

Our Climate Emergency Response
From 2020 to 2030
A place where people and nature thrive

ensuring | 2020
our future | 2020



MORNINGTON
PENINSULA
Shire

I'm stoked my
local government
is taking the
climate emergency
seriously.

A Journey Together

A zero-emissions future for the Mornington Peninsula cannot be achieved by us alone. **You are part of the solution to stop climate change.** We each have to be responders to this emergency.

Climate change affects each of our lives and it touches all aspects of life. So, this Plan inevitably covers a lot of topics.

We've been fortunate to develop the Plan alongside our community, with considerable effort from staff and stakeholders. The diverse voices, perspectives and ideas have shaped a collective vision with clear targets and actions. Many of your ideas - what you told us - are displayed as quotes in this Plan.

Thank you to everyone for your participation, contribution and collaboration. We look forward to taking the steps with you towards a safe future where people and nature thrive.

Detailed Plan

This document is an extended version with comprehensive information. It's a detailed ten-year plan to ensure our future. It spells out the context, targets and actions so you can understand the full approach Mornington Peninsula Shire intends to take.

There is also a shorter version available. The public summary is a great snapshot to help you understand the Shire's response to the Climate Emergency and what it might mean for you.

Keep in touch with happenings and join the conversation by following #ensuringourfuture on social media.

COVID-19 Recovery

The final stages of the development of this Plan, and the community engagement of the draft Plan, took place during the COVID-19 global pandemic and enforced lockdowns. The pandemic has placed a significant stress on every sector of society and our reliance on global systems.

The incredible response to the crisis has shown that community and the Shire can mobilise rapidly to global emergencies and act responsibly for public safety and wellbeing. We can make quick decisions in accordance with the best available scientific advice and move quickly into emergency mode. This is the unified response needed in the face of the climate emergency.

The temporary reduction in daily global carbon dioxide emissions during the pandemic has largely been due to changes in the numbers of cars and other vehicles on the road and grounding of most of the aviation industry. The immediate impact has meant that air quality has improved significantly. However, this reduction in carbon dioxide emissions must continue beyond the lockdown period.

The COVID-19 recovery gives us a rare opportunity to align the rebuild of our local and global economy with a transition to net zero carbon energy sector and an adapted community. The Shire and the community must resist a return to our previous behaviours and systems and work together to achieve a long-term cultural change that ensures we rebuild a socially, environmentally and economically sustainable future.

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"The Bunurong people manage and care for the land in respectful and sustainable ways, as our ancestors have done.

We have been through 'climate change' before, including the rising and falling of sea levels. Bunurong people once walked the land bridge between Wilsons Promontory and Tasmania. Locally, we hunted and camped across the lands that are now inundated beneath Port Phillip Bay.

The three sisters known now as Mount Eliza, Mount Martha and Arthurs Seat were once islands with only the

tops protruding above past elevated sea levels and our people grew with the significant physical changes over the lands in the times that followed the 'great flood'.

The current changes in climate are threatening our heritage and our country. The current and future Bunurong people will continue to manage our country in collaboration with land, water, marine and coastal managers to protect and preserve the history and cultural significance of our ancestors."

Bunurong Land Council Aboriginal Corporation

Mornington Peninsula Shire acknowledges and pays respect to the elders, families and ancestors of the Bunurong/Boon Wurrung people, who have been the custodians of this land for many thousands of years. We acknowledge that the land on which we meet is the place of age-old ceremonies, celebrations, initiation and renewal; and that the Bunurong/Boon Wurrung peoples' living culture continues to have a unique role in the life of this region.

This Plan was adopted by Council on 25 August 2020.

Mornington Peninsula Shire Council adopted its **Reconciliation Action Plan Innovate 2020-2022** in December 2019.





In an emergency, you take urgent action to respond to a serious threat.

We have heard the sirens.

Climate change is now an emergency.

We are collectively at risk.

In August 2019, the Mornington Peninsula Shire declared a Climate Emergency.

We were already serious about reducing emissions to protect the future of our people and places.

Since 2016, we've had a five-year plan for the Shire's operations to become carbon neutral, which we're on track to achieve by 2021.

In 2018, we adopted a **Climate Change Community Engagement Strategy** to help our community to reduce emissions, become more resilient and prepare for the impacts of climate change.

The updated information tells us that the impacts are coming at us sooner. Each day, nature's alarm bells ring more loudly. Our emission reduction targets are not enough. We have to crank up the response. The urgency requires a targeted plan and coordinated action.

To protect the world for our children and grandchildren, we must move beyond mitigation and adaptation measures.

We need to act to stop climate change; to turn back the emissions clock and regenerate our world. To create a better future story.

We've been inspired by positive action in many quarters and also driven to act by the slow response or inaction of others.

Since the declaration we've talked with our community; listened to concerns, gathered ideas and nutted out how we can collaborate to build a better future.

Along the way, we encountered a stark reminder that we are in this together. A pandemic brought home the fragility of systems and vulnerability of people. COVID-19 prompted us to see the impact of individual actions. It also revealed the value of local connectivity and a self-sustaining community.

Let's turn that awareness into opportunity. We can each make climate-friendly choices to rebuild the economy, revitalise our community and restore nature.

This plan looks ahead 20 years to a world in which the Mornington Peninsula municipality - that's all of us collectively - has transitioned to net zero-emissions. We know there is steep terrain ahead. This first decade plan identifies Seven Summits to climb. It's also the map to guide us away from the dangerous emergency situation.

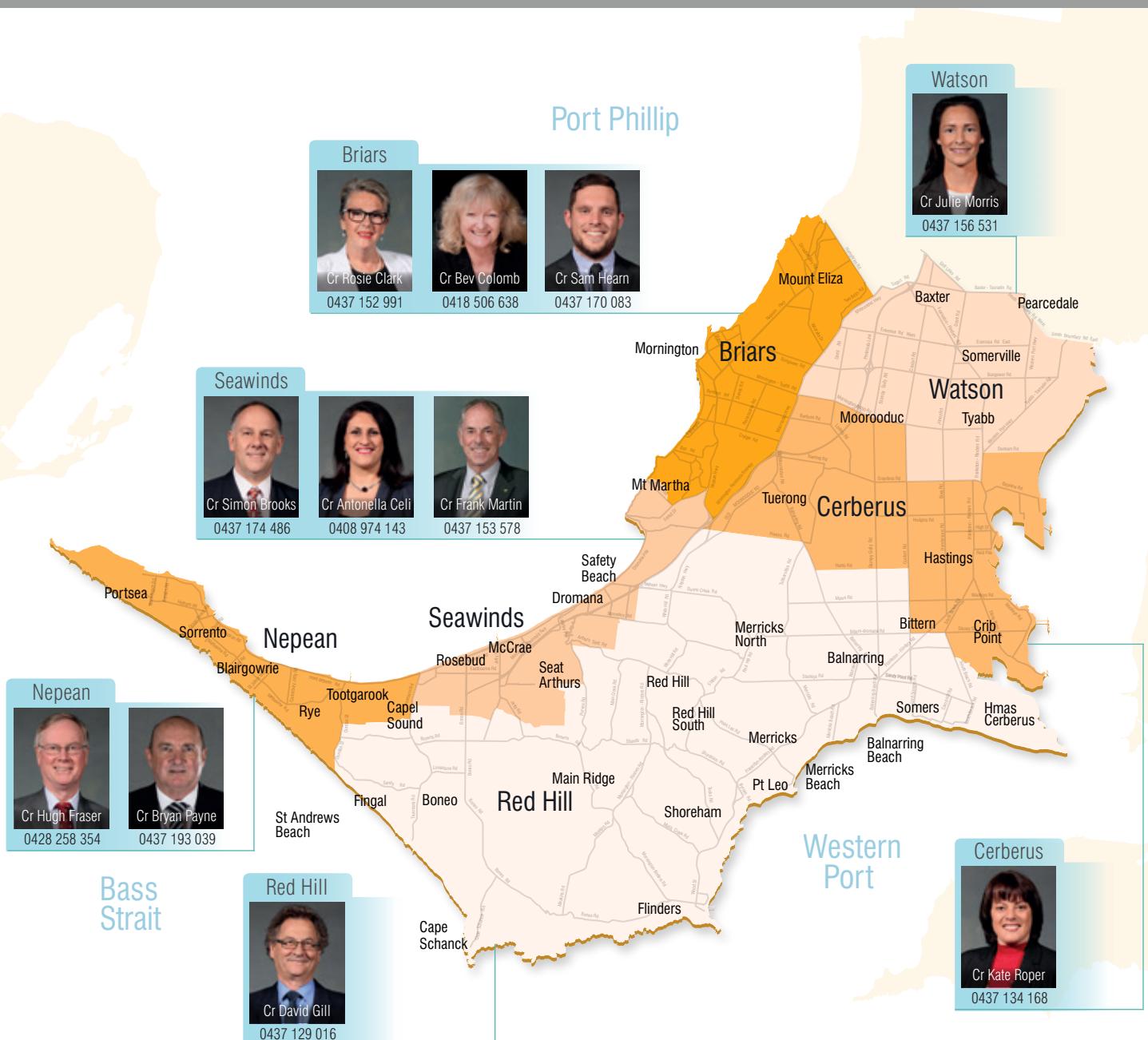
Mornington Peninsula Shire is ready to lead by example and show the way. We'll take action, enable and inspire others, and courageously call out what's missing in action.

