

Banyule's State of the Environment Report

2021/2022



Introduction



The State of the Environment (SOE) Report is an annual glimpse into the work Banyule City Council delivered in 2021/22 to ensure our natural environment is healthy, green, and actively cared for.

The work included in this report has been undertaken over Financial Year (FY) 2021/22 and delivers on the strategic objectives outlined in Banyule's Council Plan 2021-2025.

In 2021, Council's new Council Plan was endorsed and included the Banyule Community Vision 2041:

'We in Banyule are a thriving, sustainable, inclusive, and connected community. We are engaged, we belong, and we value and protect our environment'

This vision embeds the natural environment as a priority for Banyule City Council and this report is a transparent overview of Council's progress in this space.

The SOE responds to Council Plan Priority Theme 2: Our Sustainable Environment.

Strategic Objective: *A progressive and innovative leader in protecting, enhancing, and increasing the health and diversity of our natural environment, where we all commit to playing an active role in achieving environmental sustainability, waste, and carbon emissions reduction.*

Strategies to strengthen our Sustainable Environment:

1. Protect and enhance our natural environment, providing connected habitat for diverse flora and fauna.
2. Minimise stormwater pollution and the impacts of flooding and maximise Council's water conservation to transition to a water sensitive city.
3. Demonstrate leadership in addressing climate change and take action to become a carbon neutral council by 2028 and city by 2040.
4. Empower and educate the community and businesses to take actions to achieve positive environmental and climate change outcomes.
5. Avoid waste generation and encourage and support the community to achieve zero waste to landfill by 2030
6. Engage and work with the community and partners to protect, enhance and experience the environment
7. Protect, increase, and maintain Banyule's urban forest population to provide a greener City for enhanced liveability
8. Explore and support opportunities for urban farming and community gardens.



Biodiversity



Biodiversity is made up of all living things and the ecosystems that support them.

Strong biodiversity means that our environment has a good diversity of plants and animals, as well as genetic diversity in each specific plant and animal family. Strong biodiversity produces healthy ecosystems, which can successfully clean water, provide fresh air and stop the spread of disease.

The Banyule community is lucky to have areas of public space that contain rich, biodiverse ecosystems. But as we urbanise, we are creating fragmented habitats with hard edges such as roads or houses, making it difficult for flora and fauna to migrate.

Banyule's Park Rangers work in collaboration with members of the community and the Wurundjeri Narrap Team to ensure our natural spaces are actively cared for; protecting and enhancing those bushland settings to ensure support for the diversity of plants and animals who call Banyule home.

While the Park Rangers take care of our public space, Banyule residents are managing their own backyards, patios, balconies, or paddocks, and all these areas can play a part in supporting biodiversity to thrive in Banyule.

Banyule's Gardens for Wildlife program is supporting households to use their gardens as stepping-stones to expand habitats by including indigenous species. Council also offers information on weeds so households can ensure they are not unintentionally harbouring garden escapees. You can find a range of support on our website.



Indicator	2019/20	2020/21	2021/22
Indigenous species planted in bushland reserves (number of plants)	22,362	11,500	13,994
Friends of volunteer hours (number of hours)	1,334	746	416

Friends of volunteer hours were down in 2021/22 due to ongoing COVID 19 restrictions. Number of indigenous species planted raised from 2020/21 with Park Rangers being able to get back out to their patches. Number of species planted will fluctuate over the years as Council ensures strong management practices for all those plants going in the ground, and ecosystems that support their development.

To enable the protection of our biodiversity Banyule's Park Rangers plant a wide variety of indigenous vegetation which all have their own purpose in the ecosystem. As Figure 1 demonstrates, grasses, herbs and shrubs are the most commonly planted in Banyule's bushland reserves, this is because the development of a strong understorey, which exists underneath trees, ensures habitat and food for insects through to mammals.

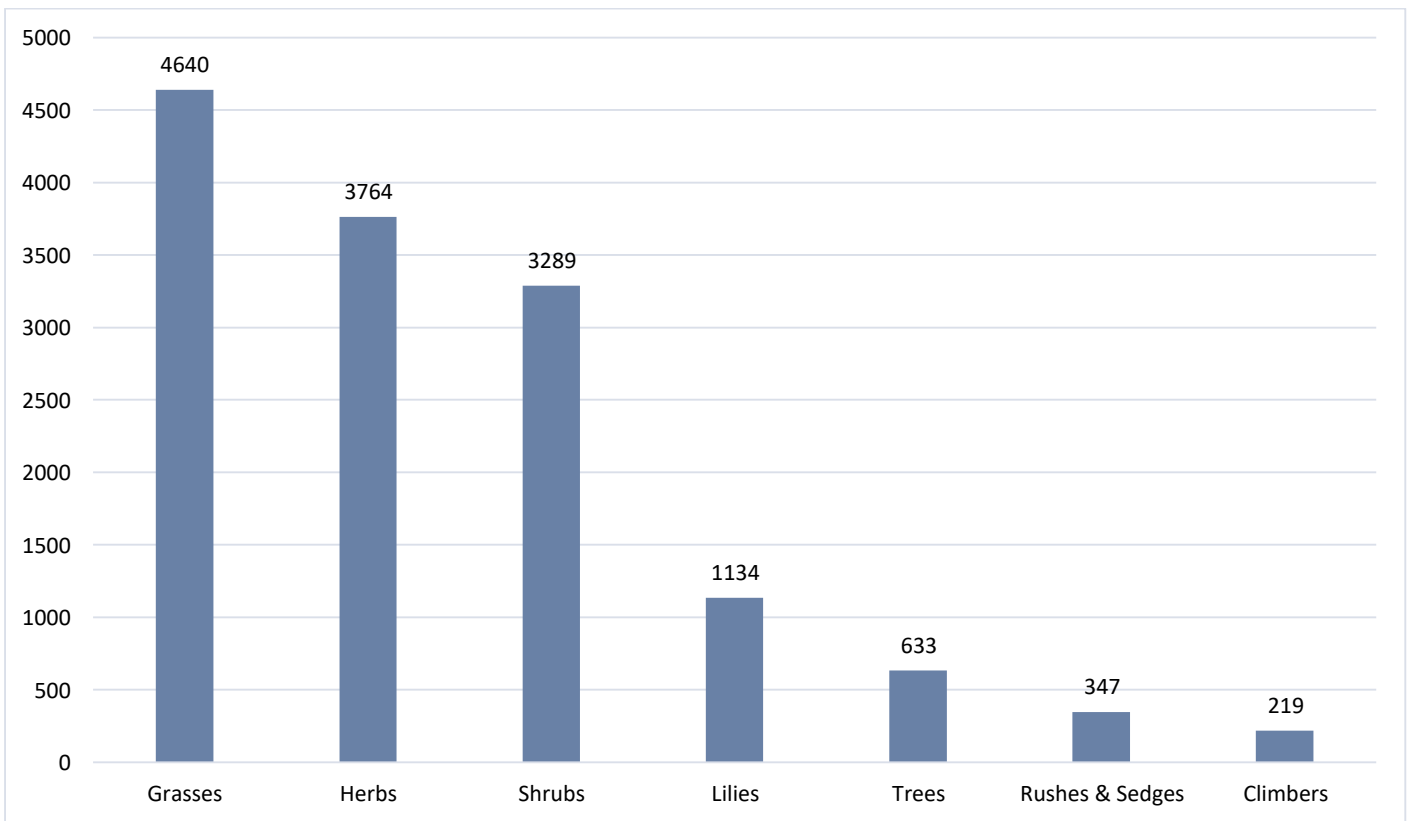


Figure 1, Bushland Management planting by form (2021/22)



Weed Management is another big part of the job for Banyule's Park Rangers, as you can see in Figure 2 the majority of weed control is hand weeding, while herbicide application, burning and brush cutting are also used in specific circumstances.

