Organisational Environmental Sustainability Benchmarking
Annual Report 2020/21

Sunshine Coast COUNCIL

Our region.
Healthy.
Smart.
Creative.

Acknowledgement of Traditional Owners

Sunshine Coast 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 recognises 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 this report.

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

Disclaimer
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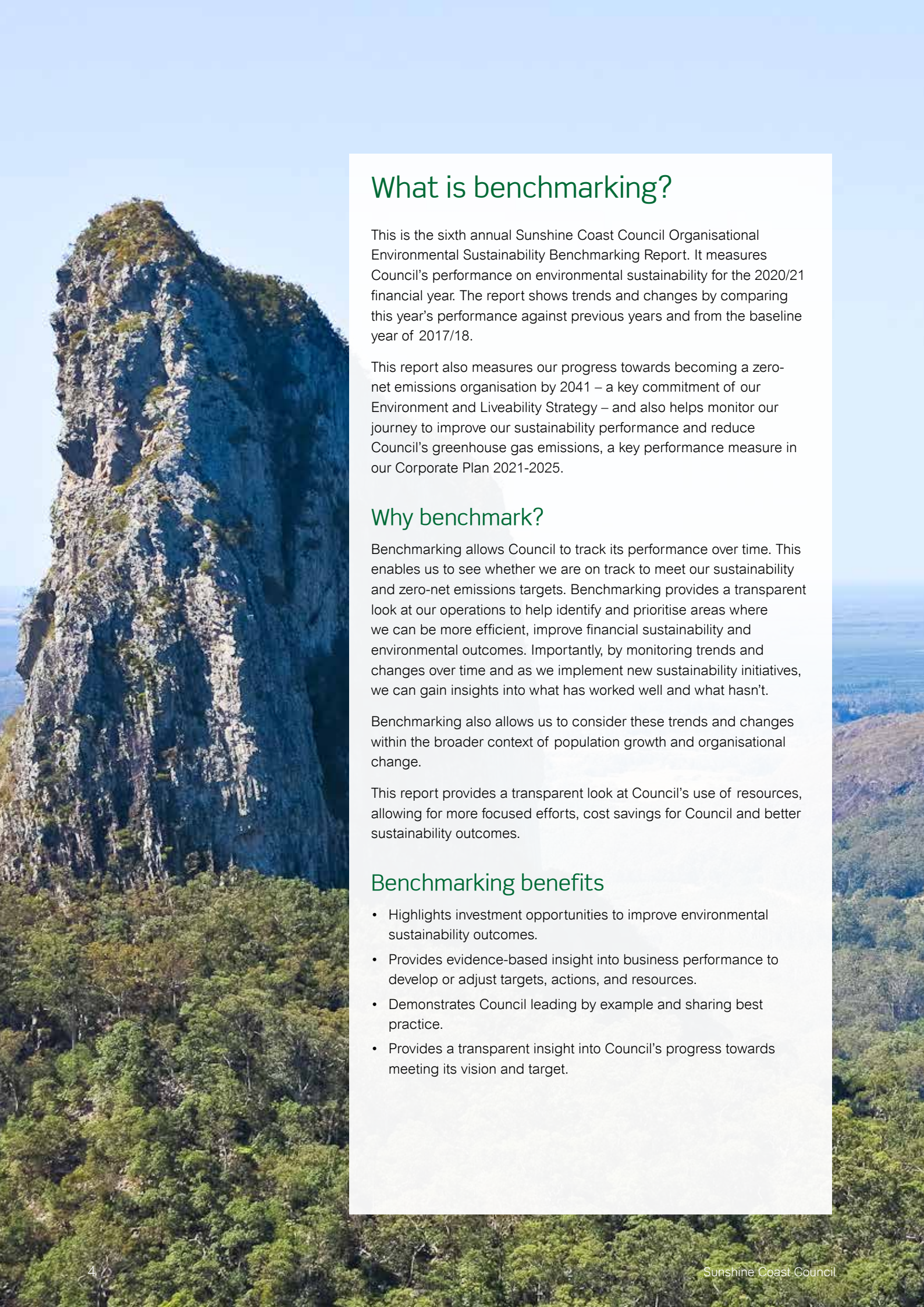


What is benchmarking?

This is the sixth annual Sunshine Coast Council Organisational Environmental Sustainability Benchmarking Report. It measures Council's performance on environmental sustainability for the 2020/21 financial year. The report shows trends and changes by comparing this year's performance against previous years and from the baseline year of 2017/18.

This report also measures our progress towards becoming a zero-net emissions organisation by 2041 – a key commitment of our Environment and Liveability Strategy – and also helps monitor our journey to improve our sustainability performance and reduce Council's greenhouse gas emissions, a key performance measure in our Corporate Plan 2021-2025.

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 targets. Benchmarking provides a transparent look at our operations to help identify and prioritise areas where we can be more efficient, improve financial sustainability and 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 and changes within the broader context of population growth and organisational change.

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 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

	2017/18	2018/19	2019/20	2020/21
Population	319,500	328,000	336,500	351,424
FTE staff[2]	1654	1668	1601	1635

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).

Greenhouse gas emissions

Council measures its greenhouse gas emissions from waste, electricity, streetlights, fuel, liquid petroleum gas and other emissions sources (scope 3) in compliance with the international Greenhouse Gas Protocol and the *National Greenhouse and Energy Reporting Act 2007* (the NGER Act).

This year Council's greenhouse gas emissions footprint has been developed in line with Australia's Climate Active methodology as we transition towards meeting our zero-net emissions target.