We can no longer wait to ensure our future. Join us on this journey. Because we cannot thrive without you.

**Mayor Sam Hearn and Councillors,
Mornington Peninsula Shire**

Here's what we're going to do about it.
We are going to make a safer world,
where people and nature thrive. Together. Now.

Councillor Sam Hearn, Mayor, Mornington Peninsula Shire



The Big Picture

Climate change is real.
It is caused by human activity.
It has begun.

But we have a plan for a different kind of change.

Together we will stop global warming.

By 2040
we want net
zero-emissions,
right across
the Peninsula.

One peak goal

7 summit targets

21 action steps

to restore a safe climate
pathway (with 35 supplementary
targets to keep us on track)

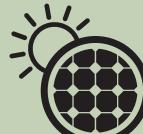
Leadership and
governance



Increased
climate
advocacy



Zero carbon
energy



Resilient
and adaptive
community



Sustainable
transport
and travel



Sustainable
land use and
environmental
restoration



Circular
economy
and zero waste



Baseline

2017 – 2018

Use past level to
track our reductions

2030 Plan Targets

2025

Reduce community
emissions by 30%

2030

Reduce community
emissions by 65%

Long Term Targets

2035

Reduce community
emissions by 80%

2040 Peak Goal

Reach net zero-emissions
Shire-wide



Moorooduc Farm

What does the future look like?

We are faced with two possible futures.

The first story - a tale of inaction – sees the planet heat up so quickly that conditions become incompatible with civilisation. People are unprepared. Imagine what that would be like. It's scary. Confronting. And it's easy to feel overwhelmed.

But it does not have to be that way.

The happier future - an action packed journey together, to transform the Peninsula into a beacon of sustainability, a safe place where people and nature thrive.

We've started to imagine what that would look like.

The Mornington Peninsula of the future will:

- Run on clean, renewable energy
 - Connect via a sophisticated transport system incorporating new technologies and flexible modes of transport
 - Contribute to a zero waste circular economy where every item is valued and reused
 - Cultivate more green spaces and corridors across the peninsula, nurturing abundant indigenous vegetation and healthy wildlife
 - Be an active, educated and inclusive community whose people consider climate change in their daily activities and business decisions
 - Galvanise a thriving and diverse local economy where businesses actively contribute to climate change solutions
 - Support vulnerable populations, ensuring inclusion to solutions and equitable access to opportunities
 - Grow and distribute food locally, enabled by sustainable land management, regenerative farming practices and smart logistics
 - Facilitate resilient and adaptive actions to adjust to the unavoidable impacts of climate change
 - Showcase a sustainable, supportive and connected community that is a living exemplar of a better future.
-

Today's choices and actions determine our future. Our children's world. As part of the global movement we are confident that we can restore a safe climate pathway for future generations. The sooner we get moving, the easier it will be to put things in place and become that beacon.

We can also make the best possible transition by ensuring that our community, buildings, infrastructure and landscape are prepared for any unavoidable impacts of climate change. That's why both mitigation and adaptation are part of the plan.

Our place in 2040

1. Clean energy
2. Zero-emissions transport
3. Zero waste
4. Circular economy
5. Green space
6. Native vegetation
7. Healthy wildlife
8. Buffered coastline
9. Climate-aware people
10. Climate-aware business
11. Thriving economy
12. Equitable access
13. Smart technology
14. Local food access
15. Sustainable land management
16. Adaptive actions
17. Connected community
18. Zero-emission advocates
19. Climate action leadership





Why we need to act

“ ...As a community, we recognise that **climate change is real** and we are at a crisis point in terms of reducing the catastrophic effects of humanity’s effect on the planet’s ecosystems.

The Shire recognises that the Earth's current warming trajectory threatens most life on this planet. We believe that this requires an emergency response at all levels, including local government.

Mornington Peninsula Shire joins other cities, nations and governments that acknowledge this reality and commit to actions that address it.

Most of the world's nations, including Australia, have signed up to the 2016 Paris Agreement. This Agreement aims to keep this century's global temperature rise to less than two degrees above the levels of pre-industrial times. The ultimate goal being to limit the increase to just 1.5°C.¹

According to Climate Ready (2015), produced using CSIRO data, the Mornington Peninsula has already experienced 1.2-1.4 degrees of warming in the north, and

1.4-1.6 degrees in the south.² This is above global averages.

We now know that even if we limit global increases to 1.5 degrees, towns and cities will be faced with rapid and far-reaching shifts in land, energy, industry, buildings, and transport access.

This carries significant risks for human health and wellbeing, for social justice and for ecosystems across the world.

Unfortunately, the outlook is even worse because right now, the world is heading way off target. The earth's current emission levels, as assessed and reported by the Intergovernmental Panel on Climate Change (IPCC), put us on a dangerous path towards three to four degrees of increase.³

We need to act urgently. We need to do more to meet our Paris Agreement targets sooner.

Human-caused emissions of carbon dioxide (CO₂) need to fall by about 45 percent from 2010 levels. This needs to happen across the globe by 2030, with the goal to reach 'net zero' around 2050.³

Any remaining emissions beyond 2050 would need to be balanced by removing CO₂ from the air.

By declaring a Climate Emergency, we acknowledge the dangers of inaction and the risks of too little action. The only solution is to reverse climate change trends. This plan outlines the steps. We've set a series of targets to drop municipality emissions and reach net zero.

Mornington Peninsula Shire says 'yes' to life on this planet. We are ready to play our part and remain optimistic that we can ensure our future.



Every extra bit of warming matters, especially since warming of 1.5 °C or higher increases the risk associated with long-lasting or irreversible changes.

– IPCC



“

In contrast to nation-states, cities and mayors are stepping up to the global challenges of the twenty-first century. Growing numbers of city leaders are taking action to reduce their carbon footprints, scale-up renewable energy solutions, harness the digital economy, absorb and protect migrants, and reduce inequality. – **Robert Muggah at World Economic Forum, 23 Jan 2020**

”

The movement that is responding to the Climate Emergency is growing. Local government is at the forefront.

Mornington Peninsula Shire has an important role to play, as does every level of government and community across the world. Together, we can make big changes. And we're not afraid to step up and lead the way.

International

The United Nations 'Intergovernmental Panel on Climate Change' (IPCC) is the forum where world leading experts from 195 member nation states come together to assess existing literature and inform the global response to the threat of climate change.

The panel assesses the science related to climate change and provides policymakers with the information necessary to produce evidence-based policy and understand the implications and risks climate change.

In 2018, the IPCC produced the Special Report on global warming of 1.5°C above clear industrial levels to provide clear direction towards achieving the targets in the *Paris Agreement*.³

The robust science from the UN body has prompted us to declare a Climate Emergency.

Australia

Our nation has been signatory to all international climate action agreements, including the Paris Agreement, which Australia had a key role in developing, and ratified in 2016.

Despite this, Australia does not have emissions reduction targets aligned with the Paris Agreement goals, or in line with IPCC recommendations - including a national net zero target.

The National Inventory Report 2017, revealed our national emissions are at 534.7 Mt CO₂-e, up approximately 0.8% from 2016.⁴ This accounts for approximately 1.3% of global emissions, making Australia the 13th largest emitter in the world, and one of the highest per capita.⁵

If we exclude environmental carbon sequestration, emissions have grown by 1% per year since 2014. Australia is heading for an 8% increase in emissions by 2030 (compared to 2005 levels). If coal and gas exports are considered, Australia's national emissions rise drastically year after year.⁶

Australia's current target is to reduce emissions by 26-28 per cent by 2030 (below 2005 levels).⁷

With its current policies, Australia is not projected to meet the Paris Agreement commitments. According to Climate Action Tracker, the national targets and actions are "insufficient" to limit global warming to below 2.0°C.⁶

Following our declaration of a Climate Emergency, Mornington Peninsula Shire wrote to the Prime Minister and the Member for Flinders, urging them to implement policy to significantly reduce emissions in line with our Paris Agreement commitments.

We will further develop our advocacy position and urge the Australian Government to respond appropriately to the Climate Emergency.

Victoria

In 2017, the Victorian Government passed the *Climate Change Act 2017*, setting a target of net zero-emissions by 2050.⁸

As part of the implementation, the Government sought independent expert advice on interim emissions reduction targets for 2025 and 2030.

The Victorian Government now prepares annual reports on the state's greenhouse gas emissions, and the extent to which these emissions have changed compared with 2005 levels.