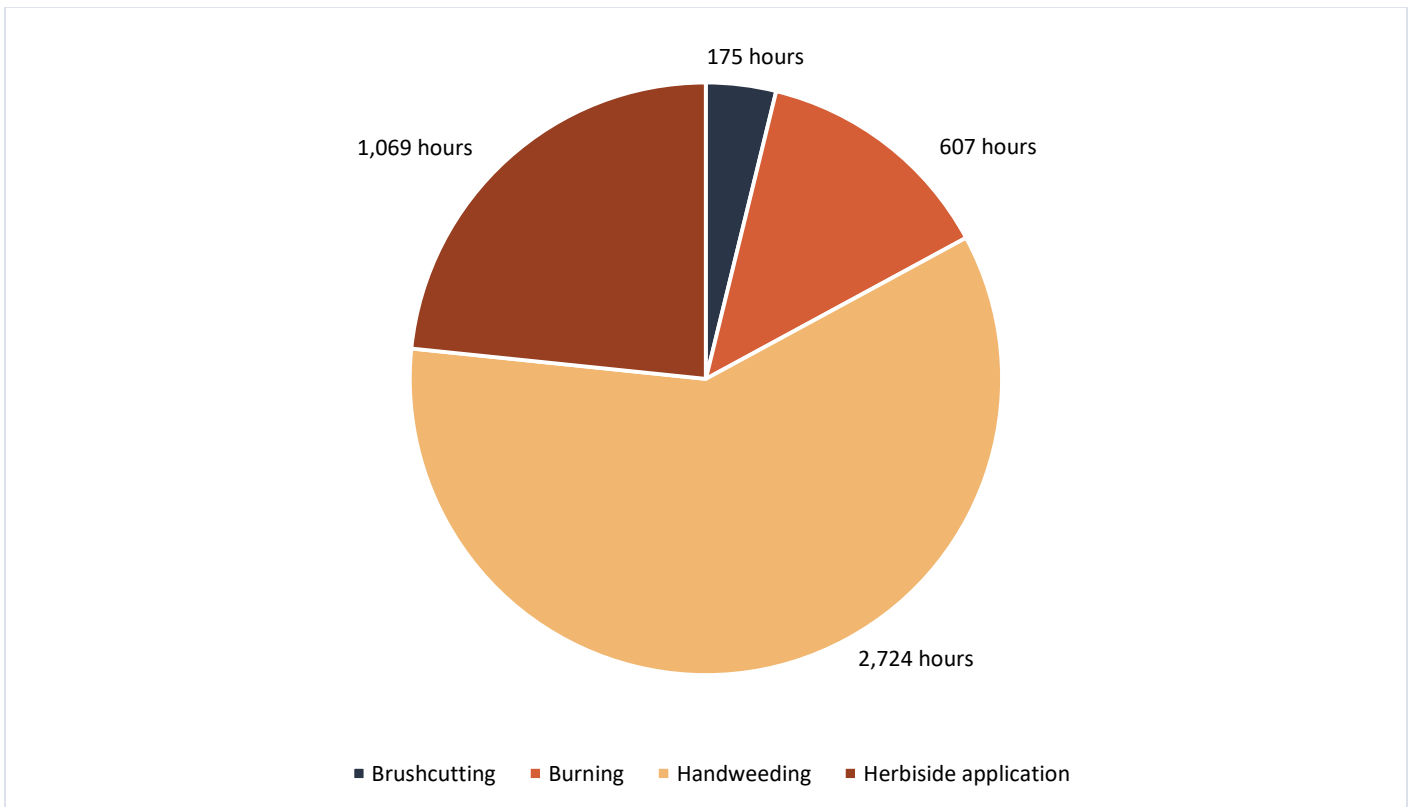


Figure 2, Bushland management weed control tasks by hours (2021/22)



Monitoring Krefft's Gliders



Banyule's stretch of the Darebin Creek has been altered significantly following European settlement, so much so that no remnant hollow-bearing eucalypts remain along the wildlife corridor. This has significant implications for the ability of local wildlife to survive within the Darebin Creek Reserve.

In 2016, Banyule's Park Rangers began installing nesting boxes targeting the Krefft's Glider as there was a known small population nearby.

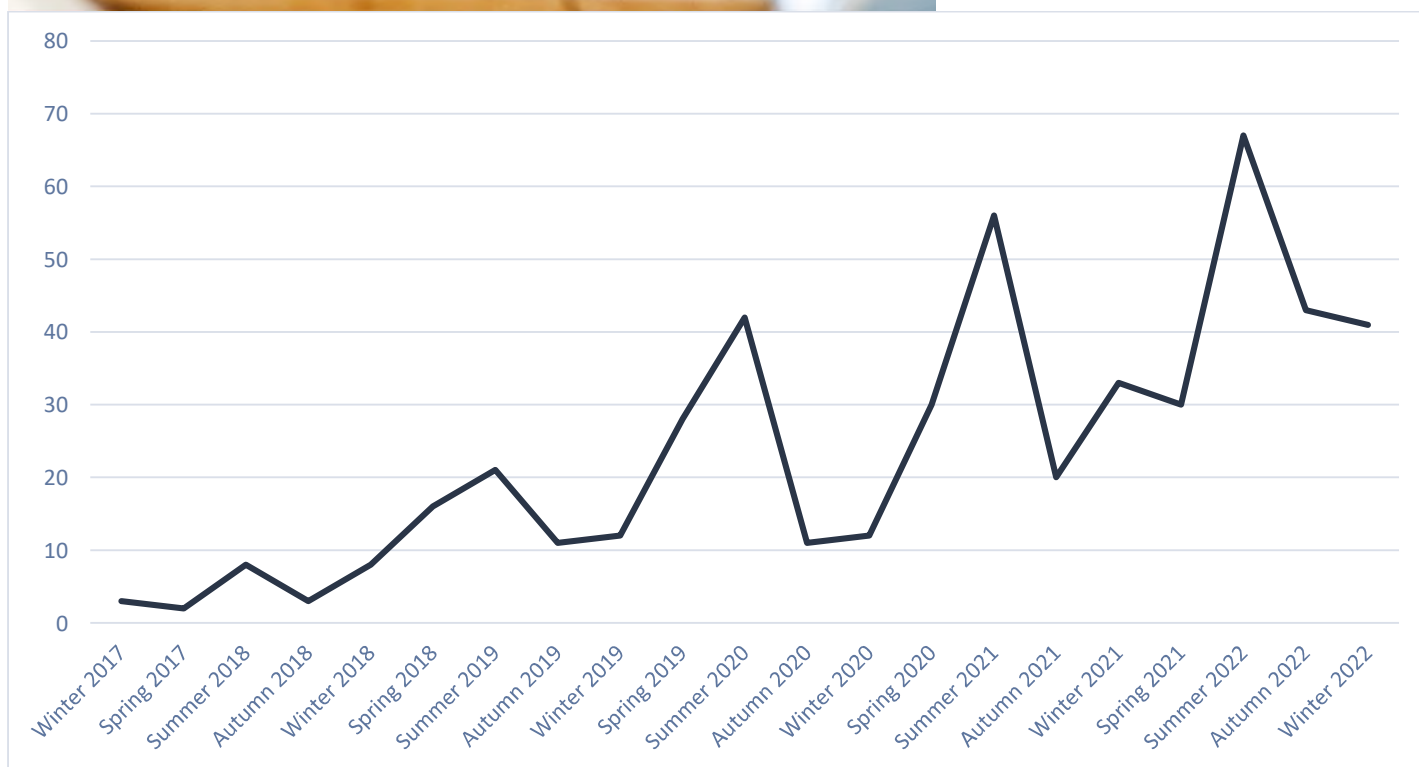


Figure 3, Krefft's Glider population in the Darebin Creek Reserve.

Monitoring of the population began in 2017 which coincided with plantings, intended to strengthen the wildlife corridor by improving connectivity and providing a food source for the Krefft's Gliders. The planting has included Black Wattles and River Red Gums on which gliders predominantly feed over winter, as well as Silver Banksias which provide an excellent source of nectar and pollen over spring when the gliders are breeding.

The first confirmed population of Krefft's Gliders in the Darebin Creek Reserve was eight individuals recorded in winter 2017. With further installation of nesting boxes Council have seen the population grow with current numbers at over 40 individuals (Figure 3). Interestingly, the population peaks over summer (67 individuals were recorded in February 2022) which the park rangers attribute to observing juveniles which have recently emerged from the pouch.

Banyule's Park Rangers will continue to monitor the Krefft's Glider population in the Darebin Creek Reserve into the future as their varied diet and habitat requirements are useful to gauge the general health of the wildlife corridor.

Backyard Bird Count



Each year, Banyule Council and their residents take part in the Aussie Backyard Bird Count, a citizen science program that captures bird observations in backyards, parks, and local wildlife areas. Bird populations can be an important indicator into an area's overall biodiversity health, as they are heavily reliant on suitable habitat.

This year, small bird numbers have increased indicating that the work put in by conservation teams and volunteers in key locations, focusing on the strengthening of understorey plants, is having a positive influence on these more sensitive

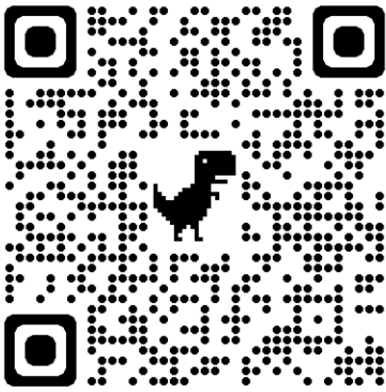
populations.

There was an observed 2% drop in introduced species with the Common Myna (a known threat to biodiversity) showing a sizeable decline. This could be attributed in part to the diligent work of residents taking up the Common Myna trapping program that Banyule runs in partnership with Darebin Creek Management Committee (DCMC).

Top 5 Overall Observations	2020		2021		
	Common Name	Number	Common Name	Number	Trend
	Rainbow Lorikeet	7,692	Rainbow Lorikeet	9,801	↑
	Noisy Miner	6,041	Noisy Miner	6,233	↑
	Australian Magpie	2,960	Australian Magpie	2,915	↓
	Little Raven	1,902	Little Raven	1,695	↓
	Red Wattlebird	1,832	Red Wattlebird	1,637	↓

Top 5 Small Bird Observations	2020		2021		
	Common Name	Number	Common Name	Number	Trend
	Brown Thornbill	95	Grey Fantail	142	↑
	Red-browed Finch	89	Superb Fairy-wren	114	↑
	Grey Fantail	75	Brown Thornbill	101	↑
	Superb Fairy-wren	70	Silvereye	64	NEW
	Willie Wagtail	50	White-browed Scrubwren	62	NEW

Top 5 Introduced Species Observations	2020		2021		
	Common Name	Number	Common Name	Number	Trend
	Common Myna	1,594	Spotted Dove	1,385	↑
	Spotted Dove	1,066	Common Myna	1,229	↓
	Common Blackbird	381	Common Blackbird	312	↓
	Rock Dove	245	Rock Dove	292	↑
	Common Starling	206	Common Starling	68	↓



To learn more about the Backyard Bird Count, follow the QR code.