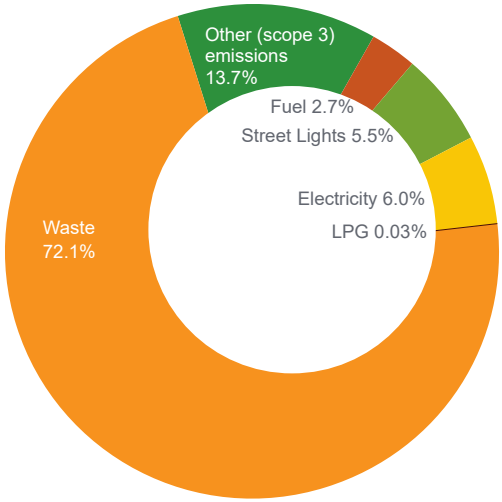
Council's total greenhouse gas emissions for 2020/21 is 201,103 tCO_2e – a decrease of 2.6% (5280 tCO_2e). Greenhouse gas emissions per resident decreased to 0.57 tCO_2e for this financial year.

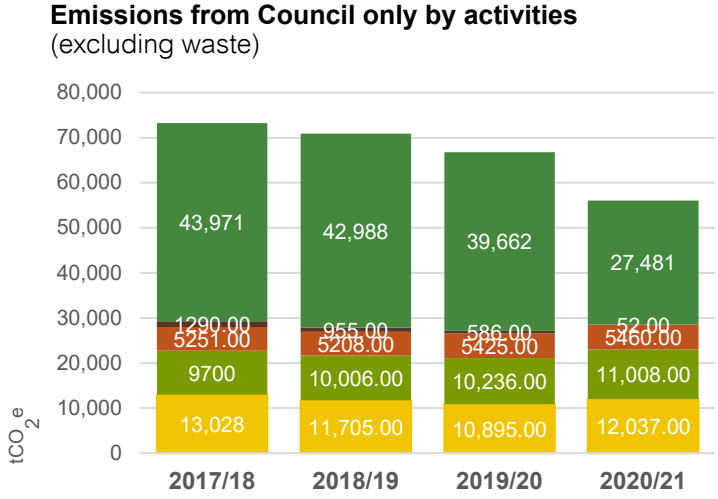
Emissions from waste represent 72% of Council's total greenhouse gas footprint and increased by 5485 tCO_2e or 4% compared to 2020/21.

As Council owns and operates the region's two landfills, Council is responsible for reporting fugitive methane emissions and a third party is responsible for the gas that is captured, flared or utilised as renewable energy. In November 2020, the Caloundra Renewable Energy Facility became operational and is now more fully utilising the landfill gas captured by converting it into electricity. Through this process Council has seen a 34% increase in the amount of biogas captured, flared and utilised compared to the 2017/18 baseline.

If we exclude emissions from community waste a different picture emerges. Reporting figures show an overall decrease of 16% (compared to 2019/20) for our Council activities, largely due to an emissions boundary recalculation for scope 3 emissions. However we had an increase in our emissions from electricity usage (10%), streetlights (8%) and fuel (1%) compared to 2019/20. Highlighting the need to continue focussing efforts on energy efficiency, electricity usage/ increasing renewable energy at our buildings and facilities, LED streetlights, alternative fuels and procurement processes.

One new indicator has been included to capture the data on the power generated from Council's landfill renewable energy facility.





	Waste	72.1%	145,345 tCO_2e from waste in landfills
	Electricity	6.0%	12,037 tCO_2e from our large and small sites
	Street lights[3]	5.5%	11,008 tCO_2e from our street lights
	Fuel	2.7%	5460 tCO_2e from our fleet vehicles and bulk diesel supply
	Liquid petroleum gas (LPG)	0.03%	52 tCO_2e that is used at Council's sites
	Other (scope 3) emissions	13.7%	27,481 tCO_2e including goods and services produced by a third party

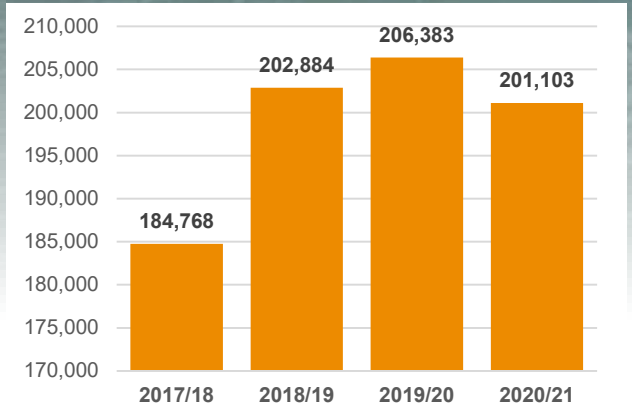
3. Street lighting has been separated out from the 'Electricity' area as it is a significant source of greenhouse gas emissions and it is calculated as a different emissions source.

Greenhouse gas emissions

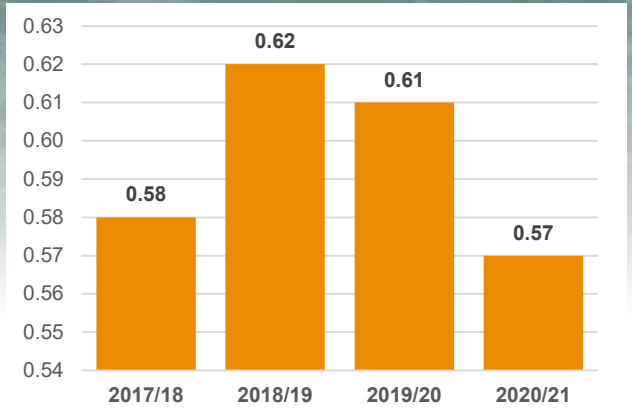
Indicators	2019/20	2020/21				Put into perspective
	Total	Total	% change	Per resident	Change per resident	
Primary indicators						
Total greenhouse gas emissions[4,5]	206,383 tCO_2e (0.61 tCO_2e/ resident)	201,103 tCO_2e	↓ 2.6% (5280 tCO_2e decrease)	0.57 tCO_2e	↓ 0.04 tCO_2e	2020/21 footprint has been developed in line with Australia's Climate Active methodology.
Other indicators						
Methane captured and flared at Nambour and captured, flared and utilised at Caloundra landfills[6]	42,373 tCO_2e (0.13tCO_2e/ resident)	47,710 tCO_2e	↑ 12.6% (5337 tCO_2e increase)	0.14 tCO_2e	↑ 0.01 tCO_2e	Sunshine Coast Council is now converting landfill gas to electricity at its Caloundra Renewable Energy Facility. Landfill gas flaring and utilisation rate is 58.6% at Caloundra landfill and the flaring rate is 18.0% at Nambour landfill. (There has been a 34% increase in methane captured and flared since the 2017/18 baseline year) From 1 July 2020 the global warming potential of methane increased from 25 to 28.
Power generated from Council's landfill renewable energy facillity	N/A	5202 kWh	N/A	N/A	N/A	New indicator to capture the power generated from the Caloundra Renewable Energy Facility opened in November 2020. Note that the data is not for the full 2020/21FY.

