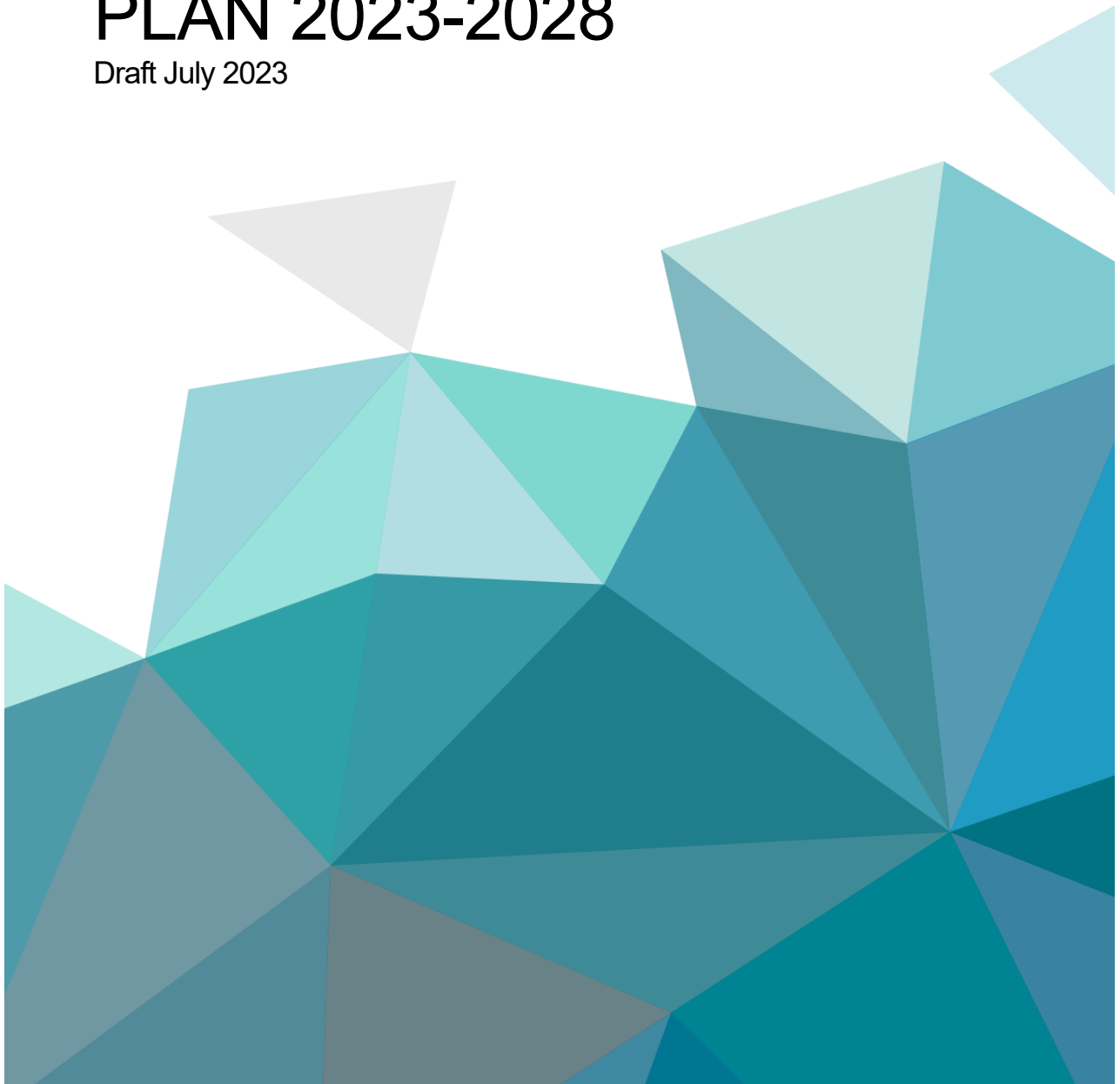




CLIMATE EMERGENCY PLAN 2023-2028

Draft July 2023





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City of Port Phillip
CLIMATE EMERGENCY
PLAN 2023-2028

proudly port phillip

Message from the Mayor

TBC

Acknowledgement

Council respectfully acknowledges the Traditional Owners of this land, the people of the Kulin Nations. We pay our respect to their Elders, past and present. We acknowledge and uphold their continuing relationship to this land.

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Executive summary

City of Port Phillip Council declared a climate emergency in 2019, recognising that climate change is a global challenge, and everyone must play their part. This declaration responds to the critical climate situation and demonstrates our commitment to take action.

The climate emergency impacts everyone in our community. We have joined local, state and national governments worldwide to play our part in reducing global temperature rise and responding to the climate emergency.

The year we declared the climate emergency, 2019, was Australia's hottest and driest on record. Since then, we have had three years of storms and extreme rainfall.

Storm damage in Port Phillip in October 2021 took several weeks to repair and we had to remove 30 damaged trees. In March 2022, significant erosion occurred at Elwood foreshore. Then in October 2022, we again faced flash flooding in Elwood and South Melbourne, with cars stranded as people drove into flood waters.

Our community is also experiencing the heat-related impacts of the climate emergency, such as hotter urban spaces, disruption to transport and services, power outages and increased power bills.

The science is clear: climate change is already impacting plants, animals and people across the globe, and we have a narrow window to prevent further disastrous impacts on our planet.

But we know what to do. The UN's Intergovernmental Panel for Climate Change (IPCC) says that a liveable future for all is possible if we take urgent climate action (March 2023). The IPCC reports that there are feasible and effective options to reduce greenhouse gas emissions and adapt to human-caused climate change. The solutions and technology exist for the transition to a low-carbon future.

Purpose

This document is our plan for tackling the climate emergency. It outlines how the City of Port Phillip will respond and how we will collaborate with you to cut our community's emissions and prepare for the future. The Climate Emergency Plan (Plan) includes what you can do as the Port Phillip community and what we call on the Victorian and Australian Governments to do. Our Plan includes measurable targets and practical actions to respond to the climate emergency and adapt and thrive.

We recognise that a long-term plan is required to bring about change, and so have planned the delivery of the actions across the next five years.

