



# Climate Change

## Action Plan



northern  
beaches  
council

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## Executive summary

Northern Beaches Council set clear Aspirations and Commitments in relation to Climate Change in the Protect, Create, Live – Northern Beaches Environment and Climate Change Strategy 2040 (the Strategy). This Action Plan has been prepared to identify how Council will embed these strategic directions into Council's operations and support key stakeholders, partners and the community as a whole in taking action.

This plan provides a list of actions to be implemented by Council over the next four years to address climate change. The plan will be revised every four years to retain its relevance and alignment with Council's Delivery Program and Operational Plan.



## Why a Climate Change Action Plan?

We need to address the impacts of climate change on the Northern Beaches, and meeting that challenge requires action from across the community and from various levels of government. In August 2019, Northern Beaches Council resolved to “declare that we are in a state of climate emergency that requires immediate action by all levels of government”.

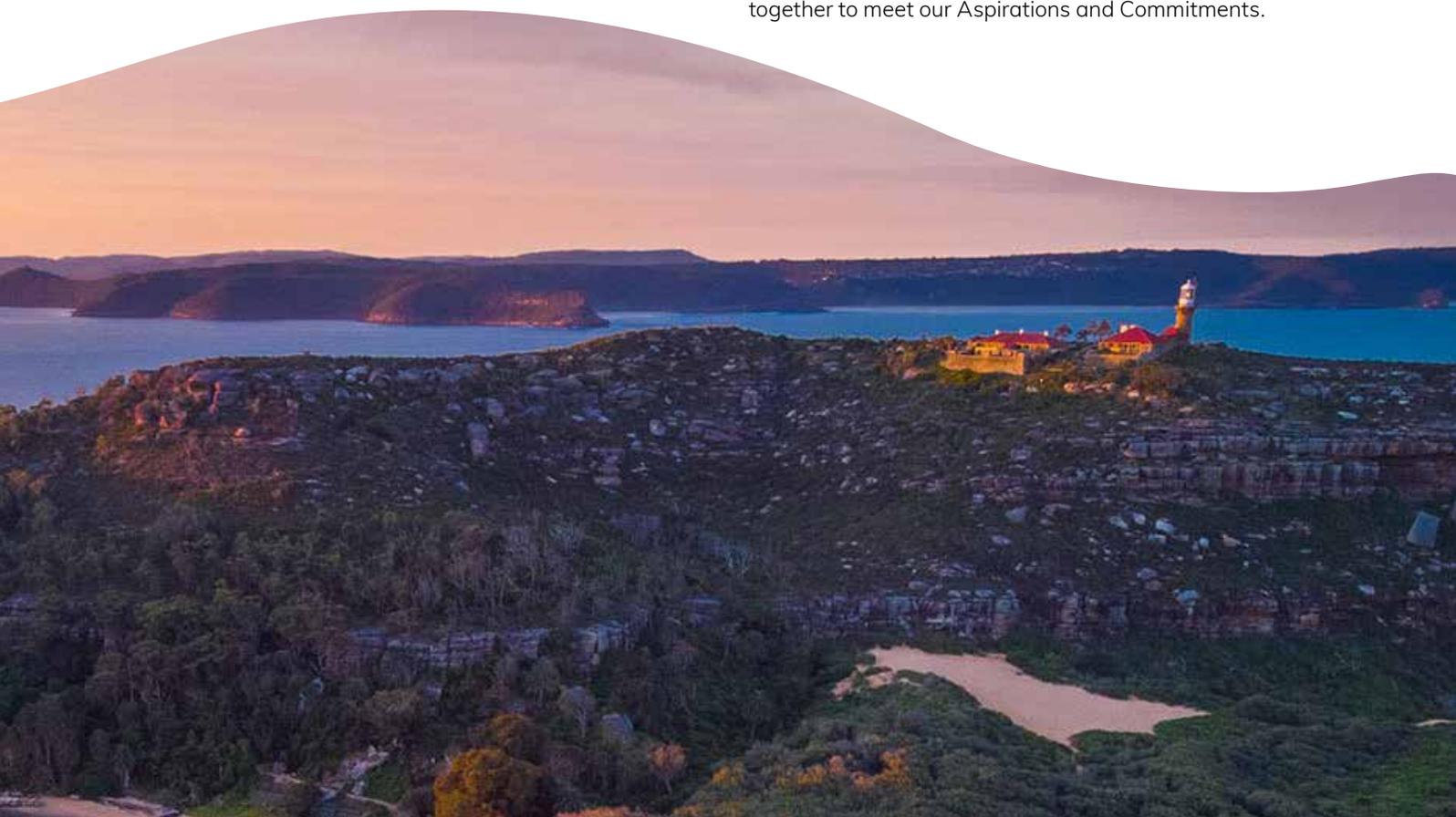
This Action Plan responds to that resolution, community outcomes for Environmental Protection and Environmental Sustainability in Shape 2028: Northern Beaches Community Strategic Plan, actions in Towards 2040: Northern Beaches Local Strategic Planning Statement and a series of clear and ambitious Aspirations and Commitments in the Strategy. We need to accelerate action to:

- Mitigate future climate change through reducing carbon emissions both in Council’s operations and by encouraging and supporting our community to do the same

- Adapt, ready for the predicted long term effects of climate change already locked into the system. These include sea-level rise, increased frequency of extreme weather events, bushfires, coastal storms, floods and drought. This also means being ready for heatwaves and building for higher sea levels.

Council has a direct influence over the emissions from its operations. Council is leading by example and has recently reduced its emissions from contributing around 2% of the emissions of the Northern Beaches Local Government Area to less than 0.5%, and are looking to do more. The actions for the next four years are shown in the section ‘Towards a Net Zero , Resilient Organisation’. Some of these actions are already well underway, and others will be commenced during the term of this plan and demonstrate Council’s commitment toward achieving net zero emissions by 2045.

Council plays a role in encouraging and supporting the community to reduce emissions to achieve net zero emissions. ‘Reducing our Community Emissions – Actions to 2024’ details Council’s opportunities to encourage, support, advocate and demonstrate leadership to help our entire community to work together to meet our Aspirations and Commitments.



## Committed to change

### Our Carbon Emission Reduction Commitments



With Council's commitments to achieving net zero emissions this action plan aligns with the targets set by the NSW State Government who have committed to taking decisive and responsible action on climate change through a Net Zero Plan (2020-2030) and a goal of net zero emissions for the entire state by 2050.

Further, the targets set by Council have been acknowledged as being fully aligned to the Paris Climate Agreement. The Paris Climate Agreement states "Achieving net zero emissions prior to 2050 is a key element of the Paris Climate Agreement to limit global temperature rise to well below 2 degrees Celsius above pre-industrial levels and to strive for 1.5 degrees."

However, the Intergovernmental Panel on Climate Change (IPCC) states that the world needs to reach carbon neutrality no later than 2050 and even then, it is a 50/50 chance whether warming can be kept within 1.5°C. As such, Council has adopted Aspirations to achieve net zero emissions by 2030 both in corporate and community emissions.

Whilst this plan includes actions for mitigation of climate change by reducing emissions it also necessarily contains actions to adapt to the already changing climate.

**Over the next four years we want to reduce emissions and increase resilience both within Council operations and in the community.**

### Some of our other climate change related commitments include:



#### Community Aspirations

Reduce the risk of natural hazards and climate change to our community and our environment

#### Community Commitments



Public infrastructure designed, constructed and maintained to address climate change



The community being prepared, educated and resilient to natural hazards and climate change



Increasing the existing urban tree canopy to expand the local green grid

#### Corporate Commitments



Planting a minimum of 5,000 trees each year

## Our actions so far

Council is committed to addressing climate change. Here are some examples of what we have already done:

- In August 2019 Council declared a climate emergency to raise “awareness of the need to take urgent action, whilst demonstrating that the Northern Beaches Council takes the climate crisis seriously”.

Implemented the new domestic waste collection service which diverts more recycling from landfill than ever before



Delivering the award winning Swap for Good, a program to support and empower local businesses to swap out single-use plastic. Launched in June 2019, the program fosters a network of 170 businesses, 26 schools and 30 community groups



Council is committed to reducing its carbon emissions. In January 2021 Council reduced its annual emissions by ~80% by switching all its electricity to 100% renewable energy.



