 19% since the 2014/15 baseline year.
Other indicators						
Council's total water cost (including all costs such as water access and sewerage charges)	\$4,704,552 (\$2832/ FTE)	\$4,660,574	↓ 1% (\$43,973 decrease)	\$2,794	↓ \$38	This reduction in cost reflects the reduction in water consumption. Some costs are independent of consumption, such as service charges for meter reading.

Water usage (kilolitres)

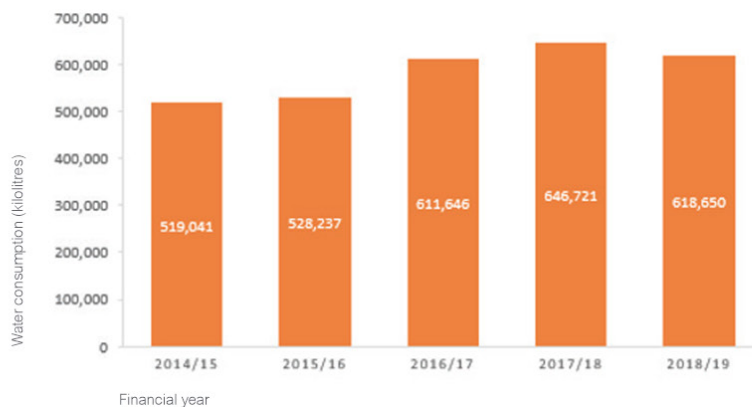


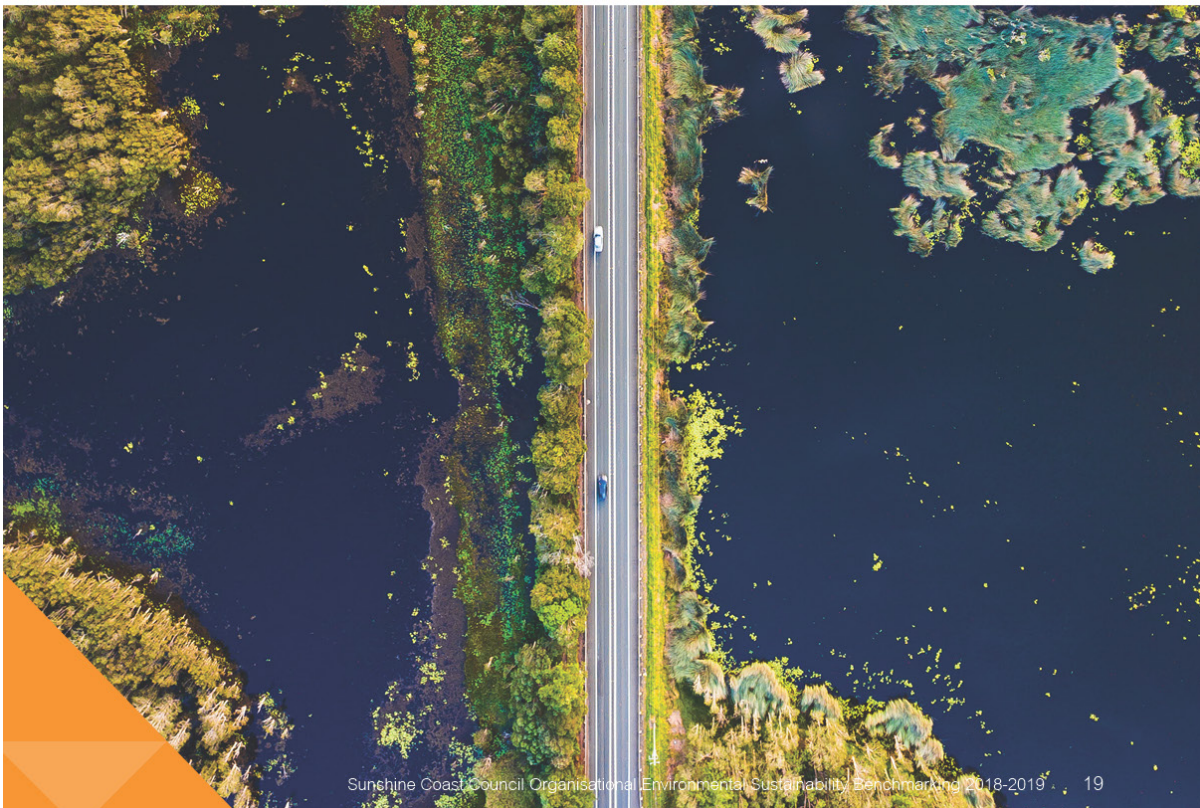
Figure 7: Changes in water usage (compared against the baseline year 2014/15).

