

Climate Change Strategy

Te Rautaki mō te Huringa o te Āhuarangi

2020/21



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1.

Introduction Te whakataki



1. Introduction

Te whakataki

Eke Panuku has made a commitment to respond to the climate emergency and take prompt, meaningful action to address climate change.

Climate response is at the heart of the work we do. By delivering urban regeneration and quality housing in town centres that are well served by public transport, Eke Panuku enables Aucklanders to live a low carbon lifestyle. Transport and buildings are significant contributors to Auckland's emissions. By encouraging a change in the way we build homes and travel, Eke Panuku can contribute to lowering these emissions. We can enable people to live, work and play in their neighbourhood through more density near good transport connections, reducing the reliance on cars. Enabling quality housing means people live in warmer, dryer homes that result in reduced emissions.

Through our partnership and collaboration with mana whenua we are working to move beyond sustainability and incorporate truly regenerative approaches to our work. In delivering our placemaking and engagement activities we are also working to build cohesive and resilient communities.

Climate change creates uncertainties that communities will need to come together to overcome. In the wake of the COVID-19 pandemic and the ensuing economic downturn, we have all seen the need to foster more resilient communities. Eke Panuku, like many other organisations, has had to make some major re-assessments to our mode of operation. New Zealand's exceptional response has however highlighted the nation's capacity and willingness to co-operate on a grand scale, reflecting the attitudes and commitment needed to meaningfully address our climate emergency.

This strategy provides context to our activities and sets out our approach to deliver co-ordinated steps across the two functional areas of our business – urban regeneration and portfolio management, as well as our corporate operations. It also aims to articulate what climate action means to Eke Panuku and sets out our vision, objectives, principles, and priorities.

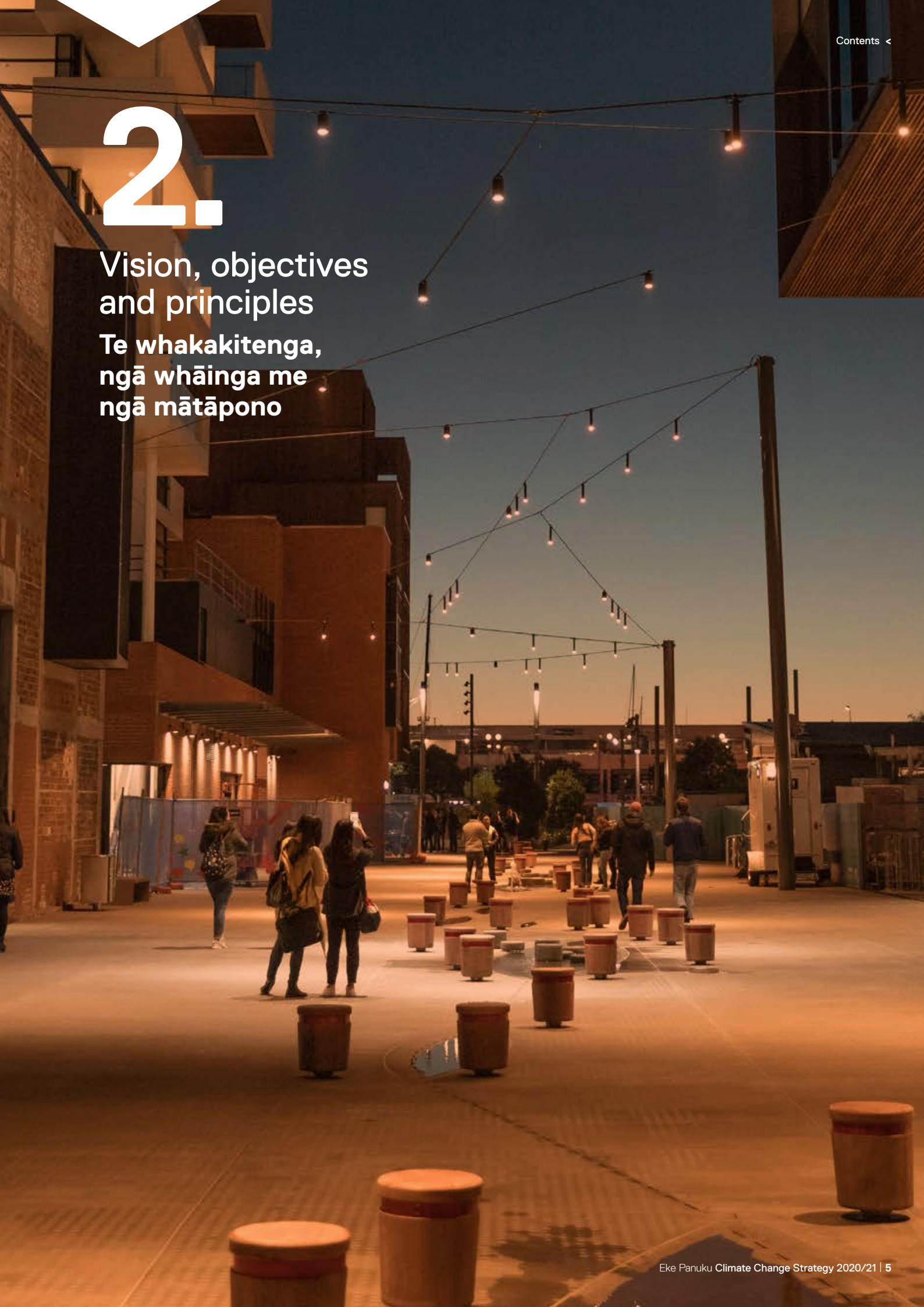
Key goals of this strategy are to:

- Identify, extend and accelerate work programmes that are already underway.
- Raise awareness of relevant climate change drivers and impacts.
- Guide climate mitigation and adaptation activities across Eke Panuku.
- Lay the foundations for more detailed work plans across our organisation.

2.

Vision, objectives
and principles

Te whakakitenga,
ngā whāinga me
ngā mātāpono



2. Vision, objectives and principles

Te whakakitenga, ngā whāinga me ngā mātāpono

Vision

A city of resilient, connected, and sustainable neighbourhoods where urban regeneration demonstrates climate leadership.

Strategic objectives

Eke Panuku has outlined two objectives for its climate work programme:

1. New communities in Eke Panuku neighbourhoods are designed and developed to be low carbon and climate resilient.
2. Eke Panuku leads by example, reducing climate impacts across its own operations and asset management function.

Strategic Principles

The Eke Panuku Climate Change Strategy is underpinned by four overarching principles:

1. **Partnership** – To achieve its objectives, Eke Panuku must work in close partnership with key stakeholders. These partners include central government agencies, Council, Council Controlled Organisations, mana whenua groups, developers, industry peers, and local communities.
2. **Leadership** – Eke Panuku takes opportunities to demonstrate leadership and try innovative new approaches for delivering its climate change response. Our role in Auckland gives us a unique opportunity to enable piloting of new approaches and initiatives and support industry to innovate. As best practice evolves, we will continue to raise our standards over time and champion and share best practice.
3. **Embedded** – Climate change is the responsibility of the whole organisation. Successful implementation will rely on input from a wide range of functions: design, development, property management, placemaking, engagement and corporate services. This should be reflected in teams' business plans and KPIs.
4. **Balanced** – Eke Panuku takes a balanced approach to strategic and commercial outcomes. In relation to our climate change response this includes weighing the cost to Council and industry, with the likely environmental and social benefit. Solutions that are replicable and scalable are preferred.

3.