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.

Change in greenhouse gas emissions (tCO_2e)



Greenhouse gas emissions per resident (tCO_2e)



Waste

Waste generated by Council activities is calculated via two sources:

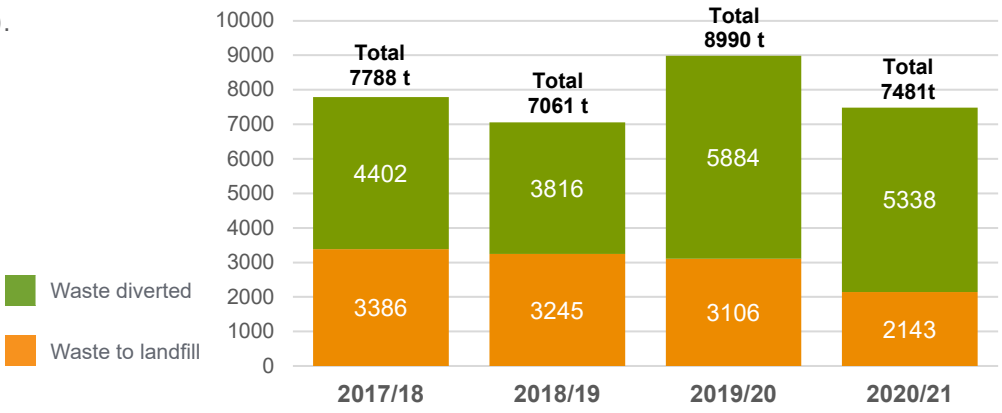
1. **Council's waste contractor collections** for Council managed sites (based on bin size, service frequency and regional audit data).
2. **Self-haul data** is waste generated from Council activities that is measured at the weighbridge (at the transfer stations).

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

Council's activities generated 7481 tonnes of waste in 2020/21. Of this total, 71% (5338t) was recycled and 29% (2143t) landfilled. This is a decrease of 17% (1509t) of waste to landfill compared to 2019/20.

The decrease in waste to landfill relates to a reduction of 85% in construction and demolition (C&D) waste and a 62% decrease in commercial and industrial (C&I) waste. Council is increasingly reusing materials in construction and in road rehabilitation projects, reducing the amount of waste sent to landfill.

Waste generated by Council activities (tonnes)



Indicators	2019/20	2020/21				Put into perspective
	Total	Total	% change	Per FTE	Change per FTE	
Primary indicators						
Waste generated by Council activities	8990t (6t/FTE)	7481t	↓ 17% (1509t decrease)	5t	↓ 1t	The total waste of 7481 tonnes consists of 71% (5338t) recycling and 29% (2143t) to landfill. The total waste generated by Council activites has decreased by 17% (1509t) since 2019/20. (There has been a 4% decrease in waste generation since the baseline year in 2017/18).
Other indicators						
Waste generated by Council activities diverted from landfill	5885t (4t/FTE)	5338t	↓ 9% (547t decrease)	3t	↓ 1t	Since 2019/20 there has been a decrease of 9% (547t) in waste diverted (recycling). Council is reusing and recycling much of its C&D and C&I waste back into its construction and road rehabilitation projects. (There has been a 21% increase in waste diverted from landfill since the 2017/18 baseline).

Case Study: Stormwater Quality Improvement Devices tell a story about our littering habits

Challenge

Sediment, litter and other pollutants are washed down the drain after storm events and if not managed adequately, end up in our local waterways and on our beaches.

Council is legally required to implement effective stormwater management to meet water quality objectives and to protect downstream rivers, creeks and other water bodies in line with our corporate values and objectives.

Solution

To prevent gross pollutants entering the stormwater network, Stormwater Quality Improvement Devices (SQIDs) are installed underground. They perform like giant sink strainers, interspersed across our underground network, capturing litter before it enters our waterways.

Council partners with an external contractor to maintain and collect the data and analyse what is found in the SQIDs. Volume (how full), measurements of organic matters, and waste and sediment are recorded.

The analysis of the debris being captured by SQIDs assists in delivering targeted education campaigns for pollutant hotspots.

Outcomes

A major litter type found in the SQIDs is cigarette butts. Through this program, cigarette butt litter hotspots are identified. As a result, Council has partnered with the Queensland Department of Environment and Science to undertake a cigarette butt litter intervention program at Tickle Park, Coolum. SQIDs are considered the quiet achievers in reducing litter and debris from entering our stormwater network.

Case Study: From trash to treasure – businesses extracting value out of waste

Challenge

We live in a society of largely 'linear' consumption models, where the primary response is to make, take and dispose. This results in large volumes of waste going to landfill and underutilising valuable resources. There is a growing conscientiousness and interest amongst businesses to improve their environmental performance including ways to reduce waste and achieve cost savings at the same time. This interest supports accelerating the shift to increase circular economy outcomes, where waste is designed out of the manufacturing process or residual waste is valued and treated as a resource by keeping materials and products in use wherever possible.

