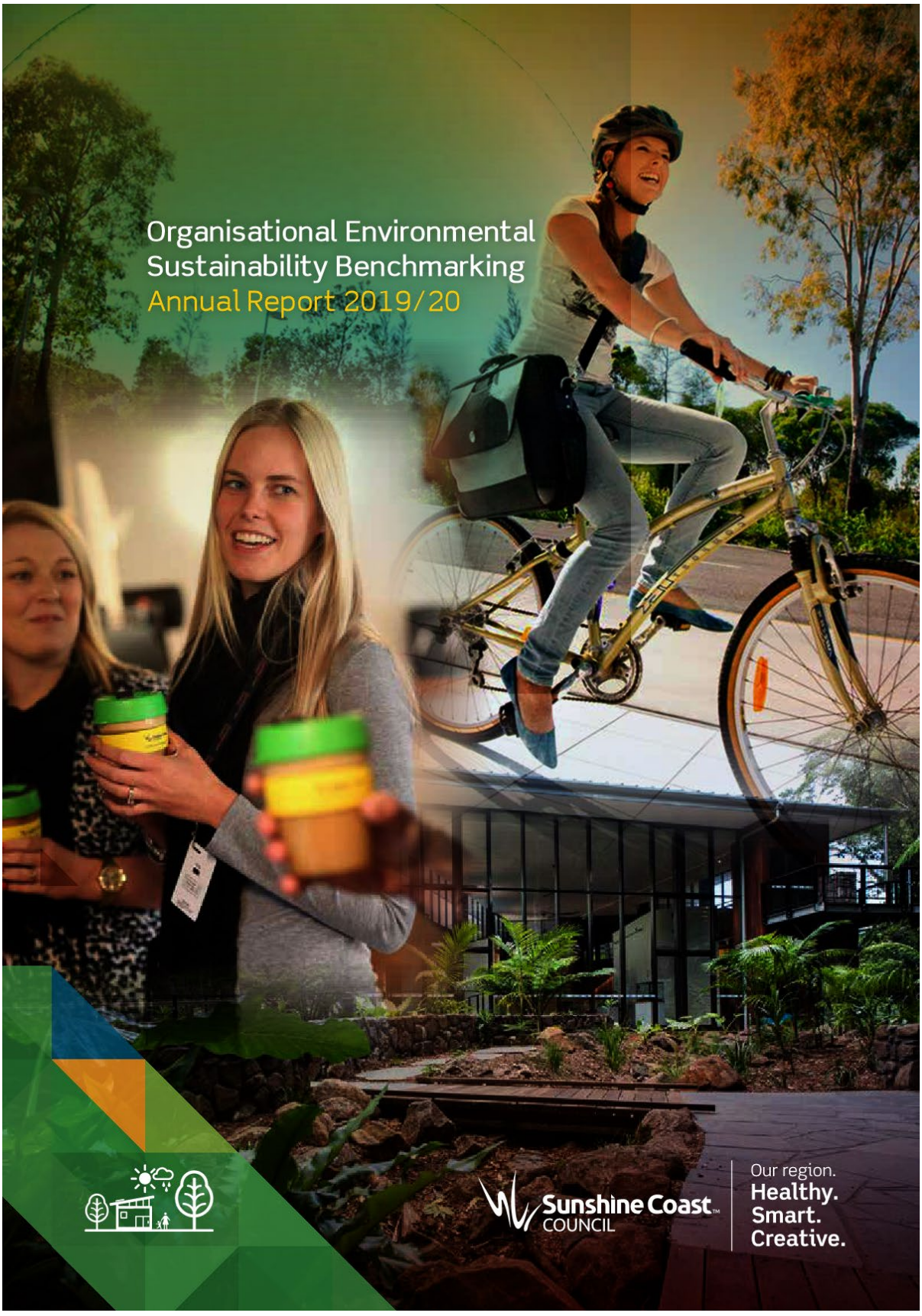
Organisational Environmental
Sustainability Benchmarking
Annual Report 2019/20
Sunshine Coast COUNCIL
Our region.
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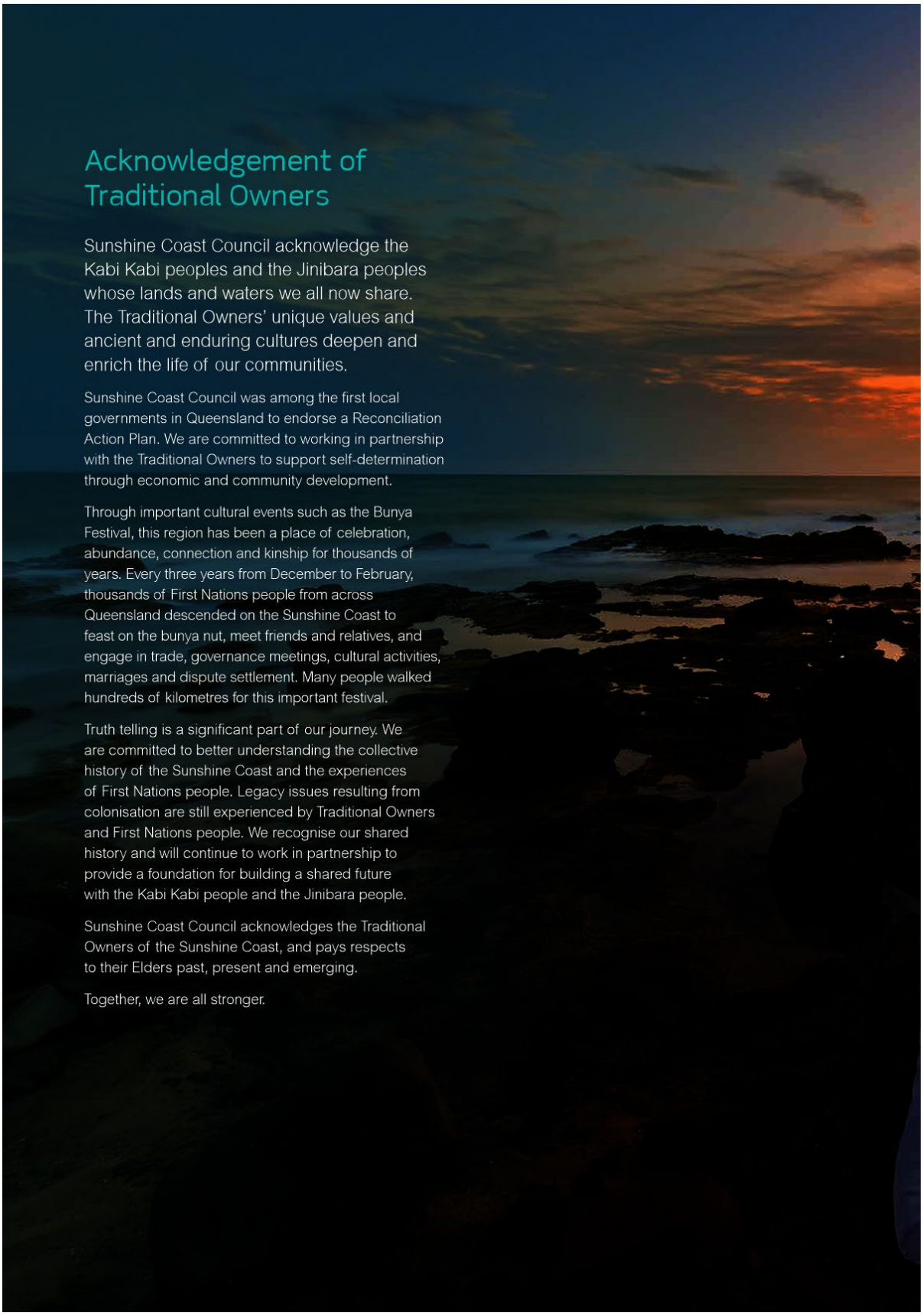


# Acknowledgement of Traditional Owners

Sunshine Coast Council acknowledge the Kabi Kabi peoples and the Jinibara peoples whose lands and waters we all now share. The Traditional Owners' unique values and ancient and enduring cultures deepen and enrich the life of our communities.

Sunshine Coast Council was among the first local governments in Queensland to endorse a Reconciliation Action Plan. We are committed to working in partnership with the Traditional Owners to support self-determination through economic and community development.

Through important cultural events such as the Bunya Festival, this region has been a place of celebration, abundance, connection and kinship for thousands of years. Every three years from December to February, thousands of First Nations people from across Queensland descended on the Sunshine Coast to feast on the bunya nut, meet friends and relatives, and engage in trade, governance meetings, cultural activities, marriages and dispute settlement. Many people walked hundreds of kilometres for this important festival.

Truth telling is a significant part of our journey. We are committed to better understanding the collective history of the Sunshine Coast and the experiences of First Nations people. Legacy issues resulting from colonisation are still experienced by Traditional Owners and First Nations people. We recognise our shared history and will continue to work in partnership to provide a foundation for building a shared future with the Kabi Kabi people and the Jinibara people.

Sunshine Coast Council acknowledges the Traditional Owners of the Sunshine Coast, and pays respects to their Elders past, present and emerging.

Together, we are all stronger.

# From our Mayor

Through the implementation of our Environment and Liveability Strategy (ELS), Sunshine Coast Council is delivering a healthy environment and liveable Sunshine Coast. Sustainability is a key part of that journey.

This is our Council's fifth Annual Organisational Environmental Sustainability Benchmarking Report – detailing council's carbon footprint and environmental sustainability performance for the 2019/20 financial year.

The report provides a comprehensive picture of trends, changes and challenges council is facing as we strive to achieve our sustainability objectives. Sustainability is a continuing journey as our region and economy grows and new technologies emerge. Our Council has always prided itself on pursuing a balanced approach that meets the social, economic and environmental needs of the present without compromising the opportunities and liveability for our residents in the future.

Our ELS provides a policy blueprint to help achieve our vision to become Australia's most sustainable region – healthy, smart, creative.