¹² Water consumed includes the potable water that Council is billed for by a water access, supply and sewerage service company (Unitywater). It does not include the use of water from other sources such as rainwater tanks.

Our environmental sustainability programs

Indicators	2017/18	2018/19		Put into perspective
	Total	Total	% change	
Primary indicator				
Staff participating in work place sustainability programs and events (about waste, water, energy, greenhouse gas and transport)	1154	1636	↑ 42% (482 staff increase)	There is an increasing level in internal staff participation and awareness in sustainable events and programs.
Other indicators				
Number of workplace sustainability events and programs ¹³	6	11 (5 event and program increase)	↑ 83%	There was a significant increase in the number of events and programs with a strong emphasis around phasing out single use plastics.

¹³ Staff environmental sustainability programs and events include Plastic Free July, National Recycling Week, Earth Hour, Green Travel, Ride to Work and Spring into Spring BBQ, tree planting, conservation and rehabilitation days.







Swapping out single-use plastics

The challenge:

To swap out single-use plastics from the canteens at Caloundra Indoor Stadium, Sunshine Coast Stadium, Maroochy Multi Sport Complex and Venue 114.

The solution:

Following our commitment to phase out single-use plastics, a number of facilities changed their canteen set-up to swap single-use plastics for environmentally friendly compostable options. Furthermore, where there was no suitable alternative, facilities removed the specific plastic item (such as lollies on a stick) from sale.

To reduce the number of disposable coffee cups, Caloundra Indoor Stadium and Venue 114 have encouraged guests to bring a reusable cup by offering a 50 cent discount on hot drinks.

Outcomes:

From June to September 2018, Sunshine Coast Stadium avoided the use of 11,477 single-use plastic items - coffee cups, plates, hot chip and burger containers, plastic cups and plastic soft drink bottles - from their operations.

Across all facilities, the removal of single-use plastics was easy to implement and was supported by the sporting clubs and residents who use these facilities.



Environmental sustainability embedded into systems and processes

Indicators	2017/18	2018/19		Put into perspective
	Total	Total	% change since 2017/18	
New contracts, recommended for award by Procurements Contract Committee (exceeding the value of \$200,000) that were evaluated with regard to environmental criterion ¹⁴ (In future years the value will be increased to \$250,000 due to the change to a Strategic Contract Procedure with the new threshold.)	69 of 78 contracts	84 of 90 contracts	↑ 4%	93% of contracts were evaluated against environmental criterion. Due to the nature of some contracts they don't all require evaluation against environmental criterion.
New permanent employees who have participated in some kind of induction checklist or Council's corporate orientation program where they were informed of and encouraged to embrace Council's vision of being Australia's most sustainable region ¹⁵	246	290	↑ 18% (increase of 44 new employees)	Total number of new employees including permanent full and part-time, casual, temporary full and part-time - excluding contractors.

¹⁴ In many cases environmental criteria are applied to the request for quote (RFQ) evaluation process for contracts under \$200,000. These are not all captured in a central location by Council, so have been omitted.

¹⁵ This includes permanent (120), casual (83) and temporary (108) employees who are required to attend Corporate Orientation or complete our induction checklist.