Tree Care in Banyule



The 2021/22 seasons saw high numbers of advanced trees planted in streets and parks, taking advantage of the La Nina weather cycles.

In 2021/22 Council commenced a new planting contract arrangement, with Council's contractors planting the trees and being responsible for the first two years of maintenance and watering. This will lead to a projected better retention rate as trees are attentively established through their first two summers.

Council has increased the diversity of trees being planted, with 148 different

species and cultivars going in the ground as advanced trees in streets and parks. The diversity of indigenous species increased, and new natives and exotics were planted in some areas, as part of a trial for suitability as our climate changes.

Tree removals in FY21/22 were elevated above average due to the severe windstorm in late October 2021. There were 955 customer requests received in the fortnight following the storm, around 20% of a normal year's requests. This had the effect of a reduced number of net gains in trees for the year.

Indicator	2020/21	2021/22
Council tree plantings in streets and parks	3,150	4,416
Net gain of trees per year (public land)	1,350	2,383

Water



While the annual rainfall was average across Melbourne's north in 2021/22 the Viewbank gauge crept into the high rating. However, in January at the peak of irrigation season we saw heatwaves across Southeast Australia which increased irrigation demand. On top of this, in 2021/22, one of Council's storm water harvesting systems was offline for urgent repairs. This impacted water use and, as we see in figure 4, water use was up slightly as compared to previous years, but still well within our target of under 300ML use per year.



Figure 4, Banyule Council water use (ML)

2021/22 saw a continuing focus on litter collection in our litter traps. Figure 5 shows that collection figures have again exceeded the annual target of 50 tonnes per year. This improves the visual appearance of local waterways and is very important for wildlife protection too.

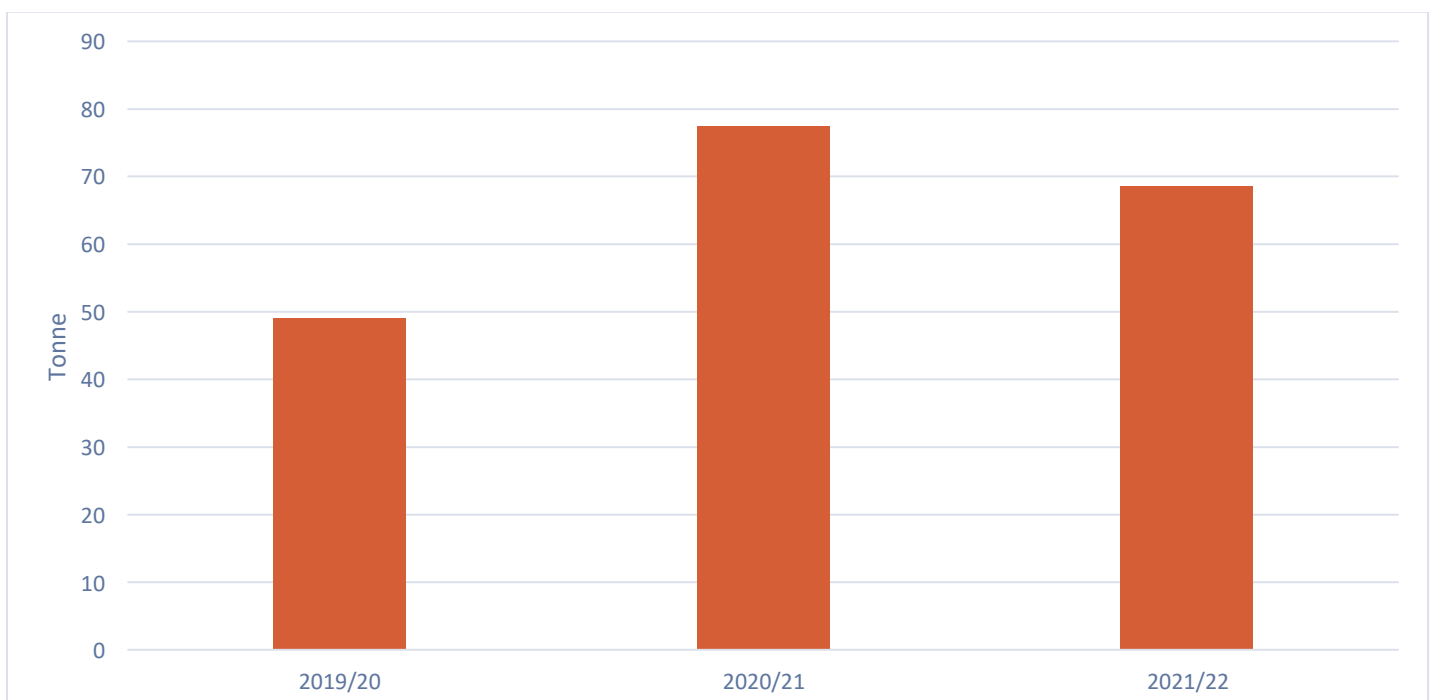


Figure 5, Litter collection (tonne)

Council aims to remove 180 tonnes of silt per year in our smaller wetlands to prevent local rivers and creeks becoming so muddy that wildlife like fish and platypus cannot survive. Council is also undertaking bigger desilting projects from larger wetlands that are due for renewal. In 2021/22 1,100 tonnes of silt was removed from Streeton Views pond in Yallambie which is nearly 30 years old. As shown in figure 6, this has seen the amount of silt collection rise dramatically in 2021/22.

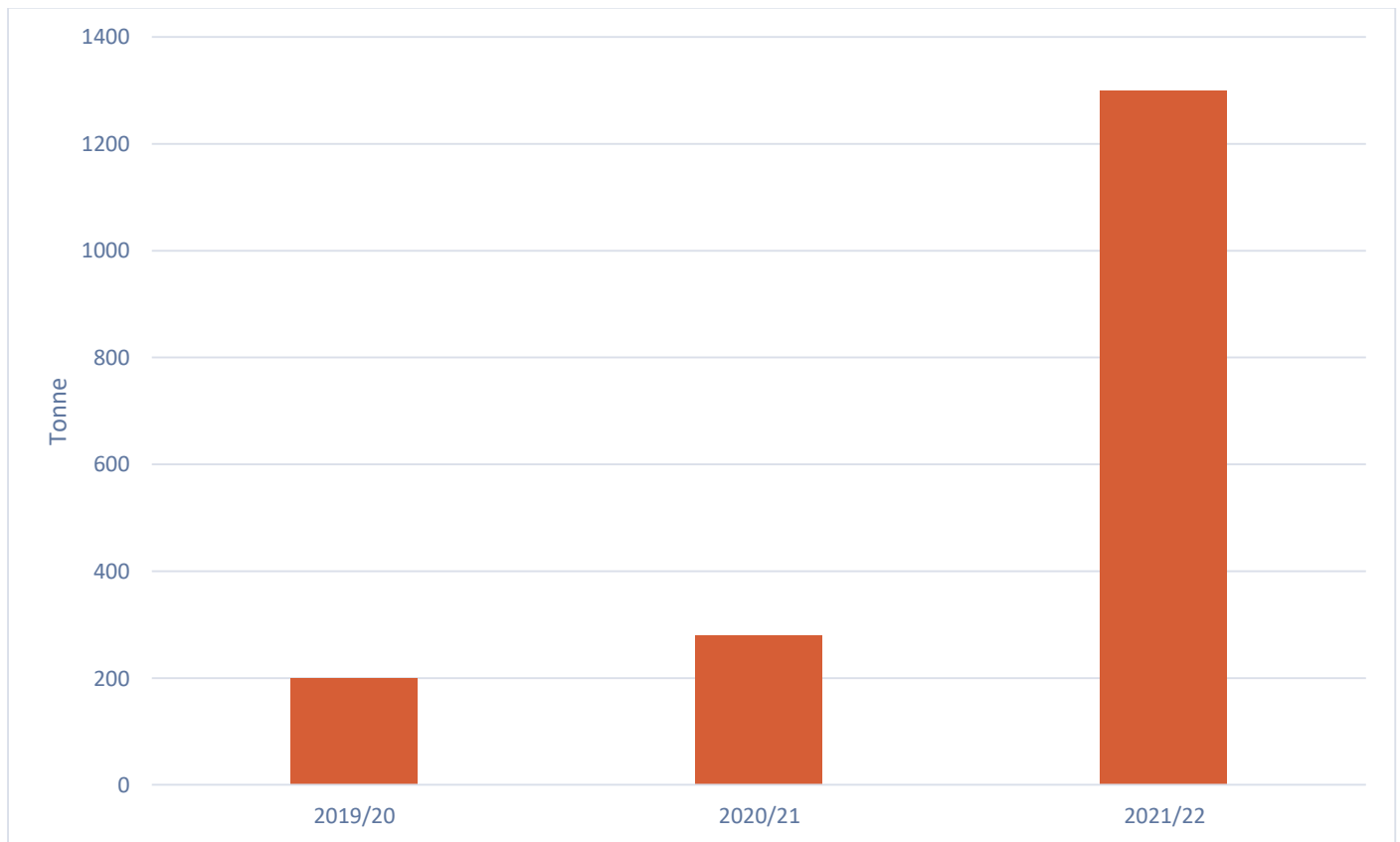


Figure 6, Silt collection (tonne)



Trial watering to Alan Noy wetland



Tucked within Banyule Flats there's a small ephemeral wetland – a wetland that wets and dries quickly - that we know informally as Alan Noy Wetland.