By continually monitoring and measuring our performance against key indicators, we can track our progress and identify opportunities to improve how we operate as well as new models for how we deliver the services of Council into the future.

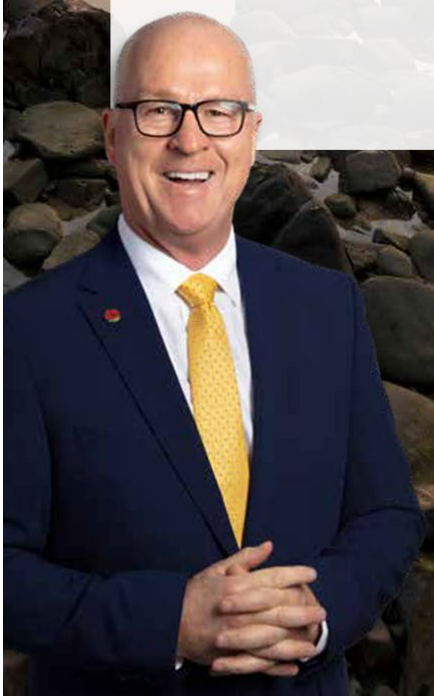
It would be fair to say that 2019/20 has been a year like no other. Firstly, due to the challenges posed by significant bushfires and then the pervasive impacts of the COVID-19 pandemic, which has touched every section of our community in some way. By no means has this been an easy time and the impacts of the pandemic will be felt potentially for some time, but during this time, we have seen some great examples emerge of community sustainability and resilience.

Whether it be through changing consumer behaviour patterns to buy local or some of our residents who have taken up the self-sufficiency challenge, there have been some inspiring stories of sustainability in action across our region. What they also demonstrate is that when we work together, we can achieve so much more in pursuing our sustainability goals.

I would encourage everyone to learn more about our organisation's environmental and sustainability initiatives within this report.

For more information about the Environment and Liveability Strategy projects happening across the region visit **els.sunshinecoast.qld.gov.au**.

Mayor Mark Jamieson



Sunshine Coast™ COUNCIL

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August 2020 edition.

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**Acknowledgements**
Council would like to acknowledge the contributors of a number of images in this document.

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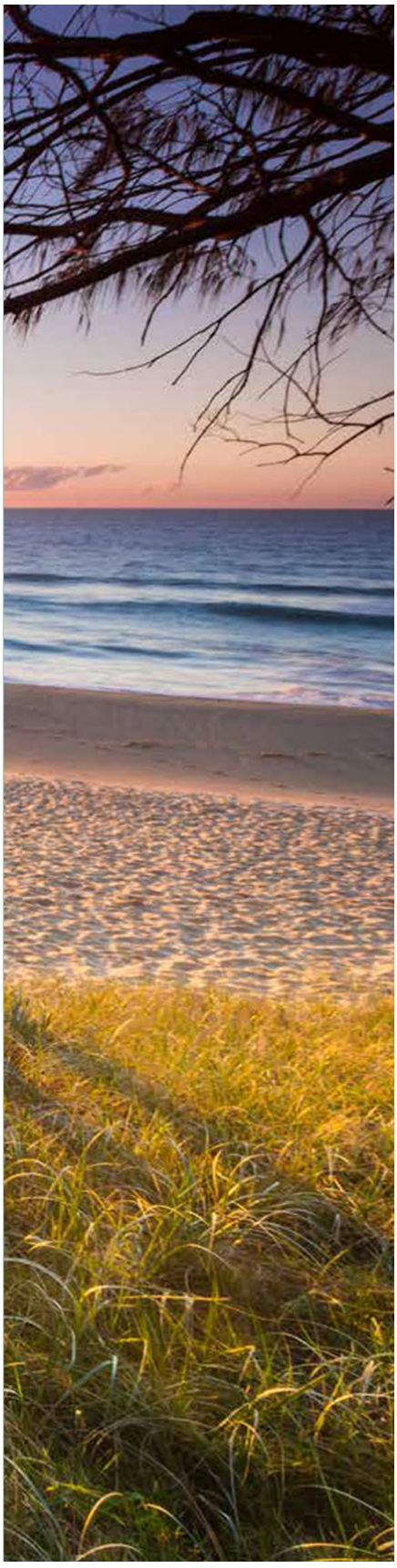
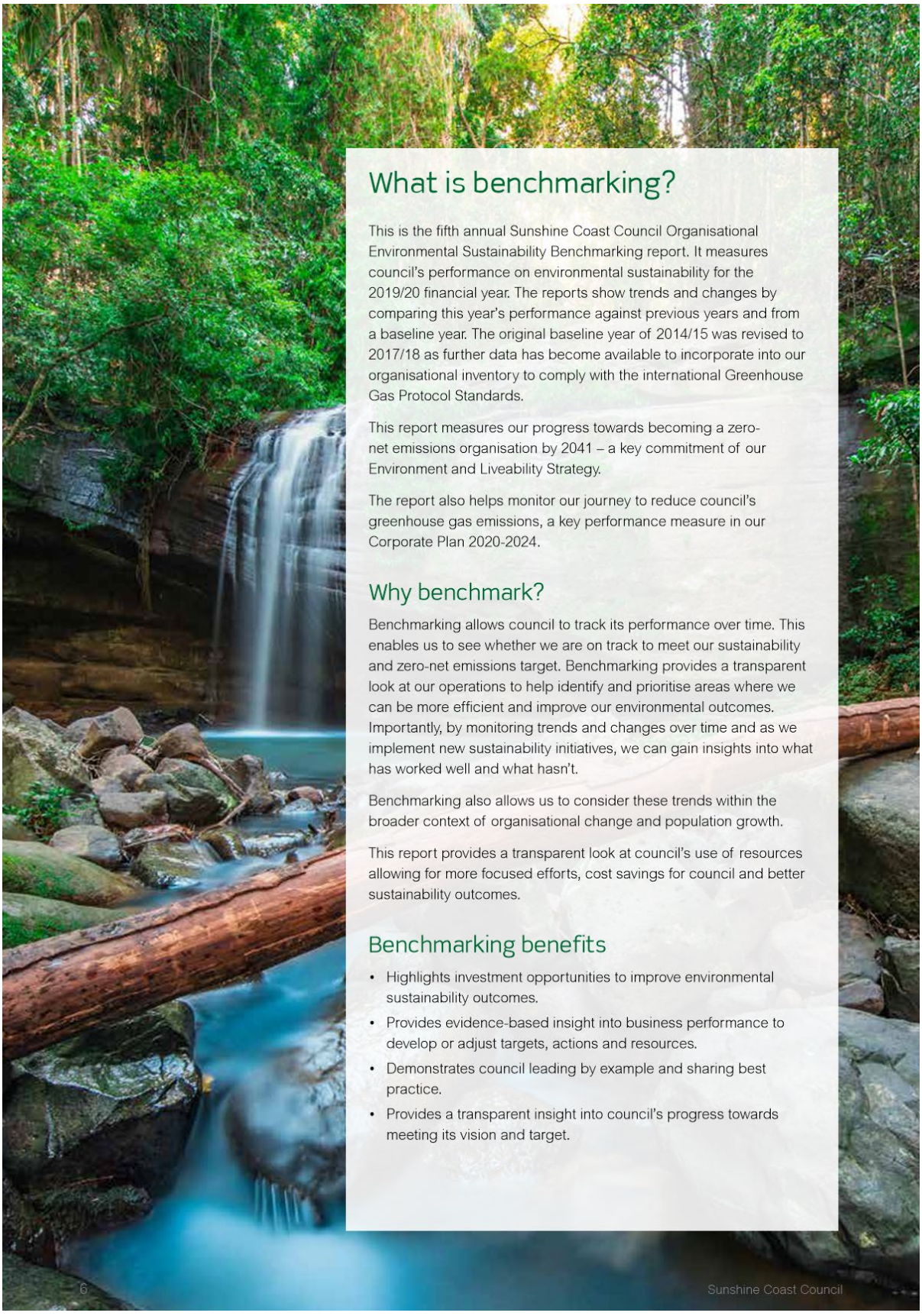
**Reference document**
This document should be cited as follows:
Sunshine Coast Regional Council. 2019. Organisational Environmental Sustainability Benchmarking Annual Report 2019/20..

## Contents







## What is benchmarking?

This is the fifth annual Sunshine Coast Council Organisational Environmental Sustainability Benchmarking report. It measures council's performance on environmental sustainability for the 2019/20 financial year. The reports show trends and changes by comparing this year's performance against previous years and from a baseline year. The original baseline year of 2014/15 was revised to 2017/18 as further data has become available to incorporate into our organisational inventory to comply with the international Greenhouse Gas Protocol Standards.

This report measures our progress towards becoming a zero-net emissions organisation by 2041 – a key commitment of our Environment and Liveability Strategy.

The report also helps monitor our journey to reduce council's greenhouse gas emissions, a key performance measure in our Corporate Plan 2020-2024.

## 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 can gain insights into what has worked well and what hasn't.

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

This report provides a transparent look at council's use of resources allowing for more focused efforts, cost savings for council 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:

- Greenhouse gas (carbon) emissions
- Waste
- Energy (electricity and renewable energy)
- Energy (fuel)
- Transport
- Water
- Environmental sustainability programs
- Environmental sustainability embedded into systems and processes.

## Indicators

We have two types of indicators:

1 **Primary indicators** – provide the most accurate indication of trends and changes in the relevant area.

2 **Other indicators** – provide additional context to supplement the primary indicator, giving a comprehensive picture of trends and changes.

Every year, the indicators are reviewed. We consider the availability of new datasets, improvements in council's measurement and monitoring of activities, changes in policy, legislation and standards, and emergence of additional priorities. Periodically this results in indicators being revised and/or added.