Installed more rainwater harvesting systems and undertaken water efficiency upgrades. We are working with our local businesses to do the same in partnership with Sydney Water



Supported innovation in partnership with Zero Mass Water and ARENA with the installation of SOURCE water hydropanels at Currawong Holiday Cottages. They produce clean drinking water from air and build resilience into the water supply of the site



We have progressively improved how we irrigate our sportsgrounds using SMART technology, including a trial of soil moisture sensing technology at Manly Oval

- In December 2019 Council adopted Protect. Create. Live. Environment and Climate Change Strategy 2040. The award winning strategy provides a roadmap for how we can shape a bright environmental future by addressing the challenges and embracing opportunities.
- Council is a Bronze Partner of the NSW Government Sustainability Advantage Program.
- We are a Climate Council's Cities Power Partner and have completed 1 of our 5 climate change pledges.

Installed over 800kW, including the Manly Andrew 'Boy' Charlton Aquatic Centre which is one of the largest systems on the Northern Beaches



Replaced residential street lights to reduce our energy consumption, save money and reduce light spill to the night sky by ~90%.

Upgraded lighting in some of our buildings, sportsgrounds and carparks



Reduced energy usage at Manly Library and Manly Town Hall with more efficient air conditioning systems.



We have battery electric vehicles and plug-in or hybrid vehicles in Council's fleet, with the numbers of each growing as more vehicles come up for replacement



We are implementing our Northern Beaches Transport Strategy: Move 2038 making it easier for our community to use sustainable transport. The use of commuter carparks and the B-Line bus continues to grow. We also support car share facilities, provision of electric vehicle charging points, bike networks and recently a new e-taxi trial



## Towards a net zero, resilient organisation – Actions to 2024

"If Council can do it,  
it shows it is possible."

### COMMUNITY FOCUS GROUP

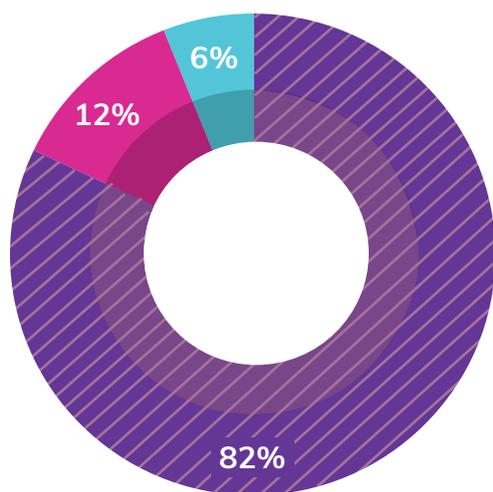
Northern Beaches Council as an organisation was responsible for ~2% of the emissions in our area when the baselines for the Strategy were prepared for 2016/17 (Kinesis, 2018). With the recent 100% renewable electricity contract Council has reduced this to be less than 0.5%. While this may not seem like a significant amount, it is important that Council acts as a best practice leader by lowering its corporate environmental footprint. Council will learn from experience what it takes to operate more sustainably and use this knowledge to help lead our community to do the same.

### Carbon Emission Calculations

In this plan we have included emissions from electricity and gas use, transport and waste production for people living in the entire Northern Beaches Local Government Area in the community emissions profile. It does not include the emissions produced in the manufacture, growing or transport (the life cycle) of products we purchase or consume.

### Northern Beaches Council's baseline carbon emissions broken down by resource type

2016/2017



- Electricity Emissions
- Fleet Emissions
- Natural Gas Emissions
- Electricity Emission - were recently reduced to from 82% to zero when Council switched to 100% renewable electricity

We will further reduce corporate carbon emissions and adapt to expected future risks by making improvements in the following key areas:

- Energy, water and waste efficiency
- Onsite renewable energy and storage
- Buildings and infrastructure
- Transport
- Buying better
- Planning for our future net zero community.