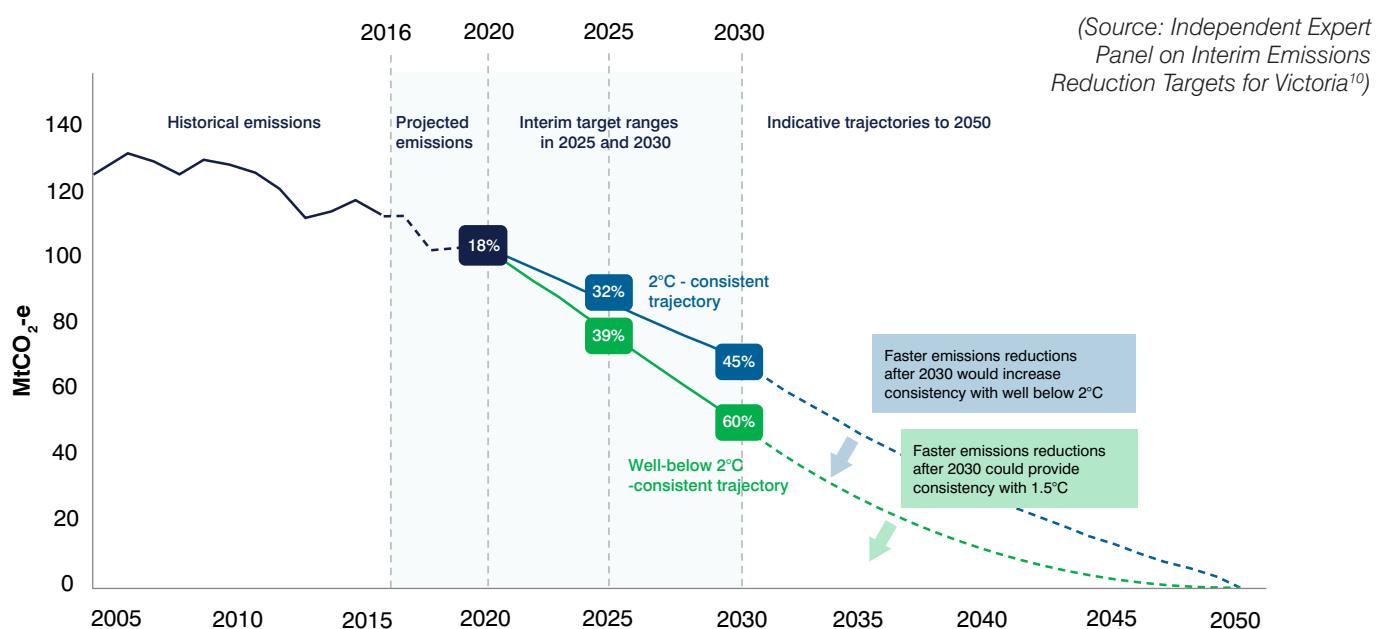
Although net zero by 2050 was recommended by the IPCC, this is a global target that applies to all countries, including developing countries which are more reliant on fossil-fuel based technology to meet basic needs.³

It will take longer for developing countries to achieve net zero-emissions. Victoria has the capacity and responsibility to achieve net zero-emissions sooner. It's going to take leadership so that the international community as a whole can achieve the global target of net zero by 2050.

Mornington Peninsula Shire has contacted the Premier of Victoria, both privately and publicly, urging the Victorian Government to set targets which are more conducive to the lower target of the Paris Agreement, and to set interim targets which set a pathway to state-wide net zero.⁹

We are ready to work with the Victorian Government to meaningfully lower emissions on the pathway to net zero, to keep global warming below 1.5°C and ensure our future.

Indicative trajectories to net zero by 2050, for Victoria





Declaring a climate emergency
is now **the only way** to get things
moving, and I congratulate the
Mornington Peninsula Shire for
doing so.

The longer we delay, the more
expensive and costly it will be
for the entire population.



Who is this plan for?

You gave us a clear message that you want leadership on climate action. By declaring a Climate Emergency and preparing this plan, Mornington Peninsula Shire has accepted that role.

But we share the responsibility for responding to this Climate Emergency. The journey to net zero-emissions cannot be taken alone.

Everyone is impacted by climate change, in a myriad of ways. That makes our plan relevant for the entire Mornington Peninsula community – from individuals and households to business and visitors.

Our plan to ensure the future acknowledges that local government is at the frontline of the emergency response.

We also need action at state, national and international levels. That's why we distinguish between emissions that are within Shire control, those

we can directly influence, and what requires regulatory change beyond our jurisdiction or community behaviour change.

Ensuring our Future guides the Shire's actions and advocacy for the next ten years. We hope that the plan - and all of the efforts that emerge from it - inspire you and others to act too.

The plan does not shy away from enormity of the collective threat or the challenges we'll face in transition. But it's practical and optimistic because we know that emission reduction solutions are available. We're also confident that we can mitigate risks and adapt to climate change impacts. But only if we get ready now.

The plan provides us with a collective process to prepare and deliver solutions; to protect all life from the impact of climate change and to remake the

Mornington Peninsula as a place where people and nature thrive.

As we do this, we need to ensure a just and fair transition to the decarbonised future. This plan aims to engage and empower everyone in our community, and to protect our most vulnerable and disadvantaged communities as we adjust to a different future together.

Your input and feedback during the development stage was crucial. More than 600 people from across our community shared concerns and priorities. You can now be involved the whole way through this plan's implementation. There will be regular engagement, education, programs and target updates.

We are in this together. This plan is for all of us to shape the future we want to live in. It's our gift of life to future generations.



“
If we don't drastically take action... the world that our children inherit will be a scary and unstable one.
”

This plan to ensure our future was developed for our community, in collaboration with our community. We conducted surveys, held consultation sessions and gathered your input.

Everyone is impacted by climate change and we want everyone to have the opportunity and capacity to act.

The Shire will proactively present and respond to opportunities to work with businesses, residents, visitors and regional partners to enact positive environmental, social and economic change.

While the plan is a structure for Shire-led actions, it is also the framework for a journey of shared responsibility to drive action across community, business and government. The plan will guide Council's efforts to deliver tangible actions, and advocacy to scale up collective Climate Emergency action.

Ongoing Engagement

Virtually every action emerging from this plan requires engagement and/or education.

Openness and transparency are the keys to effective communication, particularly when scientific contexts change rapidly and urgent understanding and responses are required.

By sharing knowledge, we can educate businesses and individuals on mitigation and adaptation actions they can take. Our learning can inspire innovation and action by others.

The Shire will engage with all members, groups and businesses within the community, to ensure a diverse range of opinion and expertise is exchanged, including the perspectives of people with disability, older people, those without access to the internet, people with low literacy, homeless or non-English speakers.

Shared Responsibility

The Climate Emergency cannot be tackled alone. Collaborative projects are more effective and have wider reach. To deliver this plan and attain our peak goal, Mornington Peninsula Shire will work with:

- Individuals and Households
- Community Groups
- Business Community
- Registered Aboriginal Parties
- Government Alliances and Networks
- Research Facilities
- Local Governments
- State Government
- Federal Government.

With this plan we will:

- Embed climate emergency responses into all Shire activities and decisions
- Accelerate the Shire's climate change adaptation and mitigation actions to the speed and scale required to address the Climate Emergency
- Direct the Shire's efforts to engage and empower the local community and business to foster cultural shifts, so that ongoing climate action becomes the new standard
- Assist and support a just and fair transition to a prosperous decarbonised economy
- Create and enhance collaboration and partnership opportunities between the Shire, community and the broader Climate Emergency movement to amplify action and coordinate advocacy.



Where does this plan matter?

The Mornington Peninsula's climate is changing. We're observing:

- increasing temperatures
- decreased rainfall
- coastal inundation
- extreme weather events and
- biodiversity loss.

So this is already a local issue.

But we are also part of an international collective experiencing the climate emergency.

Similarly, our lives are interconnected to state, national and international targets

and settings, through policy regulation such as the Victorian Government's *Climate Change Act 2017* and the Australian Government's commitment to the Paris Agreement.^{8,9}

This plan recognises all of these contexts and varying spheres of control. It's a plan for what the Shire can do right here, as part of its own business operations and across the municipality with you. The plan also outlines how we might influence, leverage or advocate beyond Shire borders.

Ensuring our Future covers both our built and natural environments.

The plan matters in all of the places where we emit carbon.

That's our homes, offices, community centres, in the car, the kitchen, at the local winery, on the farm, in the factory, on the boat, at school or even in the backyard waste corner.

Yes, this plan affects every aspect of our economy and lifestyle.

It's time to change our community emissions profile so that we can protect our economy, biodiversity, people and place. The climate emergency challenges are real and we are already experiencing them in our local context.



Tootgarook

“ It is uplifting and inspiring to know that our local Mornington Peninsula Shire Council is ahead of the game.

The Local Context^{2, 11, 12, 13}

Our Climate

Mornington Peninsula's climate has already changed due to current greenhouse gas emissions.

Given our geography and latitude, the Mornington Peninsula has and will likely continue to experience climatic changes to a greater degree than state, national and global averages.

Projections which are specific to the Peninsula are rare and imprecise. It's even harder to be clear when we go down to township scale.