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

The indicators that are standardised against the regional population (i.e. per resident) relate to greenhouse gas emissions (GHG). 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: FTE and population figures used to standardise the data**

| | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
|---|---|---|---|---|---|
| **Population** | 289,389 | 303,400 | 319,500 | 328,000 | 336,500 |
| **FTE staff**[2] | 1553 | 1661 | 1654 | 1668 | 1601 |

1. Note that some local governments own and operate landfills, water and sewerage services for the community which influences their greenhouse gas emissions. Our council owns and operates two active landfill sites but 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. This figure represents FTE hours paid for all established, non-established positions and agency staff for the financial year (excludes Contingent Workers).

# Spotlight:
# Sustainable reset – adapting to disruption within council

From mid-March to June 2020 our libraries, community centres, aquatic centres and holiday parks had to close their doors due to the impacts of coronavirus (COVID-19). Following this, where possible council employees worked from home. These actions were implemented to help keep our staff and community safe. As a result, we managed to reduce the spread of COVID-19 and have a positive impact on our environment and community wellbeing.

Some examples where changes to how we worked also had a positive sustainability benefit include:

- Move to online meetings – with Microsoft Teams, demonstrating its effectiveness and reducing the need for travel to attend meetings.
- Council meetings moved to an online format with live broadcasting providing greater access to our community.
- Councillors adapted to using laptops, reducing the need for printed agendas.
- Sunshine Coast Stadium was set up as a homelessness support hub, providing hot showers and meals to those in need.
- Venue 114 became a pop-up PPE factory to help make medical grade face shields for our front-line workers during the pandemic.
- Council's #COVIDKindness campaign was initiated to bring the community together.
- Local spend was strongly supported with 73% of total purchasing spent with local businesses to the value of $95.04 million.

These changes resulted in the following sustainability outcomes for council. The following figures outline the reductions achieved between March to June 2020 compared to the same period in 2019:

- 32% reduction in electricity usage
- 15% reduction in water usage
- 2,775,646 kilometres of staff travel avoided by working from home
- 16% reduction in kilometres travelled by council fleet vehicles
- 55% reduction in the amount of paper printed

# Spotlight:
# Life on the Sunshine Coast during a global pandemic

During the COVID-19 lockdown we found ourselves living through an unprecedented time of uncertainty and disruption. As a result, we have seen some extraordinary behaviours emerge, including people getting back to their roots and slowing down to enjoy the simpler things in life. Here are a few examples of sustainable behaviours we've seen during this time.

### Buying local
Reports of a 150% increase in food box subscriptions with people wanting local produce.

### DIY home projects
Salvage yards did a roaring trade with some businesses reporting a 90% increase.

### New productive pets
Chickens sold out everywhere; hen houses built, becoming more self-sufficient.

### Growing their own
Seed stocks sold out nationally, tree sales and seedlings were walking out the door.

### Embracing outdoors at home
Camping at home became a new trend as well as fire pits, tree houses and swings.

### Baking revival
Flour and baking products sold out, interest in baking bread, sour dough and banana bread with kids.

### Getting stitched
Uptake of slow fashion, mending, sewing, crochet and knitting, with a range of patterns being shared.

### Exercise beyond the gym
Massive increase in bike sales and people cycling. New ways of being active; surfing, gardening, family time and playing.

### Getting musical
Surge in the purchase of musical sales. Getting in touch with their creative side.

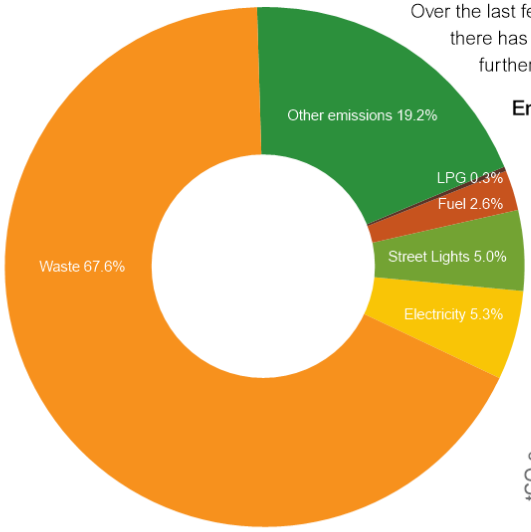
# Greenhouse gas (carbon) emissions

Council measures its greenhouse gas emissions across waste, electricity, street lights, fuel, liquid petroleum gas and other emissions sources in compliance with the international Greenhouse Gas Protocol and the *National Greenhouse and Energy Reporting Act 2007* (the NGER Act).

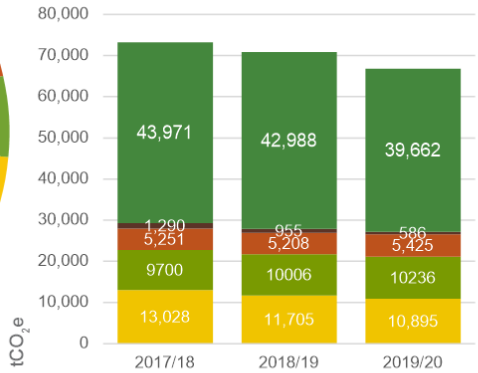
Council's total greenhouse gas emissions for 2019/20 is 206,383 $tCO_2e$. Greenhouse emissions per resident has decreased slightly by 0.01 $tCO_2e$ to 0.61 per resident $tCO_2e$ for this financial year. Although savings were realised across the organisation there was a rise in community waste which is reflected by the 1.72% increase (3499 $tCO_2e$) compared to the previous year. Waste represents 67.6% of council's total greenhouse gas emissions.

The methane captured and flared at council's landfill sites has increased compared to 2018/19 but has decreased to the baseline year. Over the last few years, there has been no further expansion of the gas capture infrastructure network. During 2019/20 there were dry weather conditions which reduces landfill gas generation. Works are currently underway to expand the gas capture network at the Caloundra landfill.

If we exclude emissions from waste a different picture emerges. Reporting figures show an overall reduction of 6% (compared to 2018/19) in greenhouse emissions for our council activities. This shows a continual reduction of 9% since the 2017/18 baseline year.




**Emissions from council only activities** (excluding waste)




| | | | |
|---|---|---|---|
| | Waste | 67.6% | 139,580 $tCO_2e$ from waste in landfills |
| | Electricity | 5.3% | 10,895 $tCO_2e$ from our large and small sites |
| | Street lights[3] | 5.0% | 10,236 $tCO_2e$ from our street lights |
| | Fuel | 2.6% | 5425 $tCO_2e$ from our fleet vehicles and bulk diesel supply |
| | Liquid petroleum gas (LPG) | 0.3% | 586 $tCO_2e$ that is used at council's sites |
| | Other emissions | 19.2% | 39,662 $tCO_2e$ including goods and services produced by a third party |

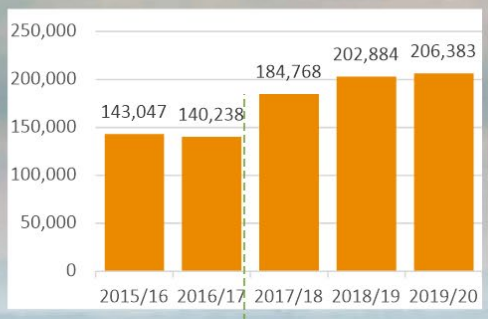
3. Street lighting has been separated out from the 'Electricity' area as it is a significant source of greenhouse gas emissions and it is calculated as a different emissions source.

## Greenhouse gas emissions

| Indicators | 2018/19 | 2019/20 | | | | Put into perspective |
|---|---|---|---|---|---|---|
| | Total | Total | % change | Per resident | Change per resident | |
| **Primary indicators** | | | | | | |
| **Total greenhouse gas emissions**[4,5] | 202,884 $tCO_2e$ (0.62 $tCO_2e$/ resident) | 206,383 $tCO_2e$ | ↑ 1.72% (3499 $tCO_2e$ increase) | 0.61 $tCO_2e$ | ↓ 0.01 $tCO_2e$ | Although savings were realised across the organisation there was an increase in community waste which increasesd the overall greenhouse gas emissions by 3499$tCO_2e$.<br>(There has been a 11.7% increase in total ghg emissions since the 2017/18 baseline year). |
| **Other indicators** | | | | | | |
| **Methane captured and flared at Nambour and Caloundra landfills**[6] | 42,226 $tCO_2e$ (0.12$tCO_2e$/ resident) | 42,373 $tCO_2e$ | ↑ 0.35% (147$tCO_2e$ increase) | 0.13 $tCO_2e$ | ↑ 0.01 $tCO_2e$ | Landfill gas flaring rates of 26.4% at Caloundra landfill and 22.1% at Nambour landfill.<br>(There has been a 9% decrease in methane captured and flared since the 2017/18 baseline year). |