## 1. Energy, water and waste efficiency

To improve efficiencies and operate our existing buildings and other assets well we will:

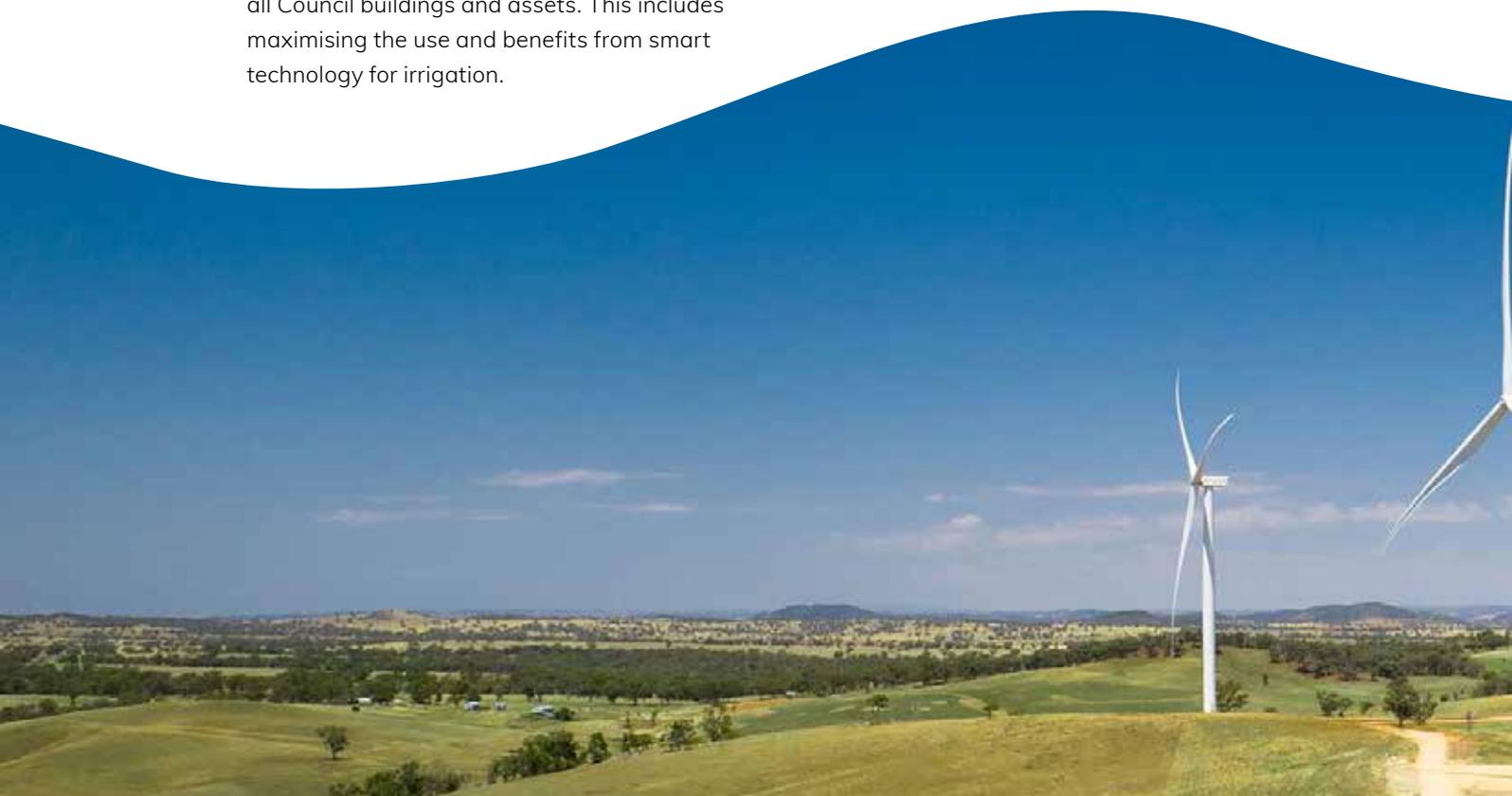
- 1.1 Continue to roll out energy efficiency through all Council buildings and assets. Improve our lighting, air conditioning, pumps and other equipment and ensure new equipment meets best practice
- 1.2 Upgrade our street lighting to best practice standards, including LED's
- 1.3 Investigate approaches to carbon offsetting
- 1.4 Improve resource recovery and reduce waste generated from Council operations whilst always exploring innovative new approaches. This will include seeking opportunities to support a circular economy and improve the recycling of construction waste.
- 1.5 Continue to investigate alternate water sources and improve water efficiency across all Council buildings and assets. This includes maximising the use and benefits from smart technology for irrigation.