Priority actions Ngā mahi mātāmua



3. Priority actions

Ngā mahi mātāmua

Working across the business, we have developed a comprehensive list of actions to deliver on our objectives. Many of the actions are ongoing but our work programme will look to extend, accelerate or scale up existing actions where possible and necessary. We plan to work with our Council and Council Controlled Organisation colleagues and other organisations including Kāinga Ora, BRANZ and the New Zealand Green Building Council to deliver our actions. Our partnerships with mana whenua and developers are also hugely important to the way we deliver our urban regeneration projects.

Priority actions identified in the strategy include:

- Setting sustainability standards to reduce carbon impacts and waste and increase resource efficiency and comfort for all Eke Panuku facilitated residential, commercial, and public realm projects and requiring our partners to meet these standards.
- Piloting the use of Life Cycle Analysis to measure and better understand the carbon impact of Eke Panuku developments and to drive improved outcomes.
- Undertaking an assessment of future climate impacts, risks and vulnerabilities for all priority locations.
- Accelerating sustainable procurement activity.
- Delivering a work programme to address climate impact across our asset management function.
- Developing a process to undertake climate compatibility assessments at the business case stage for all new developments and infrastructure. This will be to assess the degree a proposal supports or conflicts with our climate change goals over its life cycle.
- Continuing to build sustainability awareness and action into Eke Panuku culture and increase staff engagement and sustainability literacy.
- Working with Auckland Transport to explore mixed use development options on underutilised transport sites.
- Engaging with our development partners and investors to share knowledge and learnings and explore their aspirations for responding to climate change.

Measuring the carbon impacts of our buildings

New Zealand’s Climate Change legislation sets a target to reduce the emissions of our greenhouse gases to zero by 2050*. The built environment is a large contributor to New Zealand’s greenhouse gas (GHG) emissions, with buildings alone contributing up to 20%**.

This impact includes more than just the energy and water used to operate buildings. It includes ‘embodied carbon’ which represents the manufacturing of materials, ongoing building maintenance, and construction/demolition waste. The way we measure this total impact is called building Life Cycle Assessments (LCA).

Homes and buildings that are built today will be part of New Zealand’s net-zero carbon world in 2050, and Eke Panuku is working to deliver projects that support this.

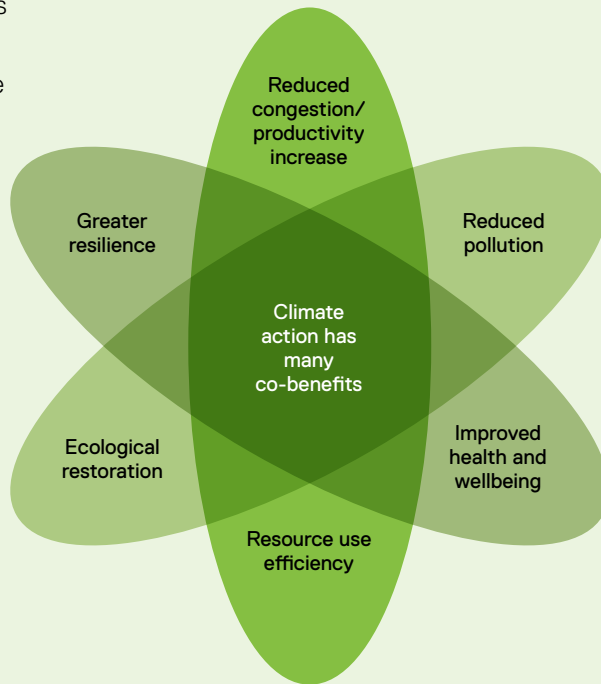
We will be collaborating with our industry development partners to pilot the use of a Whole Building Life Cycle Assessment tool to design buildings with reduced carbon emissions across their life cycle; including embodied carbon.

The aim of the pilot is to work through the practical implementation challenges involved with constructing low-carbon developments. These efforts mirror a growing and global movement among other C40 member cities who innovate and collaborate to address climate change adaptation and mitigation in urban communities.

* Excluding methane from plants and animals.

** Vickers, J., & Fisher, B. (2018, May). The carbon footprint of New Zealand’s built environment: hotspot or not? thinkstep Ltd.

Figure 1. Climate action co-benefits



4.

Strategic context Te horopaki ā-rautaki



4. Strategic context

Te horopaki ā-rautaki

Locally and internationally awareness is growing of the need for urgent climate action. In 2019 the Auckland Council declared a Climate Emergency, the government passed the Climate Change Act and we saw thousands of people across the world attending climate strikes.

As a member of the C40 network of cities, Auckland has a commitment to plan for zero emissions by 2050, and to set emission targets consistent with a 1.5° global temperature rise. To achieve these targets the Auckland Council has developed Te Tāruke-ā-Tāwhiri: The Auckland Climate Action Plan which addresses both mitigation (reducing CO₂ equivalent emissions) and adaptation (planning for resilience in response to climate change impacts).

Along with Auckland Council, Watercare and Auckland Transport, Eke Panuku joined the Climate Leader's Coalition in 2018. This involves a commitment for Eke Panuku to take climate change seriously in its business and to: measure greenhouse gas emissions and publicly report on them; set a public emissions reduction target consistent with keeping within 2° of warming; and work with suppliers to reduce their greenhouse gas emissions.

Sustainability has been an ongoing focus for Eke Panuku since its inception. Waterfront Auckland, a predecessor organisation, set out clear sustainability aspirations for the Auckland waterfront within the Waterfront Plan and Sustainable Development Framework 2013. This included sustainability requirements for the design and construction of buildings and infrastructure and the adoption of mandatory Homestar and Green star ratings for the Wynyard Quarter buildings. The approach taken at Wynyard Quarter has been hugely successful.

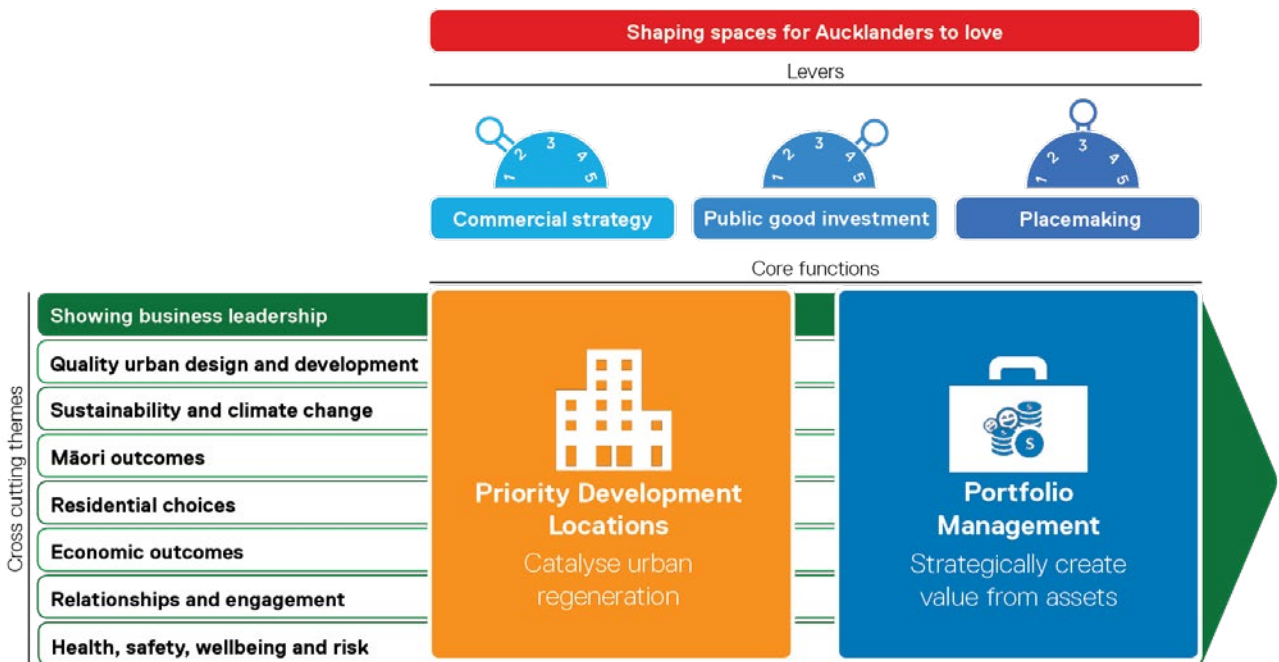


4. Strategic context

Te horopaki ā-rautaki

The Eke Panuku strategic framework is captured in the following diagram which illustrates our vision, core functions, strategic outcomes, and business objectives. Sustainability is identified as a cross-cutting theme in recognition of its importance to the work we do.