Many projects are underway to gather region and township specific data, so we can improve our understanding of the impacts we will face.

However, we do know for sure that the trends and risks posed by climate change will escalate with continued emissions. Uncertainty in exact localised climate projections does not prevent us from taking meaningful action, now. We cannot ignore the signs we're already seeing.

Increasing Temperatures

The Mornington Peninsula has already experienced temperature warmings above the global average; 1.2-1.4 degrees in the north, and 1.4-1.6 degrees in the south.

- Maximum and minimum daily temperatures here will continue to increase over the century ahead
- We can expect increased frequency of extremely hot days on the Peninsula, decreased frequency of extreme cold
- Victoria and the Mornington Peninsula have experienced more warming than global and national averages, and are highly likely to continue to do so
- Heatwaves and hot days are projected to double in frequency by 2050

Warming is expected to increase relative to emissions levels. More recent higher-resolution modelling indicates that warming is greater than previous models suggest. Even under moderate

emission scenarios, the 1.5 degree Paris Agreement target will be a forgotten dream well before mid-century.

Between 1910 and 2018, Victoria warmed by 1.2-1.3 degrees for every single degree of global warming. If current trends continue, the Mornington Peninsula will continue to experience heating above the global, national and state averages. This will have direct impacts on agriculture, biodiversity and human health.

Decreased Rainfall

On average, rainfall is expected to reduce in frequency, volume, and regularity. Annual average rainfall has already declined by 10-20% throughout most of south-eastern Australia.

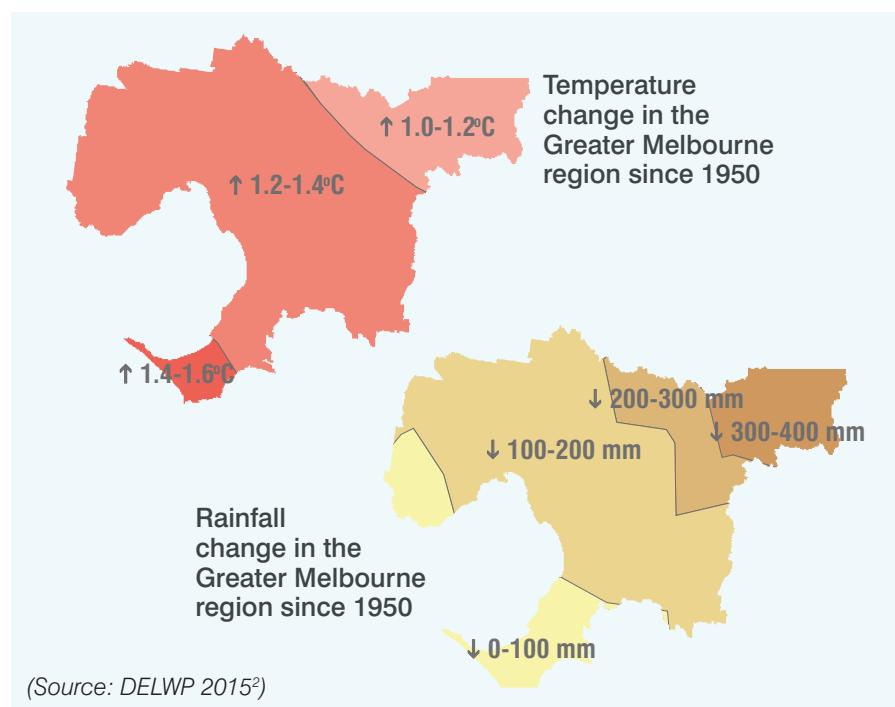
It is expected to further decrease 5% - 10% by 2030, and up to 20% by 2090 on the Peninsula, based on high emissions scenarios.

Rainfall in winter and spring are, and will continue to be, most significantly reduced.

However, the Peninsula is not likely to experience the same extent of drying as the rest of Victoria. This bolsters our importance as a valuable agricultural region for future food production.

While annual average rainfall is dropping, high intensity rainfall events are anticipated to occur more frequently. This means that the Peninsula will receive less rain each year on average, and what does fall will be in heavy downpours rather than over a sustained wet season.

This is likely to lead to serious inundation risks, especially during high tides and aggressive storm surges. These effects may be compounded by soil compaction and depletion.



The Local Context

Coastal Inundation

As a coastal community, we are particularly vulnerable to impacts resulting from sea level rise and storm surges.

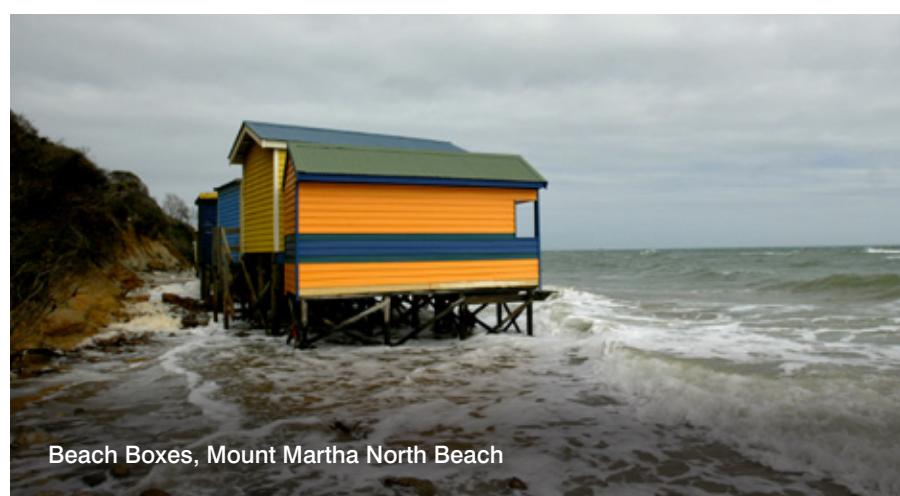
Along the Australian coastline, the sea has already risen by about 9cm since 1966, and under a high emissions scenario (RCP 8.5) this is likely to increase to an average of 4mm per year by 2050.

That would mean that by 2050, the sea level in Port Phillip Bay would rise by 24cm from 1990 levels, and up to 54cm by 2070.

These changes may look small, but will have large impacts to our coastlines, townships, structures and buildings close to the shore.

The cumulative impact of sea level rise, more regular storm surges and more frequent intense rainfall events will broaden the impact. Low lying coastal townships will be particularly vulnerable to this, even with only very moderate sea level rise.

We are seeing the impact on our coast already, but what we are doing now effectively locks in the climatic changes that will come at us. We have to act now to ensure the future.



Beach Boxes, Mount Martha North Beach

Extreme Weather Events

Dry conditions created by decreasing rainfall and increased temperatures also add to the fire risk.

More extreme fire weather and lengthy fire seasons are currently experienced by most of the country. High-risk areas in the Greater-Melbourne region are expected to be significantly affected.

An increase in the frequency and intensity of bushfire is predicted for the Greater Melbourne area, with a 42% increase in high fire danger days projected by 2050. This will increase year on year, leading to a new standard of long and dangerous fire seasons.

We can also anticipate an increase in extreme weather compound events such as flash flooding, storm damage and prolonged drought.

Extreme weather events can also occur as a result of multiple weather activities happening at the same time, creating serious compound events.

High-intensity storms, extreme rainfall events, drought, high fire danger weather and heatwaves are all expected to occur more frequently. The compound effects can include storm surges and heavy rainfall leading to flash flooding; or bushfire smoke and heatwaves leading to high public health impacts.

Our Biodiversity

Climate change impacts will significantly affect biodiversity in numerous ways.

Increased heat, decreased rainfall, intense downpours, changing seasonal patterns and increased fire danger are all likely to lead to a loss of habitat, increased salinity of waterways, decreased stream flows, new pest species, and disturbances to lifecycles.

In addition to the climate change impacts, biodiversity on the Peninsula faces additional threats stemming from land use change, development, invasive species, population overabundance, pathogens, transport systems and infrastructure, pollution, plus direct human disturbance.

The Mornington Peninsula is home to many highly valued and unique ecosystems, including the world-wide network of biosphere reserves recognised by the United Nations.

The region has been recognised for its high biological diversity. We have many significant, rare native plants and vegetation, wetlands, sites of geomorphological significance, remnant indigenous vegetation, highly scenic landscape values and sites of historic importance.

Climate change alone poses a major threat to biodiversity, but in the context of so many compounding threats, our local ecosystems are especially vulnerable.

If we are to secure the region's biodiversity and unique ecology, we must amplify our current work and integrate ecological outcomes into all our decision making in order to restore and protect ecosystem resilience.

Our Economy

The Mornington Peninsula Shire has a workforce of 67,626 people. Most are employed in healthcare, retail and construction, with tourism also a major employer.

We have a growing and diverse economy worth \$7.4 Billion in Gross Regional Product (GRP), with almost 14,000 businesses, most employing fewer than five people.

Construction, healthcare and education are the largest industries. However, the agriculture and food and beverage sectors contribute an estimated \$1.3B per annum.