## 2. Renewable energy

Council will continue to further transition to renewable energy by:

- 2.1 Enhancing 100% renewable electricity for Council operations through on-site generation, battery storage and continued renewable electricity procurement
- 2.2 Investigating options to transition away from fossil based fuels. This includes transitioning away from gas to renewable electricity options or where this is not possible to renewable gas options
- 2.3 Investigating large scale battery storage options to support the local electricity grid, increase local renewable energy use and build resilience.





### 3. Buildings and infrastructure

Our new buildings and works will be designed and built with consideration for their full life-cycle impact and to be resilient to future conditions. We will consider this as we renew existing buildings and infrastructure too. We will:

- 3.1 Integrate guidelines into Council's processes that will deliver sustainable and resilient buildings and infrastructure
- 3.2 Prioritise the use of low emissions construction materials and processes in the design of buildings and infrastructure
- 3.3 Continue to invest in innovative technology that provides remote sensing and control to reduce energy and water consumption.



### 4. Transport

We will continue our efforts to reduce emissions from transport by:

- 4.1 Continuing to transition plant and fleet, in particular passenger vehicles, to suitable lower and zero-emissions alternatives that are readily available.
- 4.2 Investigating lower/zero emission options for other light and heavy fleet that could be chosen when vehicles are ready for change over
- 4.3 Encouraging and incentivise staff to investigate alternatives to reduce work related travel trips
- 4.4 Encouraging sustainable transport for all staff travel and investigate opportunities to offset emissions where options are not available.





## 5. Buying better

We want to continually improve the way we buy things through excellent sustainable procurement practices. We will:

- 5.1 Develop and implement a road-map that delivers sustainable procurement outcomes including the use of sustainable and recycled materials and the accounting for whole of life cycle costs
- 5.2 Replace single use plastics in Council's operations
- 5.3 Continue to use recycled aggregate and road base in Council road works
- 5.4 Partner with other organisations to trial new and emerging technologies for using recycled materials in Council operations and works.



## 6. Planning our future net zero community

Council will create a planning framework to support delivery of our zero emissions commitments. This will support green neighbourhoods and protect our carbon sinks. We will:

- 6.1 Incorporate planning provisions to ensure low-carbon, high-efficiency precincts in strategic centres, employment hubs and areas subject to urban intensification in the short term are prioritised, as densely populated suburbs provide the best opportunities, including the Frenchs Forest Precinct
- 6.2 Ensuring net zero concepts and climate risk are addressed in the Northern Beaches planning framework
- 6.3 Reduce the urban heat island effect by supporting green infrastructure and integrated water cycle management in our local planning instruments, especially precinct based planning
- 6.4 Advocate to the state government for improvements to the BASIX targets for new buildings and large renovations
- 6.5 Protect established carbon sinks, including trees, bushland, wetlands and mangroves as well as our waterways and biodiversity through our planning instruments and improved compliance
- 6.5 Plant at least 5,000 trees each year to enhance wildlife corridors and assist in reducing urban heat island effect.



## Reducing our community emissions - Actions to 2024

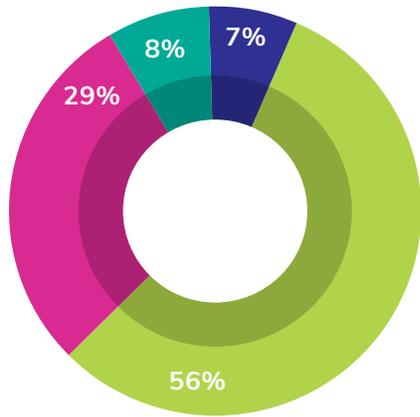
As a local government we have the opportunity to encourage and support our community to reduce emissions in their businesses, industry and at home. Analysis undertaken for the 2016 baseline year of estimated carbon emissions from electricity, gas, waste and transport for the Northern Beaches is about 2 million tonnes each year. Of this, the majority is from the residential sector. Electricity contributes almost half the emissions, followed by transport. The non-residential sector contributes about a third of the emissions, the majority of this is from electricity.

We will use this data to tailor engagement, education, advocacy and collaboration actions to support and encourage our community to reduce carbon emissions and adapt to expected future risks. We will focus on improvements in the following key areas:

- Renewable electricity
- Energy, water and waste efficiency
- Transport
- Buildings and backyards
- Buying less; buying better
- Building stronger communities.