Figure 2: Eke Panuku Strategic Framework



In addition to our strategic framework, mana whenua and Eke Panuku have co-developed the Mana Whenua-Eke Panuku Outcomes Framework which includes a number of actions that relate to climate change and sustainability and form a key part of Eke Panuku’s climate action work programme. The Mana Whenua-Eke Panuku Outcomes Framework seeks to improve mauri o te taiao and mauri o te wai. This includes activities: to implement the Take Mauri Take Hono tool to measure, monitor and report on environmental wellbeing; mana whenua fulfil their role as kaitiaki; support for environmental protection and enhancement initiatives; support for climate resilience; promote and support waste management and reduction.

The work of Eke Panuku in delivering intensive mixed-use developments, public realm improvements, integrating land use and transport and incorporating sustainable building approaches is a critical contribution to the transition to a low carbon city that will mitigate against climate change. However, there is more that we can do and Eke Panuku will seek to keep raising the bar. We also recognise the climate is already changing and we must ensure future development is resilient and future proofed.

We also acknowledge the issue of climate justice and the importance of ensuring a just transition to a low-carbon economy. Through our urban regeneration work Eke Panuku has opportunities to help address these issues. Key mechanisms we have are using sustainable procurement and proactive and inclusive engagement with our stakeholders and communities to reduce social and economic inequity.

Wynyard Quarter: Clear aspirations from the outset

In 2012 the Waterfront Plan was adopted, setting out a clear vision for the waterfront to be a 'resilient place where integrated systems and innovative approaches are taken to enhance the marine and natural ecosystems, conserve natural resources, minimise environmental impacts, reduce waste, build sustainability and respond to climate change'.

The Sustainable Development Framework (2013) expanded upon this setting a vision for the waterfront to be the leading location of sustainable urban transformation and renewal across Auckland and New Zealand.

The Wynyard Central Sustainability Standards were then developed to provide development partners with clear expectations and set minimum standards for how sustainability should be incorporated. Particular focus areas included delivering high performance green buildings, delivering exemplar projects, addressing risk and resilience to climate change, working on travel demand management, and promoting sustainable transport to achieve a 70/30 modal split of sustainable travel versus car trips.

The use of green building rating tools was required to ensure standards were met, with residential developments to meet Homestar 7 ratings and Green Star 5 ratings for commercial developments.

In the public realm sustainability has also been a key consideration with extensive use of water sensitive design approaches and native plantings.

The use of clear standards for our development partners has been successful in delivering high performance outcomes and establishing the reputation of the Wynyard Quarter precinct where sustainability is integral. The first phases of development have produced some outstanding buildings renowned for their design and performance. As the rest of the precinct continues to be developed, we will look to keep raising our standards and delivering exemplar projects.



5.

Targets and standards

Ngā pae whāinga me ngā paerewa



5. Targets and standards

Ngā pae whāinga me ngā paerewa

The Eke Panuku Climate Change work programme will contribute to achievement of a number of higher-level targets set by Central Government, Auckland Council and Council Controlled Organisations. Eke Panuku also has some standards set for our own business operations and those that we require our development partners to meet.

Government, Council and CCO



New Zealand achieves net zero emissions by 2050.
(Climate Change Response ("Zero Carbon") Amendment Act 2019)



Auckland achieves zero waste to landfill by 2040.
(Waste Management and Minimisation Plan - Auckland Council)



Auckland's emissions reduced 50% by 2030 and achieve net zero emissions by 2050.
(Te Tāruke-ā-Tāwhiri - Auckland's Climate Plan)



Auckland's average rate of water consumption reduced 15% by 2025 from 2004 levels.
(Auckland Watercare Water Efficiency Strategy 2017-2020)

Eke Panuku neighbourhoods



All masterplans consider future climate impacts, risks, vulnerabilities, and responses.
(Eke Panuku Statement of Intent)



All eligible commercial developments to achieve a 5 star Green star rating.
(Eke Panuku internal policy)



All housing to achieve a minimum Homestar 6 rating (minimum 7 Homestar rating for Wynyard Quarter).
(Eke Panuku internal policy, Wynyard Central Sustainability Standards)



Tree canopy cover increased across Eke Panuku neighbourhoods.
(Urban Ngahere Strategy - Auckland Council, Eke Panuku Outcomes Monitoring Framework)



Length of cycleway increased across Eke Panuku neighbourhoods.
(Eke Panuku Outcomes Monitoring Framework)

Eke Panuku operations



Increase percentage of Eke Panuku staff that commute by sustainable transport modes.
(Eke Panuku Toitū Carbonreduce management plan)



Reduce Eke Panuku office waste to landfill.
(Eke Panuku Toitū Carbonreduce management plan)



Maintain 5-star NABERNZ energy efficiency rating for Eke Panuku head office.
(Eke Panuku Toitū Carbonreduce management plan)

6.

COVID-19 issues and opportunities

Ngā take me ngā huarahi wātea
e pā ana ki a KOWHEORI-19



6. COVID-19 issues and opportunities

Ngā take me ngā huarahi wātea e pā ana ki a KOWHEORI-19

During 2020, the global COVID-19 pandemic and associated lockdowns brought about a disruption to our way of living on an unprecedented scale. This disruption has shown us some of the vulnerabilities in our systems and economy but also the scale and pace of behaviour change that can occur when united by a common purpose. Now the challenge is to embed some of the positive changes and define a new normal.

For Eke Panuku the pandemic has demonstrated that building community resilience and delivering the urban regeneration work we do in our neighbourhoods is critical.