We are focused on five priorities:

1. Enhancing community resilience
2. Minimising greenhouse gas emissions
3. Enabling more sustainable transport options
4. Creating resilient and liveable public spaces
5. Planning for buildings and places

The Plan builds on our existing commitments under the following documents: Climate action update – taking action on the climate emergency February 2022; Move, Connect Live (Integrated Transport) Strategy 2018-28; Don't Waste It (Waste) Strategy 2018-28; South Melbourne Market Sustainability Strategy and Act and Adapt (Environmental Sustainability) Strategy 2018-28.

Our role

As a local government, we are uniquely positioned to respond to this climate emergency. Our Plan includes cutting emissions, adapting to a changing climate and increasing our community's resilience. Our transition to a low-carbon future includes ensuring our transport is sustainable and that our buildings and public spaces are climate-resilient.

We are directly influencing as much as we can. Council operations produce 0.6 per cent of the overall carbon emissions in our City. We have achieved net zero greenhouse gas emissions from our operations and are helping to reduce our community's emissions. Each individual, household, business and visitor has a part to play in our joint response. We want to involve and engage everyone in Port Phillip and support our vulnerable community members to prepare for the changed climate.

Beyond City of Port Phillip, we also need state, national and international action to drastically reduce warming emissions in Australia and worldwide, so we've included advocacy positions – what we want the Victorian and Australian Governments to do.

What we've done so far

While the climate emergency requires accelerated investment in our assets and changes to how we deliver our services, our declaration of a climate emergency comes after many years of action to reduce our impact. We've also worked with our community and partners to prepare for and adapt to climate change.

We've been improving our energy efficiency and reducing greenhouse gas emissions – achieving carbon neutrality for Council operations in 2021. We source 100 per cent of our electricity from renewable energy. We are upgrading our stormwater drains and using water sensitive urban design to reduce flooding. Our new food and garden organics recycling service is part of our work to drastically cut waste to landfill. Our fleet is transitioning to zero emissions vehicles, and we're switching Council buildings from gas to electricity. We've replaced streetlights with energy efficient LEDs (Light Emitting Diodes) and installed 359 kilowatts of solar panels on Council buildings.

Using new methods to design our roads and buildings, we're making them more efficient and resilient to extreme weather. By promoting shared e-bike and e-scooter trials and extending the bike network throughout our City, we are encouraging active transport. Our urban forest is flourishing, and we've planted 35,000 indigenous plants along our foreshore.

We are five years into our Act and Adapt: Sustainable Environment Strategy, first published in 2018 and updated in 2023. The Strategy establishes a pathway to transition Port Phillip into a greener, cooler, more liveable City where we all reduce our environmental impact and are more resilient to climate change. Initial analysis of progress in delivering the Strategy shows that 42% of sub-actions are complete and 41% of actions are in progress, part way into the life of the Strategy.

Background

What is the climate emergency?

Climate change is already impacting ecosystems and human systems across the globe. We are seeing higher temperatures, increased flooding, rising sea levels, changing rainfall patterns, and more extreme storms. We'll feel even more severe impacts if we fail to mitigate our emissions and adapt as a matter of urgency.

The UN's Intergovernmental Panel for Climate Change (IPCC) released the Synthesis report on the state of the global climate in March 2023. The IPCC states that it is unequivocal that human activities have warmed the atmosphere, ocean and land. Global temperatures are now 1.1°C above pre-industrial levels.

City of Port Phillip Council's Climate Emergency resolution, adopted on 18 September 2019, states that Council:

1. Declares that climate change, including sea level rise and mass species extinction, poses serious risks to the people of Port Phillip and Australia and should be treated as an emergency.
2. Updates all relevant Council strategies and policies to incorporate and embed this declaration.
3. Requests that the CEO considers the impact of the climate emergency as part of organisational decision-making and planning.
4. Notes the City of Port Phillip's commitment to the following strategies: Move, Connect Live (Integrated Transport) Strategy 2018-28; Don't Waste It (Waste) Strategy 2018-28; and Act and Adapt (Environmental Sustainability) Strategy 2018- 28.
5. Notes that the City of Port Phillip, through its Act and Adapt Strategy, has a focus on reducing emissions, reducing contamination of land and water, restoring biodiversity, and adaptation to climate change, including reduction of the heat island effect and other health issues related to a warming climate.
6. Notes the City of Port Phillip's membership of the Melbourne Renewable Energy Project and its commitment to generating renewable energy through solar on council assets.
7. Requests that regular reporting on the organisation-wide response to the climate emergency be included as a permanent item in the CEO report.
8. Advocates to the Victorian and Australian Governments and parliaments to declare a climate emergency and take action to drastically reduce warming emissions in Australia and across the world.



What impacts are we seeing in Port Phillip and globally

IMPACTS OF CLIMATE CHANGE

Port Phillip is already experiencing the impacts of climate change

<p>Since 1910 globally¹</p> <p> Temperature increase ↑ 1°C</p>	<p> Rainfall decrease</p>	<p>Since 1966 in Melbourne</p> <p> Sea level rise ↑ 10 cm</p>
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In 2019

<p> Australia's hottest year on record ↑ 1.52°C <small>Above the long-term average</small></p>	<p> Australia's driest year on record ↓ 40% <small>Less rain than the long-term average</small></p>
---	--

Looking ahead: climate change projections







By 2050¹

<p> Temperature increase ↑ Up to 2.4°C</p> <p><small>Temperature increase and double the number of hot days. This may lead to health impacts, fire risks and heat-related deaths.</small></p>	<p> Extreme weather</p> <p><small>More extreme storms and intense downpours with declining winter rainfall. This may lead to property and infrastructure damage, biodiversity loss, water shortages, disruption to services and safety issues.</small></p>	<p> Sea level rise ↑ 24 cm</p> <p><small>Increase by around 24 centimetres. This may lead to property damage, erosion, loss of open space and safety issues.</small></p>
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¹ Victoria's Climate Science Report 2019.

IMPACTS OF CLIMATE CHANGE

The impacts between 1.5°C world and 2°C world will be significantly different.