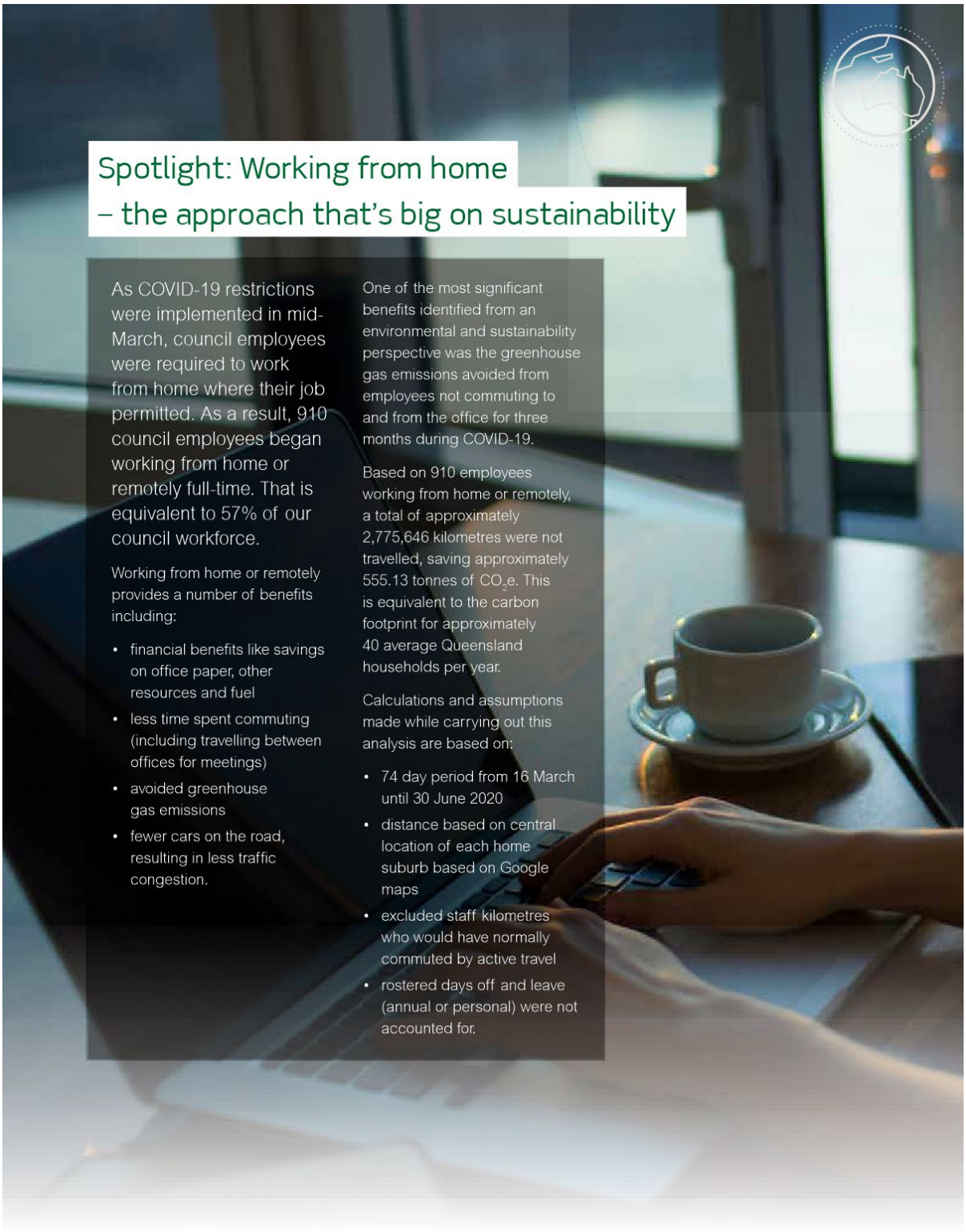
4. GHG emissions Council accounts for those activities it has 'operational control' for and includes:
   - emissions generated from community and council waste disposed at the Caloundra and Nambour landfill sites
   - council activities comprising electricity including street lights, fuel, liquid petroleum gas, electricity transmission and distribution losses and goods and services produced by a third party but consumed by council (termed 'scope 3' emissions).
5. As new methologies have become available, adjustments have been made to the scope 3 emission calculations to include the most accurate data for the organisation.
6. The gas flared was from emissions generated from both community waste and waste generated by council activities.

Greenhouse gas emissions ($tCO_2e$)




Greenhouse gas emissions per resident ($tCO_2e$)


New baseline established 2017/18 including other (scope 3) emissions



## Spotlight: Working from home – the approach that's big on sustainability

As COVID-19 restrictions were implemented in mid-March, council employees were required to work from home where their job permitted. As a result, 910 council employees began working from home or remotely full-time. That is equivalent to 57% of our council workforce.

Working from home or remotely provides a number of benefits including:

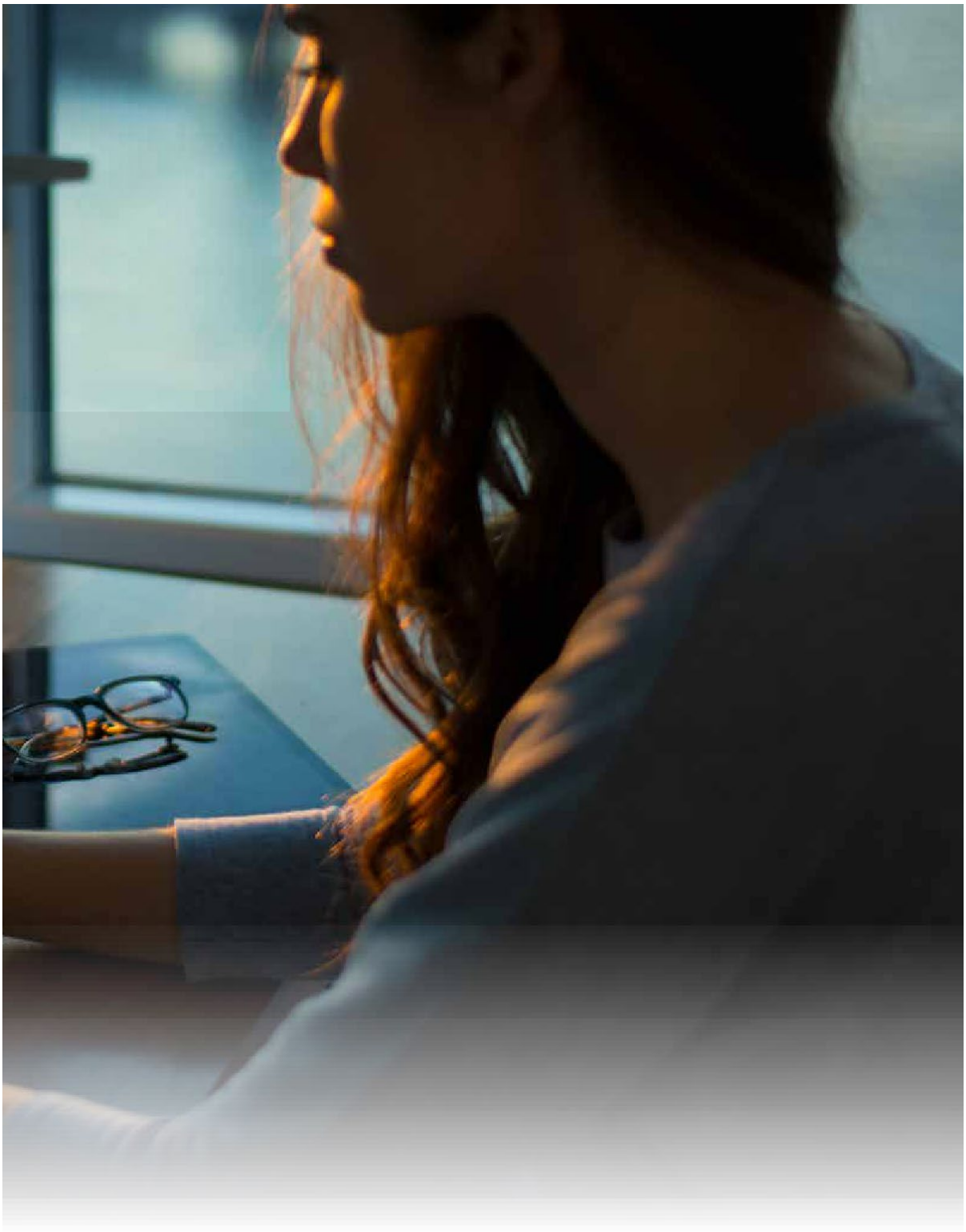
- financial benefits like savings on office paper, other resources and fuel
- less time spent commuting (including travelling between offices for meetings)
- avoided greenhouse gas emissions
- fewer cars on the road, resulting in less traffic congestion.

One of the most significant benefits identified from an environmental and sustainability perspective was the greenhouse gas emissions avoided from employees not commuting to and from the office for three months during COVID-19.

Based on 910 employees working from home or remotely, a total of approximately 2,775,646 kilometres were not travelled, saving approximately 555.13 tonnes of $CO_2e$. This is equivalent to the carbon footprint for approximately 40 average Queensland households per year.

Calculations and assumptions made while carrying out this analysis are based on:

- 74 day period from 16 March until 30 June 2020
- distance based on central location of each home suburb based on Google maps
- excluded staff kilometres who would have normally commuted by active travel
- rostered days off and leave (annual or personal) were not accounted for.



# Waste

Waste generated by council activities is calculated via two sources:

1 **Council's waste contractor collections** for council managed sites (based on bin size, service frequency and regional audit data).

2 **Self-haul data** is waste from council activities that is measured at the weighbridge (at the transfer stations).

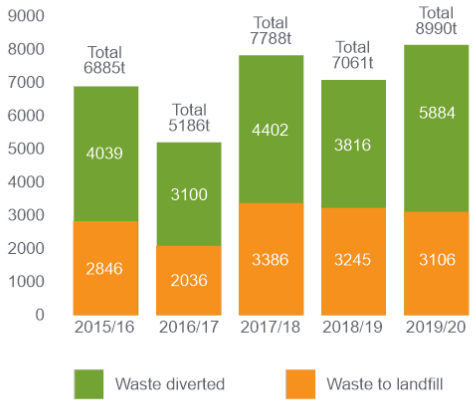
Green waste, construction and demolition waste that is processed and recycled at council depots is managed separately and not included in these data sources.

The total figure for 2019/20 from waste generated by council's activities was 8990 tonnes. Of this total, 65% (5884t) was recycled and 35% (3106t) landfilled. This is a decrease of 4% of waste to landfill compared to 2018/19.