Continual improvements in Council's systems and processes

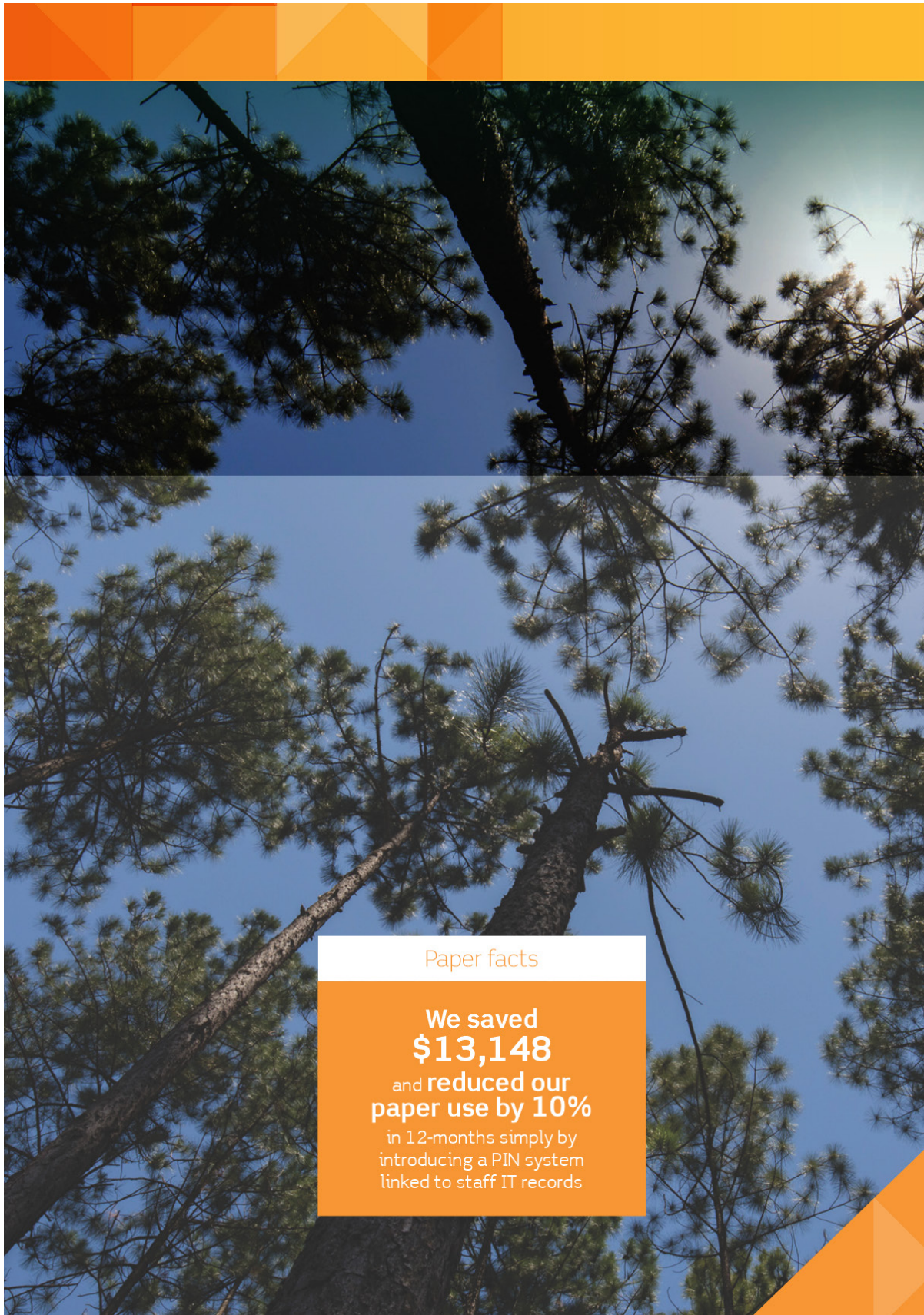
Council is committed to continually improving the way it delivers services and infrastructure to the community to achieve the vision of being Australia's most sustainable region. One way that Council is achieving this continual improvement is by ensuring the systems and processes that govern the way these services and infrastructure are designed, funded and delivered enable us to systemically consider and prioritise sustainability.