IMPACTS	1.5°C WORLD	2°C WORLD
 Extreme heat	13% of global population affected	37% of global population affected
 Drought	350million people affected by water scarcity	411million people affected by water scarcity
 Biodiversity loss	4-8% global biodiversity will be lost	8-18% global biodiversity will be lost
 Ecosystem shifting	7% of global ecosystem shifting to a new environment	13% of global ecosystem shifting to a new environment
 Rise of sea level	31-69million of people affected by flooding	31-80million of people affected by flooding
 Coral reefs	70% minimum of coral reefs are gone	99% of coral reefs are gone

Source: ipcc.ch/sr15/chapter/chapter-3/



Our priorities

1. Enhancing community resilience

Port Phillip is already experiencing the impacts of climate change, including higher temperatures and sea levels and less rainfall but more severe flooding. Since 1910, Victoria's temperatures have increased by 1.2 degrees, rainfall has decreased and sea-levels have risen. If global emissions continue to increase, by 2050 Victoria may experience average annual temperature increases of 2.4 degrees.

Temperature increases will cause heat-related health issues, death, fire risk, power outages, and increased power bills. In addition, flooding and intense downpours will result in property and infrastructure damage, service disruption, and safety issues.

Our legislated role includes reducing the risk to our community from climate change impacts. We know that heatwaves, floods and storms disproportionality impact our vulnerable community members already experiencing social, economic or health inequity.

To enhance our community's resilience, we are investing in our assets to ensure they are climate-resilient and changing how we deliver our services. Preparation is well underway for a future where extreme weather and drought are more prevalent. Our priority is to protect the essential systems and services we rely on daily.

We are improving community preparedness through practical actions, toolkits, education and resources. By supporting businesses and residents to reduce their emissions and adapt, we are preparing for a changing climate together.

Highlights

- Delivering the Environmental Leaders' Course for 208 participants, and supporting 9,945 participants in our sustainability and school travel programs in 2020/21
- Developing the Building Business Resilience Toolkit with the South East Councils Climate Change Alliance
- Collaborating with Melbourne Water on a self-help guide to retrofitting your home to prepare for flooding.



Indicators and targets

Council indicators		
Indicator	Baseline 2021/22	Target 2028
% of asset management plans that include details of identified climate risks and measurable actions to increase climate resilience of the asset class.	35%	100% of Asset Management Plans
By 2028, Council has a fit for purpose risk management, reporting and decision-making framework in place to manage climate-related risk to service delivery, assets, and finances.	No framework	100% complete
Community indicators		
Indicator	Baseline 2021/22	Advocacy position
Percentage of community members who have sufficient information to make informed decisions about how to protect themselves and respond in the event of extreme weather (heatwaves, storms, flooding)	To be established in late 2023	No advocacy position to be set as this is a lag indicator which will be measured to inform community support and programs.

Actions

What we are doing

- Installing a Flash Flood Sensor light at Foam and Wave Street in Elwood to minimise the risk of vehicles driving into flood waters
- Developing a cool spaces strategy which will identify locations to direct people during times of extreme heat
- Educating residents on flood risk, insurance implications and reducing impacts
- Improving access to healthy food through community gardens, nature strip gardening guidelines and better walking and cycling routes to shops.
- Building and maintaining a library sustainability hub which provides community with books, interactive displays, lending of sustainability and gardening tools and devices and a seed library.

Working with our community and partners

- Supporting Port Phillip EcoCentre to promote environmental sustainability and community action
- Delivering the Resilient Communities Program with the South East Councils Climate Change Alliance
- Continuing to support Back2Bikes social enterprise volunteers to repair and rehome bicycles.

- Building on current work to develop and collate data to understand climate impacts on the community.
- Supporting the community to build and implement community led plans which include actions to respond to flooding, heatwaves and other climate impacts.

Advocacy positions

We call on the Victorian and Australian Governments to:

- declare a climate emergency, recognising that climate change is a global challenge and poses a serious risk to the Australian population
- commit to urgent action to reduce the impacts of climate change and maintain a safe environment for current and future generations
- increase support to reduce utility bills and heat stress impacting vulnerable people, including investing in public housing and aged care facilities
- increase funding for health and emergency services, habitat restoration and infrastructure to respond to heatwaves, droughts, bushfires and floods. We also call on the Victorian Government to legislate climate-resilient buildings through the Victorian planning scheme.

What you can do

- Connect with your community through our Environmental Leadership course and Port Phillip EcoCentre
- Prepare for climate change impacts such as floods and heat waves with your household and neighbours by having conversations and supporting each other. You can check if you are in a flood zone [here](#). If you are preparing a flood emergency plan, share it with your family and speak with your insurer to check if you are covered
- Join local environment groups such as Beach Patrol, Love Our Street, Port Phillip Emergency Climate Action Network, Port Phillip Bicycle Users' Group and others
- Take part in our sustainability programs. See online list of programs for more information.
- Work with your friends, neighbours and community to bring about change together
- Take action as an individual. Join a community garden, compost, plant a tree or create a garden, veggie patch or balcony garden.

Case Study: ECOCENTRE

The Port Phillip EcoCentre in the St Kilda Botanic Gardens is a hub for community-led action to address climate change. City of Port Phillip is proud of our long-term funding partnership with the EcoCentre to promote environmental sustainability and community action.

The EcoCentre educates and empowers students, residents and visitors to care for land, water, wildlife and wellbeing. It works with 153 schools, early learning centres, and over 3,000 students and trains volunteers to care for our coast through the Beachkeepers program. Community volunteers also conduct citizen science, manage the community garden, run the St Kilda Repair Café and protect local wildlife through habitat programs.

The EcoCentre is being redeveloped into a new, world-class building to support the delivery of sustainability programs. We successfully advocated for a 50 per cent funding contribution from the Victorian Government to redevelop the EcoCentre. The \$6.7 million project will see scientists,

educators and volunteers together under one roof. Designed to operate with net zero energy and water usage, the EcoCentre will join an exclusive club of only 500 buildings worldwide that produce more clean energy than it consumes, offsetting all carbon used during construction. The new EcoCentre will open in late 2024.