In 2021/22 the wetland was observed to be staying dry for too long, resulting in weed invasion and plant growth that is not characteristic of this type of ecosystem.

Council initiated a trial pumping of around 300,000 litres of water from the nearby Banyule Swamp to determine the capacity of the wetland to hold water. As the soils saturated, the wetland came back to life with the weeds drowning out and frogs and foraging birds returning.

The recent Yarra River flooding has again inundated this area, further adding to its habitat value.

Streeton Views pond



The Streeton Views Estate, in Yallambie, has a twin pond system designed to provide flood protection and capture sediment from stormwater before it reaches the Plenty River where it could impact wildlife.

The top pond was desilted as part of Council's strategic wetland asset management program which maintains over 30 wetlands across Banyule. Over 1,100 tonnes of sediment was removed to restore capacity in the system. The program aims to desilt one major wetland site per year.

Corporate Emissions



In 2019, Banyule declared a Climate Emergency and endorsed the Corporate Emissions Reduction Plan with a goal to be a carbon neutral organisation by 2028.

In 2021/22 improvements in water and space heating and cooling, lighting and insulation upgrades in our buildings reduced an approximate 180 tCO2-e. Lighting works, with the upgrade of fluorescent tubes to LEDs, presented a significant financial saving along with emissions reductions for Council and community occupants. A pool blanket was installed at Watermarc’s warm water pool in June 2022, which will see reductions in gas usage and the solar roll out program is ongoing with 295KW installed on Council buildings in 2021/22.

As seen in figure 7 Council’s scope 1 & 2 emissions will continue to decline as we pursue energy efficiency, phase out gas infrastructure and transition our light fleet while solutions for heavy fleet are trialled and rolled out. Council is on track to deliver on the goal of zero net emissions by 2028.

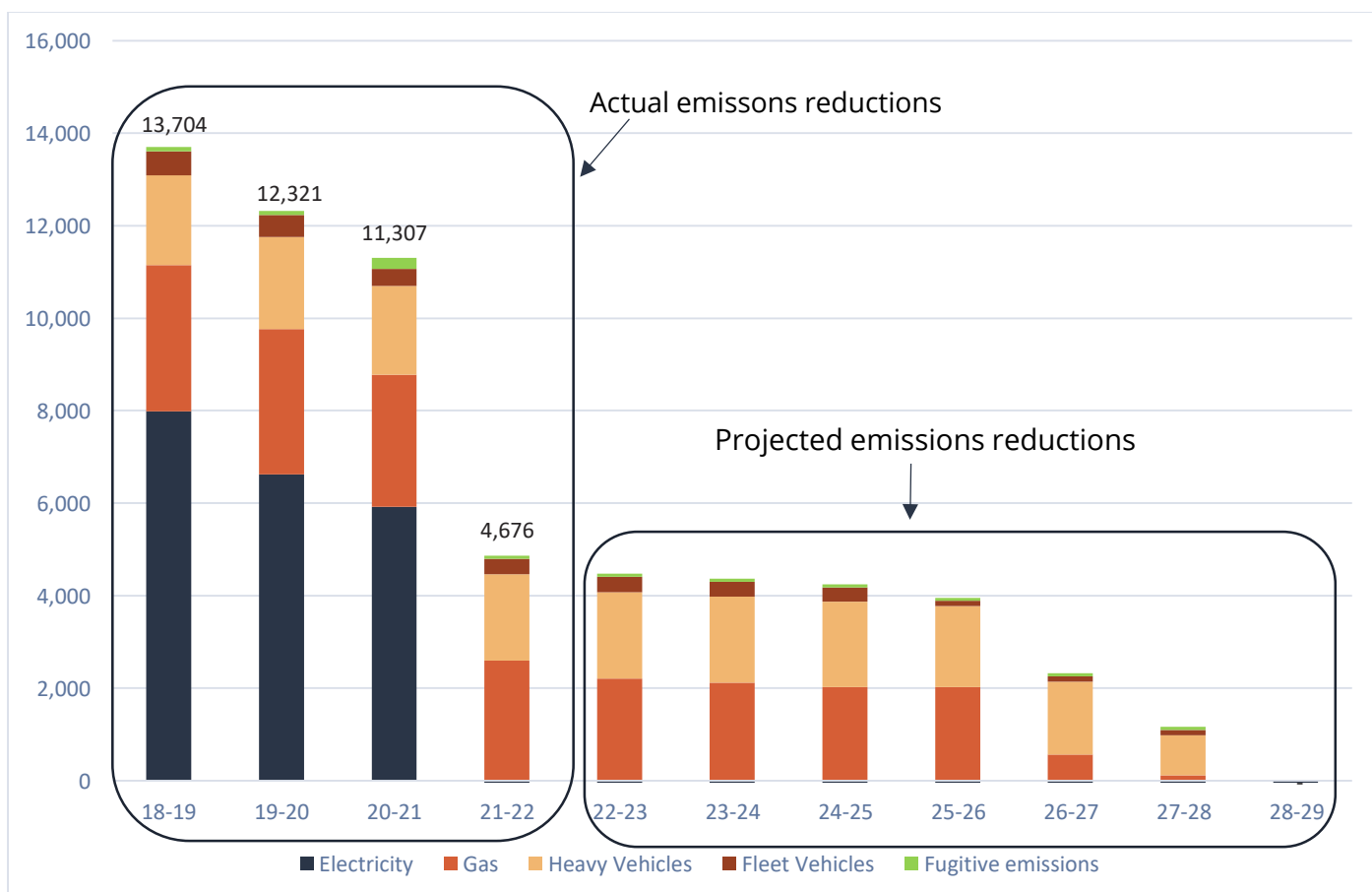


Figure 7, Banyule’s organisational emissions Tonnes CO2 equivalent (Tc02-e)

Some of the challenges to reaching our net zero target will be:

- **Heavy fleet:** Zero emissions solutions are still being developed for heavy fleet vehicles; Council is committed to trialling new technologies, but large scale roll out is still a few years away.
- **Electric pools:** Although heat pump technology exists for large scale water and space heating, this solution can still be very expensive if retro fitting and upgrading existing electrical infrastructure. Council will focus on maximising energy efficiency for our existing pool buildings to enable their electrification.
- **Fugitive emissions:** All heating/cooling and refrigeration leaks emissions to operate, Council is ensuring that all new applicable appliances are using low emissions refrigerants, but further technological advances are needed to trap all these fugitive emissions.

Banyule City Council is committed to achieving net zero emissions without the purchase of offsets for scope 1 and 2 emissions by 2028.

Scope 1 and 2 emissions are those that arise from Council's electricity use and from those fossil fuels that Council are burning directly, such as gas for heating and petrol for powering cars.

Scope 3 emissions are those that are generated from the wider economy, such as the emissions created to produce the materials we buy.

As shown in figure 8, in 2021/22 we reduced emissions arising from electricity to zero through the Victorian Energy Collaboration (VECO) Power Purchasing Agreement (PPA). This PPA means that 100% of Council's electricity is now coming from renewable sources including from two wind farms in Western Victoria.

Remaining emissions are coming from gas, heavy vehicles, light fleet vehicles and fugitive emissions. Council is continuing to remove gas infrastructure from all buildings and transitioning the vehicle and equipment fleet to zero emissions alternatives. Council is on track to meet the goal of zero scope 1 and 2 emissions by 2028 without the purchase of offsets.