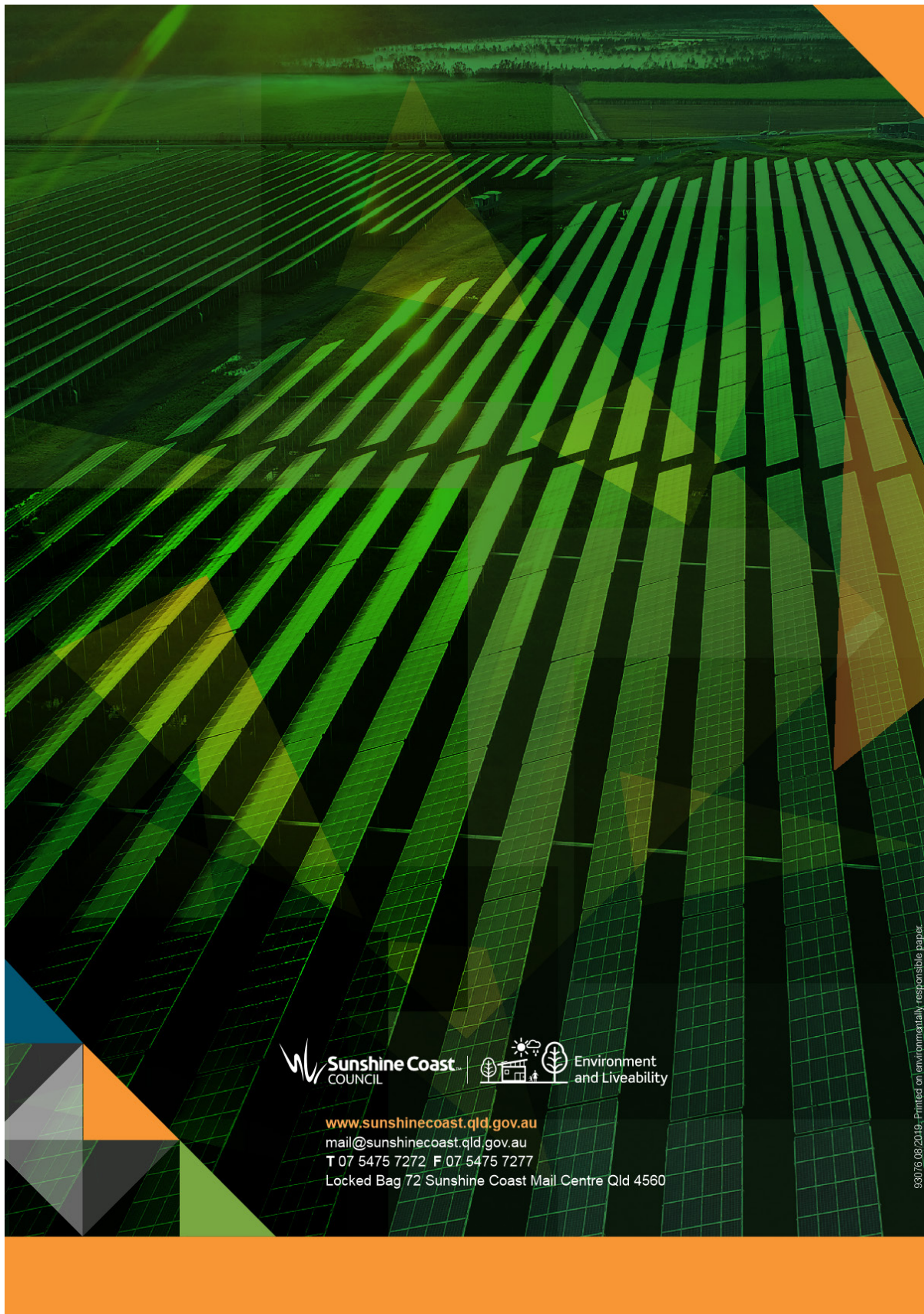
Over the last financial year, many improvements to our systems and processes have been developed and/or implemented – including for example the CONFIRM asset management system, which stores detailed asset data in a centralised, digital and spatially-enabled system that allows us to run analytics and better understand the cost and value of different asset management and delivery approaches. This allows us to plan and manage our assets more strategically.

In Council's buildings and facilities, we are also progressively installing building management systems to monitor and control the buildings' mechanical and electrical equipment. The data these systems provide allows us to optimise the operation of these facilities for energy and water efficiency.

Council's Landscape Infrastructure Manual (LIM) is being updated to provide best-practice technical guidance and support for the design of open space and embellishments within it. The LIM emphasises sustainability, life-cycle performance and value and quality in the assets it covers, and informs all of the work that Council does in the region's open space network.

Council has recently introduced an innovation program, which will build capacity of staff to innovate in their own areas, and is providing a platform where staff can propose ideas to improve our ways of working.





 **Sunshine Coast**
COUNCIL |  Environment
and Liveability

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