Solution

To help support businesses to exchange waste more efficiently, Data61 and the CSIRO created an online platform called ASPIRE (Advisory System for Process Innovation and Resource Exchange). Now a commercial product backed by good science, the ASPIRE platform also has the capacity to quantify greenhouse gas emissions avoided from diverting waste to landfill.

Outcomes

Sunshine Coast Council has invested in a license for our local business community to access this great circular economy, business-to-business platform. Access is free for businesses with an ABN and less than 100 employees as well as community groups and schools.

Being a digital platform, Sunshine Coast organisations registered can find a solution locally or outside of the region. Other councils and businesses in Queensland and throughout Australia are now coming on board to create a larger marketplace.

Since April 2021, 50 Sunshine Coast businesses have signed onto ASPIRE.

Benefits to business:

- Save costs on waste disposal
- Earn revenue from waste
- Divert waste from landfill
- Create new supply chains
- Connect with other businesses
- Create new ideas for re-use and recycling
- Reduce emissions.

Case Study: Driving down the GHG emissions curve by converting landfill gas to energy

Challenge

Waste contributes to 72% of Council's organisational greenhouse gas emissions, due to our responsibility in operating and managing two regional landfill facilities. The waste is generated by both the community (including business and industry) and Council's own operations.

Putting waste into landfill produces biogas, typically made up of 99% methane and carbon dioxide – which are both greenhouse gases. The remainder is made up of trace components such as hydrogen sulfide.

There are several ways of controlling landfill gas.

Solution

In 2012, infrastructure was installed to help capture the biogas and flare it. This converts methane into carbon dioxide (a much less potent greenhouse gas) and water. Since that time more than 20 million cubic metres of landfill biogas has been captured and combusted to less harmful emissions sources.

Improving on biogas flaring is the capturing and combusting of biogas into electricity. In partnership with LMS Energy, the Caloundra Renewable Energy Facility was officially opened on 24 November 2020, to generate electricity from waste in the Caloundra landfill and feed it directly into the power grid.

Outcomes

This facility generates 7000 megawatt hours of renewable electricity per year, which is enough to power 1200 homes 24-hours a day, seven days a week. This reduces greenhouse gas emissions by approximately 41,000 tonnes each year, which is the equivalent of charging 140,000 electric vehicles.

Energy (electricity)

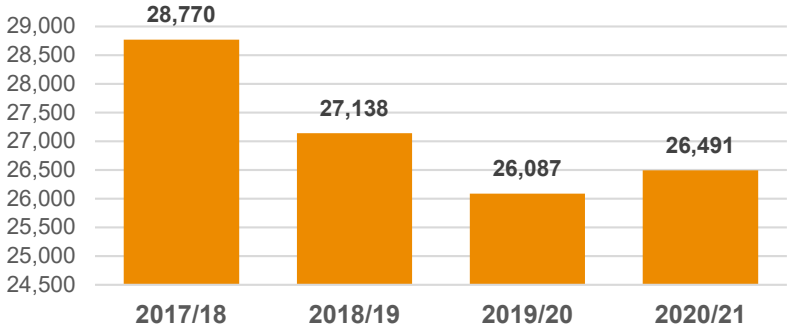
The total electricity consumption includes electricity used at Council's sites and electricity consumption used for streetlights owned by Council and Energex.

This year the total electricity consumption increased by 1.5% which was expected due to Council's buildings and facilities being less impacted by COVID closures than they were for the previous financial year (2019/20).

Since the baseline year there has been an 8% decrease in electricity consumption due to energy efficiency measures such as building management systems (BMS) being installed and monitored.

Street lighting consumption has remained reasonably constant with only a 0.1% increase even though there has been an increase of 814 streetlights installed. This is due to the efficiencies of the new lighting, contributing to the 83.5% of Council's owned streetlights that are LED. A pilot program is currently being undertaken in partnership with Energex for the replacement of high energy streetlights across 6 locations to more energy efficient luminaires.

Total electricity consumption – including street lights (MWh)



Indicators	2019/20	2020/21				Put into perspective
	Total	Total	% change	Per FTE	Change per FTE	
Primary indicators						
Total electricity consumption (including street lighting)	26,087 MWh (16,294 kWh/FTE)	26,491 MWh	↑ 1.5% (404 MWh increase)	16,202 kWh	↓ 92 kWh	The increase in electricity consumption compared to 2019/20 is due to Council's buildings and facilities being less impacted by COVID shutdowns than they were in the previous financial year. Since the baseline year there has been an 8% decrease in electricity consumption.
Other indicators						
Electricity consumption (excluding street lights)	13,450 MWh (8401 kWh/FTE)	13,837 MWh	↑ 2.9% (387 MWh increase)	8463 kWh	↑ 62 kWh	The 2.9% increase compared to 2019/20 reflects that there were fewer closures of Council's facilities this financial year.
Street lighting consumption	12,637MWh (7893 kWh/FTE)	12,654 MWh	↑ 0.1% (17 MWh increase)	7739 kWh	↓ 154 kWh	Electricity used by streetlights has decreased by 3% since the 2017/18 baseline year, despite having 814 new streetlights installed in 2020/21. New street lights are built with high efficiency bulbs, and any bulbs needing replacement on existing lights are of similar high efficiency.
Total electricity costs (including all costs such as network charges and including street lights)	$6.763m	$7.199m	↑ 6.4% ($436,000 increase)	N/A	N/A	Increased electricity costs are largely due to increased network demand charges, as well as an increase in the number of assets (buildings and facilities) that Council owns. (This is a 9% decrease in total costs since the 2017/18 baseline year).

Renewable energy

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

During the 2020/21 period, energy generated at the Sunshine Coast Solar Farm totalled 29,997 MWh, a 1% reduction when compared to 2019/20.