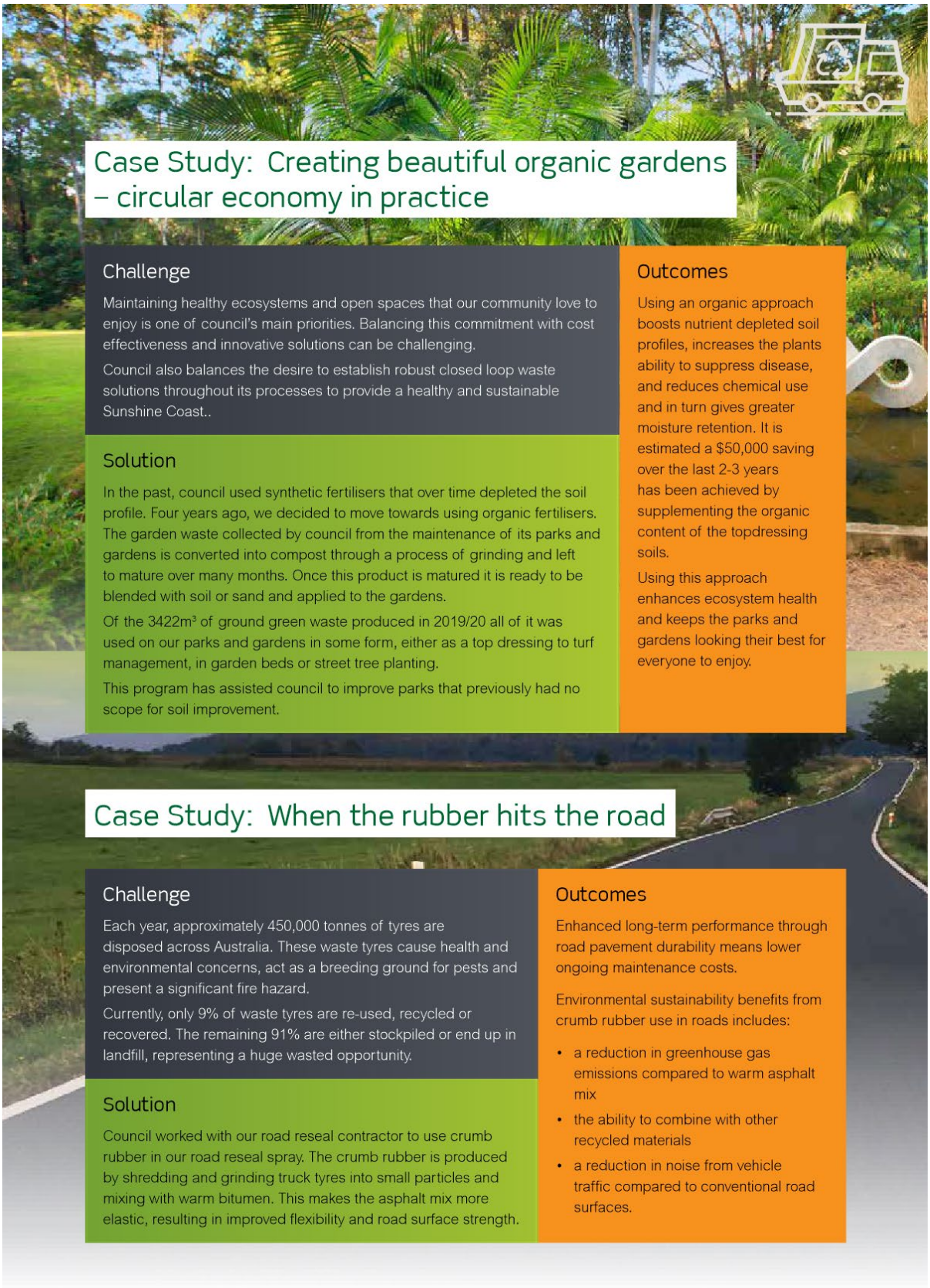
The increase in recycling occurred mainly from the self-haul component that came from the construction and demolition (C&D) and commercial and industrial (C&I) green waste sectors.

Council is increasingly using more recycled materials to deliver construction projects. Some materials being recycled include road profiling, crushed concrete, mulch and clean fill.

**Waste generated by Council activities** (tonnes)




| Indicators | 2018/19 | 2019/20 | | | | Put into perspective |
|---|---|---|---|---|---|---|
| | Total | Total | % change | Per FTE | Change per FTE | |
| **Primary indicators** | | | | | | |
| **Waste generated by council activities** | 7061t (4t/FTE) | 8990t | ↑ 27% (1929t increase) | 6t | ↑ 2t | The total waste of 8990 tonnes consists of 65% (5884t) recycled and 35% (3106t) landfilled.<br>(This is a 15% increase in waste generation since the baseline year 2017/18). |
| **Other indicators** | | | | | | |
| **Waste generated by council activities diverted from landfill** | 3816t (2t/FTE) | 5885t | ↑ 54% (2069t increase) | 4t | ↑ 2t | In comparison to 2018/19 there has been an increase of 54% (2069t) in waste diverted (recycled). This is mainly due to more concrete and green waste from council activities going to the resource recovery centres.<br>(There has been a 34% increase in waste diverted from landfill since the 2017/18 baseline). |



## Case Study: Creating beautiful organic gardens – circular economy in practice

### Challenge

Maintaining healthy ecosystems and open spaces that our community love to enjoy is one of council's main priorities. Balancing this commitment with cost effectiveness and innovative solutions can be challenging.

Council also balances the desire to establish robust closed loop waste solutions throughout its processes to provide a healthy and sustainable Sunshine Coast..

### Solution

In the past, council used synthetic fertilisers that over time depleted the soil profile. Four years ago, we decided to move towards using organic fertilisers. The garden waste collected by council from the maintenance of its parks and gardens is converted into compost through a process of grinding and left to mature over many months. Once this product is matured it is ready to be blended with soil or sand and applied to the gardens.

Of the 3422m$^3$ of ground green waste produced in 2019/20 all of it was used on our parks and gardens in some form, either as a top dressing to turf management, in garden beds or street tree planting.

This program has assisted council to improve parks that previously had no scope for soil improvement.

### Outcomes

Using an organic approach boosts nutrient depleted soil profiles, increases the plants ability to suppress disease, and reduces chemical use and in turn gives greater moisture retention. It is estimated a $50,000 saving over the last 2-3 years has been achieved by supplementing the organic content of the topdressing soils.

Using this approach enhances ecosystem health and keeps the parks and gardens looking their best for everyone to enjoy.

## Case Study: When the rubber hits the road

### Challenge

Each year, approximately 450,000 tonnes of tyres are disposed across Australia. These waste tyres cause health and environmental concerns, act as a breeding ground for pests and present a significant fire hazard.

Currently, only 9% of waste tyres are re-used, recycled or recovered. The remaining 91% are either stockpiled or end up in landfill, representing a huge wasted opportunity.

### Solution

Council worked with our road reseal contractor to use crumb rubber in our road reseal spray. The crumb rubber is produced by shredding and grinding truck tyres into small particles and mixing with warm bitumen. This makes the asphalt mix more elastic, resulting in improved flexibility and road surface strength.

### Outcomes

Enhanced long-term performance through road pavement durability means lower ongoing maintenance costs.

Environmental sustainability benefits from crumb rubber use in roads includes:

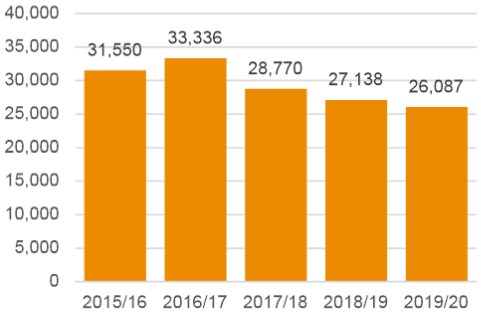
- a reduction in greenhouse gas emissions compared to warm asphalt mix
- the ability to combine with other recycled materials
- a reduction in noise from vehicle traffic compared to conventional road surfaces.

# Energy (electricity)

The total electricity consumption includes electricity used at council's large and small sites and street lights.

This year the total electricity consumption decreased by 4% which was expected due to facility closures from March to June during the pandemic. Street lighting consumption has remained reasonably constant with a slight 1% increase.

**Total electricity consumption – including street lights** (megawatt hours)




| Indicators | 2018/19 Total | 2019/20 Total | 2019/20 % change | 2019/20 Per FTE | 2019/20 Change per FTE | Put into perspective |
|---|---|---|---|---|---|---|
| **Primary indicators** | | | | | | |
| **Total electricity consumption (including street lighting)** | 27,138MWh (16,270kWh/ FTE) | 26,087 MWh | ↓4% (1051 MWh reduction) | 16,294 kWh | ↓24kWh | Ongoing efficiencies (e.g., Buidling Management Systems) and the impact of the COVID shutdown have contributed to the decrease.<br>(Since the 2017/18 baseline year there has been a 9% decrease in electricity consumption). |
| **Other indicators** | | | | | | |
| **Electricity consumption (excluding street lights)** | 14,631MWh (8772kWh/ FTE) | 13,450 MWh | ↓8% (1181MWh reduction) | 8401 kWh | ↓ 371kWh | The overall decrease within council's buildings was largely influenced by the closure of many of council facilities and staff working from home between March to June 2020. |
| **Street lighting consumption** | 12,507MWh (7498kWh/ FTE) | 12,637 MWh | ↑1% (130MWh increase) | 7893 kWh | ↑ 395kWh | Street lighting inventory has increased on the prior year, accounting for the increase in consumption.<br>(This is a 3% increase since the 2017/18 baseline year). |
| **Total electricity costs (including all costs such as network charges and including street lights)** | $6,939m | $6,763m | ↓3% ($176,000 decrease) | N/A | N/A | Reductions in electricity costs reflect the reduced consumption in Council facilities/ buildings.<br>(This is a 14% decrease in total costs since the 2017/18 baseline year). |

# Case Study: Monitoring building efficiencies

## Challenge

Buildings use a lot of resources and on average are responsible for around 25% of greenhouse gas emissions, so it is important to understand how they work. Monitoring and measuring is key to understanding how resources such as energy and water are being used. Once you know how the building is using these resources, then you can determine how to manage the building to achieve maximum efficiencies.

## Solution

Council has been rolling out a program to install Building Management Systems (BMS) across a range of different council facilities from community centres, event centres, office buildings, libraries, depots and aquatic centres. So far 27 major facilities, 15 public amenity facilities and three sewage pump stations have BMS's installed and are being monitored and controlled.

A BMS is a computer-based control system that monitors the building's mechanical and electrical equipment such as ventilation, lighting, power systems, fire systems, and security systems.