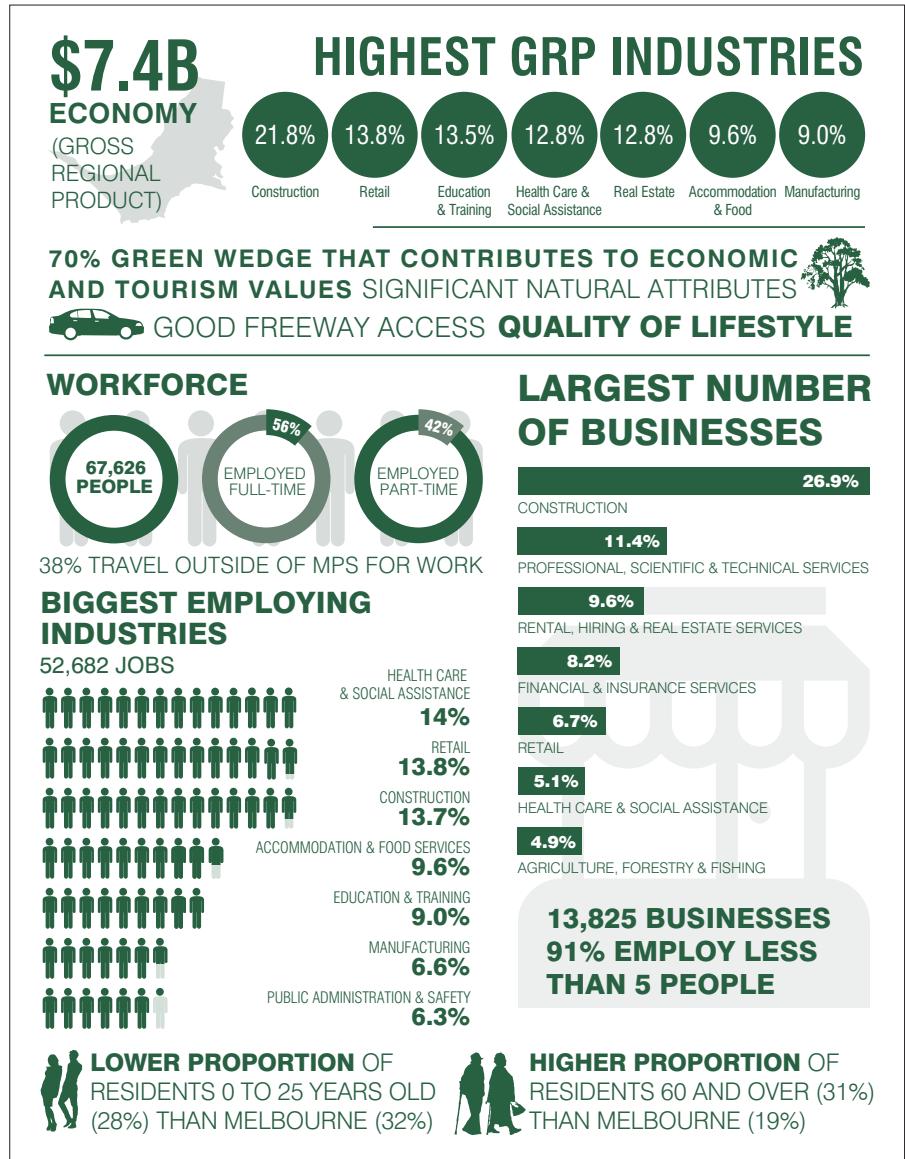
Agriculture represents the predominant land use (40%) across the Mornington Peninsula. The Peninsula is part of Victoria's second most valuable agricultural region, producing at least 15% of the total wealth generated from the agricultural industry, from less than 4% of the state's farmland.

Mornington Peninsula also has a distinguished agricultural history, including beef, viticulture and horticulture, with our existing food and wine producers recognised as world class and industry-leaders.

These highly successful sectors rely on a relatively stable climate, high biodiversity and a resilient ecosystem in order to produce highly sought goods, and to remain viable tourist destinations.

Tourism is also a significant co-contributor delivering 11% to GRP through wineries, restaurants, farm gates, attractions and accommodation. As an industry, it is a major source of employment, income, local wealth and food production on state-wide, and national scales.

The Climate Emergency and the transition to net zero-emissions bring a range of challenges and opportunities for our local economy. We have to act and adapt.



Our Community Emissions

In 2018, community emissions were calculated as 2.07 million tonnes of CO₂-e.



Electricity consumption
(52.5%)



Transport
(31%)



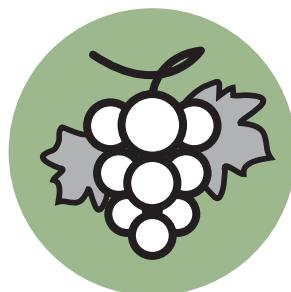
Natural gas consumption
(8.4%)



Industrial processes
(4.9%)



Waste
(2.6%)



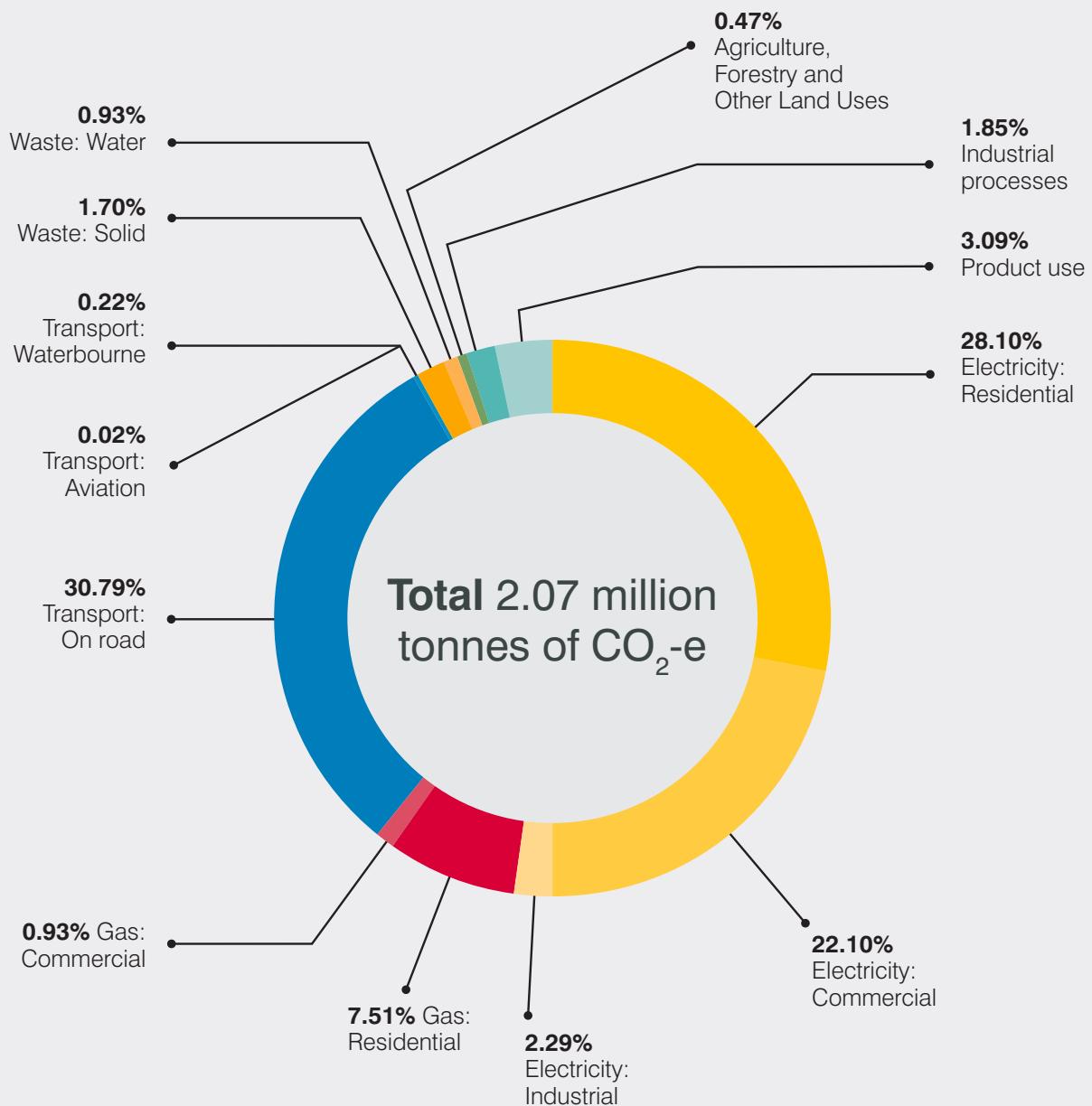
Agriculture, forestry and
other land use **(0.5%)**

Emissions by sector for the Mornington Peninsula (2018 BASIC+ Inventory).

Nearly 90% of people surveyed believe that the Peninsula community should set a carbon emissions reduction target.

86% of survey participants identified the energy transition as an important outcome that is necessary to address the climate emergency.