More information

[Act and Adapt sustainable environment strategy 2018-2028](#)
[Climate Action Update February 2022](#)
[Building Business Resilience Project: Final Report](#)
[Sustainable living online series - City of Port Phillip](#)
[Prepare for flooding | Melbourne Water](#)
[Port Phillip EcoCentre](#)
[Local environmental groups](#)
[Environmental Leadership course](#)

[Enabling climate justice](#)
[South East Councils Climate Change Alliance](#)

2. Minimising greenhouse gas emissions



Reducing greenhouse gas emissions is one of the most significant challenges we face in Port Phillip, across Australia and globally. Transitioning from fossil fuels to renewable energy is critical to tackling the climate emergency.

The Intergovernmental Panel for Climate Change (IPCC) March 2023 report predicts that global temperatures are now 1.1 degrees above pre-industrial levels, and they're likely to reach 1.5 degrees in the early 2030s.

We are committed to real action and playing our part in keeping global temperature rise to under 1.5 degrees. We have achieved zero carbon emissions from our operations and are helping to reduce our community's emissions. However, everyone must play their part, and we are committed to working with partners, residents and businesses to achieve a low emissions future.

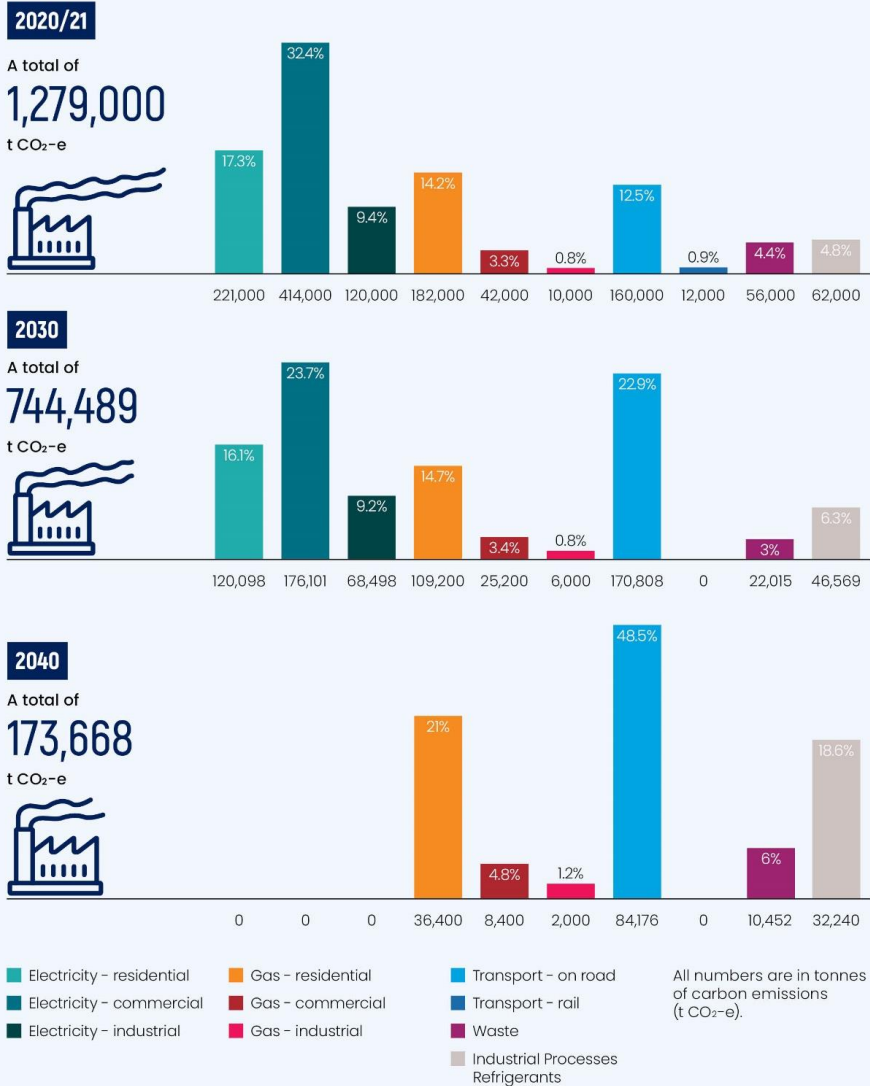
Responding to the climate emergency is possible, and we know what to do. The UN's Intergovernmental Panel for Climate Change (IPCC) says that urgent climate action can secure a liveable future for all. Multiple feasible and effective options exist to reduce greenhouse gas emissions and adapt to human-caused climate change (IPCC Synthesis Report, March 2023).

By 2040 our most significant remaining community emissions lie in reducing gas use and on-road transport, so a focus on residential gas use and sustainable transport is needed. Switching Council-owned buildings from gas to electricity and powering our operations with 100 per cent renewable energy has significantly reduced emissions. We will deliver programs focused on increasing the community's ability to reduce energy consumption and purchase renewable energy over the coming years.



COMMUNITY GREENHOUSE GAS EMISSIONS OVER TIME

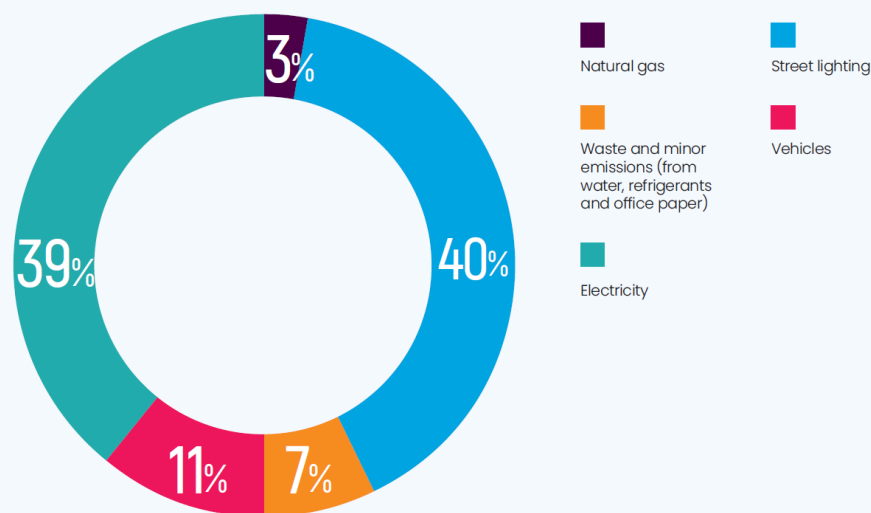
As we all make changes to respond to the climate emergency, the emissions produced from each sector of the community from residential to commercial, transport, gas and waste are expected to change.