Using dashboards and real time data, faults can be detected early and rectified quickly, saving money and time. The BMS control system ensures the building is running at its peak performance.

## Outcomes

By installing Building Management Systems and monitoring how our facilities are operating, we have the potential to achieve savings of up to $350,000 in costs associated with energy consumption across the range of council sites. Building Management Systems will be continually rolled out across council's new and existing assets.

# Renewable energy

Renewable energy includes solar photovoltaics (PVs) on council buildings and facilities and energy generated by our Sunshine Coast Solar Farm.

During the 2019/20 period, energy generated at the Sunshine Coast Solar Farm totalled 28,729 MWh, a 3% reduction when compared to 2018/19. This reduced output was due to a wide-scale component issue from the equipment manufacturer.

As part of our approach to being Australia's most sustainable region, we also actively work with our community and other local governments to share our knowledge in renewable energy. There were a total of 22 tours carried out at the Sunshine Coast Solar Farm for the 2019/20 period and another 7 tours that were planned but were postponed due to COVID-19.

In 2019/20 there was a 17kW increase in the installed PV solar capacity across council. The installation occurred at the Mooloolaba Holiday Park as part of the site upgrade, bringing the total installed solar PV capacity to 15,341 kW across both the Sunshine Coast Solar Farm and council's buildings and facilities.

| Indicators | 2018/19 | 2019/20 | | | | Put into perspective |
|---|---|---|---|---|---|---|
| | Total | Total | % change | Per FTE | Change per FTE | |
| **Primary indicators** | | | | | | |
| **Total installed solar PV capacity Sunshine Coast Solar Farm (SCSF) and solar PV on council buildings and facilities** | 15,324 kW (115kW) | 15,341 | ↑ 0.11% (17 kW increase) | N/A | N/A | Council continues to identify opportunities for renewable energy. |
| **Other indicators** | | | | | | |
| **Capacity of solar (PV) panel systems on council buildings/ facilities.**[7] | 324 kW (0.19 kW/ FTE) | 341 | ↑ 5% (17kW increase) | 0.21 kW | ↑ 0.02 kW | This increase is due to 17kW system installed at Mooloolaba Holiday Park as part of the upgrade. |
| **Energy generated by Sunshine Coast Solar Farm (SCSF)** | 29,528 MWh | 28,729 | ↓ 3% (799MWh reduction) | N/A | N/A | The reduction can be contributed to weather variations and a number of inverter outages due to internal component failures. This was identified as a wide scale problem across many solar farms and took time for the equipment manufacturer to replace.<br>The solar farm offset 110% of council's electricity operational requirements for this financial year. |
| **Electricity cost savings for SCSF against 'business as usual' after all costs** | $429,400 | $68,000 | ↓ 84% | N/A | N/A | This figure is lower than the prior year is largely due to suppressed wholesale market pricing observed for the last six months of this financial year. |

7. A comprehensive audit is required to perform a detailed assessment of the historial solar systems installed and opportunities for new installations/ upgrades.

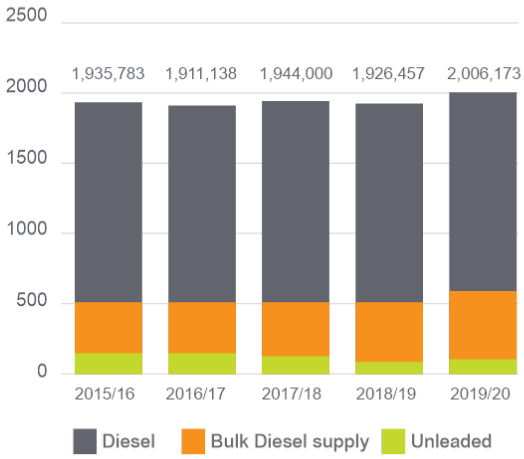
# Energy (fuel)

Fuel includes diesel and unleaded petrol used in council fleet vehicles and bulk diesel used by heavy plant and equipment such as graders, rollers, tractors and mowers.

While there has been a 4% increase in fuel use there has been a 3% reduction in fuel costs due to the drop in fuel prices during COVID-19 from an average of $1.40/litre to as low as $0.93/litre. The increase in fuel usage, particularly bulk diesel, is attributed to increased production at the quarry.

Council continuously reviews its fleet for fuel efficiencies and there is potential to purchase more hybrid and electric vehicles when replacing fleet vehicles. This has been evident in 2019/20 with an increase of five hybrid vehicles raising the total to seven.

**Total fuel usage (Litres)**




| Indicators | 2018/19 | 2019/20 | | | | Put into perspective |
|---|---|---|---|---|---|---|
| | Total | Total | % change | Per FTE | Change per FTE | |
| **Primary indicators** | | | | | | |
| **Litres of fuel used** | 1,926,457 L (1155 L/ FTE) | 2,006,173 L | ↑4% (79,716 L increase) | 1253 L | ↑98L | Diesel vehicles make up 89% of council's fleet. Savings associated with fleet diesel were achieved during April to June when a proporiton of vehicles were not in use due to staff working from home.<br>(Fuel consumption has increased by 3% since the 2017/18 baseline year.) |
| **Other indicators** | | | | | | |
| **Fuel costs** | $2,556,033 ($1,532/ FTE) | $2,474,839 | ↓3% ($81,194 decrease) | N/A | N/A | There has been a 3% decrease since the previous year due to very low fuel prices during COVID-19.[5]<br>(This is a 9% decrease since the 2017/18 baseline year). |
| **Alternative-fuel and advanced technology fleet vehicles** | 2 | 7 | 5 vehicles | N/A | N/A | There has been an increase of 5 hybrid vehicles since the previous financial year. This represents 1.25% of the fleet vehicles. |

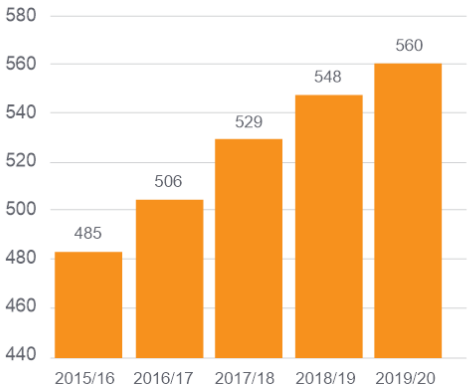
# Transport

Council's fleet includes 560 vehicles and 1028 plant and equipment (e.g. trucks, small/major plant equipment and marine vessels) bringing the total to 1588. As part of our benchmarking indicator's we only measure the change in the number of fleet vehicles (plant and equipment vehicles excluded).

All council cars are fitted with GPS to reduce idling and minimise wear and tear on tyres. These initiatives encourage smarter driving, reducing the need for early replacement of tyres and resulting in lowering greenhouse gas emissions.

In early 2020 a new staff travel program (MovUs) was introduced to assist council employees to change the way they travel. This tool helps employees plan their travel to and from work, find carpool and bike buddies and track travel with the aim of enabling sustainable travel solutions.

**Number of fleet vehicles**




| Indicators | 2018/19 | 2019/20 | | | | Put into perspective |
|---|---|---|---|---|---|---|
| | Total | Total | % change | Per FTE | Change per FTE | |
| **Primary indicators** | | | | | | |
| **Fleet vehicles**[8] | 548 | 560 | ↑ 2% (increase of 12 vehicles) | N/A | N/A | Overall there has been a 6% increase in the number of fleet vehicles since the baseline year 2017/18. |
| **Other indicators** | | | | | | |
| **Fleet vehicles that are four cylinder** | 391 | 400 | ↑ 2% (increase of 9 vehicles) | N/A | N/A | This represents 71% of the total fleet being 4-cylinder. (This is an increase of 7% since the 2017/18 baseline year). |
| **Total distance saved by staff using alternative transport (car pool, cycling, walking or public transport)**[9] | 236,023 km (142 km/ FTE) | 179,313 km | ↓ 24% (56,710 km reduction) | 112 km | ↓ 30 km | This 24% reduction in green travel reflects the move to working from home that occurred from March to June 2020. |

8. This figure includes passenger and light commercial vehicles as well as seven hybrid (electric/fuel) passenger vehicles.
9. 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.

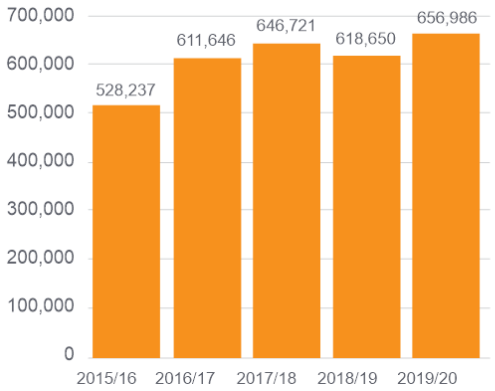
# Water

Water consumed refers to the potable water that council is billed for by the utility company (Unitywater). It doesn't include the use of water from other sources such as rainwater tanks.

This year we have seen a 6% increase in water usage. This is partly due to the seven-month period from July 2019 to January 2020 that was extremely dry (drought conditions) with higher water usage to maintain the sports fields, as well as servicing our holiday parks with above normal occupancy levels.

While there has been an increase in usage there has been a decrease in cost reflecting adjustment in fixed access charges.

**Water usage** (kilolitres)




| Indicators | 2018/19 | 2019/20 | | | | Put into perspective |
|---|---|---|---|---|---|---|
| | Total | Total | % change | Per FTE | Change per FTE | |
| **Primary indicators** | | | | | | |
| **Water consumed by council** | 618,650kL (371kL/ FTE) | 656,986 kL | ↑ 6% (38,336 kL increase) | 410 kL | ↑ 39 kL | This increase relates to the drought conditions from July 2019 to January 2020 with higher water usage to maintain sports fields and servicing the holiday parks.<br>(Council's water consumption has increased by 2% since the 2017/18 baseline year). |
| **Other indicators** | | | | | | |
| **Council's total water cost (including all costs such as water access and sewerage charges)** | $4,660,574 ($2,794/ FTE) | $4,491,496 | ↓ 4% ($169,078 decrease) | N/A | N/A | There has been an overall decrease of $169,078 in water costs compared to 2018/19 and a decrease in 5% since the baseline year. |

# Case Study: Stormwater to water street trees and create cool refuges

## Challenge

Street trees bring character and beauty to our streets. Shady trees also create an environment that provides an important cooling effect on hot days. For these trees to grow they require a high level of maintenance with a regular watering regime. This involves a lot of time and effort and uses good quality reticulated water to ensure these plants survive and thrive.