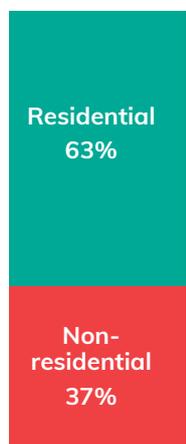
### Carbon emission in the Northern Beaches by resource type



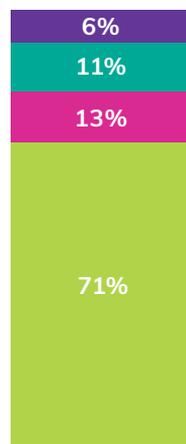
- Electricity
- Transport
- Waste
- Gas

Reductions targeting electricity and transport should deliver higher emissions reductions

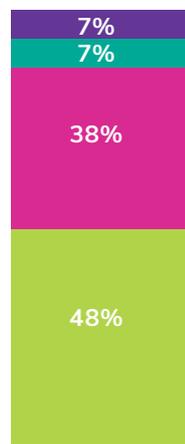
### Carbon emission in the Northern Beaches by sector



Northern Beaches total emissions



Non-residential



Residential

- Electricity
- Transport
- Waste
- Gas





## 7. Renewable electricity

Council will support our community to access renewable electricity by:

- 7.1 Encouraging the community to choose renewable electricity through education and support to install solar panels and batteries on their property
- 7.2 Demonstrating the economic and environmental benefits of renewable electricity through case studies and making information accessible
- 7.3 Investigating the opportunity to facilitate a renewable electricity power purchase agreement for local business and/or industry.



## 8. Energy, water and waste efficiency

Being energy, water and waste efficient is not only great for the environment, it can also save you money. We will:

- 8.1 Demonstrate to our community the economic and environmental benefits of buying efficient appliances and lighting through education and engagement
- 8.2 Encourage and demonstrate to the community how they can reduce their energy and water consumption
- 8.3 Work with local businesses to reduce water consumption and carbon emissions through the Sustainable Business Program and promote and celebrate their successes through the local sustainability business awards
- 8.4 Work with local businesses to reduce waste production, in particular single use plastics.





## 9. Buying less; buying better

Each person in our community has the chance to make a difference through thoughtful buying decisions. We will:

- 9.1 Encourage the community to reduce consumption, waste and emissions through buying less and buying better. Demonstrate the benefits through online tools, education and promotion
- 9.2 Promote and support a circular economy.



## 10. Transport

The way we choose to get around is the second largest contributor to carbon emissions on the Northern Beaches. We will work with our community to make walking, cycling and public transport good, safe alternatives by:

- 10.1 Advocating for initiatives that accelerate the update of low emission transport (e.g. electric vehicles)
- 10.2 Supporting and delivering trials of innovative approaches to accelerate the uptake of low emission transport
- 10.3 Supporting the provision of local co-working spaces to reduce the need for work related travel
- 10.4 Facilitating and/or providing public electric vehicle charging infrastructure at key locations
- 10.5 Delivering the bike plan to support cycling infrastructure, bike parking and end of trip facilities
- 10.6 Advocating and working with the State Government to improve public transport
- 10.7 Promoting and supporting shared transport initiatives.





## 11. Buildings and backyards

We will show our community the benefits of considering sustainability up front when building their homes and workplaces. We will encourage and support them to compliment the built environment with well-chosen trees and backyards that support nature through:

- 11.1 Demonstrating the economic and environmental benefits of building more efficient homes and other buildings through education and engagement, including case studies
- 11.2 Encouraging the community to plant trees and create wildlife-friendly backyards
- 11.3 Continuing to support community gardens and investigate local tree-planting schemes on Council land to provide additional opportunities for the community.