COUNCIL'S GROSS GREENHOUSE GAS EMISSIONS FOR 2021/2022

Here is a snapshot of the greenhouse gas emissions for City of Port Phillip's own Council operations.



Highlights

- Achieving a 25 per cent reduction in our gross carbon emissions between 2016 and 2021
- Powering our operations with 100 per cent renewable energy through the Melbourne Renewable Energy Project (MREP)
- Achieving net zero emissions for Council operations in 2021, through a mix of emissions reduction, renewable energy and offset purchase
- Replacing 1,500 streetlights with energy-efficient LEDs
- Installing 610kW of solar panels installed on Council buildings
- Switching 11 Council-owned buildings from gas to electricity
- Implementing the South Melbourne Market Sustainability Strategy designed to generate 280,000 kWh solar power, avoiding 900 CO₂ tonnes CO₂-e and diverting 150,000 coffee cups from landfill.

Indicators and targets**Council operations indicators**

Council indicators			
Indicator	Baseline 2016/17	Progress 2021/22	Target 2028
Gross greenhouse gas emissions from Council operations	10,954 tonnes of CO ² equivalent	8,142	37% reduction (6,916 tonnes of CO ² equivalent)
Net greenhouse gas emissions from Council operations	6,464 tCO ² -e	Zero	Zero
Percentage of Council electricity use from renewable sources	293 kWh	100%	100%
Percentage of waste diverted from Council operations	New target	37.6% waste diversion rate	Target 2025 33%-50% increase in waste diversion rate (50.1% - 56.4% diversion rate)
Community indicators			
Indicator	Baseline 2016/17	Progress 2021/22	Advocacy position
Greenhouse gas emissions in the municipality	1,700,000 tCO ² -e	1,279,000 tCO ² -e	Zero by 2045 (75-80% reduction by 2035) *Aligned with state government target, awaiting legislation.
Percentage of kerbside waste diverted from landfill (%)	31%	32%	Target 2025 54-56%*

*Target from Don't Waste it Strategy

Actions

What we are doing

- Achieving carbon neutrality for Council operations
- Diverting at least 60 per cent of the City's waste from landfill and rolling out the food and organics service
- Reducing emissions from Council services, leasing, procurement and investment
 - Implementing the South Melbourne Market Sustainability Strategy, to wipe out waste, transition towards zero-carbon operations and reduce water use
 - Exploring local carbon sequestration opportunities
 - Enhancing the performance and reducing the impact of Council assets by setting minimum standards for key asset types.
 - Understanding community needs and barriers to renewable energy uptake, and delivering a program to support community renewable energy uptake.
 - Delivering an energy efficient street lighting upgrade of 1500 lights for major roads and continuing to explore further street light upgrade opportunities.

Working with our community and partners

- Partnering with the Victorian Government and Port Phillip EcoCentre to co-fund a new carbon neutral facility
- Supporting individuals and businesses to reduce emissions, water and waste
- Working with other inner Melbourne councils to facilitate access to renewable energy options for renters, apartment dwellers and businesses
- Driving the uptake of Environmental Upgrade Agreements for commercial and residential buildings (legislation pending).

Advocacy positions

We call on the Victorian and Australian Governments to:

- commit to science-based emissions reduction targets consistent with keeping warming to 1.5 degrees and fund and deliver a plan to meet these targets
- provide funding, incentives and support to Victorian businesses and residents to reduce energy, water and waste
- phase out gas and develop an electricity network upgrade plan to transition to distributed renewable energy
- create a circular economy, increase demand for recycled content and drive innovation by providing industry incentives.

We also call on the Victorian Government to require zero emission buildings through the planning scheme.

What you can do

- Set yourself some goals to act, connect with like-minded people and follow our online list of powerful ways to take climate action
- Become politically active, advocate for change with your local Councillors and members of parliament in the Victorian and Australian upper and lower houses
- Convert gas appliances – hot water, heating, cooking – with electric substitutes such as heat pumps and induction cooktops
- Advocate to your superannuation fund to divest from financial institutions that invest in fossil fuel
- Switch your electricity to certified GreenPower or zero emissions electricity using offsets or install solar panels
- Grow some food, join a community garden, eat less resource-intensive foods such as red meat and visit your local bulk buy stores and farmers' markets
- Use sustainable and active forms of transport, such as walking, riding or public transport, instead of driving a car
- Buy second hand and repair existing items and visit the EcoCentre repair workshops
- Where waste can't be avoided or reused, reduce waste to landfill by maximising recycling options.

More information

[Act and Adapt Sustainable Environment Strategy 2018-28](#)

[Don't Waste It! Waste Management Strategy 2022-25](#)

[Climate action update - February 2022](#)

[Take climate action - City of Port Phillip](#)

[AR6 Synthesis report Climate Change 2023](#)

[Victoria's changing climate](#)

3. Enabling more sustainable transport options



Increasing sustainable transport use is one of the most significant opportunities to reduce emissions. Port Phillip's road network is at capacity and cannot expand, and private vehicles already account for 14 per cent of emissions. With current travel patterns, by 2040 on-road travel will make up nearly 50 per cent of community emissions in our City.

We have a long-term plan to tackle the challenges associated with increased congestion. Our Move, Connect, Live Integrated Transport Strategy 2018-28 prioritises safe and reliable access to transport options. To reduce pressure on our road network, we are transitioning our Council fleet to zero emissions, creating safe walking routes, working with the Victorian Government on the shared e-bike and e-scooter trials and supporting car share programs.

We will deliver separated bike lanes and paths, plans for bike parking facilities at train and tram hubs and community bike confidence courses to encourage bike riding. Our aim is that everyone has access to convenient public and active transport options. Our targets include significantly increasing the number of daily walking, public transport and bike riding trips in our city.