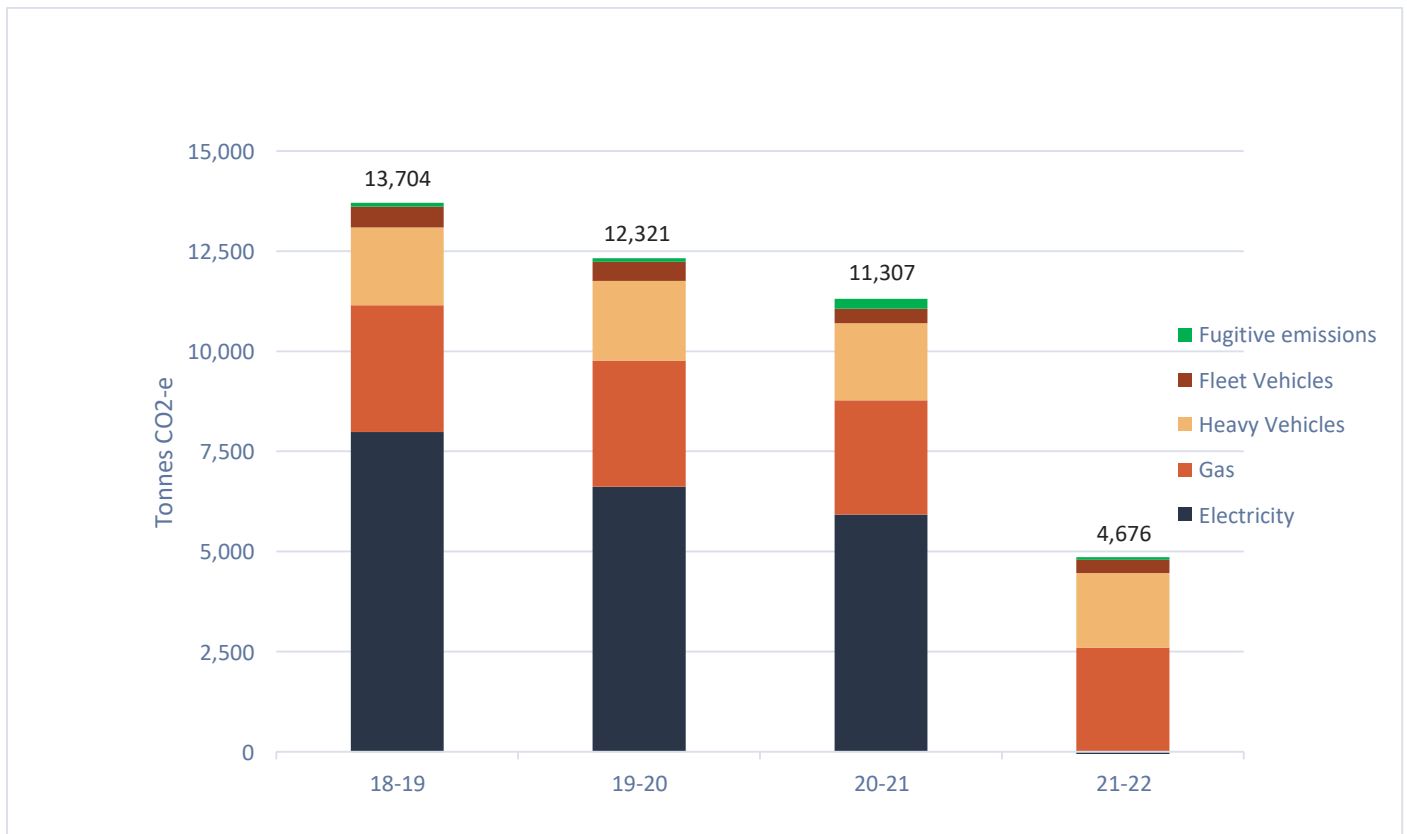


Figure 8, Council's emissions – Scope one and two

Figure 9 shows emissions totals with Council's scope 3 emissions, which includes things like printing, paper, catering, and asphalt. Council's procurement contracts already consider sustainability and emissions reduction, and work is continuing to ensure all projects contracted by Council are meeting best practice climate action and sustainability outcomes.

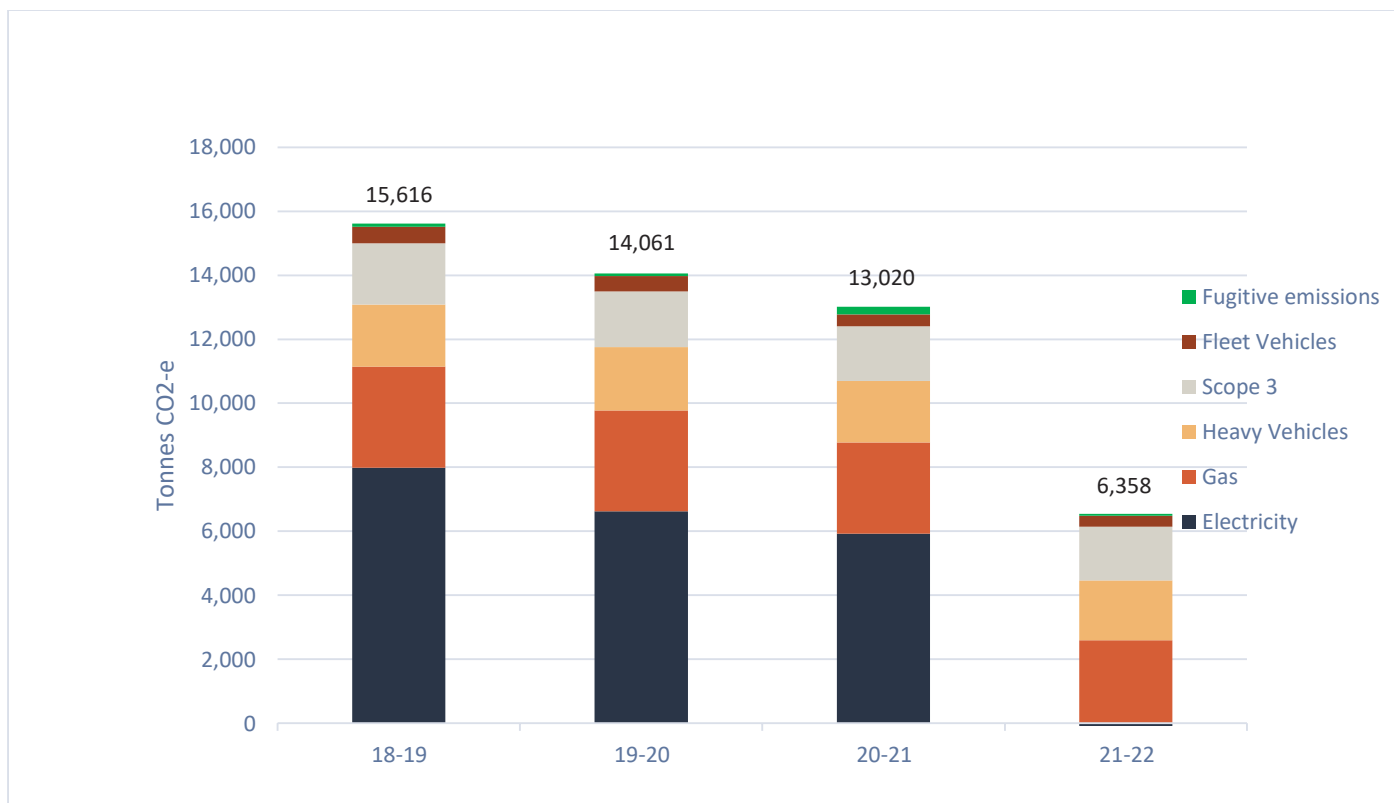


Figure 9, Council's emissions – Scope one, two and three

Victorian Energy Collaboration



In 2021/22 Banyule was one of 46 Council's to sign up to VECO, the Victorian Energy Collaboration, which is the largest ever emissions reduction project led by local governments in Australia.

VECO will provide 45% of all Victorian Council's electricity requirements with 100% renewables, reducing greenhouse emissions in the state by 260,000 tonnes of CO₂-e every year. The 240GWh of clean power is the equivalent of powering 48,000 homes with renewables or removing 90,000 cars from the roads.

The ground-breaking project will reduce Council's current electricity bills by using clean renewable

energy generated right here in Victoria.

Banyule is now using 100% renewable energy for its operations, meaning Council doesn't produce any emissions for its electricity use.

This has seen our scope 1 and 2 emissions drop by 60% in 2021/22.

Energy Efficiency at Watermarc

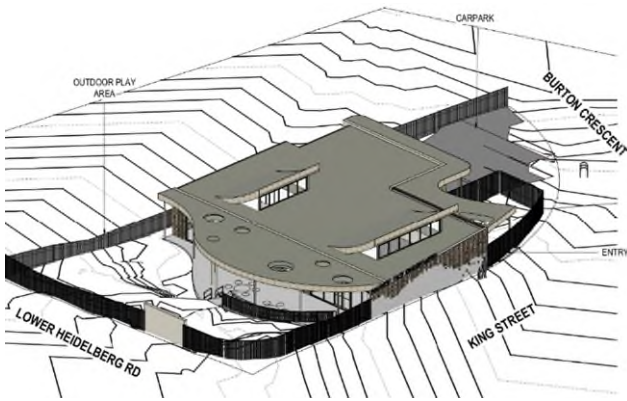


The cogeneration plant at Watermarc was originally commissioned in 2014 to reduce greenhouse gas emissions and electricity costs. The plant used, what was at the time, relatively inexpensive gas to generate electricity for the building and to supply heat for the swimming pools.

Since July 2021 Banyule has been part of the Victorian Energy Collaboration (VECO), which sources renewable electricity for all of Banyule's facilities. This allows for greater emissions reduction to be achieved by electrifying all current gas-fired equipment.

In March 2022 the cogeneration plant was turned off and it will be subsequently decommissioned. Turning off the cogeneration plant led to a reduction of Banyule's ongoing emissions by 620 tonnes CO₂^e per annum, or approximately 10% of Council's corporate emissions at 2021/2022 levels.

Sustainable Building Guidelines for East Ivanhoe Pre-School Redevelopment



Released in September 2021, the Sustainable Building Guidelines (SBG) aim to raise the bar on building sustainability and provide a cohesive approach to upgrades or developments to ensure alignment to Banyule's goal for a carbon neutral organisation by 2028.

The SBG were used on a limited number of projects during the 2021/22 financial year, mostly to trial and familiarise the project team with the new tool. The intent is to apply the guidelines to new projects from 2022/23 onward, starting from the crucial concept design phase that directs

the rest of the project development.

A project initiated prior to the implementation of the SBG was East Ivanhoe Pre-school redevelopment. While it had several common sustainable aspects integrated into its design, it did not meet our SBG requirements. The project team took the challenge to incorporate all applicable guidelines at an advanced stage of design and was successful in implementing them.