Community emissions profile for financial year 2017/18



Mornington Peninsula Municipal Emissions (t CO₂-e)

What is the plan?

The peak goal is zero-emissions by 2040.

We are going to lead this journey so that the international community including developing countries can achieve the global target of net zero emissions by 2050, to keep global warming below 1.5°C and ensure our future.

Seven Summits

The journey will take us from the emergency situation of the present into a safer future.

Through our consultation and development work we identified seven key themes; our climate objectives for the ten year plan. These became seven summits, the mountains to climb on the way to the peak. This is what we must do to arrive at the future place we've envisioned on pages 10-11.

The Shire and our stakeholders identified what the view will look like from each mountain top. We'll know we have arrived at our destination when we meet the key target set for each summit. The plan also includes 35 supplementary targets so that we don't get lost, and can map our progress along the way.

We've identified our spheres of influence to be clear and realistic about what we can achieve, and to identify where we need to advocate for others to take action in response to this collective Climate Emergency.

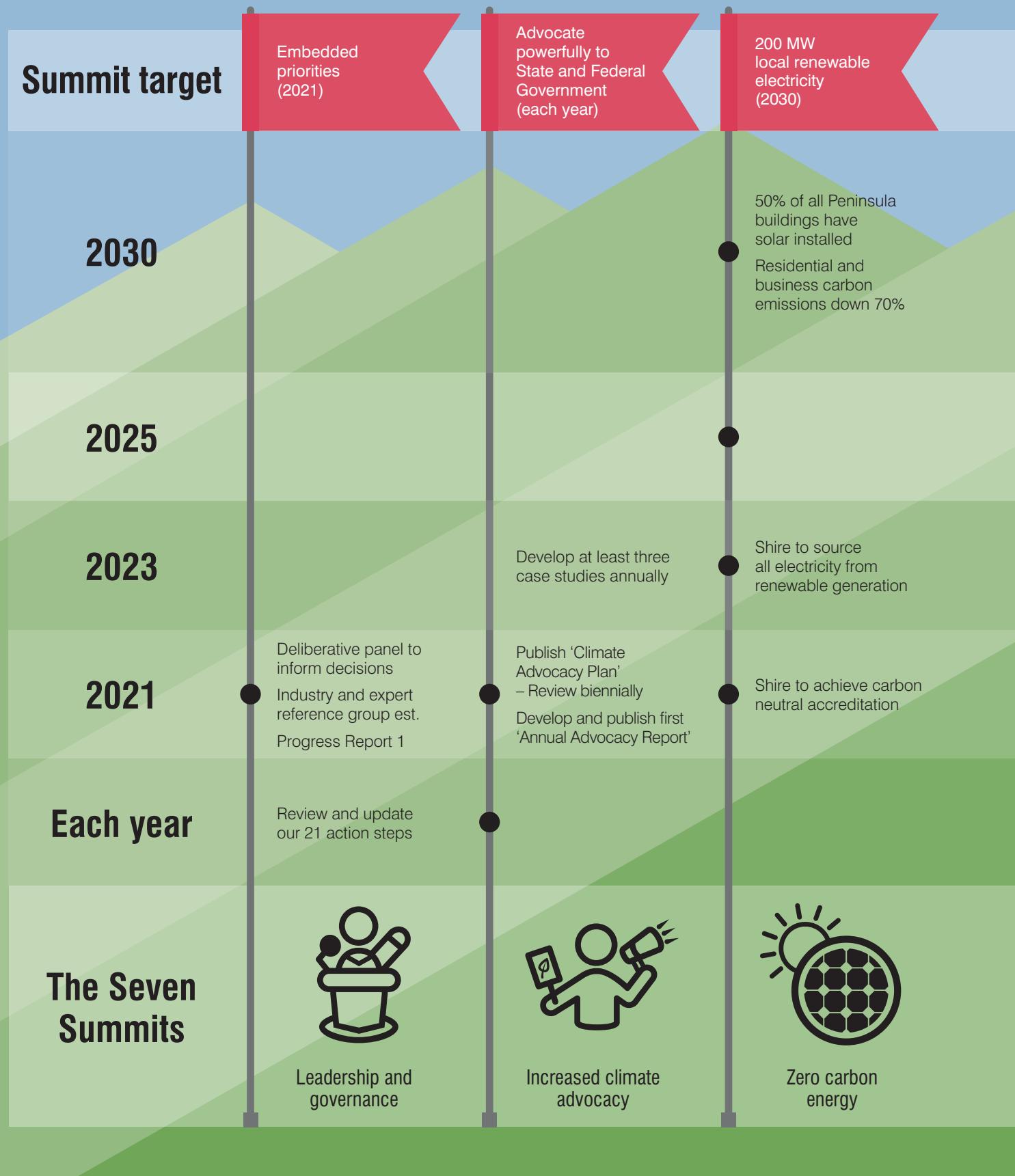


My Dream for a Sustainable Peninsula 2030 - S. Hardt



Somers Beach

Join us on the journey.



Peak 2040

Net zero-emissions,
right across the Peninsula.

Community resilience strengthened (2025)

Community and business better prepared for climate impacts
10% reduction in flood prone area damage

Deliberative engagement in Shire climate decisions
Renewable energy access improved for all
Shire planning for climate change impacts improved

Shire to participate in at least 50% of community-led climate events

Transport emissions down 50% from 2018 levels (2030)

Shire fleet zero emissions
Major economic hubs more accessible by active transport
Smart tech public transport solutions introduced

EV charging available at major hubs
Increase bike and pedestrian traffic by 10%
Daily public transport usage doubled

No new extinctions of indigenous species

1 million tonnes of local carbon sequestration (2030)

Increased canopy cover in public spaces
Recycled water available to farms
Increased ecosystem resilience
20% of farms adopt regenerative practices
Waterway health improved 10%

10,000+ people in environmental programs
Existing established indigenous trees are protected

FOGO service for residents

Zero waste to landfill; 100% reuse (2030)

Cut household waste down 20%
Cut business waste down 20%
22,829 tonnes recycled waste used in civil or construction works



Resilient and adaptive community



Sustainable travel and transport



Sustainable land use and environmental restoration



Circular economy and zero waste



“ I hope that we can **create a sanctuary** where we, the Mornington Peninsula, value our environment more... that we are prepared to make tough decisions for a better future. ”



Summit 1: Leadership and Governance



View from the top

Living our values, we become a regional leader in climate change action for our community, with a strong system of governance to guide our decision making and keep us accountable to our community and our promises.

Why this matters

Our community wants leadership on climate action. We must act strongly and decisively in order to live our vision to value, protect and improve the unique characteristics and way of Peninsula life.

The lens of the climate emergency declaration will influence all future Shire decisions and activities. This will affect every service we deliver and every team within the organisation.

Robust leadership is essential to provide guidance, certainty and strength, and to hold us accountable for ambitious targets. The Shire will lead our community and organisation through the challenges by embodying the Shire's values of Integrity, Courage, Openness, Respect and Excellence.

What you told us:

The Mornington Peninsula can set an example of how a community can **work together** to achieve a sustainable but prosperous area, through encouragement from and support by the Shire.

Acknowledging a Climate Emergency means that governing bodies can **no longer continue business as usual**, it means that they are recognising the seriousness of the situation.

Key target

By 2021, responsibility for climate emergency action will be shared across the entire organisation and our community, led by a Climate Oversight Group composed of shire executive and key staff.

Supplementary targets

- 1:** Each year the Shire will review and update our 21 action steps
- 2:** By 2021, establish a deliberative panel of community representatives, including Traditional Owners, to inform and review Climate Emergency decisions with a clear 'Terms of Reference'
- 3:** From 2021, establish a reference group of suitable strategic partners and experts to guide solutions, as required
- 4:** By 2021, produce and publish the first 'Climate Emergency Plan' annual progress report

Sphere of influence

Local Governments are uniquely placed to take effective action on climate change, and lead by example for community and other levels of government.

Community's role

- Actively engage with the Shire through the deliberative democracy panel and future reports and reviews of this plan
- Transform the peninsula into a thriving community working towards ensuring our future

Shire's role

- Embed climate emergency within all Shire departments and decisions
- Share and communicate knowledge and expertise openly and clearly

Collaboration

- Partner with and highlight community groups demonstrating climate leadership

Reaching beyond our region

- Use and expand partnership and collaboration networks
- Advocate by 'showing, not telling'
- Set high community expectations for government action

Metrics

- Executive group is established
- Climate Emergency has been embedded in all future Shire plans, decisions, programs, actions, policies, strategies and contracts
- Annual 'Climate Emergency Progress Report' published



Leadership and Governance

Summit 2: Increased Climate Advocacy



View from the top

The community's voice is clearly and honestly amplified to all levels of government and industry. Strong, evidence-based advocacy positions are presented, so that climate action is accelerated.

Why this matters

Advocacy starts with community. Mornington Peninsula Shire's role is to support the community to safeguard, protect and enhance our local people and assets.