Highlights

- Transport emissions reduced by 15 per cent across our city from 189,000 tCO₂-e in 2018 to 160,000 tCO₂-e in 2021
- Car share memberships in our city tripled between 2016 and 2022, from less than 3000 to over 9000
- In the year to February 2023, people travelled a combined distance of 1.5 million kilometres using shared e-scooters and e-bikes in our city.

Indicators and targets

Indicator	Baseline 2018	Progress 2021/22	Target 2028
Increase trips per day walking	152,000	N/A	36% (207,000)
Increase trips per day bike riding	17,000	N/A	151% (44,000)
Increase trips per day public transport	42,000	N/A	35% (56,000)
Increase the number of residents who are car share members	2,500	7,586 Impacted by COVID-19	13,500



		lockdowns (now over 10,000)	
Increase the use of shared e-share bikes	1 trip per day	1.7 trips per day	3 trips per day

(Source: Move, Connect, Live Strategy)

Actions

What we are doing

- Installing public electric vehicle charging stations and investigating planning controls to require charging infrastructure in new developments
- Undertaking an Australian first pilot to test installation of private kerbside chargers for residents without off-street parking.
- Supporting all our schools to increase active travel through Ride2School Day, rebates for events and matched grants to plan designated safe routes and provide bicycle education and facilities.
- Exploring battery and hydrogen power to fuel our heavy plant equipment
- Transitioning our Council fleet to zero emissions, with a total of 25 electric vehicles including an electric truck and electric forklift.

Working with our community and partners

- Advocating to the Victorian Government to regulate shared transport services and participating in the shared e-bike and e-scooter trials
- Advocating for the delivery of connections to public transport, public space and bike lanes in Fishermans Bend, with the Victorian Government
- Creating safe walking routes and advocating to the Victorian Government to reduce barriers to crossing major roads
- Working with Victorian Government to design high quality bike parking facilities at train and tram hubs
- Advocating to the Victorian Government for support for walking, bike riding and public transport improvements around Anzac Station and along St Kilda Road, together with the Victorian Government
- Advocating for and supporting a pipeline of upgrading tram infrastructure, with Yarra Trams and the Victorian Government.

Advocacy positions

We call on the Victorian Government to:

- increase the reliability and frequency of tram and bus services
- improve public transport links including train and tram to Fishermans Bend.

We call on the Victorian and Australian Governments to:

- increase investment in pedestrian and bike riding improvements and zero emissions vehicles.

What you can do

- Walk, ride, scoot or carpool for short trips to work, the shops and school
- Champion bike riding, public and shared transport in your neighbourhood
- Consider a car share membership instead of buying a car
- Join the Port Phillip Bicycle Users Group.

Case Study: Sustainable Transport - Garden City bike corridor connection

Across Port Phillip, we are improving bike paths and lanes, making it easier and safer for people to move around. We are also developing links that connect our bike trails and open spaces.

We opened the Garden City bike corridor connection in early 2022, linking Garden City Reserve to the Sandridge and Bay Trail shared path networks in Port Melbourne.

The 1.2-kilometre upgrade means Port Melbourne residents and visitors now have increased access to Garden City Reserve and can also enjoy the views of the 26-metre-high white lighthouse along their bike journey.

Adding an off-road, separated bike path along Beacon Road and Swallow Street sections has made these areas safer for all users. As part of the upgrade, we improved lighting along the Garden City Reserve shared path and installed additional signage and line marking.

The project has improved cycling access for recreational and local bike riders. In addition, by making it safer and more attractive to travel by bike, we are encouraging the community to shift toward more sustainable forms of transport. The new corridor is an action in our [Move, Connect, Live Integrated Transport Strategy](#).

More information

[Move, Connect, Live Integrated Transport Strategy 2018-28](#)

[Active schools - City of Port Phillip](#)

[Bike riding - City of Port Phillip](#)

[Victorian Government advocacy priorities – City of Port Phillip](#)

[Draft Car Share Policy | Have Your Say Port Phillip](#)

4. Resilient and liveable public spaces



Open public space is essential to physical and mental health and wellbeing. Beaches, the foreshore, parks, footpaths, nature strips, urban plazas, gardens and sports fields all count towards our enviable public space network. These areas are for everyone to enjoy and where people gather to exercise, play sports and relax.

We want to maintain climate-resilient public spaces so future generations can enjoy them, but the climate emergency poses a significant risk.

Climate change is leading to higher temperatures, rising sea levels and more extreme storms. Located at the bottom of the Elster Creek and Yarra River catchments, much of Port Phillip is less than three metres above sea level, and we are already prone to flooding. These impacts threaten wildlife habitats, biodiversity, roads, transport, beaches, parks and buildings.

The latest science is predicting a reduction in overall rainfall. Combined with population growth, this will put significant pressure on water supply security and make it harder to maintain our green spaces. In addition, rising groundwater levels will heighten the risk of soil salinity issues.

Despite these challenges, our response is well underway to maintain resilient and liveable public spaces. We are already minimising the impact of the heat island effect by increasing the number of trees and overall canopy cover in our City. Within our urban environment, we are enhancing wildlife habitat, strengthening wildlife corridors and increasing biodiversity.

We also know the importance of improving safety in areas prone to flooding. Our flood risk management includes adapting our built form to the natural water movement and increasing our resilience to extreme weather.

Highlights

- Trialling the first woody meadow in 2021 as a cost-effective way to manage open space that requires little maintenance or watering
- Managing 46,000 trees and enhancing their ability to cope with climate change, including through implementing diverse tree stock and water sensitive urban design principles
- Identifying initiatives such as greening and water misters to keep streets cool through the Cooling South Melbourne Study
- Working in partnership to reduce the impact of flooding in Fishermans Bend, clean stormwater before it enters the bay and provide a climate-resilient water supply.