## 12. Building stronger communities

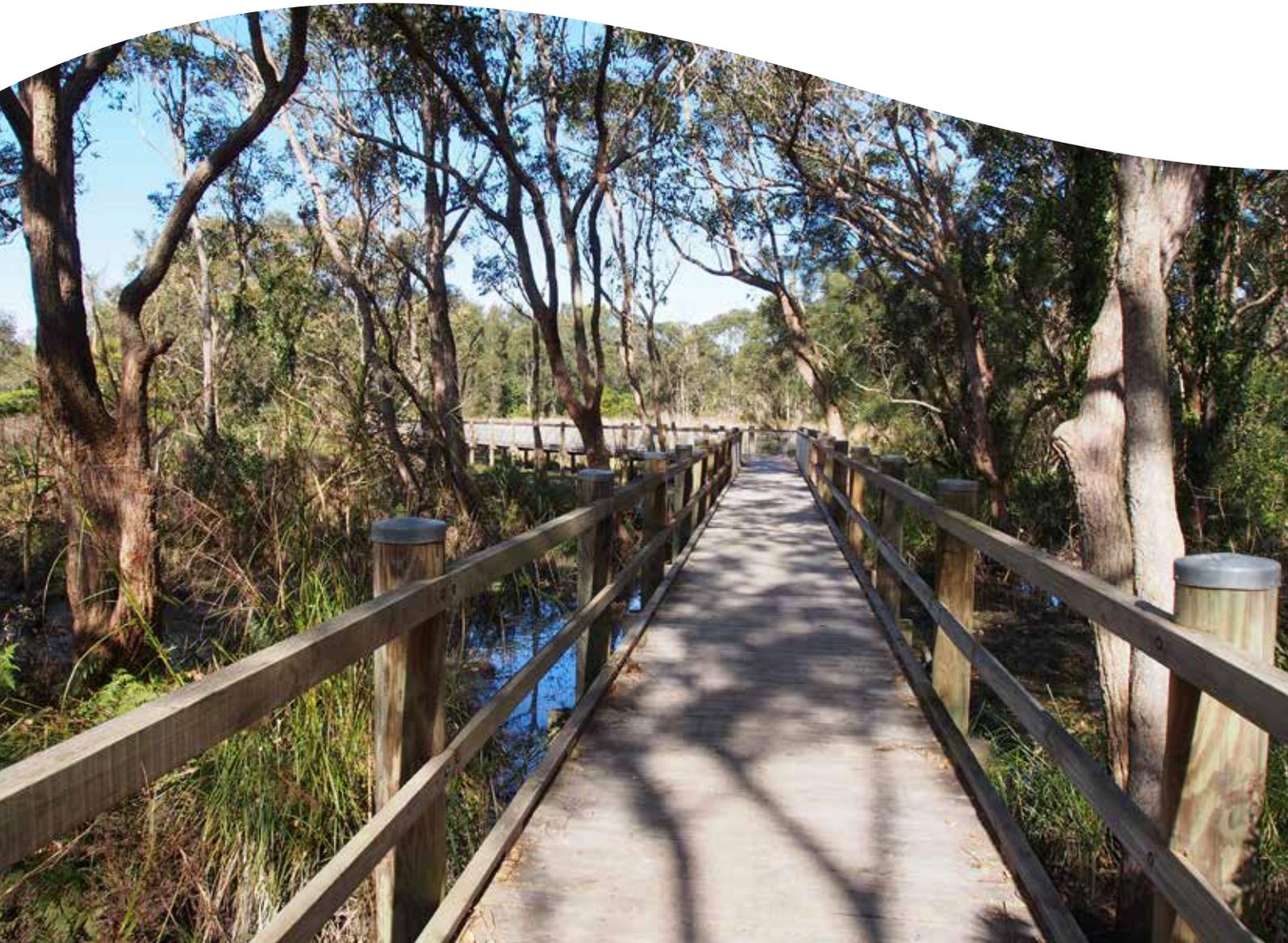
Council will help our people, groups and organisations to connect and become more informed to build our community's resilience. We will:

- 12.1 Develop a community resilience strategy
- 12.2 Provide community education and engagement, including connecting the community to trusted information sources
- 12.3 Work with key industry stakeholders to develop tools, such as predictive modelling, to better prepare for natural hazards.

## Measuring, monitoring and reporting

Along the way we will measure, monitor and report on what we are doing, to make sure we are always tracking towards the aspirations and commitments in the Protect. Create. Live - Environment and Climate Change Strategy. We will:

- Continue to annually measure and report Council's corporate water, waste and energy use and emissions data in accordance with internationally recognised approaches
- Report on community water, waste and emissions profiles every 2-4 years
- Undertake a comprehensive review of the monitoring and data gathering of Council's emissions
- Deliver a user friendly dashboard so the community can follow our progress towards the commitments and aspirations.





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