Some key aspects of the project were:

- **Landscape as part of the surrounding ecology**, with the preservation of existing trees, planting of native and indigenous plants, outdoor nature play, and minimal hard surface to reduce heat island effect.
- **Active and inclusive transport**, with bicycle parking spaces, support of public transport through signage, and the addition of an electric vehicle charging station.
- **Comfort and wellbeing**, with operable windows, noise level controls, daylight provision meeting Greenstar requirements, the use of blinds for glare control, and the use of quality LED lighting.
- **Energy and carbon reduction**, using environmentally friendly refrigerants, high star rated equipment & appliances, increased building fabric insulation, heightened air tightness, fully electric appliances, and a solar system.
- **Material recycling**, with high percentage of concrete substitution, responsible sourcing of steel and timber.
- **Responsible water use**, with water tanks, maximising water capture, and efficient water fixtures. The design of East Ivanhoe Pre-School incorporates the essence of sustainable buildings, with consideration of key design aspects that ensure the preservation of our environment for future generations.

Community Emissions



In 2020, Banyule City Council endorsed its Community Climate Action Plan with a goal to be a carbon neutral municipality by 2040. To achieve this scale of change we know we need to work together with our community. Acknowledging this, Council will need to play the role of collaborator, enabler, educator, broker, and advocate.

As figure 10 shows, residential energy use (gas & electricity) makes up 33% of total emissions, with commercial energy making up 28%.

Fortunately, the technology to transition households to all electric and zero emissions already exists and will make homes more comfortable and healthier while also lowering energy bills.

In 2021/22, Council's Community Energy Service assisted over 500 households to make energy efficiency upgrades, install solar or access discounts on their energy bills. Council's Better Score Program saw 41 households access a free Home Energy Scorecard Assessment and a rebate to support them to undertake one of the recommended upgrades.

Council is also tackling transport emissions by strengthening work in active transport and investigating opportunities to support the uptake of electric vehicles. In 2021/22, Council finalised the Banyule Bicycle Strategy and commenced implementation of a five-year action plan. Initiatives include the rollout of an extensive bicycle skills program, infrastructure to support active transport and a sustainable transport grants program, supporting Schools and Community groups. As a first step Council installed three additional bicycle repair stations at Bellfield, Ivanhoe, and Macleod as well as public e-vehicle charging stations at the Ivanhoe Library & Cultural Hub and at Watermarc in Greensborough.

Council is committed to supporting the community in lowering emissions and creating healthy and resilient suburbs. Banyule is currently on track to achieve the target of a net zero emissions community by 2040.

Emissions Source	Sector	Percentage
Electricity	Residential	19%
	Commercial	24%
	Industrial	14%
Gas	Residential	12%
	Commercial	4%
	Industrial	2%
Transport	Automotive	14%
	Motorcycle	>1%
	Bus	>1%
	Rail	>1%
Waste	Landfill	1%
	Water	1%
IPPU*		8%

*Industrial Processes and Product Use (IPPU) – This category covers greenhouse gas (GHG) emissions occurring from industrial processes, the use of GHG in products and from non-energy uses of fossil fuel carbon. In Banyule, the majority of IPPU emissions are attributed to metal manufacturing (67%) domestic air conditioning (12%) and industrial refrigeration (8%).

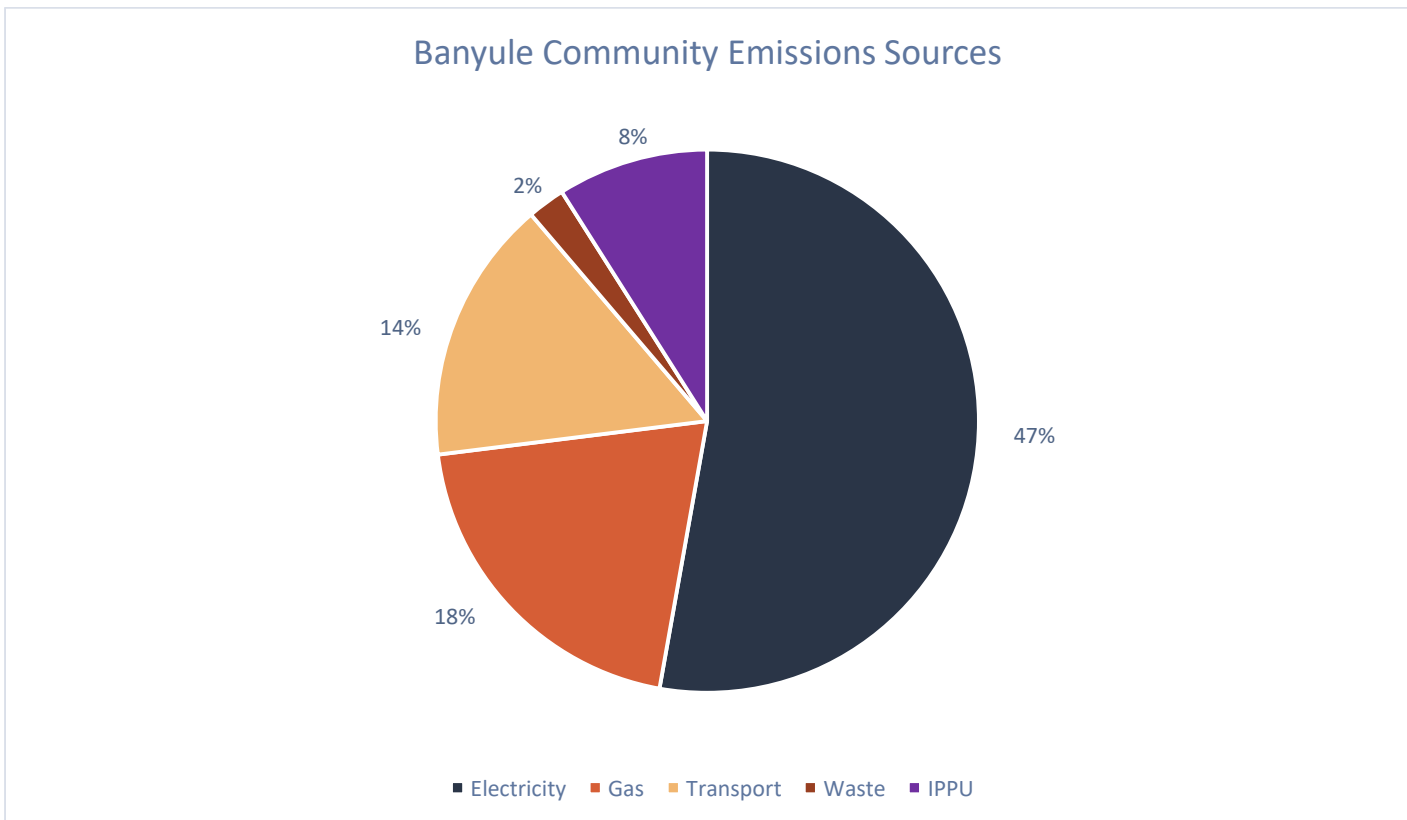


Figure 10, Banyule community emissions sources

Total Banyule community emissions for 2020/21*:

1,048,000 tCO₂-e

*Total community emissions are calculated one year in the rear as emissions and utility data takes time to gather for the range of sectors which make up the municipality, this means in this State of the Environment Report, the total community emissions number will be from 2020/21, rather than 2021/22.

Some of the challenges of achieving our community emissions goal include:

- **The speed of the transition of the grid**, to ensure renewable energy capacity can be accommodated.
- **Emerging technology trials to move away from gas, petrol and diesel** to power heavy fleet and industrial processes.
- **Charging infrastructure and battery storage roll out**, to accommodate a transition to electric vehicles (EVs) and the use of locally generated renewable energy.
- **Biodiversity loss and adaptation**, ensuring we are protecting and enhancing our natural environment, so the community remains safe, healthy, and resilient to extreme weather and a changing climate.
- **Community engagement**, to ensure the transition is equitable and the community benefits from changes.

Residential Emissions in Banyule

Banyule Council is working towards ensuring all housing stock in the municipality is electrified, energy efficient and powered with renewables. Making homes comfortable & healthy while also lowering energy bills.

Council breaks this down in to two projects.

1. Ensuring new builds and renovations are considering the best practice sustainability outcomes,
2. Supporting retrofits and upgrades of current housing stock.

The Built Environment Sustainability Scorecard



The Built Environment Sustainability Scorecard (BESS) is an assessment tool created by local governments in Victoria. It assists builders and developers to show how a proposed development demonstrates sustainable design at the planning permit stage.

BESS looks at a range of factors that affect the natural environment and the well-being of building occupants. The tool includes building management, water, energy, indoor environment, transport, waste, urban ecology, and innovation as considerations.

In 2021/22, BESS was completed for all applicable multi-dwelling and commercial developments, as per the requirements of Banyule's ESD Policy (Clause 22.05 of the Planning Scheme), to demonstrate that best practice sustainability initiatives were incorporated into permit applications.

Banyule is leading the way, sitting in the top five Victorian Councils for most BESS scorecards administered. The top three initiatives developers commit to in Banyule submissions have been bicycle parking, reduction in potable water use and thermal performance modelling.

Banyule is working closely with the Council Alliance for a Sustainable Built Environment (CASBE) to raise sustainability standards in the planning scheme which will ensure we are delivering good quality, comfortable and healthy homes for our residents, present and future.

Solar Savers



Banyule's Solar Savers program allows residents to access vetted solar suppliers and have confidence around the products installed.

It's been one year since Banyule resident, Tom, installed solar panels and a battery through the Solar Savers program. Having just moved into the Banyule area, the family set aside money for installing solar as part of the renovations they had planned.