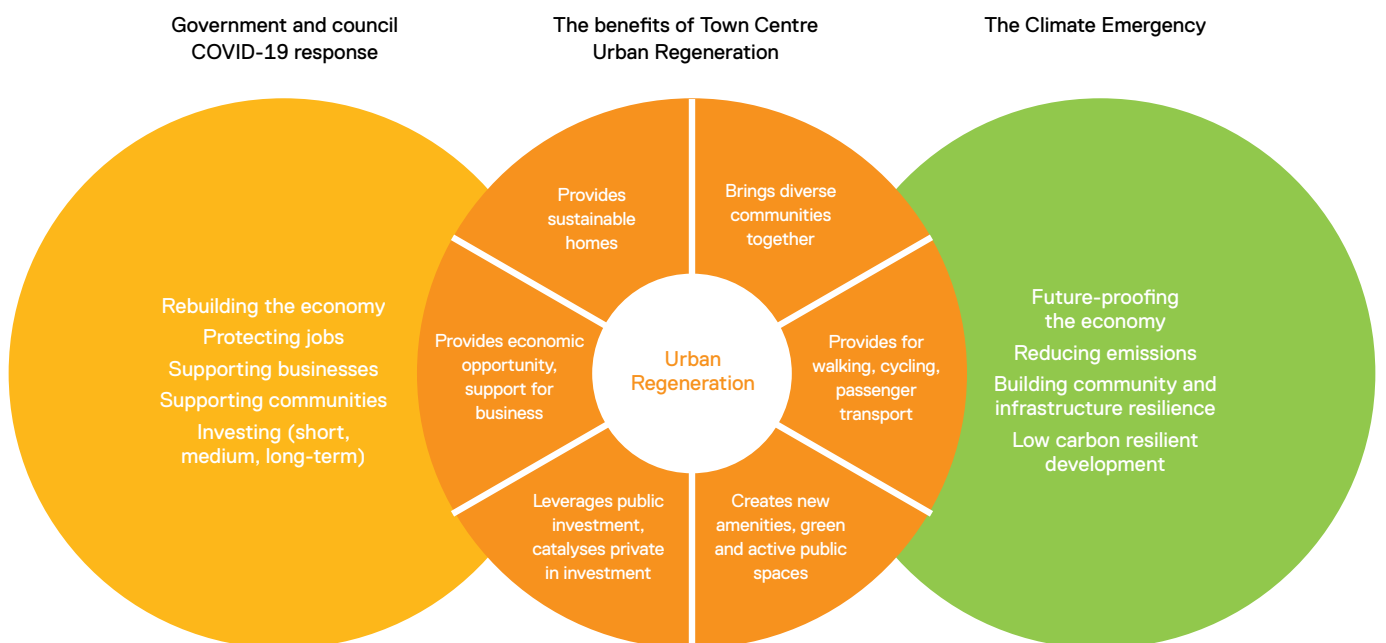
Over the lockdowns, many people have rediscovered their communities; they have pulled bikes out of sheds and found the joy of active travel on streets not dominated by cars, and the simplicity of being able to walk to a local shop to buy groceries. People have connected with their neighbours and communities sometimes ironically having more interactions – from an appropriate physical distance – than before.

Many people have had to abandon a lengthy commute by car, and instead embrace remote working, with significant reductions in transport emissions.

Embedding some of the changes that will help meet our climate goals are possible in a neighbourhood that has been designed to facilitate low-carbon living – well-designed, energy efficient homes, quality public spaces with safe and attractive ways to get around by foot or bike and a range of amenities within walking distance.

The post-COVID reset gives Eke Panuku the opportunity to be part of the solution, continuing our programme of urban regeneration to help stimulate our economy, using insights that came out of the lockdown and working to embed some of the positive changes to help deliver a new normal.

Figure 3: The co-benefits of town centre urban regeneration.



7.

Auckland's emissions Ngā puhanga o Tāmaki Makaurau



7. Auckland’s emissions

Ngā puhanga o Tāmaki Makaurau

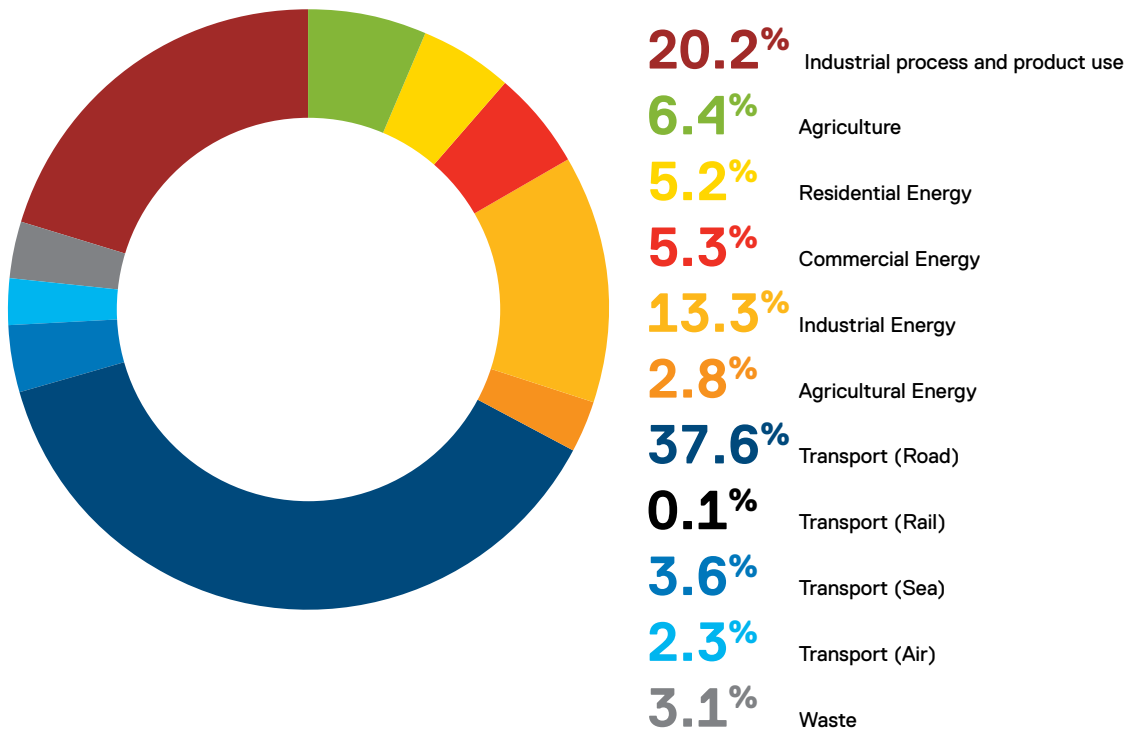
Emissions in the Auckland region are rising. Between 2009 and 2016 Auckland’s overall emissions increased by more than 5 per cent. If this trend continues, Auckland’s emissions will increase by 27 per cent by 2050.

Auckland Council has a commitment to halve emissions by 2030 and dramatically reduce emissions to net zero by 2050. The most significant sources of emissions are related to transport and energy use which together account for around 70 per cent of Auckland’s emissions.

Under a business as usual scenario, without additional action to reduce emissions, Auckland’s net green house gas emissions are expected to increase by around 19% by 2050, which is clearly at odds with Auckland’s climate goal of net zero emissions by 2050.

Eke Panuku has a role to play in delivering on Auckland Council’s emission reduction targets through its urban regeneration activities. Our core business is to deliver urban regeneration in town centre locations which can have a significant impact on reducing Auckland’s transport and energy emissions.

Figure 4: Auckland emissions profile 2016 (Auckland Council)



CASE STUDY

Reducing carbon through Town Centre Transport-Orientated Residential Development in Henderson

As part of Henderson’s vision to create an “Urban Eco-centre”, Eke Panuku undertook a planning exercise in 2018 to identify which urban blocks within 400m of the Henderson Train Station made the most sense to develop for residential housing.

The study, in partnership with Crown Housing providers (now Kāinga Ora) looked at 29 sites and analysed their potential for development based on access to sustainable transport, stream amenity, and regeneration potential.

The workstream has resulted in a Business Case as well as subsequent land consolidation and concept design for up to 350 additional homes for families located in the town centre.

Auckland-based studies by RCG Ltd have shown that town centre transit orientated suburbs and brownfields developments like Henderson can reduce fuel spending and associated transport emissions by up to 75% when compared with greenfield development. For every new household residing closer to public transport, shops and local town centre amenities, average household expenditure on fuel drops from \$8300 per year to under \$2000 per year. Eke Panuku is working to provide households everything they need within close proximity, whilst helping families save money and reduce their environmental footprint.