Target and indicators

Street tree canopy cover: 27/28 (Target) - 10% increase

Baseline 2015/16 - 19 per cent 108.5 ha

Goal 2021/22 - 2% increase on baseline (19.2%) 109.7 ha

21/22 Actual - Being finalised mid-2023 via Greening Port Phillip Strategy development process for inclusion in final

Canopy cover on private land

Baseline - 11% 118.9 ha

Goal 2021/22 - 2% increase on baseline (11.2%) 113.8ha

Actual 21/22 - Being finalised mid-2023 via Greening Port Phillip Strategy development process for inclusion in final

Indicator	Baseline 2018	Progress 2021/22	Target 2028
% Street canopy cover	19% (2015/16 baseline)	Currently being measured	10% increase on baseline (20.9%) Revised targets to be developed through Council's new Urban Forest Strategy.
Council's potable water use for irrigation NB – replaces the previous indicator	169 ML/y	<u>149 ML/y</u> (12% reduction)	<u>97 ML/y</u> (43% reduction)
Total Nitrogen (TN)	15,009 kg/y	<u>13,563 kg/y</u> (10% reduction)	<u>12,669 kg/y</u> (16% reduction)
Total Suspended Solids (TSS)	717,035 kg/y	<u>627,395 kg/y</u> (13% reduction)	<u>590,125 kg/y</u> (18% reduction)
Total Phosphorus (TP)	1,880 kg/y	<u>1,699 kg/y</u> (10% reduction)	<u>1,599 kg/y</u> (15% reduction)
Community Potable water use	178 L/p/day	182 L/p/day	150 L/p/day

Break out Box:

Water Sensitive Urban Design (WSUD) guiding principles

WSUD seeks to achieve integrated water management by:

- Reducing potable water consumption
- Maximising water reuse
- Reducing wastewater discharge
- Minimising stormwater pollution before it is discharged to the aquatic environment
- Maximising groundwater protection. These principles are achieved through:
 - Managing the demand for water by reducing it
 - Assessing the appropriate potable or alternative supply of water for the end purpose
 - Applying best practice to stormwater management. Integrated water cycle management matches available water sources with the most appropriate uses (“fit-for-purpose”). This is a way to reduce the demand on the highest quality potable mains water

Ref: e27210-19-city-of-port-phillip-wsud_guidelines-final.pdf (portphillip.vic.gov.au)

Actions

What we are doing

- Reducing pollution entering Port Phillip Bay by delivering the Alma Park Stormwater Harvesting Scheme and over 200 water sensitive urban design projects (WSUD) that capture sediment, nutrients, litter, and other pollutants. We plan to deliver another two stormwater harvesting schemes and 30 streetscape WSUD projects over the next five years. These are practical and cost-effective infrastructure that are scientifically proven to reduce the negative effects of urbanisation on receiving water bodies.
- Making our foreshore resilient to climate change by expanding fenced areas to allow regeneration of dune plants that act to stabilise the sand, updating our Foreshore Management Plan and developing a coastal adaptation plan
- Improving the diversity of our urban forest, planting vegetation for the changing climate and supporting biodiversity and wildlife corridors by creating the Danks Street biodiversity corridor in Albert Park and updating our Greening Port Phillip Strategy with the latest data to meet greening targets
- Creating more public green space by transforming road space into green space at the Palais forecourt, Moubay Street Pocket Park, Cobden Street Pocket Park and Glen Eira Reserve in Ripponlea
- Reducing the urban heat island effect by trialling heat reducing materials in footpaths and laneways and planting broad spreading canopy trees to capture carbon

- Increasing permeability of ground surfaces in streets and in public spaces and supporting greater permeability on private property
- Incorporating water sensitive design throughout our public spaces to make them greener and cooler and reduce flooding.

Working with our community and partners

- Co-creating functional and vibrant public spaces and a biodiverse urban forest in Fishermans Bend with the community, Victorian Government and developers
- Working with Melbourne Water and the Fishermans Bend Taskforce to implement flood modelling options
- Contributing funding to the EcoCentre's biodiversity programs and volunteering initiatives to restore native vegetation and habitats
- Supporting the Victorian Government's target to double canopy cover by 2040 around the new Anzac train station and helping to maximise tree retention in the Metro Tunnel works
- Working with the Victorian Government and coastal land managers to understand and develop ideas to reduce foreshore climate change impacts such as inundation.

Advocacy positions

We call on the Victorian Government to:

- improve pedestrian connectivity between public spaces in Fishermans Bend, South Melbourne and Port Melbourne.

We call on the Victorian and Australian Governments to:

- partner with the Cities of Port Phillip, Bayside, Glen Eira and Kingston and Melbourne Water to help fund and deliver water management infrastructure in the Elster Creek Catchment, that increases permeability (e.g., de-paving), reduces flooding (e.g., drainage upgrades) and improves water quality (e.g., raingardens).

What you can do

- Plant mid-size to large canopy trees and other vegetation on your property, and ensure there is space for trees to grow
- Include rainwater tanks and water sensitive gardens that can withstand drought and capture water to allow it to seep into the soil slowly
- Get involved in local planting programs and volunteer opportunities through Council and the EcoCentre's biodiversity and greening programs
- If you're renovating or building a new house, ask your designer and builder to look at sustainable and heat resilient building materials.

Case Study: GREENING PROJECT – De-paving during footpath renewals

Creating a greener, cooler, more liveable Port Phillip is a priority for the Council. One way we achieve this is by de-paving footpaths and centre medians and planting trees and garden beds.

In Liardet Street, Port Melbourne, we have re-engineered sections of the centre median. In addition, we excavated road base material to create deep root planting zones for large new canopy trees. The new deep-root planting zones provide street trees with access to water and essential nutrients creating ideal conditions for healthy structural roots. The project has been hugely successful, and the new trees are thriving.

Nature strip gardens

When we developed the nature strip guidelines in 2021/22, community members told us they wanted more nature strips and the ability to garden in this public space in front of their homes.

We are now looking at opportunities to include nature strips across the municipality. For example, during footpath renewal works, residents will be asked if they would prefer a nature strip to be created rather than resurfacing the entire footpath area with asphalt. Eastern Road, South Melbourne, was identified as one of these sites, and most residents supported the change, resulting in new gardens in this area.
Photo 1: Nov 2017. Photo 2: Sept 2022.



Case study to be inserted here

More information

- [Cooling South Melbourne Study](#)
- [Greening Port Phillip](#)
- [Public Spaces Strategy](#)

5. Planning for buildings and places



Designing our public spaces and new buildings to withstand future climate impacts will greatly improve our community’s future. By incorporating sustainable, climate-resilient design into new developments and structure plans, we can minimise maintenance and reduce emissions from building materials. This planning will ensure the community is safe, prepared and resilient.