This year a solar audit on Council's owned and managed small solar PV systems was completed to verify data on the solar system type and condition. This information is to inform a strategic approach to maintaining current arrays to maximise renewable energy generation output and expanding the installation of solar PV on Council's facilities.

In 2020/21, there has been 100kW systems installed both at Maleny Showgrounds and the Mooloolaba ParknGo carpark, these installations are reflected in the 138kW PV capacity increase due to adjustments made to the total capacity based on the solar audit data.

A similar audit is being considered for Council leased sites where solar PV has been installed over the last 10 years.

Indicators	2019/20	2020/21				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	15,341 kW	15,479 kW	↑ 1% (138 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.	341 kW (0.21 kW/ FTE)	479 kW	↑ 40% (138kW increase)	0.29 kW	↑ 0.08 kW	Council has completed an audit of solar PV systems on its owned and managed buildings and facilites. This audit has verified the data on the solar PV system size and condition.
Energy generated by Sunshine Coast Solar Farm (SCSF)	30,356 MWh	29,997 MWh	↓ 1% (359MWh reduction)	N/A	N/A	The solar farm offset 113% of Council's electricity operational requirements. The minor reduction on the prior year can be attributed primarily to weather variations (2020/21 was wetter than the two prior years). Also, to a lesser extent, there were some maintenance-related outages (two transformers removed May 2021 for repairs under warranty).
Electricity cost savings for the Sunshine Coast Solar Farm against 'business as usual' after all costs	$68,000	Unavailable	Unavailable	N/A	N/A	This figure is unavailable for this financial year before publication.

Case Study: Solar water pump – an elegant solution to a dusty problem

Challenge

Sunshine Coast Council operates the Image Flat Quarry and produces locally sourced rock products for commercial use.

Quarries are required to manage dust as a key priority, so the challenge was to seek the most efficient way to do this. Standard dust management generally requires trucks to cart potable water to spray over the internal roads.

It was identified that the stormwater naturally captured in the Quarry pit (and that also requires managing), could potentially service this need.

Solution

A 4.4kW solar PV system was installed to pump the water 35 metres from the quarry pit to two 20,000L water tanks. From the water tanks the water is then gravity fed to a sprinkler system that sprays over the internal roads.

Outcomes

By installing the solar water pump, quarry staff have provided a simple solution with multiple benefits. They have eliminated the need for a diesel-powered pumping system that requires constant refuelling and maintenance and reducing Council's greenhouse gas emissions.

Using the stormwater captured on site saves trucking in potable water, providing cost savings and reducing the number of diesel trucks (and more greenhouse gases) coming on site to suppress the dust.

Case Study: Machine learning to map solar photovoltaic (PV) uptake across the region

Challenge

A good understanding of the solar PV network across the Sunshine Coast region has previously been limited to the solar generated electricity output per postcode. While the data captured provides some useful insights more detailed information was required to better inform community uptake trends.

Solution

'Machine learning' is an emerging work process that can extract value from data, such as aerial imagery, by recognising data patterns and making predictions. Council regularly commissions the capture of aerial imagery and generates data from it for inclusion in the corporate mapping system. Advances in the accessibility and usability of 'machine learning' software have enabled Council to map solar PV systems across the Sunshine Coast.

The mapped solar panels information can improve decision-making when combined with other corporate mapping layers and databases such as buildings and facilities.

Outcomes

The application of 'machine learning' technology has produced region-wide solar panel layers for nominated years, detected with an approximate accuracy of 90%. As we continually learn more about machine learning the level of accuracy should improve. To date, layers have been created for 2015, 2019 and 2020, with 2021 underway.

Solar panel trend analysis can be used to inform renewable energy planning and targeted strategies for enhanced, region-wide solar device uptake. Temporal comparisons will enable the measurement of on-ground outcomes both retrospectively and in response to solar promotion campaigns.

Energy (fuel)

Council has both unleaded petrol and diesel fleet vehicles that it uses to carry out its operations. It also has a range of small and heavy plant equipment such as graders, rollers, tractors and mowers, for which bulk diesel is purchased.

There has been a 4% decrease in total fuel usage this financial year from 2019/20. The reduction in diesel and bulk diesel stores relates to:

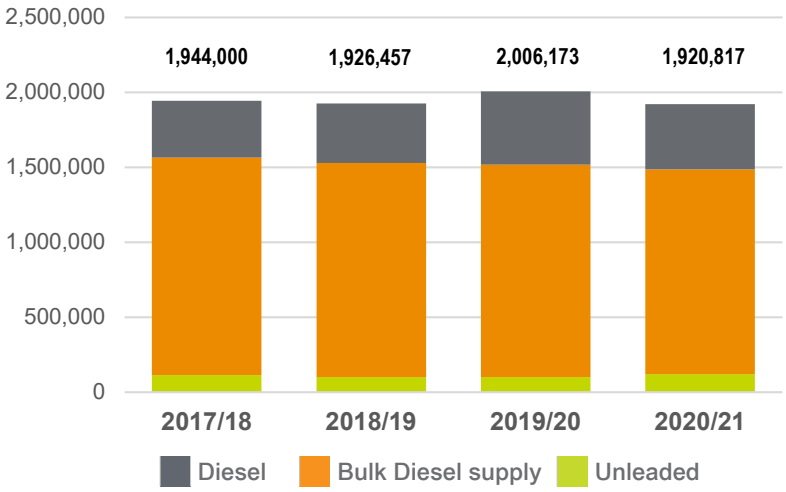
- having fewer fleet vehicles (reduced by nine vehicles)
- employees continuing to work from home
- continuing to run online meetings
- having reduced the number of plant equipment hired.

Council is also replacing small plant equipment (such as leaf blowers, chainsaws, etc) with electric battery alternatives.