8.

Auckland climate risks, impacts and vulnerabilities

Ngā tūraru āhuaranga, ngā pānga me ngā whakaraeraetanga i Tāmaki Makaurau



8. Auckland climate risks, impacts and vulnerabilities

Ngā tūraru āhuaranga, ngā pānga me ngā whakaraeraetanga i Tāmaki Makaurau

New Zealand’s National Institute of Water and Atmospheric Research (NIWA), undertook a comprehensive study in 2018 on behalf of Auckland Council, Council Controlled Organisations and District Health Boards to assess climate change projections and impacts.

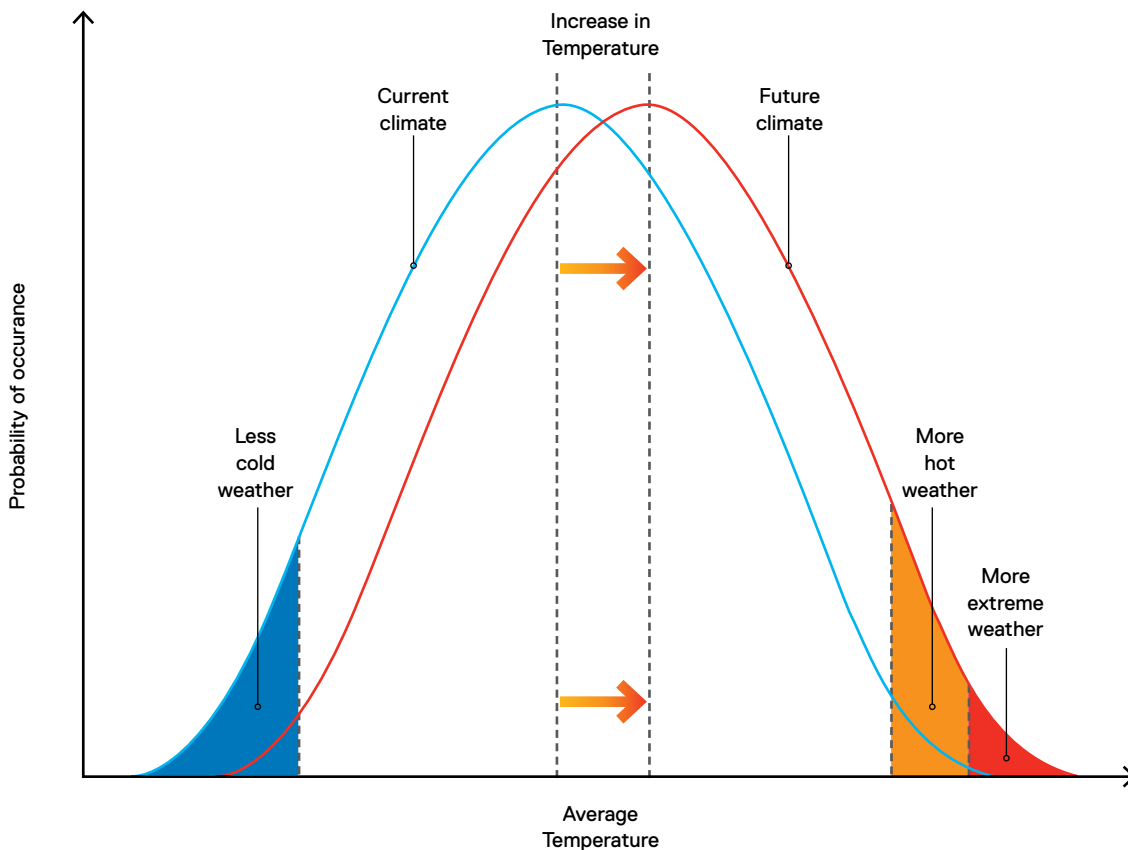
The study found that future climate changes are likely to be significant and will impact the entire Auckland Region. The main climatic changes anticipated are increased temperatures, with more heat-wave days; changing rainfall patterns resulting in both drought and extreme rainfall events becoming more common; and continued sea level rise.

Auckland’s temperature is projected to increase by between 1.5 and 3.75 degrees celsius by the end of the century, depending on the amount of global emissions.

Warmer temperatures drive a climatic shift. As temperature increases, extreme weather events such as storm surges and droughts will become more common and increasingly severe.

As our average temperature increases, so does the probability of more extreme weather events. This means that an extreme weather event today, becomes more normal in a hotter climate.

Figure 5: Future climate shift (Te Tāruke-ā-Tāwhiri - Auckland’s Climate Plan)



8. Auckland climate risks, impacts and vulnerabilities Ngā tūraru āhuaranga, ngā pānga me ngā whakaraeraetanga i Tāmaki Makaurau

Figure 6: Impacts on the Auckland region (Auckland Council)



8. Auckland climate risks, impacts and vulnerabilities

Ngā tūraru āhuaranga, ngā pānga me ngā whakaraeraetanga i Tāmaki Makaurau

Figure 7: Summary of effects on Auckland by 2120 (Te Tāruke-ā-Tāwhiri - Auckland’s Climate Plan)



Temperature changes

The Auckland region is projected to warm considerably into the future.

Over the past century, Auckland’s mean annual temperature has increased by about 1.6 degrees Celsius. It is projected to increase by between 1.5 and 3.75 degrees Celsius by the end of the century.

We’re likely to have four times as many ‘hot days’ per year. That is 80 days above 25 degrees.

Annual total rainfall and seasonal rainfall patterns are likely to change in the Auckland region.



Rainfall changes

Rainfall in spring is likely to decrease by 15 per cent in some parts of the region

Rainfall intensity is projected to increase, because a hotter atmosphere can hold more moisture. The intensity of short-duration events is projected to increase by 14 per cent per degree of warming. This could mean more intense flooding, affecting our infrastructure, property, health and safety, as well the local economy.

Auckland is projected to be more drought prone. An increase in the number of dry days is expected. This will add more than 21 dry days per year by 2110. Drier periods will bring water shortages for residential, agricultural and industrial use.



Marine and coastal changes

The Auckland region is starting to feel the effects of sea level rise. If global emissions remain unchecked, they’re projected to rise by a metre, by the end of this century.

However, we know that glaciers and ice sheet melting is accelerating so the change could be even greater.

In a region with 3,200 kilometres of coastline, this means serious threats of coastal erosion, storm surges and flooding.

Before the end of this century, approximately 1.5 to 2.5 per cent of Auckland’s land area, may be exposed to sea level rise. This covers 0.3 per cent of buildings, 80 per cent of coastal ecosystems and six per cent of dairy land.

Storm surges will bring more devastation to coastal towns and infrastructure.

Marine ecosystems are highly susceptible to climate change. Ocean acidification will threaten the condition and survival of some marine species. This will affect the economy, food availability and recreational activities.



Other factors and combined effects

Climate change doesn’t happen separately from other changes like population growth, changes in land use, changes to food and energy security, and rising inequality. In fact, climate change may make many of these challenges even more difficult to solve or may make related impacts on people and communities even more severe.


It is also true that our climate change effects aren’t isolated from other regions and countries. Migration related to climate is already happening across the world. Auckland will need to be part of the solution to support these displaced people.

8. Auckland climate risks, impacts and vulnerabilities

Ngā tūraru āhuaranga, ngā pānga me ngā whakaraeraetanga i Tāmaki Makaurau

Eke Panuku works across Auckland undertaking urban regeneration in a number of locations as shown in this map.