## Solution

Golden Beach is the first Sunshine Coast suburb to trial stormwater being redirected to water the street trees. This site was selected as it has 102 recommended planting locations representing 10.4km of verge.

In this trial there are several methods being tested including various forms of garden beds and underground infrastructure.

## Outcomes

This program provides many benefits:

- removes pollution and litter from stormwater before it reaches our waterways
- allows better tree growth, which cools the region with shade and evapotranspiration
- reduces the need for manual watering
- improves amenity and liveability
- reduces the amount of water needed to support a healthy urban forest.

The trial will be monitored and its success will be measured by the health and growth of the trees, the stormwater levels and reduction of pollutants in our waterways.

# Our environmental sustainability programs

Environmental sustainability programs encourage council employees and the community to make informed choices that promote sustainable living.

Living Smart is council's sustainability behaviour change program that encourages our community and staff to make simple lifestyle changes. The program shares stories and information that is relevant to our community's needs and interests. It prioritises local content, encourages sharing, provides resources and enables community connection.

Some examples of Living Smart activities and campaigns during 2019/20 included:

- **Love your Leftovers** campaign provided resources to encourage people at home to save money and waste
- **#BYOSunshineCoast Challenge** to encourage reusable products and reduce single-use plastics
- **#homehacks** campaign encouraged people to share their knowledge, home projects and ideas
- **Crafting a Circular Economy** a series of online conversations hosted at local businesses to showcase how they are implementing circular economy behaviours and encouraging other businesses to consider how to join the movement.

Key programs delivered during 2019/20 encouraging council employees to make sustainable choices included:

- **Plastic Free July Challenge** (2019) – involved 17 teams of four people who individually carried out more than 400 actions throughout the month
- **National Recycling Week** - engaged 348 employees who completed the 'War on Waste: It's as easy as Reduce, Reuse, Recycle' quiz. Employees also shared 193 ideas about reducing waste
- **Ride to Work Day** – 40 employees participated in the event, with 74 taking part in the electric bikes 'come and try sessions'.

| Indicators | 2018/19 | 2019/20 | | | Put into perspective |
|---|---|---|---|---|---|
| | Total | Total | % change | Per FTE | |
| **Primary indicators** | | | | | |
| **Staff participating in three priority work place sustainability programs and events (Ride to Work, Plastic Free July, National Recycling Week)** | N/A | 530 participants | N/A | N/A | This is a new indicator to provide a standardised measurement for monitoring internal participation in these three key programs/events. There are a number of other events/opportunities that are run throughout the year promoting internal sustainability engagement. |
| **Other indicators** | | | | | |
| **Number of engaged employees through council's online sustainability platform** | N/A | 208 members | N/A | N/A | This is a new indicator to measure our online sustainability engagement with employees. The 'Sustainability Snippets' Yammer page is an online platform that encourages collaboration and sharing of knowledge amongst employees. |


## Case Study: Sustainability rating for Venue 114

### Challenge

There is a growing demand from music artists and performers requesting the sustainability credentials of the venues where they perform. Venue 114, Sunshine Coast Council's owned and operated facility is proactively working on their sustainability practices.

### Solution

Venue 114 is demonstrating their commitment to sustainability and leading the way by participating in the EarthCheck Evaluate Plus Program. The Program evaluates the venue's economic, social and environmental impact by reporting on water, waste and energy consumption and greenhouse gas emissions.

Some of the sustainability efficiencies implemented include phasing out single-use plastics, composting coffee grounds with the local community garden, upgrading to LED lighting and setting up monitoring controls on the lights and air-conditioners.

### Outcomes

Venue 114 is the first Sunshine Coast Council facility to achieve EarthCheck Evaluate verification. This positions the facility as a venue of choice by artists and performers who are looking for these sustainability credentials.

This achievement is a positive example of how businesses and venues can incorporate sustainability practices into their operations to create a positive impact on the environment, improve market differentiation and support the bottom line.

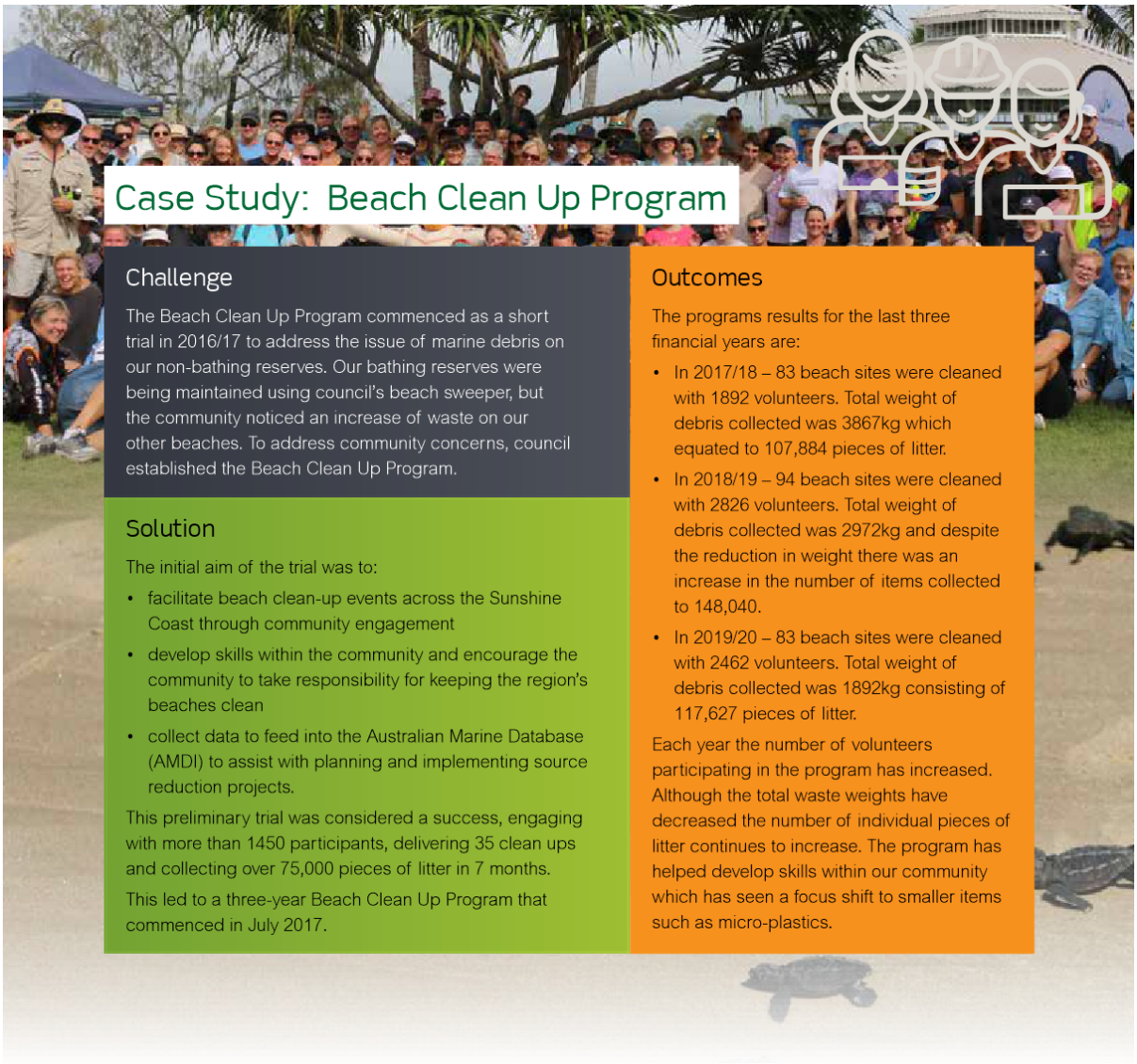
## Case Study: Marine Debris Program

In addition to the Beach Clean Up Program which is primarily community driven, supporting and assisting volunteer groups and individuals (our Clean Ocean Champions), council runs three major regional events and one month long project – Clean Up for the Hatchlings, Schools Beach Clean-Up, Clean Up Australia Day and Plastic Free July.

There are also two Australian Marine Database (AMDI) workshops held each year to continue developing skills within the community to encourage source reduction projects.

There have been several source reduction projects undertaken throughout the last three years as well. Ten Little Pieces, one of our Clean Ocean Champions, commenced an initiative with support from the program which saw a Cigarette Butt Voting Ballot Bin installed near Alexandra Headland – a hotspot for inappropriate cigarette butt disposal. The bin and associated signage raised awareness of the problem in the area and assisted with some behaviour change in some of the visitors to the area.

A second source reduction project was commenced with the support of advertising students at the University of the Sunshine Coast. As part of their mid-year assessment, teams of students



## Case Study: Beach Clean Up Program

### Challenge

The Beach Clean Up Program commenced as a short trial in 2016/17 to address the issue of marine debris on our non-bathing reserves. Our bathing reserves were being maintained using council's beach sweeper, but the community noticed an increase of waste on our other beaches. To address community concerns, council established the Beach Clean Up Program.

### Solution

The initial aim of the trial was to:

- facilitate beach clean-up events across the Sunshine Coast through community engagement
- develop skills within the community and encourage the community to take responsibility for keeping the region's beaches clean
- collect data to feed into the Australian Marine Database (AMDI) to assist with planning and implementing source reduction projects.

This preliminary trial was considered a success, engaging with more than 1450 participants, delivering 35 clean ups and collecting over 75,000 pieces of litter in 7 months.