Council continuously reviews the type of fleet vehicles it uses, including the potential to purchase more hybrid and electric vehicles when replacing fleet vehicles. As a result, there have been 14 additional hybrid vehicles added to Council's fleet this financial year (a total of 21 hybrid vehicles overall), representing 4% of the total fleet. As vehicle leases are renewed, this number is expected to increase.

This reduction in fuel usage, combined with lower fuel prices, has also resulted in significant fuel cost savings of $359,731 in 2020/21.

Total fuel usage (litres)



Indicators	2019/20	2020/21				Put into perspective
	Total	Total	% change	Per FTE	Change per FTE	
Primary indicators						
Litres of fuel used	2,006,173 L (1253 L/ FTE)	1,920,817 L	↓ 4% (85,356 L decrease)	1175 L	↓ 78L	(Fuel consumption has decreased by 1% since the 2017/18 baseline year.)
Other indicators						
Fuel costs	$2,474,839	$2,115,108	↓ 15% ($359,731 decrease)	N/A	N/A	There has been a 15% decrease since the previous year. The reduction in fuel usage and lower fuel prices have seen significant savings of $359,731. (This is a 7% decrease since the 2017/18 baseline year.)
Alternative-fuel and advanced technology fleet vehicles	7	21	14 vehicles	N/A	N/A	There has been an increase of 14 hybrid vehicles since the previous financial year to total 21 – representing 4% of the total fleet vehicles.

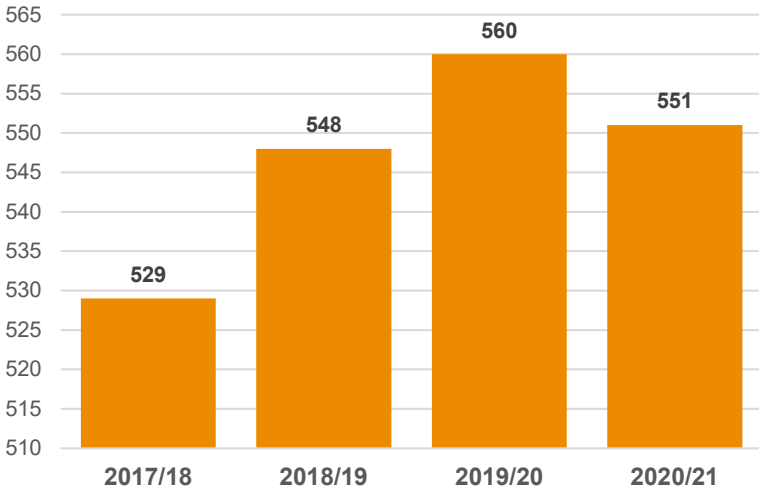
Transport

Council's fleet includes 551 passenger vehicles and 1347 plant and equipment (e.g. trucks, small/major plant equipment and marine vessels) bringing the total to 1898.

The Motor Vehicle Management Policy is currently being reviewed to support an increase in the number of hybrid and electric cars and re-evaluate the number of vehicles in fleet.

With the increased number of employees working from home on a part time basis, the use of the staff travel program (MovUs) has not been utilised so this year no data was available. This will be reviewed in 2021/22 with changing employee work locations associated with implementation of the organisation's workplace strategy.

Number of fleet vehicles



Indicators	2019/20	2020/21				Put into perspective
	Total	Total	% change	Per FTE	Change per FTE	
Primary indicators						
Fleet vehicles[7]	560	551	↓ 2% (decrease of 9 vehicles)	N/A	N/A	Council continually reviews the vehicles required for operational use along with the type of vehicles purchased. Hybrid and electric vehicles are being considered when replacing fleet vehicles shown with the increase of 14 hybrids in 2020/21. Successful trials with electric bikes to do inspections are replacing the need for a vehicle. Overall there has been a 4% decrease in the number of fleet vehicles since the baseline year 2017/18.
Other indicators						
Fleet vehicles that are four cylinder	400	389	↓ 3% (decrease of 11 vehicles)	N/A	N/A	This represents 71% of the total fleet being four cylinder. (This is an decrease of 4% since the 2017/18 baseline year)
Total distance saved by staff using alternative transport (car pool, cycling, walking or public transport)[8]	179,313 km (112 km/ FTE)	Not available	Not available	Not available	Not available	Over the last 12 months with COVID and working from home there has been no active users imputting data into the MovUs platform.

7. This figure includes passenger and light commercial vehicles as well as seven hybrid (electric/fuel) passenger vehicles.
8. 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, quiet, clean ... and just a bit fun – using E-bikes for inspections

Finding a car park can be difficult anytime, but when you have time constraints to complete your inspections, you can waste more time parking further away.

Environmental Health Officers are trialling the use of an E-bike to service the Maroochydore, Cotton Tree and Mooloolaba areas.

In addition to the benefit of finding a car park and not having to negotiate traffic, it's a role model for desired travel smart behaviours, reducing car fleet demand, fuel usage and greenhouse gas emissions.

A great initiative with multiple benefits that is highly visible to our community – great job Environment Health Officers!

Water

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

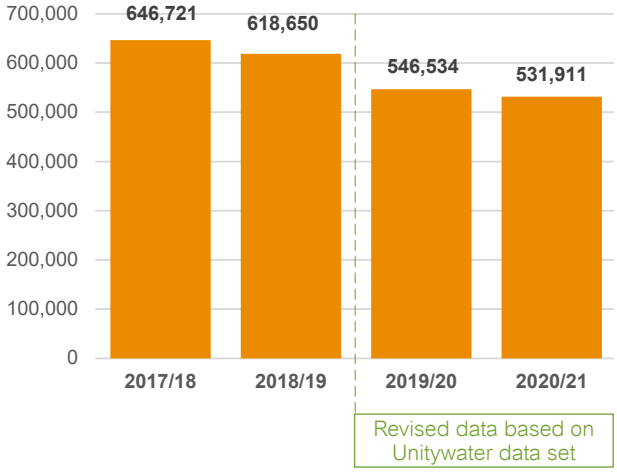
Council has established a partnership with Unitywater to manage our water usage through providing quality data that is used to monitor usage and potentially identify early leak detection. This new data has been used in the calculation of these indicators as they are more accurate than the invoices used previously.