Project type

 **Transform**
Where we transform an entire neighbourhood through urban regeneration.


 **Unlock**
Where we facilitate revitalisation of an area through a few key properties within a town centre.



Figure 8. Eke Panuku transform and unlock neighbourhoods

8. Auckland climate risks, impacts and vulnerabilities

Ngā tūraru āhuaranga, ngā pānga me ngā whakaraeraetanga i Tāmaki Makaurau

The majority of the anticipated impacts from climate change will be broadly similar across the Auckland region but the risks and vulnerabilities to the changes in climate may differ. For each of our neighbourhoods we will consider future climate impacts, risks and vulnerabilities and respond to these through our masterplanning, public realm developments and design briefs.

For our coastal locations; Onehunga and the Auckland Waterfront, we need to carefully consider the future impacts of sea level rise whereas in Manukau we have different considerations. Manukau is one of the areas in Auckland predicted to experience the greatest number of heatwave days (between 23-25 days per year over 25degrees by 2040). The area sits within the two local board areas having the lowest tree canopy cover in the Auckland region. We need to consider how our planning will help to reduce the severity of these heat events on individuals and communities through the provision of green infrastructure, well-designed buildings and working with partners to build community resilience.



Climate Adaptation and the regeneration of the Onehunga Wharf

As part of an ongoing commitment to restore and reconnect the Manukau Harbour with the Onehunga Town Centre, Eke Panuku has undertaken a comprehensive masterplanning process to develop and protect Onehunga Wharf.

With regenerative design practice at its core, the masterplanning process enabled Eke Panuku, right from early project planning, to clearly understand the implications of sea level rise and coastal inundation on any future development.

Eke Panuku have committed to a process of Dynamic Adaptive Pathway Planning alongside mana whenua, community representatives and other agencies.

This will ensure we front load difficult decisions related to coastal adaptation over the course of the site's redevelopment and habitation life. The result of this is that not only are buildings being positioned and designed with coastal changes at the forefront, but the entire naturalised edge of site is being designed to absorb, retreat and transition with changing sea levels over time.



9.

Te Tāruke-ā-Tāwhiri – Auckland's Climate Plan



9. Te Tāruke-ā-Tāwhiri – Auckland’s Climate Plan

Te Tāruke a Tāwhiri – Te Mahere Āhuarangi i Tāmaki Makaurau

In 2019 Auckland Council declared a Climate Emergency, and part of the Council’s response involved the development and adoption of Te Tāruke-ā-Tāwhiri – Auckland’s Climate Plan (ACP). This has been developed with Council Controlled Organisations, mana whenua, central government and other key stakeholders across Tāmaki Makaurau.

Auckland’s Climate Plan has two core goals:

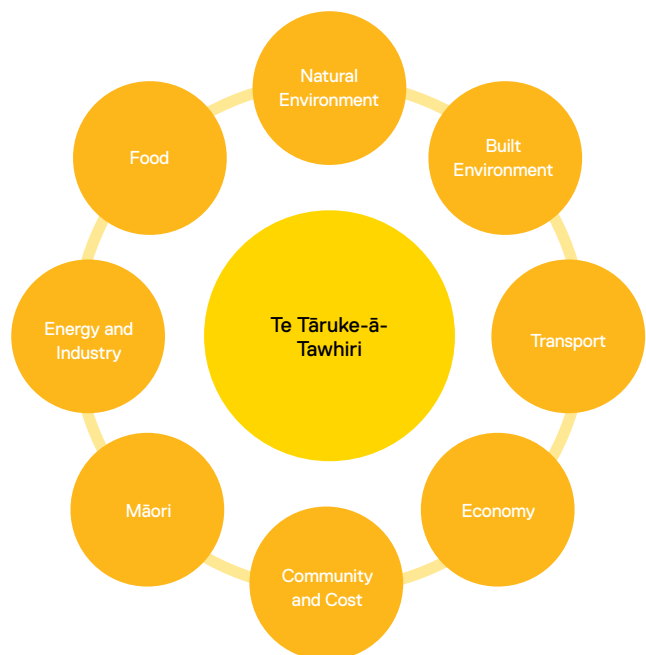
- To reduce Auckland’s emissions by 50% by 2030 and achieve net zero emissions by 2050.
- To prepare for climate change, taking a precautionary approach to plan for our current emissions pathway.

To deliver these goals the Council has identified eight priorities for action, focussing on the areas that will have the greatest impact in reducing our emissions and adapting to climate change. Eke Panuku has been involved in the development of the Plan with staff involved in the natural environment, built environment and food priority actions.

Eke Panuku’s activities are seen as a key delivery mechanism for the Plan. The biggest impact that Eke Panuku can have to reduce Auckland’s emissions is through the delivery of our urban regeneration projects, and through this increasing density in town centre locations that are well served by public transport and have good amenities. Our core business is a critical component of a low carbon city that values and respects natural systems and contributes to some of Auckland Council’s key actions identified within the Plan:

- Plan for a quality compact urban form that supports low carbon, resilient development.
- Establish and rapidly scale low carbon, resilient precincts across Auckland.
- Develop masterplans that demonstrate and promote the opportunity for zero carbon, transit-oriented development that builds climate resilience.
- Accelerate the uptake of sustainable design and construction for new buildings.
- Increase tree planting in road corridors, parks and open spaces.

- Increase uptake of nature-based solutions within Council family projects and develop supporting tools for decision making.
- Enhance, extend and connect Auckland’s blue-green networks, for example the Puhinui Stream Restoration programme.
- Utilise green infrastructure to provide multiple benefits with a low carbon footprint.
- Increase the resilience of public spaces to the impacts of climate change and prioritise low carbon infrastructure and buildings.



9. Te Tāruke-ā-Tāwhiri – Auckland’s Climate Plan

Te Tāruke a Tāwhiri – Te Mahere Āhuarangi i Tāmaki Makaurau

Eke Panuku has an estimated pipeline of around 11,000 dwellings over 10 years in existing, transport-oriented urban centres. The delivery of these dwellings will play a significant role in reducing transport emissions which make up the largest proportion of emissions in the Auckland region. Additionally, we require our developments to incorporate sustainable design and construction principles which further reduces potential emissions as well as providing the health and wellbeing benefits from warm and dry housing.

Another key project within the Council family is our collaboration with Auckland Transport. AT Park and Ride Redevelopment is a joint venture between AT and Eke Panuku aimed at providing an appropriate strategy to accommodate transport service requirements at designated Council owned park and ride sites while simultaneously exploring mixed use development options with positive urban regeneration and urban design outcomes. The sites on which AT operate park and ride facilities are underutilised;

- single-use land with untapped potential in which large amounts of capital is locked up. These sites provide opportunities to undertake integrated transit orientated developments (TODs) close to amenities with links to reliable and frequent public transport, opportunities which the Council group has not progressed.
- A critical component of delivering climate action is ensuring that climate impacts are a key consideration in decision-making systems.

- One way Council intends to advance its response is by undertaking climate compatibility assessments for all new developments and infrastructure, starting at the business case stage. This will identify how the proposal supports or conflicts with Council’s climate goals over its life cycle. Eke Panuku will follow Council’s approach in ensuring that decision-making considers climate impacts.



10.

Delivering our
climate objectives

Te whakatutuki i ā mātou
whāinga mō te āhuarangi

10. Delivering our climate objectives

Te whakatutuki i ā mātou whāinga mō te āhuarangi

In delivering on our objectives we have a work programme that addresses both mitigation and adaptation of climate change across Eke Panuku's two functions – urban regeneration and portfolio management, as well as our corporate operations.