What is climate-resilient design?

Climate-resilient design involves designing a renovation or new building to withstand future climate impacts such as flooding and increased heat. For example, you can prepare your property for future weather patterns by building homes of different materials and looking to remove or shade large windows and doors facing west. You can also incorporate flood-resilient building materials or allow floodable spaces and plant drought-tolerant species.

At City of Port Phillip, we have several roles in helping ensure buildings and places are designed with climate change in mind. For example, we guide how new buildings are constructed and support community members in retrofitting their homes and businesses. We also help the municipality change to become climate-resilient, such as more walkable communities relying less on fossil fuels and places less vulnerable to flooding, extreme weather events and the urban heat island effect. Our other roles are providing upgrade finance and supporting residents and businesses to switch from gas to renewable energy.

Currently, we are helping to guide the sustainable redevelopment of the Fishermans Bend Urban Renewal Area, the formerly industrial area to the east of the Westgate Bridge. It is planned that the Port Phillip proportion of Fishermans Bend will be home to more than 68,000 people by 2050, with another 36,000 visiting daily for work. Effective flood mitigation measures and water sensitive urban design are crucial to future-proofing the area.

The Victorian planning system is crucial for planning buildings and places. We are calling on the Victorian Government to review the *Planning and Environment Act 1987*, and the *Victoria Planning Provisions Act* to embed climate change mitigation and adaptation in the planning system.

Highlights

- Implementation of the local ESD (Environmentally Sustainable Design) Policy introduced into the Planning Scheme in 2015, requiring increased sustainability standards for new buildings
- Council endorsement of the proposed Elevating Environmentally Sustainable Development (ESD) Targets planning scheme amendment and submission of request to the Minister for Planning
- Converting Council’s buildings from gas to electricity and undertaking energy efficient upgrades in 26 buildings.

Targets and indicators

Indicator	Baseline 2018	Progress 2021/22	Target 2028
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Council Operations- Electricity from renewable sources (%)	293kw	100%	100%
% households with solar power in City of Port Phillip	11 % (2021/22 baseline)	Indicator only	
Number and % private vehicles which are electric in City of Port Phillip	0.14% (20,095 cars) (2021/22 baseline)	Indicator only	

Actions

What we are doing

- Adopting the Green Star – Communities Framework to help guide sustainable development in Fishermans Bend.
- Undertaking an environmental audit of Council Buildings.
- Transitioning Council buildings to zero gas and upgrading Council buildings to increase energy efficiency.
- Building a new 6-Star GreenStar (Design and as Built) EcoCentre to support community sustainability programs, citizen science and volunteering programs.
- Incorporating sustainable design and climate resilience into Council’s strategies and policies
- Committing to setting and meeting sustainability standards for key asset types and building individualised resilience plans for building assets.
- Introducing green leases and tenant engagement for Council-owned buildings.

Working with our community and partners

- Participating in the Elevating Environmentally Sustainable Development (ESD) Targets project with CASBE (Council Alliance for a Sustainable Built Environment) and 23 other Councils, to facilitate best practice ESD and support zero carbon development outcomes
- Offering Environmental Upgrade Agreements, a low-cost finance option paid back from energy savings with repayments made through a levy on the council rates, to business owners to enable cost-effective, sustainable building upgrades
- Incorporating sustainable design and climate resilience into our new Housing Strategy and South Melbourne Structure Plan
- Updating flood management and sea level rise planning controls with Melbourne Water
- Finalising and implementing the Water Sensitive City Strategy in the Fishermans Bend Urban Renewal Area
- Investigating how and where neighbourhood battery solar energy storage might play a role to support the community’s use of renewable energy.

Advocacy positions

We call on the Victorian Government to:

- Incorporate the proposed Elevating Environmentally Sustainable Development (ESD) Targets planning controls into the Victoria Planning Provision, as requested by Council and the other participating Councils
- Review the *Planning and Environment Act 1987* to align with the *Climate Change Act 2017* and embed climate change mitigation and adaptation in Victoria's planning system and update the Victoria Planning Provisions as required
- Implementation of the Fishermans Bend Framework and Water Sensitive City Strategy.

What you can do

- Contact us about an Environmental Upgrade Agreement (EUA) for your commercial property
- Integrate sustainability and climate resilience as early as possible in the design stage of new development
- Consider sustainable design options for buildings retrofits
- Use our Sustainable Design Strategy to understand how to utilise and manage sustainability initiatives in your building to reduce your impact
- Make your home more sustainable by planting trees, installing rainwater tanks or solar, insulating and draught-proofing
- Switch from gas to electricity in your home or business.

Case study: FISHERMANS BEND

Insert Case Study here

Case study 3: Fishermans Bend

Fishermans Bend is Australia's largest urban renewal project, covering approximately 480 hectares and five precincts across Melbourne and Port Phillip. By 2050, Fishermans Bend is forecast to provide for 80,000 residents and 80,000 jobs. This includes 68,000 residents and 36,000 jobs in the City of Port Phillip's Montague, Sandridge and Warraway Precincts.

City of Port Phillip is working with the Victorian Government, Melbourne Water, City of Melbourne, the community and developers to apply the world's best practices in managing water in Fishermans Bend.

By implementing water sensitive urban design, we will reduce the impact of flooding in Fishermans Bend and capture and clean stormwater before it enters the bay. Fishermans Bend will include a water recycling plant, pumps and levees and a third pipe network to deliver a climate-resilient water supply. Raingardens, tree pits at the street level, and smart rainwater tanks in individual buildings will also reduce flooding and support Green Star sustainability measures.

The city is also being designed with a biodiverse urban forest – a network of parks, green walls and green roofs will create natural environments for flora and fauna and connect people to nature. More information portphillip.vic.gov.au/sustainability
[Sustainable Design Strategy](#)

Implementation and monitoring

We are committed to regular monitoring and reporting on the implementation of the Climate Emergency Plan and will report **XX (insert regularity)** on our progress.

Summary table of all targets and indicators in five sections above to be included in final document.

City of Port Phillip
**CLIMATE EMERGENCY
PLAN 2023-2028**

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