This led to a three-year Beach Clean Up Program that commenced in July 2017.

### Outcomes

The programs results for the last three financial years are:

- In 2017/18 – 83 beach sites were cleaned with 1892 volunteers. Total weight of debris collected was 3867kg which equated to 107,884 pieces of litter.
- In 2018/19 – 94 beach sites were cleaned with 2826 volunteers. Total weight of debris collected was 2972kg and despite the reduction in weight there was an increase in the number of items collected to 148,040.
- In 2019/20 – 83 beach sites were cleaned with 2462 volunteers. Total weight of debris collected was 1892kg consisting of 117,627 pieces of litter.

Each year the number of volunteers participating in the program has increased. Although the total waste weights have decreased the number of individual pieces of litter continues to increase. The program has helped develop skills within our community which has seen a focus shift to smaller items such as micro-plastics.

were asked to design a concept that would assist with the behaviour change around the incorrect disposal of dog poo bags on the beach at North Shore beach in Twin Waters. The winning team developed a signage campaign 'Leave nothing but pawprints' which is currently being incorporated into the Waste teams 'Clean Sunshine Coast, it's in our hands' campaign and should be visible on bins in coastal locations soon.

They also designed a clip to attach to the dog's lead to encourage dog owners to dispose of poo in the nearest bin – this is currently being developed through council's Innovation Portal.

The program also provided support to the Generation Innovation challenge last year, assisting Olivia and Zac with the launch of their SeaFrame movement. The students had to find funding for their idea to create a movement to instil behaviour change and celebrate those people that were cleaning their local beaches regularly. Despite not winning the challenge, Olivia and Zac are working with an app designer – so watch this space!

# Environmental sustainability embedded into systems and processes

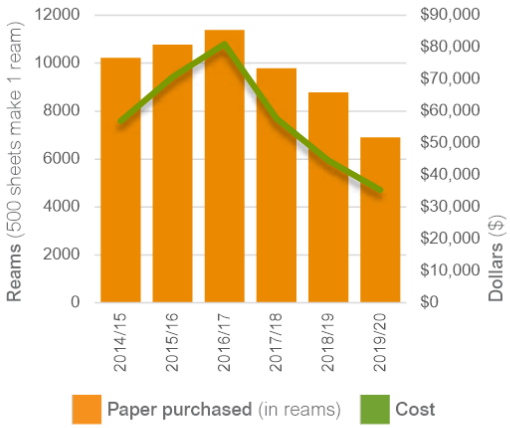
Council is continually looking for opportunities to embed sustainability into its systems and processes.

Council has an important role to support improved sustainability outcomes throughout the local economy with our purchasing power. This year we have introduced a new indicator relating to the local spend with businesses on the Sunshine Coast. In 2019/20, council spent $268.46m with local businesses, which represents 70% of total purchasing expenditure.

## Council goes paper-lite

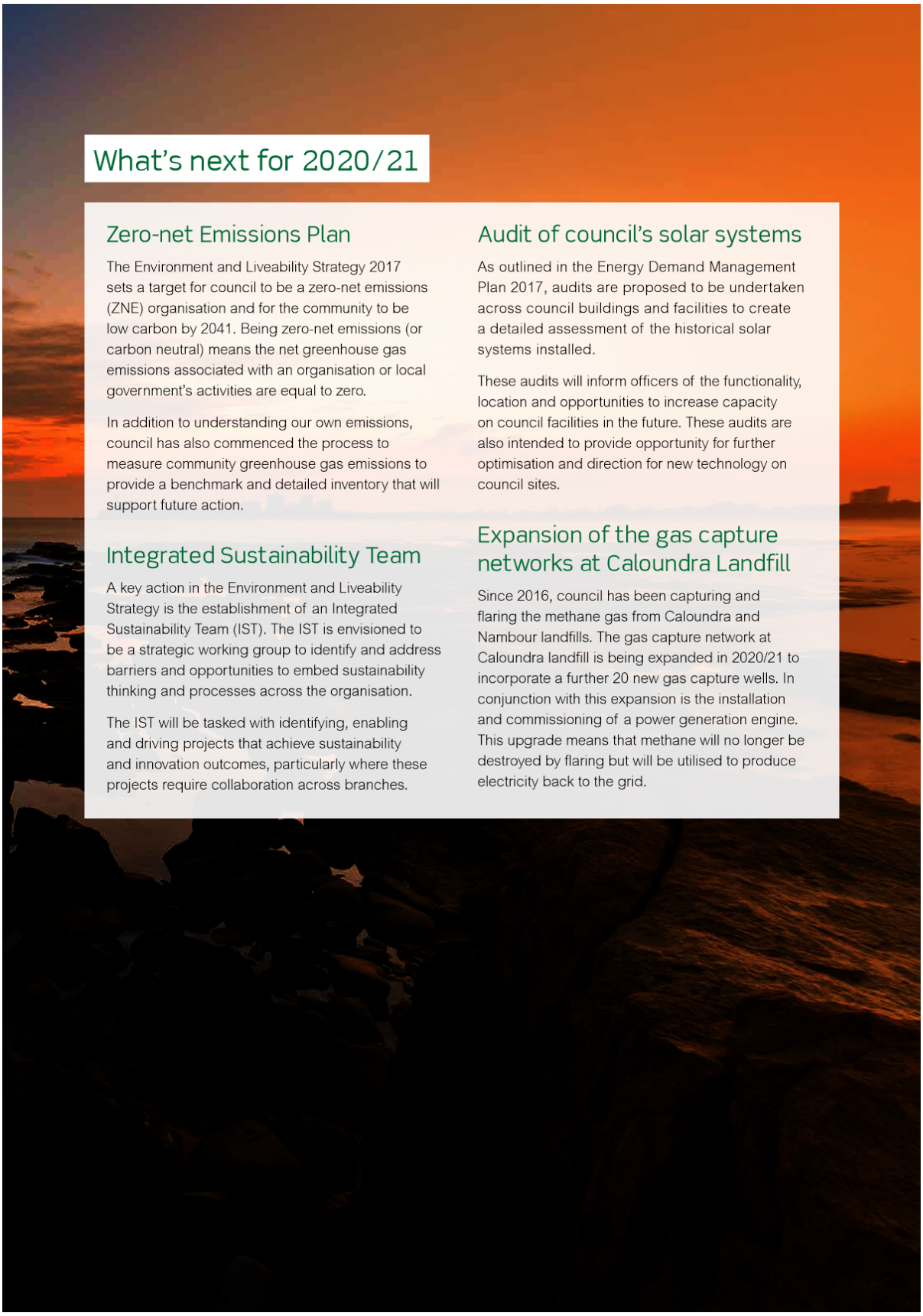
Over the last few years council has implemented programs (e.g. Follow Me Print and a PIN system) to reduce the amount of unnecessary printing. This is having a big impact on the amount of paper purchased and reducing stationery costs. Since our consumption peaked in 2016/17 we have reduced our paper purchases by 39% with cost savings of 56% ($45,657). As we become more digital the need for printing continually declines. COVID-19 demonstrated how further significant reductions can be realised by a more permanent shift to a digital environment.

**Amount of paper purchased and its cost**




| Indicators | 2018/19 | 2019/20 | | Put into perspective |
|---|---|---|---|---|
| | Total | Total | % change | |
| **New contracts, recommended for award by Procurements Contract Committee (exceeding the value of $250,000) that were evaluated with regard to environmental criteria.**[10] | 84 of 90 contracts (93%) | 61 of 67 contracts (91%) | ↓ 2% | In 2019/20 91% of contracts were evaluated against environmental criteria. Due to the nature of some contracts they don't all require evaluation against these type of criteria. |
| **Council's procurement that went to local spend with Sunshine Coast businesses** | N/A | $268.46m | N/A | This is a new indicator that is being included to track council's contribution to local procurement.<br>This represents 70.14% of council's total purchasing spend. |
| **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.**[11] | 290 | 133 | ↓ 54% | There was an employment freeze during the 2019/20 financial year resulting in a decrease of 54% of new permanent employees completing council's corporate induction program compared to 2018/19. |

10. In many cases environmental criteria are applied to the request for quote (RFQ) evaluation process for contracts under $250,000. However, these are not all captured in a central location, so have been omitted.
11. Total number of new employees includes permanent, full and part-time, casual, temporary full and part-time - excluding contractors.



# What's next for 2020/21

## Zero-net Emissions Plan

The Environment and Liveability Strategy 2017 sets a target for council to be a zero-net emissions (ZNE) organisation and for the community to be low carbon by 2041. Being zero-net emissions (or carbon neutral) means the net greenhouse gas emissions associated with an organisation or local government's activities are equal to zero.

In addition to understanding our own emissions, council has also commenced the process to measure community greenhouse gas emissions to provide a benchmark and detailed inventory that will support future action.

## Integrated Sustainability Team

A key action in the Environment and Liveability Strategy is the establishment of an Integrated Sustainability Team (IST). The IST is envisioned to be a strategic working group to identify and address barriers and opportunities to embed sustainability thinking and processes across the organisation.

The IST will be tasked with identifying, enabling and driving projects that achieve sustainability and innovation outcomes, particularly where these projects require collaboration across branches.

## Audit of council's solar systems

As outlined in the Energy Demand Management Plan 2017, audits are proposed to be undertaken across council buildings and facilities to create a detailed assessment of the historical solar systems installed.

These audits will inform officers of the functionality, location and opportunities to increase capacity on council facilities in the future. These audits are also intended to provide opportunity for further optimisation and direction for new technology on council sites.

## Expansion of the gas capture networks at Caloundra Landfill

Since 2016, council has been capturing and flaring the methane gas from Caloundra and Nambour landfills. The gas capture network at Caloundra landfill is being expanded in 2020/21 to incorporate a further 20 new gas capture wells. In conjunction with this expansion is the installation and commissioning of a power generation engine. This upgrade means that methane will no longer be destroyed by flaring but will be utilised to produce electricity back to the grid.

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