Mitigation of climate change involves reducing the carbon emissions that contribute to climate change, this is largely achieved by reducing energy, water and fuel use and reducing waste to landfill.

Adaptation to climate change involves planning for the changes to our climate and associated impacts that are already happening or are projected to happen, including sea level rise, hotter temperatures, extreme weather events, flooding, and droughts.

Key workstreams and activities

- Climate Change Strategy development
- Green Star - Communities rating tool pilots
- Minimum standards using building performance rating tools (Homestar, Green Star)
- Bespoke Eke Panuku standards (commercial buildings and public realm)
- Climate change impacts, risk and vulnerability analysis for our locations – using NIWA and Auckland Council technical information and site-specific commissioned analysis where needed
- Involvement with Auckland Council's ACAP and membership of C40 and Climate Leader's Coalition
- Toitū Envirocare carbonreduce certification
- Mana whenua engagement, implementing the Mana Whenua Outcomes Framework
- Placemaking
- Engaging with local businesses and communities on sustainability initiatives
- Sustainable procurement
- Staff engagement
- Climate impacts considered in decision making

Outcomes for our town centres

Low carbon design and delivery of development:

- Less emissions, waste and energy and lower running costs
- Warm, dry homes

Future proofed development for a changing climate:

- Use of green infrastructure and water sensitive design for increased flood resilience, ecological and biodiversity benefit
- Increased shade and shelter for storm events and hotter days

Urban regeneration approach that enables a low carbon lifestyle by reducing reliance on private car travel and supporting sustainable modes:

- People can live, work and play near their home
- Town centres that are easy, safe and attractive to walk around with good cycling and public transport infrastructure

Engaged, connected and resilient communities with an awareness of climate issues.

10. Delivering our climate objectives

Te whakatutuki i ā mātou whāinga mō te āhuarangi

ADAPTATION:

Eke Panuku process to ensure climate change adaptation is embedded in our planning

Eke Panuku recognises that the climate is already changing due to the emissions at-present in the atmosphere. Combined with future emissions, we will continue to see changes. A significant increase in the impacts and risks we are already facing for our region is anticipated by scientists, including natural hazards like flooding, heatwaves, drought and sea level rise.

For each of our neighbourhoods we are compiling a summary of anticipated impacts, risks, vulnerabilities and responses to inform our masterplanning and high level strategies for sites. In doing this we draw on technical research undertaken by NIWA on climate impacts for Auckland as well as the various technical reports developed by Auckland Council looking at climate change risks and vulnerabilities across various topics including flooding and vulnerability to heat.

To address identified risk, impacts, vulnerabilities, and responses we ensure that at the site and project level more detailed planning is undertaken that addresses particular issues, with technical input provided when needed.

It is now common for our design briefs to include a reference to climate impacts and requirements for these to be considered. Particular issues present in the area are identified, for example any known risks associated with flood plains.

Eke Panuku recognises we need to plan for uncertainty, particularly for our coastal locations. Adapting to climate change does not mean taking every action now or designing for an extreme scenario but requires making the right decision at the right time.

Comprehensive planning, with clear timelines set for when decisions must be made can avoid unnecessary investment or the risk of locking in design solutions that are not fit for purpose into the future. A process that uses this approach is called Dynamic Adaptive Policy Pathways (DAPP), which is recognised as best practice in New Zealand. Eke Panuku is piloting this approach first with the Onehunga wharf redevelopment.



Henderson town centre walking and cycling demonstration network for climate resilience

One of the simplest contributions a town centre regeneration agency can make is to replace high-carbon and polluting short vehicular trips with zero-emission trips, where people are empowered to walk or cycle instead.

In Henderson, Eke Panuku is working closely with Auckland Transport on delivering a demonstration network of best practice walking and cycling improvements.

A preliminary economic assessment suggests that by delivering just 7km of safe protected cycling facilities, this project may return up to \$22,000 worth of carbon reductions every year for 40 years due to local mode shift away from polluting vehicles. While this philosophy is being applied across the board in all of our infrastructural upgrades, this demonstration network provides a unique opportunity to prove practicality, viability and community value of these principles.



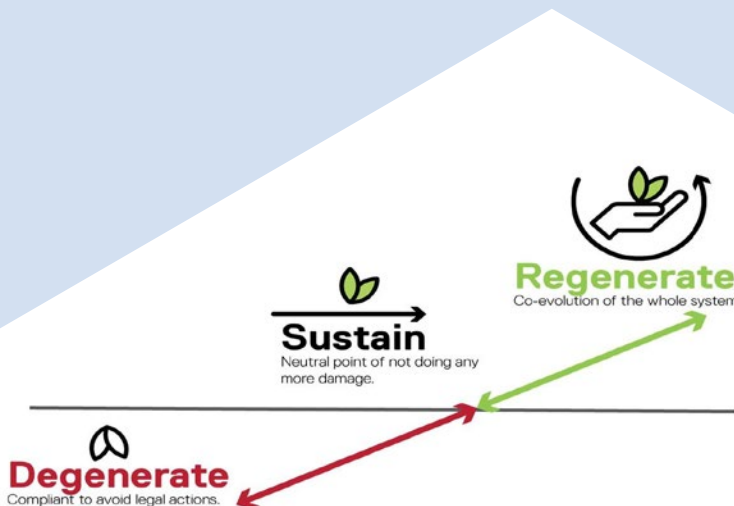
Regenerative Design Practice

Eke Panuku is Auckland’s urban regeneration agency. The term “regeneration” is deliberate, intended to move beyond the idea of sustainable development and strive for a future that is richer, healthier, and more abundant through the evolution of natural, social, cultural and economic systems. By treating these systems as nested together, and inextricably linked, we can ensure the delivery of a high-density Auckland where our environment, communities, and economy thrive.

Our Regenerative design approach has a synergy with mātauranga Māori (indigenous knowledge) and has been shaped in collaboration with mana whenua.

In te ao Māori, the notion of whakapapa is especially relevant, as it infers the interconnectivity of people and place; past, present and future.

Eke Panuku, in partnership with mana whenua has the potential to stand as an exemplar council agency, showing how an integrated and interdisciplinary design approach can deliver true regeneration in our unique locations. Since 2017 Eke Panuku have been actively training staff in Regenerative Design Practice and with the support of mana whenua have embedded regenerative techniques in several of its projects and locations; including the Puhinui Regeneration Strategy, Te Ara Awataha, Unlock Northcote, and the Eke Panuku Placemaking Strategy.



11.

Leading by example

Te ārahi mā te whakatauirā



11. Leading by example

Te ārahi mā te whakatauirā

We have made significant gains in reducing the emissions associated with our corporate activity. Our staff engagement in sustainable behaviours has also increased, including the successful establishment of an informal champions group, Ngā Toa Manaaki.

In 2019 Eke Panuku achieved our first Toitū Envirocare carbonreduce certification. This involved working with Toitū Envirocare to measure our operational greenhouse gas emissions, set reduction targets and develop a management plan. Areas of assessment included energy use, travel, and waste disposal across the business. Measuring our greenhouse gas emissions means we can understand the sources of our direct emissions and put energy into the reduction efforts that matter most. We have set a target to reduce our corporate emissions by 35% by 2030 which will require engagement and action from all areas of the business.

Prior to measuring our carbon footprint, significant work has been undertaken to reduce the emissions associated with Eke Panuku's corporate operations, with considerable reductions achieved in emissions from energy use and waste to landfill. Eke Panuku has improved our Wyndham Street Office's NABERSNZ energy rating to 5-Stars and has reduced landfill waste during 2019 by 30%. Both results illustrate the importance of continuous improvement, building on our 4-Star Green Star Interiors rating.