This year has been a little wetter than the previous few years when we were in drought, which largely explains the 3% reduction in water usage. In addition, Council has been installing smart water meters in its parks and gardens that switch-off timed irrigation when it's raining, which has enabled Council to reduce its water consumption during this period.

Holiday Parks continue to be within the top 10 largest water consumers across Council's managed sites. The six holiday parks are significant water users, making up approximately 20% of Council's total water consumption. This is largely due to their high turnover of patrons. An education campaign is being considered to help raise awareness and promote water savings.

The increase in costs relate to the State Government Bulk water pass through charge. In 2019/20FY was $2.953/kL, and rose to $3.122/kL in 2020/21.

Water usage (kilolitres)



Indicators	2019/20	2020/21				Put into perspective
	Total	Total	% change	Per FTE	Change per FTE	
Primary indicators						
Water consumed by Council	546,534kL (342kL/ FTE)	531,911 kL	↓ 3% (14,623 kL decrease)	325 kL	↓ 16 kL	The water figure for 2019/20 and this 2020/21FY year have been revised based on more accurate data received directly from Unitywater.
Other indicators						
Council's total water cost (including all costs such as water access and sewerage charges)	$4,370,821	$4,418,300	↑ 1% ($47,479 increase)	N/A	N/A	The increase relates to the increase costs from the State Government Bulk water pass through charge.
Council's total water consumption cost (excluding all costs such as water access and sewerage charges)	$2,317,858	$2,345,830	↑ 1% ($27,972 increase)	N/A	N/A	Increase due to the State Government Bulk water pass through charge from $2.953/kL in 2019/20 to $3.122/kL in 2020/21.

Case Study: Unitywater's Digital Neighbourhood Program – a smart solution to improving water resilience

Challenge

Many times water leaks go undetected until the bill arrives. Unless the leak is visually obvious it may go unchecked for months – leading to significant wastage of our precious water resources.

Solution

To improve water leak detection, Unitywater is trialling the use of smart water meter technology as part of its 'Digital Neighbourhood Program'. This technology is being progressively installed across the trial area and will record customer water use every 15 minutes, transmitting data to Unitywater directly. Data received from the meter can be assessed to identify continuous or unusual flow rates, indicating a potential leak.

Outcomes

The benefit of this technology was highlighted recently at Nelson Park, Alexandra Headland with the meter indicating a continuous flow. As a result, Council was able to locate and repair the leak while Unitywater confirmed the repair was successful with its smart meter data. This type of technology will become increasingly important during drought conditions and contributes to the broader strategy to increase the region's water resilience over the medium to long term.

Our environmental sustainability programs

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

Key programs delivered encouraging Council employees to make sustainable choices include:

- **Plastic Free July Challenge (July 2020)** – involved 74 employees who took the 'Five-15 Challenge' committing to 396 actions.
- **National Recycling Week (November 2020)** – engaged 152 employees who completed the 'Can you recycle right?' quiz.
- **Sustainable Lunchtime Series** – held monthly online with Council employees sharing their skills and knowledge towards sustainability and highlighting some of the great work that is happening across the organisation. Over the nine months this has been running, there has been a total of 310 employees in attendance.

Council is also committed to supporting its community on their sustainability journey, through the Living Smart Program and other engagement activities. This sustainability behaviour change program encourages our community and employees to make simple lifestyle changes by sharing stories and information that is relevant to our community's needs and interests that:

- prioritises local content
- encourages sharing
- provides resources
- enables community connection.

Indicators	2019/20	2020/21			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)	530 participants	367 participants	↓ 31%	N/A	Council runs a large number of sustainability events and programs each year, some of which are annual - and others one-off. To provide a standarised measurementof staff participation, three annual events are used for this indicator. Due to COVID, Ride to Work day was not held in 2020/21 reflecting the reduced participation number. However, in 2020/21 we had 310 in attendance for the monthly online sustainability lunchtime sessions.
Other indicators					
Number of engaged employees through Council's online sustainability platform	208 members	232 members	↑ 12%	N/A	This indicator measures our online sustainability engagement by the number of members on the 'Sustainability Snippets' Yammer page. This online engagement tool encourages collaboration and sharing of knowledge amongst employees on sustainability and environmental topics in an informal manner.

Spotlight: ‘How Low Can We Go’ Innovation Challenge

To kick start the development of the organisation’s Zero-net Emissions Plan, an Innovation Challenge called 'How Low Can We Go' was initiated to engage with staff and harvest and stimulate ideas from across the organisation, to explore and progress how we can reduce our greenhouse gas emissions.

The Innovation Challenge ran for four weeks with 74 ideas submitted across a range of key priority areas including:

- Waste (13)
- Procurement (6)
- Transport (19)
- Buildings (11)
- Water (2)
- Energy (7)
- Carbon offsets (1)
- Other’ categories (15).

Ideas were evaluated against set criteria by subject matter experts, with more than 40 ideas progressing to ‘People’s Choice’ and over 530 votes being cast for the top ideas, such as:

- Working from home
- Incorporating climate change adaptation/ mitigation into a Planning Scheme Code
- Electric cars for Council fleet.

All submissions, including those that did not progress to the ‘People’s Choice’ were further considered based on merit and contribution to corporate or community greenhouse gas emissions reductions efforts.

Environmental sustainability embedded into systems and processes

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

Council gives preference to local suppliers in its procurement processes to help support local businesses. In 2020/21, local suppliers accounted for 75% of Council's total purchasing spend.