For Tom, the solar system was vital for more than reducing energy bills. He spoke about solar panels and the battery as central to the family's future. Tom and his family want to buy an electric vehicle, prepare and contribute to the energy sector's necessary transition to renewable sources and to increase the value of the property for future sale.

As an important investment, Tom said that going through the Council Solar Savers program 'gave me peace of mind to know that the installation would be done safely and without damage'. After a consultative installation, where the panel location was thoughtfully negotiated due to the property's older roof, Tom says he loves 'the brag factor of showing off to my neighbours!'

Better Score



Banyule's Better Score program subsidises households to receive a Home Energy Scorecard Assessment, which allocates a score to the homes energy efficiency performance and recommends upgrades which would improve this score. The program then offers subsidies for households that choose to undertake one or more of these recommended upgrades.

Sidath from Bellfield has always been interested in finding ways to improve his old home, so it uses less energy and runs more sustainably. Sidath went through the Better Score program in 2021/22 and replaced an old air conditioner for a more efficient split system. Sidath said that they were 'able to keep the entire house cool during very hot days without seeing any peak in the electricity use during that period, because the system is so efficient'

The Better Score program has seen household energy scores raise by an average of 1.34 stars out of 10 making residents more comfortable and lowering energy bills.



Waste



2021/22 was a busy year for waste collection with 4.2 million kerbside bins collected.

In addition, 500 households took part in a FOGO trial in 2021/22 and their feedback helped to improve the bin rollout for the FOGO waste service that commenced 4 July 2022.

The Banyule Waste Recovery Centre saw increases in the disposal of cardboard and E-waste

as households moved to having more home deliveries and went about replacing old E-waste items in setting up home offices.

Banyule's green cone biodigesters remain popular with residents who wish to compost their food waste at home at an alternative to placing food in their FOGO bin, keeping the nutrients in their garden.



As shown in Figure 11, the ratios collected has remained steady across the last three FY, however this is expected to change significantly in the 2022/23 FY with the introduction of the Food Organics and Garden Organics (FOGO) service.

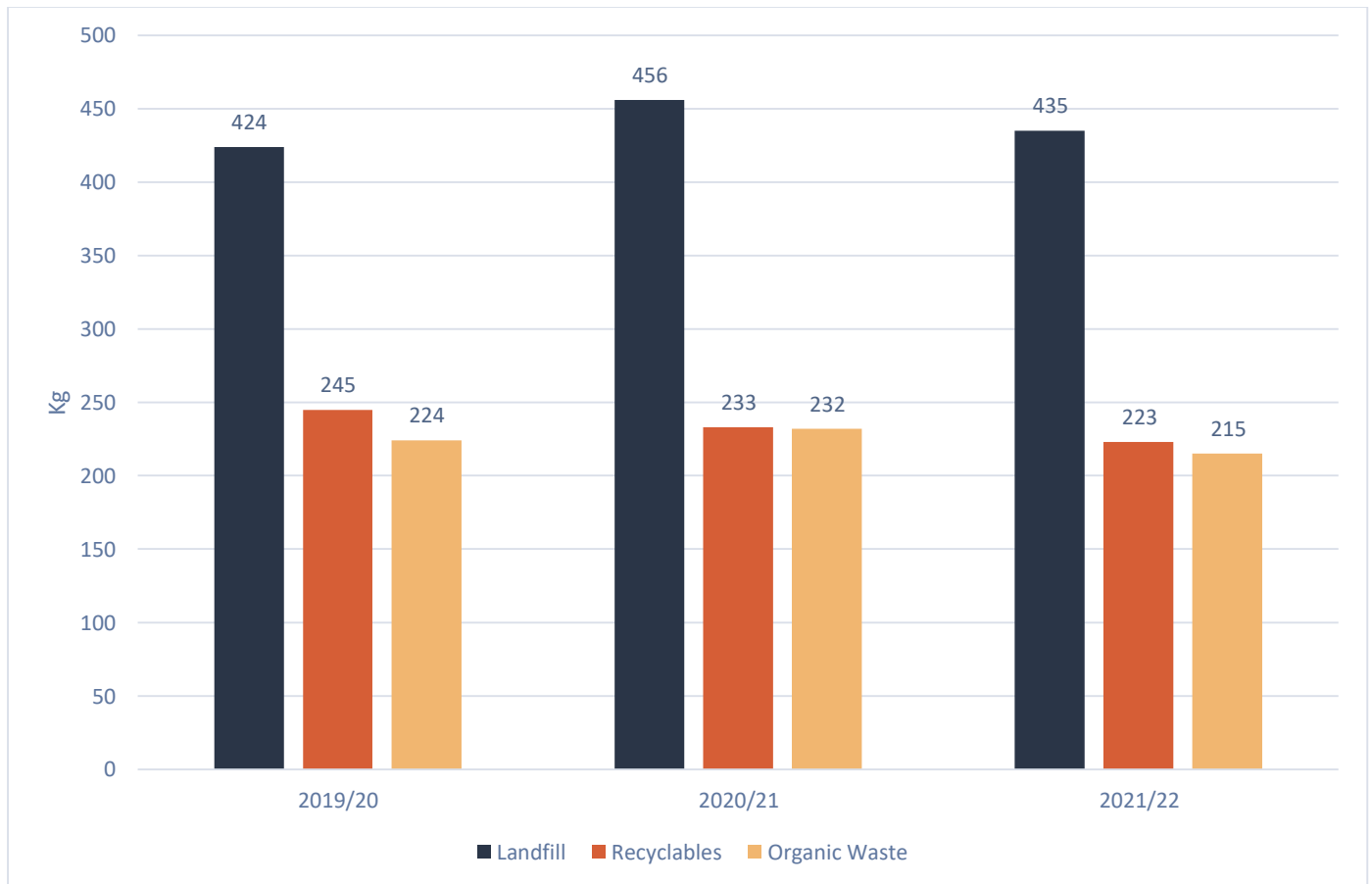


Figure 11, amount collected per household

Figure 12 shows the percentage of waste collected that currently is diverted from landfill.

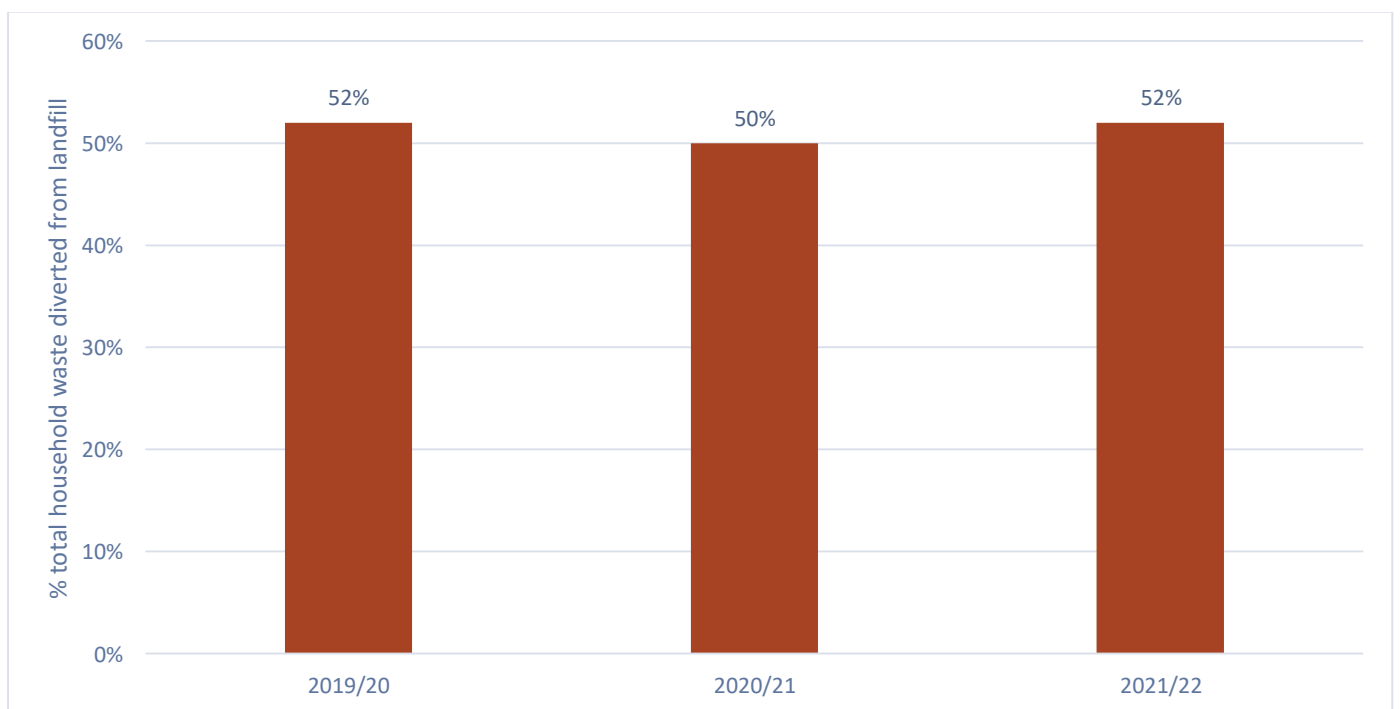


Figure 12, amount waste diverted from landfill

The Food Organics Garden Organics (FOGO) service



Before rolling out the FOGO service to the wider Community, between October and November 2021 Banyule Council ran an 8-week trial of the service with 500 households across the municipality.