We've also promoted sustainable travel and supported staff to use our two new fleet e-bikes, including safety training and free bike tours. Our secure e-bike storage and charging facilities have been expanded and we offer a buddy system to support new bike riders.

Our experience during COVID-19 has also accelerated many staff members' ability and desire to work from home. We may expect to see more staff members working remotely, therefore saving unnecessary travel-related emissions. This was an area previously identified for improvement.

Areas that require further effort include:

- Advocating for our fleet's full transition to electric vehicles.
- Establishing a building monitoring system for the Wyndham Street Office.
- Increasing our sustainable procurement of office consumables.
- Supporting our Marinas team with e-bike travel, waste minimisation and energy management.



CASE STUDY

Reducing our emissions with Toitū Envirocare certification

In 2019 Eke Panuku achieved our first Toitū Envirocare carbonreduce certification. This involved working with Toitū Envirocare to measure our operational greenhouse gas emissions, set targets and develop a management plan. Areas of assessment included electricity use, travel, and waste disposal across the business.

David Rankin, Eke Panuku’s Chief Executive, says “Achieving this certification is a significant milestone for Eke Panuku in our carbon reduction journey.

As a member of the Climate Leaders Coalition we’re committed to taking climate action seriously and undertaking our first emissions inventory is a key step for our business.”

Measuring our greenhouse gas emissions means we can understand the sources of our emissions and put energy into the reduction efforts that matter most. It will require engagement and action from all areas of the business with the ultimate goal of reducing our emissions by 35% by 2030.



CASE STUDY

Westhaven Marina Leading Sustainability Practices

In 2020, Westhaven Marina received its Blue Flag Accreditation for the 14th year in a row. Westhaven Marina is an asset that is managed by Eke Panuku, and our operating team are proud to be one of just three Marinas in New Zealand to have received a Blue Flag accolade.

Blue Flag is a globally recognised certification that is awarded for strict environmental, educational, safety, and access related criteria and the team at Westhaven Marina are dedicated to the promotion of environmental stewardship. To decarbonise their operations, they're planning a trial of electric motors on their patrol fleet and have undertaken one of the world's largest-of-its-kind retrofits to include metered and efficient electrical plinths (saving 13% of their energy use).

They also run stewardship campaigns to engage with their customers and received special praise on how they manage waste. General, recycling, and compost waste from private and commercial vessels are collected in several locations, including a fish waste partnership with local marae called kai ika. The team are working to expand on these waste systems with the long-term vision of diverting all waste from landfill.



12.

Beyond our strategy

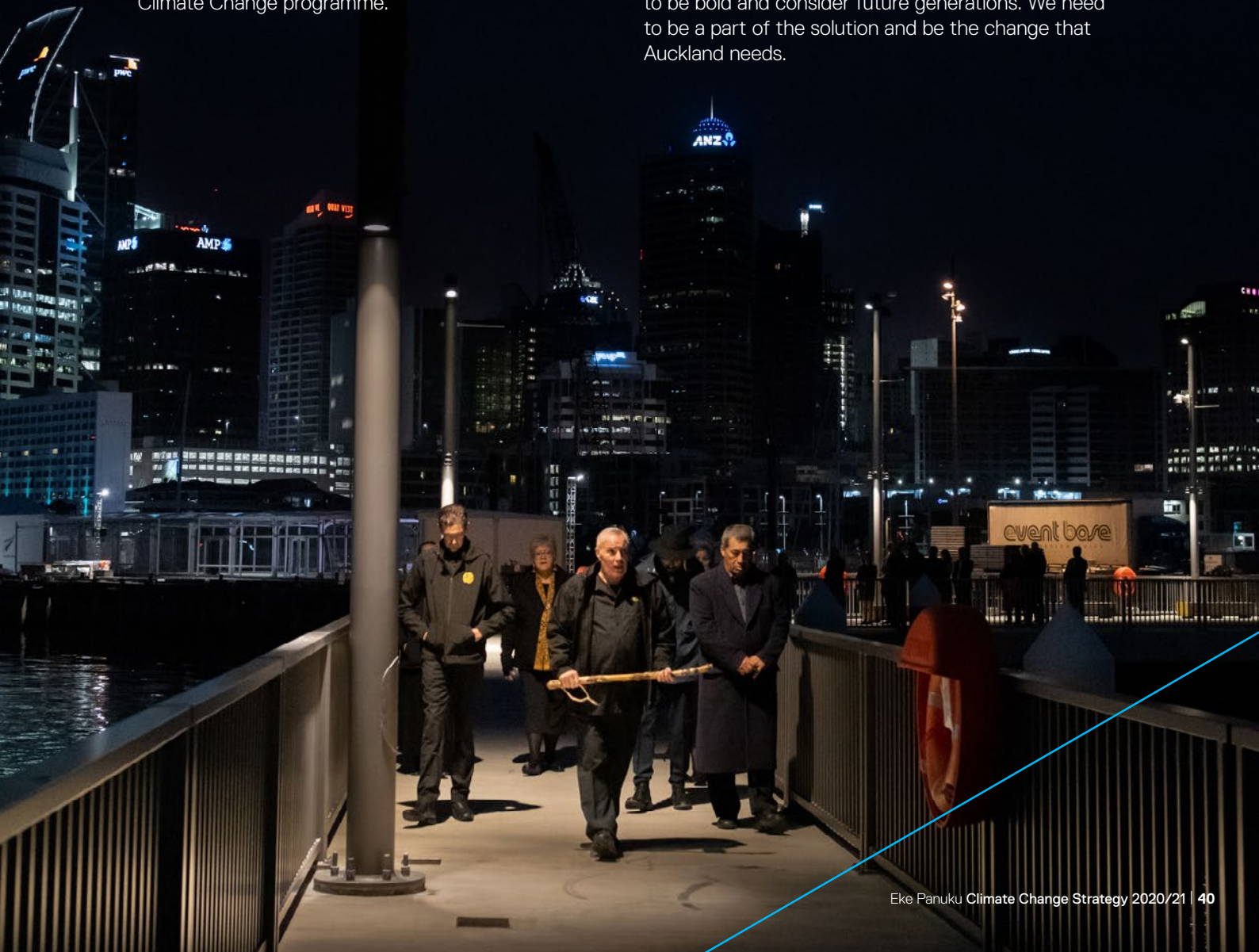
Ki tua atu o tā mātou rautaki

This strategy sets out our immediate priorities for action and signals our objectives and approach. We recognise that more is required to achieve New Zealand's targets for net zero emissions by 2050 and to ensure temperatures do not increase more than 1.5 degrees.

For Eke Panuku, quantifying and reducing carbon in our developments will be critical. We will need to ensure emissions across the whole development life cycle are addressed, considering materials, construction, operation and end of life. Central to our approach will be engaging with the Ministry of Business Innovation and Employment's Building for Climate Change programme.

In addition to taking action on emission reductions we need to make sure that our neighbourhoods are future-proofed to the changes to come. Addressing risk and resilience needs to be fundamental to our approach and we will work to address the risks and issues raised in the Ministry for the Environment's National Climate Change Risk Assessment.

We will continue to work towards raising our standards and affecting greater change. We acknowledge that as a society we need to live differently, build differently and travel differently because the trajectories of growth, consumption and environmental degradation are untenable. We need to be bold and consider future generations. We need to be a part of the solution and be the change that Auckland needs.



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