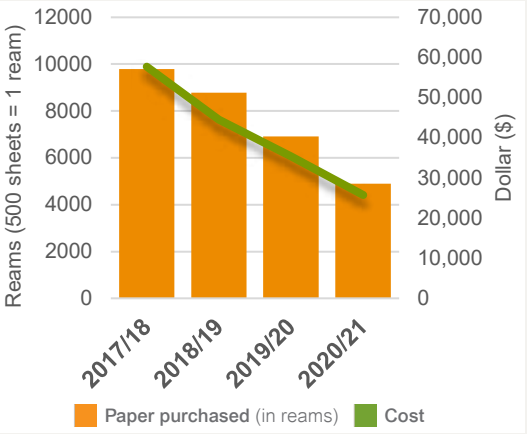
Council goes paper-lite

Council continues to track its paper purchasing and has seen a steady decline since 2016/17. Over the last few years, programs to reduce unnecessary printing and an increase in working from home with the COVID-19 pandemic have produced significant cost savings and a reduction in the amount of paper purchased.

Since 2016/17 we have reduced our paper purchase by 57% with cost savings of 68% ($55,256).

Council is also purchasing certified carbon neutral paper, further reducing our impact on the environment and contributing to our organisation zero-net emissions target. Currently 96% of the A4 and A3 paper purchased by Council is certified carbon neutral.

Amount of paper purchased and its cost



Indicators	2019/20	2020/21		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.[9]	61 of 67 contracts (91%)	69 of 72 contracts (96%)	↑ 5%	In 2019/20 96% 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. It is anticipated that with the implementation of the Zero-net Emissions Plan that all contracts would be evaluated on some level of sustainability/environmental criteria.
Council's procurement that went to local spend with Sunshine Coast businesses	$268.46m	$276.3m ($7.84m increase)	↑ 2.9%	Council's total expenditure has increased by 2.9% This year, 75% of Council's procurement went to local businesses and suppliers.
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.[10]	133	103 (30 employee decrease)	↓ 23%	All new employees with Council are inducted into Council's sustainability vision and commitment. The decrease observed this year reflects there having been fewer new employees this financial year.

9. 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.

10. Total number of new employees includes permanent, full and part-time, casual, temporary full and part-time – excluding contractors.

Case Study: Data driven policy – Woombye Urban Heat Island Pilot

Challenge

Climate change is turning up the heat – particularly in our urban environments. Urban structures such as buildings, roads and other infrastructure absorb and re-emit the sun's heat much more than natural landscapes such as forests, grass and water bodies. 'Islands' of higher temperatures called Urban Heat Islands (UHI) can form in urban areas where there is an increase in built form and with less greenery.

These UHIs increase both overall electricity demand, as well as peak energy demand due to increased need for air-conditioning. Heat islands also contribute to higher daytime temperatures, reduced night-time cooling and higher air-pollution levels. These, in turn, can contribute to heat-related illnesses such as respiratory difficulties, heat cramps, heat exhaustion, non-fatal heat stroke and general discomfort.

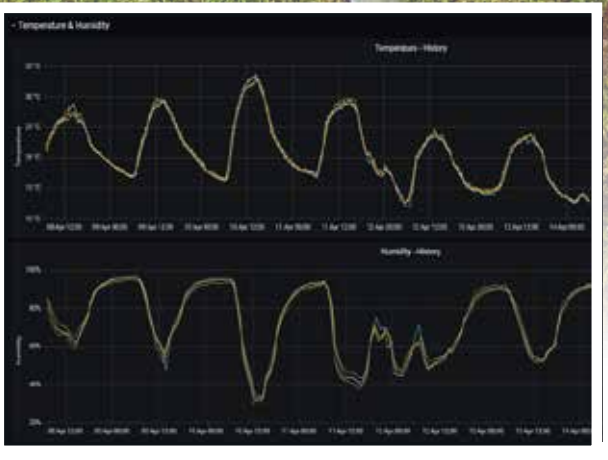
Solution

To better understand UHI impacts and how to best to plan for them so we can maintain the liveability of our built environment we need to capture quality data. To understand UHI across the Sunshine Coast, Council's Smart Cities team have trialled several ambient temperature sensors (temperature and humidity) and a weather station in the Woombye area, as a first stage. In addition to these temperature sensors, people counter sensors have also been installed as part of the project to evaluate people's movement and behaviour in relation to increasing or decreasing urban heat.

Outcomes

These sensors provide real-time interval data around ambient temperature and movement across different built environment scenarios. This data is being visually represented on a dashboard for Council to access data and make informed, strategic planning and operational decisions based on real-time data relating to our environment.

Due to the success of this pilot, follow-on projects are being planned to capture UHI data from a series of other urban environments across the Sunshine Coast.



What's next for 2021/22

Organisational Zero-net Emissions Plan

The Environment and Liveability Strategy 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 means the net greenhouse gas emissions associated with an organisation or local government's activities are equal to zero.

Planning to meet our organisational target is underway with the development of a Zero-net Emissions Plan – a key driver for future emissions reduction.

Food Organics Garden Organics

Council continues to work towards introducing a Food Organics Garden Organics (FOGO) system by 2025, by making garden organic bins standard from July 2022. Households and business will still have the option to opt-out if they prefer. This is in preparation for the introduction of food organics when the processing facility is completed.

Managing climate risk

A Pilot Project to assist in planning for the management of climate risk across the broader Sunshine Coast Region has commenced.

The Project will guide both Sunshine Coast and Noosa Councils regarding mitigation of likely physical impacts on our natural and built assets as well as how to embed greenhouse gas emissions reduction most effectively into corporate policies, systems, and decision-making processes.

The Project also has a community focus. Informed by engagement with regional industry groups and community, it will assist to inform awareness and understanding of regional climate risks and opportunities to mitigate those risks including ways to reduce community greenhouse gas emissions. This work would support the development of a Community Emissions Plan.

Sunshine Coast™ COUNCIL | Our region. **Healthy. Smart. Creative.**

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