The Shire will take strong local action with the community and demand suitable action at local, state and federal levels as well as to business and the broader community. The Shire will also leverage new and existing key partnerships and networks to influence current and future decision making and resource investment.

What you told us:

Leadership to inspire residents to take personal actions to reduce their environmental footprint but most of all **advocate** to state and federal governments...

Key target

Each year the Shire will work with the community towards shared advocacy goals and advocate powerfully with community and key partners to leverage leadership to all levels of government and business.

Supplementary targets

- 1:** By 2021, develop and publish the 'Climate Emergency Advocacy Plan', advocate on the priority actions within the plan and review it every two years
- 2:** By 2021, develop and publish the first 'Annual Advocacy Report' for transparency and accountability
- 3:** From 2023 onwards, the Shire will develop at least three case studies annually. These case studies will include measurable indicators, benefits and lessons learnt of projects and activities undertaken by the community and the Shire that have worked towards stopping climate change

Sphere of influence

Highly focused and effective action on climate change, is required at the state, national and global levels. Action within local government regions can demonstrate opportunity, action and learnings.

Community's role

- Advocate for climate action to all levels of government
- Participate in community action

Shire's role

- Listen to and promote community voices
- Use evidence-based arguments in advocacy
- Ensure advocacy positions are representative
- Advocate with key partners

Collaboration

- Individuals, businesses, community groups and the Shire work together to achieve advocacy targets

Reaching beyond our region

- Use and expand partnership and collaboration networks
- Advocate with other government agencies for zero carbon energy

Metrics

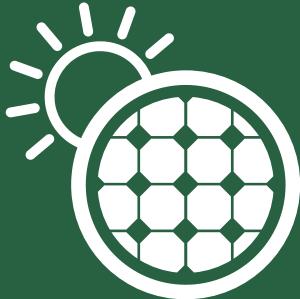
- Progress on Advocacy Plan
- Media on our climate change actions
- Partnership achievements
- Actions in response to our advocacy
- Community behaviour change

I wish there was more I could do but **no one can change this on their own**, we need councils, governments and groups to help too.



Increased Climate Advocacy

Summit 3: Zero Carbon Energy



View from the top

The Peninsula will be powered by net zero-emissions energy thanks to an increase in renewable energy such as solar and wind power, phasing out gas and improving energy efficiency in our buildings.

Why this matters

The electricity and gas used in buildings represent the Peninsula's biggest source of carbon emissions (61%). This stationary energy is our most substantial mitigation opportunity.

These energy emissions can be traced back to residential electricity and gas, as well as commercial and industrial electricity and gas use.

By carefully planning our energy transition we can reduce emissions, improve the thermal comfort of our homes and workplaces, reduce building running costs, and increase the stability of our energy supply.

Key target

By 2030, 200MW of renewable electricity will be generated locally. That's enough to power approximately 50,000 homes on the Peninsula.

Supplementary targets

- 1: By 2021, Mornington Peninsula Shire will reduce emissions within its operational boundary to net zero, and achieve Carbon Neutral accreditation
- 2: By 2023, the Shire will source all electricity from renewable generation
- 3: By 2030, 50% of all buildings on the Peninsula will have solar panels installed
- 4: By 2030, carbon emissions from all residential buildings and businesses will be reduced by 70% from 2018 levels

Sphere of influence

Reducing and eliminating emissions requires drastic changes to the way we use energy, as well as huge investment in renewable energy.

Community's role

- Take strong action to reduce emissions in houses and businesses
- Lead through installing renewable energy systems on all properties

Shire's role

- Invest in and improve energy efficiency and renewable energy solutions for Shire-owned buildings
- Promote renewable energy and energy efficiency
- Support the community's energy transition

Collaboration

- Partner with local electricity distributor to improve infrastructure
- Partner with community on renewable energy projects, e.g. solar or microgrids

Reaching beyond our region

- Advocate and partner with other government agencies to drive the transition to zero carbon energy

Metrics

- Community energy consumption
- kW of renewable energy generated
- Number of houses generating renewable energy
- Uptake of 'Environmental Upgrade Finance', bulk-buy schemes and community grants
- Shire carbon emissions

What you told us:

Adoption of **renewable energy** on an individual and industrial level, commitment to **reduction of emissions** and no new investment in fossil fuels.

Would love to see us at **net zero sustainable housing**.

Investigation of decentralised **micro grid** networks for energy distribution.



Summit 4: Resilient and Adaptive Community



View from the top

Our community works together to care for the environment and each other. Our buildings, infrastructure and services will be adapted to our future climate.

Why this matters

We are already experiencing detrimental changes to our climate and environment. These effects will worsen. We have to prepare and adjust together.

Public infrastructure will be at risk and insurance costs might increase. We can expect more frequent pressure on emergency services. Our mental health will be impacted as we adjust to the change.

Climate resilience is the ability to anticipate, prepare and respond to hazardous impacts of climate change. Improving climate resilience involves assessing how climate change will alter our current risks or create new risks and adopting measures to cope with these.

Being resilient to climate change involves planning and building infrastructure to cope with both acute events such as floods and chronic events such as sea level rise. A resilient and adaptive community understands the current and future impacts of climate change and is well prepared and supported to cope with these impacts.

What you told us:

Better connected communities who work together to live more sustainably.

Create a climate change planning group. Overall, the creation of a community that understands that change needs to occur for the continuation of life as we know it and like it.

Key target

By 2025, the resilience of our community will be strengthened by maximising social connections and meaningful engagement to increase understanding of the local impacts and risks of climate change.

Supplementary targets

- 1:** Each year the Shire will participate in at least 50% of the major community-led events on climate action
- 2:** By 2025, Shire infrastructure and services planning will consider climate change impacts.
- 3:** By 2025, increase community deliberative engagement in the Shire's 'Climate Emergency Action' decisions
- 4:** By 2025, renewable energy is easily accessible to all sectors of the community, including tenants¹⁵
- 5:** By 2030, community and business awareness of the local impacts of climate change and ability to prepare for extreme weather events is improved by 20%
- 6:** By 2030, reduce the 'Annual Average Damage' (AAD) of flood prone areas on the Peninsula by 10%¹⁴

Sphere of influence

Resilience requires change across social and place-management systems. All levels of government, plus non-government agencies and the broader community have an essential role to play.

Community's role

- Lead by caring for our community and environment
- Foster strong social connections, especially during times of emergency

Shire's role

- Future proof Shire owned infrastructure
- Deliver local community development programs and social services

Collaboration

- Partner with Emergency Management Victoria and other agencies on emergency planning and response
- Partner with local community groups and social service organisations on resilience programs

Reaching beyond our region

- Advocate and partner with other government agencies on infrastructure and social resilience projects

Metrics

- Social Survey Data e.g. shifts in adaptive capacity
- Human Development Index results
- Community decision making panel
- Annual Average Damage
- Risk Assessment data
- ABS data by township



Resilient and Adaptive Community

Summit 5: Sustainable Travel and Transport



View from the top

We will make the switch to zero-emissions vehicles, active transport like cycling and walking, and make use of a vastly improved, zero carbon public transport system.

Why this matters

Transport is the second largest source of carbon emissions on the Mornington Peninsula (31%). Most of this is attributed to road transport.

The move towards sustainable transport is a huge emission reduction opportunity for the Peninsula.

This will contribute to the Peninsula's reputation as a sustainable destination, offer more convenient ways for locals and visitors to travel to and within the municipality, and reduce traffic and noise pollution.

What you told us:

A broad **network of community transport, public transport and bike and walking tracks to reduce individual car usage and traffic.**

Many **bicycle tracks** safely separated from cars. Follow Copenhagen's lead and copy how they are aiming to be carbon neutral in **constructive, caring and also fun ways.**

Key target

By 2030, transport emissions will be reduced by 50% from 2018 levels.

Supplementary targets

- 1:** By 2025, transition communities to active transport within townships by increasing pedestrian and cyclist traffic by 10% from 2019 levels
- 2:** By 2025, daily public transport usage will be doubled
- 3:** By 2025, electric vehicle charging infrastructure will be available at major activity centres to facilitate the use of zero-emissions vehicles
- 4:** By 2030, all Shire fleet vehicles will be zero-emissions
- 5:** By 2030, major economic hubs and schools will be more accessible by a network of footpaths, school walking bus lanes, bike lanes or public transport,
- 6:** By 2030, smart technology public transport solutions are introduced, such as 'Movement as a Service' (MaaS)

Sphere of influence

The Shire is responsible for local roads, parking and most active transport infrastructure. State government oversees public transport and arterial roads.

Community's role

- Increase use of active transport, public transport and zero emissions vehicles
- Provide services to reduce travel distances

Shire's role

- Transition Shire fleet to zero emissions
- Develop active transport infrastructure
- Encourage active and public transport and zero-emissions vehicles

Collaboration

- Partner with State government to improve public transport infrastructure
- Develop partnerships to improve electric vehicle charging infrastructure

Reaching beyond our region

- Advocate and partner with other government agencies to develop an integrated, zero-emissions transport system

Metrics

- Levels of public, shared and active transport
- Percentage of electric vehicle usage, shared transport
- Road design and closures



Sustainable Travel and Transport

Summit 6: Sustainable Land Use and Environmental Restoration



Why this matters

Managed reserves cover approximately 10% of the Shire, and 80% of land is privately owned. We all play a critical role in land stewardship. The Shire contains 10% of Victoria's coastline, with the majority of people living and working near the coast. This means that a significant portion of our natural areas are particularly vulnerable to damage caused by climate change.