The objective of the trial was to test if communications were effective in preparing the Banyule community for the new service, and to see where improvements could be made. In addition, it was an opportunity to understand how trial participants adapted to the change, allowing Council to understand where additional support may be required before rolling the service out to the wider municipality.

The success of the trial helped to inform the best service rollout for the community, with over 50,000 rubbish bins delivered to households from February to June 2022. Feedback collected from surveys and focus groups conducted with trial participants assisted in the development of the information pack that was delivered to residents along with their household kitchen caddy, by ensuring that the messaging was clear and informative. The trial was pivotal in making sure that Banyule was ready for the service to commence from 4th July 2022.

We have already begun to see the benefits of FOGO, with initial figures showing that in August and September 2022, approximately 987 tonnes of organic waste got diverted from landfill through FOGO, compared to previous years. That's 99 rubbish trucks of organic waste composted instead of being sent to landfill in two months. At this rate, that would be 600 rubbish trucks diverted from landfill each year!

Reusable Nappy workshops



Approximately 3.75 million disposable nappies are used each day in Australia and New Zealand according to Sustainability Victoria, with conventional nappies estimated to take 150 years to break down.

In Banyule, nappies make up 15% of the waste stream going to landfill and that's why Council has targeted new parents in offering support for them to consider swapping disposable nappies out for modern reusable cloth alternatives.



In 2021/22 Council ran 20 online workshops for around 200 people, taking them through the tips and tricks for using reusable. Each household that attended got to take home two premium nappies, valued at \$70, that were theirs to keep, try and use again and again.

These workshops aim to support our community to reduce the waste going into the landfill bin and are supporting Council's goals outlined in the Towards Zero Waste plan.



Community Engagement



In 2021/22, COVID 19 restrictions meant there were limited opportunities for in person engagements and events. Even with these barriers, the community found ways to build connection and take action to ensure our environment is healthy and actively cared for.

Council's Upskilling workshops continued online with sessions on advocacy, collaboration, and storytelling just some of the topics covered. These workshops aim to build capacity in our environmental community, so they are supported to lead action on environmental issues.

The Banyule Environment Grants ran a Community-led Energy Innovation round, the first of its kind in local government in Victoria, which funded the exploration of opportunities for community-led power in Banyule. These grants recognised that the biggest barrier for community-led power is the initial funding needed to explore feasibility. Results of this grant are informing Council's next steps in community energy production and storage.

The Environment Grants awarded funding to 11 projects which included upgrades to food gardens, education programs for children, art projects to connect community with nature and planting projects to boost biodiversity.

Banyule's Environment and Climate Action Advisory Committee (BECAAC) worked closely with Council to inform and advice on strategic environmental programs and policies. This Committee is made up of volunteers from the community who have a background in the environment sector or represent a stakeholder. The group works collaboratively with Council to ensure we are on track to meet our environmental and climate action goals.

Banyule continues to engage with the community to ensure they feel supported and empowered to act supporting Council's environmental and climate action goals.

Nature Mystery



In FY 2021/22 there was something fishy going down in Banyule's beautiful natural spaces. Luckily, local families along with Belinda the Bush detective followed the map, discovered hidden clues, and took advice from the local creatures to solve these puzzling mysteries.

Suitable for the whole family, these nature mystery tours were aimed at junior sleuths aged 4-10, all that was needed was a portable device with internet access like a smart phone to participate.

These fun and interactive tours gave families yet another reason to get outside and experience the wonderful natural spaces we're lucky to have in Banyule.

Change Makers – Digital Story Telling



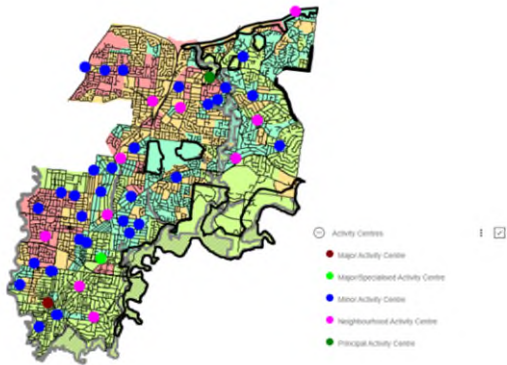
Each year Banyule Council runs the Change Makers event, aimed to celebrate and support the many environmental volunteers in our community.

In 2021/22 with the uncertainty around public gatherings, Change Makers looked a little different.

Digital Storytellers came on board to run a six-week course where community environment groups learnt to build their narrative and then plan, shoot and edit a short film with a smart phone.

In October, the film makers and supporters were able to gather at Ivanhoe Library and Cultural Hub to share an evening of food, stories, and networking. This event showcased the wonderful work our environmental volunteers are doing to support climate action, conservation, and connection in Banyule.

Climate Risk Mapping



There are two main pillars within the scope of climate action; mitigation, which relates to lowering emissions, and adaptation, which centres on building resilience.

Along with programs to reduce emissions across the municipality, Council is also looking at ways to ensure our community are resilient to the changes in the climate we are already locked into.

One of the ways Council has started to embed adaptation and risk thinking across the organisation is

by developing a climate risk map on our Geographic Information System (GIS) mapping software. This map helps officers visualise climate risk as it relates to their project and prioritise action to the most vulnerable areas. The map uses data from the national Census, the State Government, Melbourne Water and Council to show community assets, high value biodiversity sites and demographic vulnerability against climate risks like heatwave, bushfire and flood.

Carved Wildlife Hollows Project



The Environment Grants each year support local group partnerships to deliver great results for Banyule's environment and community.

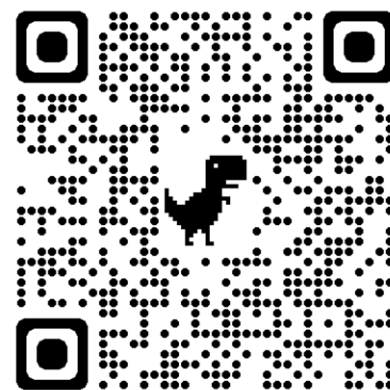
In 2021, the Friends of the Wildlife Reserves sought an Environment Grant for innovative project which established extra habitat along

the Salt Creek Corridor. They partnered with La Trobe University, Friends of Salt Creek and Associated Parklands and Banyule Council to create permanent carved hollows for wildlife, to address the loss of habitat for hollow dependent fauna.

The carved hollows were designed to replicate natural hollows in trees, creating long-term habitat for local fauna. The inhabitants will include birds and mammals such as the Pardalotes, Musk Lorikeets, Little Lorikeets and Krefft's Gliders. These hollows don't adversely affect the tree, but rather mimic the development of natural hollows which can otherwise take 100's of years to form.

The long-term habitat for hollow dependent fauna provides a good solution for loss of hollow bearing trees across urbanised Melbourne.

To find out more about this project, watch the video linked via the QR code.



Indicators at a glance

Indicator	2019/20	2020/21	2021/22	Commentary
Total annual corporate GHG emissions (Scope 3)	1,741	1,714	1,682	Scope 3 emissions are steadily reducing as climate action is embedded in procurement and Council contracts.
Total annual corporate GHG emissions (scope 1 & 2)	12,321	11,307	4,676	Significant reduction due to renewable energy purchase through VECO PPA.
Total renewable energy capacity (MW)	1	1.3	1.5	Solar installations on Council owned properties almost complete in 2021/22.
Friends of volunteer hours in bushland reserves	1,334	746	416	Community volunteer hours were affected by COVID 19 restrictions in 2021/22
Indigenous Species planted in bushland reserves	22,362	11,500	13,994	Planting numbers still down on 2019/20 numbers due to COVID 19 restricting volunteer time in reserves. These numbers will fluctuate as Park Rangers ensure proper management of previously planted species.
Buy 1 Get 1 free indigenous plant voucher's redeemed	243	117	990	Large increase of uptake through awareness campaign coinciding with the launch of the CAP and post COVID restrictions.
Banyule Council Water use (ML)	196	197	227	Southeast Australian heatwave and one storm water system offline led to slightly increased water use.
Litter collection (Tonne)	49	77.5	68.5	Litter collection continues to be a priority to ensure healthy waterways
Silt collection (Tonne)	200	280	1300	1,100 removed from Streeton Views wetland in first large project in Council's 10-year strategic Wetland Management Program.
Landfill waste per household (kg)	424	456	435	Remained steady, expected reduction in next year's SOE due to introduction of FOGO.
Recyclables per household (kg)	245	233	223	Remained steady.
Organic waste per household (kg)	224	232	215	Remained steady, expected rise in next year's SOE due to introduction of FOGO.
Diverted from landfill - total (%)	52.5	50.5	52.03	Remained steady, expected reduction in next year's SOE due to introduction of FOGO.
Students at the rethink centre	1,892	902	0	Temporarily closed due to COVID 19 restrictions and pending building works.
Grant applications	36	37	18	Applications down with pilot of community-led energy grants having higher thresholds.
Home Energy Audits / Better Score Program participants	43	30	41	Program was fully allocated within first day of being open. Allocation was expanded for 2022/23.
Council tree plantings in streets and parks	2,963	3,150	4,416	Uptick in planting taking advantage of La Nina conditions.
Net gain of trees per year (public land)	1,460	1,350	2,383	Uptick in planting taking advantage of La Nina conditions.