The World Economic Forum rated food and water crises as among the largest global societal risks resulting from climate change. Approximately 40% of Shire-wide land is used for agriculture. We have abundant opportunities for local, sustainable food production and regenerative systems to protect our valuable soil and water.

Over 87% of local people surveyed believe that a transition to sustainable food and farming is an extremely important response to the climate emergency. We need collective solutions.

What you told us:

“**Revegetation** of Peninsula indigenous woodlands to cleared areas where possible, **restoration** of intact bushland and coastal areas such as mangroves and sea grass meadows to sequester carbon.”

View from the top

We will protect and improve our natural landscape, waterways and bays, support and create biodiverse habitats, improve ecosystem resilience, practise regenerative farming and sequester carbon in the landscape; balanced with housing and urban needs.

Key target

Between 2020 and 2030, 1 million tonnes of atmospheric carbon will be sequestered on the Peninsula through terrestrial and aquatic plantings and improved soil conditions.

Supplementary targets

- 1:** Each year there will be no new extinctions of indigenous species on the Peninsula
- 2:** By 2025, existing established indigenous trees are protected
- 3:** By 2030, 20% of local farms will adopt agroecological practices or transition to regenerative farming techniques
- 4:** By 2025, increase human-nature connections by involving a total of 10,000 people in local terrestrial- and marine-based environmental care programs
- 5:** By 2030, vegetation will be in place to increase shade to 45% in urban public spaces
- 6:** By 2030, recycled water will be available in strategic Peninsula regions for agriculture and other beneficial purposes
- 7:** By 2030, increase ecosystem resilience to climate change and other threats on the Peninsula, e.g. through restoring connectivity of habitat across public and private land.
- 8:** By 2030, improve waterway health by 10% from 2020 levels

Sphere of influence

The Shire administers the planning scheme and will promote ecosystem protection and restoration, and regenerative farming practices.

Community's role

- Create and improve biodiversity on private land
- Create a strong supply and demand for local sustainable food

Shire's role

- Improve biodiversity and connectivity on Shire managed land
- Township scale planning for urban and rural ecological health
- Set strategic local policy framework
- Incentivise biodiversity improvements on private land

Collaboration

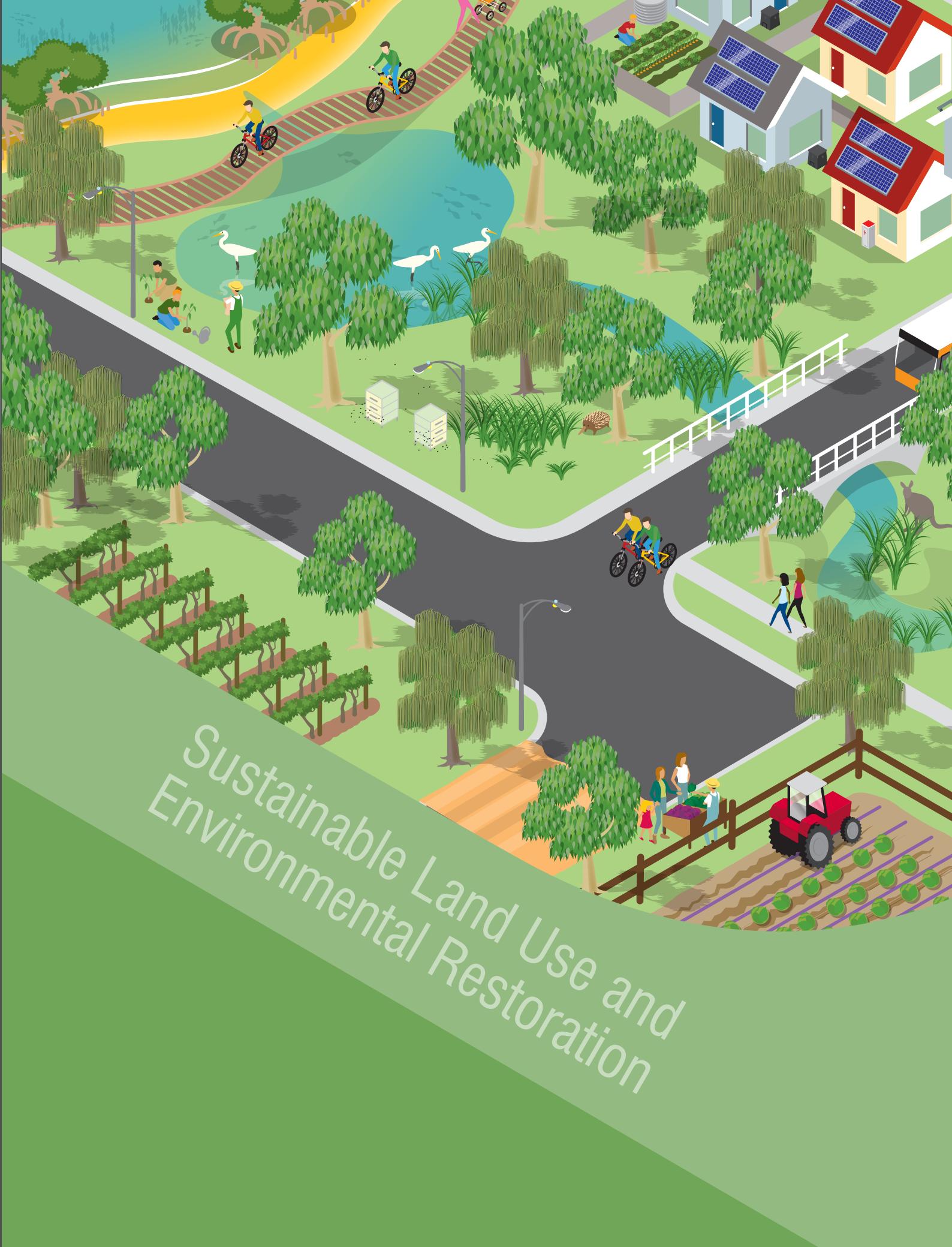
- Shire, community groups and other landowners to sustainably manage land

Reaching beyond our region

- Advocate for changes to the State Planning Policy Framework

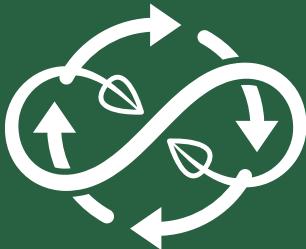
Metrics

- Canopy cover in GIS
- Biodiversity metrics and geographical data
- Urban temperature averages and stability levels
- Population comfort levels and health impacts
- Outdoor activities, nature park usage
- Species status and ecosystem health indicators



Sustainable Land Use and Environmental Restoration

Summit 7: Circular Economy and Zero Waste



View from the top

Waste is eliminated through the design and reuse of all products for our processes and services, with resources valued at all points of the circular economy.

Why this matters

The current 'take-make-waste' industrial model of consumption is unsustainable. It no longer benefits our society, economy or environment.

The current system can be gradually replaced by a circular economy where resources are kept in use for as long as possible to reduce waste and minimise environmental impact. At the end of that use life, materials and components are recovered and reused.

A circular economy focuses on positive, society-wide benefits. It can drive greater resource productivity and create new markets and opportunities for sustainable economic development.

Key target

By 2030, zero waste will go to landfill and 100% of resources will be recovered and reused.

Supplementary targets

- 1: By 2021, implement a FOGO service for residences
- 2: By 2030, cut the total waste generated per premises in households by 20% (including plastic waste)
- 3: By 2030, cut the total waste generated by businesses by 20% (including plastic waste)
- 4: By 2030, 22,829 tonnes of recycled content will be used in Shire civil or construction works

Sphere of influence

The Shire is responsible for local waste collection and disposal systems. These are influenced by state policy and industry infrastructure. Regulation of product packaging is largely federally-controlled.

Community's role

- Actively reduce waste generation and improve recycling
- Lead in circular economy programs

Shire's role

- Invest in local circular economy infrastructure
- Improve the Shire's purchasing and waste practices

Collaboration

- Work with the local community to move to a circular model and reduce waste

Reaching beyond our region

- Advocate and partner with other government agencies to drive a broader shift toward a circular economy

Metrics

- Tonnes of waste produced
- Percentage of recycled waste
- Percentage of waste diverted to alternative waste treatment (AWT)
- Percentage of waste composted
- Emissions produced and captured
- Percentage recycled waste in the Shire's construction works

What you told us:

I hope that there is a **circular economy** happening in the Mornington Peninsula, where local businesses doing the right things are supported by the people.

Fully circular economy supported by governments, business and individuals, with a focus on protecting vulnerable populations.

