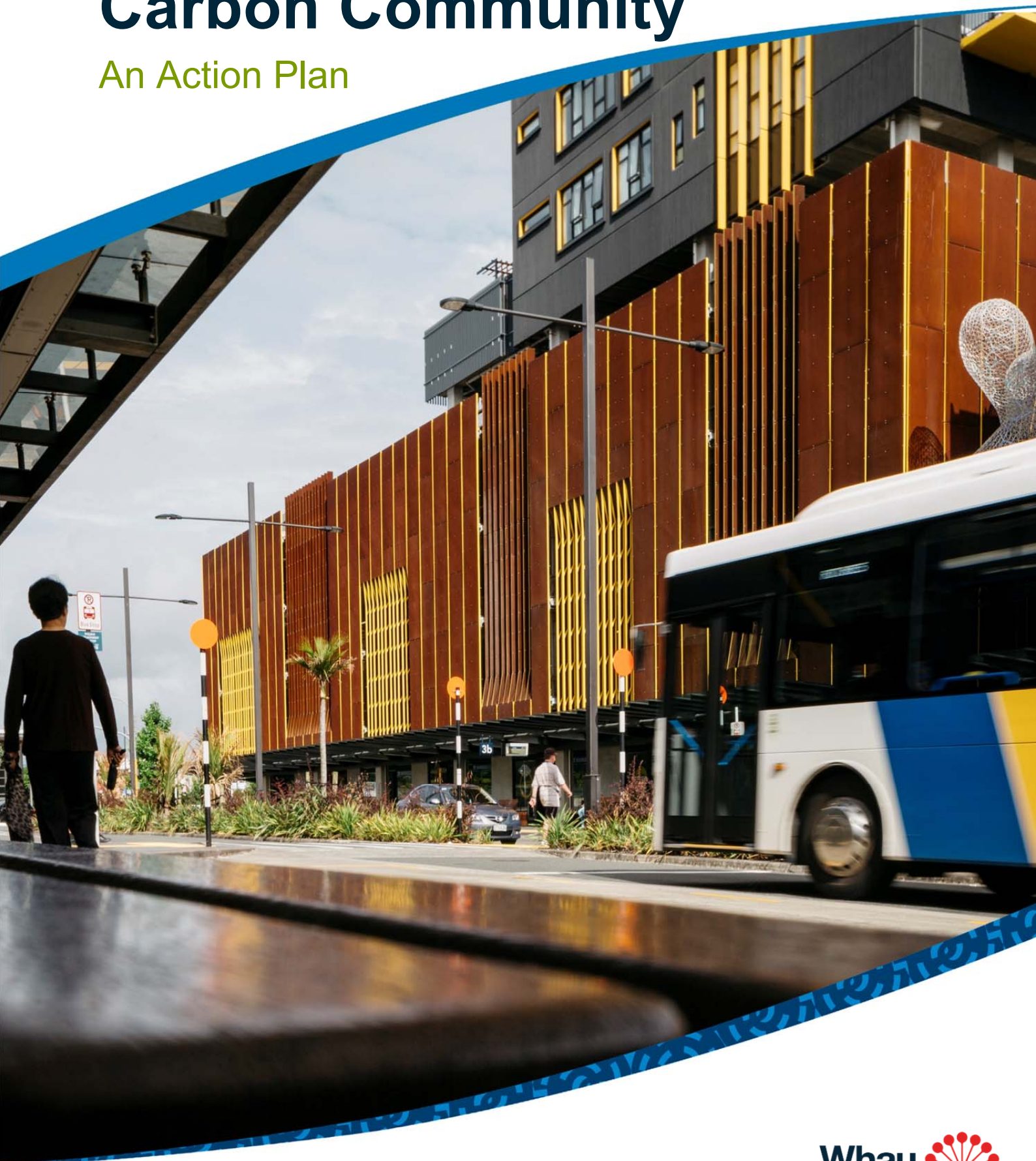


# Becoming a Low Carbon Community

An Action Plan





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\*Cover photo: New Lynn Transport Centre

## Chair's Foreword: Becoming a Low Carbon Community

This local low carbon plan for the Whau is a positive step towards Auckland's transformation into an energy-resilient, low carbon city. We are grateful to the individuals and organisations that helped create this plan.

We are proud to be the third local board to develop a low carbon plan. It is intended to work with council's *Auckland Climate Action Plan* and the *Auckland Plan*.

This plan aligns with the aspirations in our local board plan of creating well-planned towns, facilities and housing; great neighbourhoods with strong community connections; being 20 minutes to all we need by walking, cycling and public transport; an enhanced natural environment; strong local businesses and more quality local jobs; and a creative edge in our streets, neighbourhoods and communities where we celebrate and share our heritage.

It brings together a range of current and possible actions to support low carbon practices and reduce carbon emissions within households, the wider community, businesses, as well as across transport and housing. Importantly, many of the low carbon actions people can take also result in residents saving money and improving their health and wellbeing.

The implementation of this plan is only possible with the support of the Whau community. Our diverse communities contribute much to Whau and Auckland as a whole, and there are already so many active individuals, organisations, and businesses taking actions. This plan is an acknowledgement of what is already happening, as well as what is possible.

I am truly excited about the future of our area and invite you to work with us to implement the plan.



**Tracy Mulholland**  
Chair, Whau Local Board

# 1 Introduction

Whau Local Board's vision is to create a connected low carbon community with: well-planned towns; facilities and housing; great neighbourhoods with strong community connections; being 20 minutes to all we need by walking, cycling and public transport; with an enhanced natural environment; strong local businesses; quality local jobs; and a creative edge in our streets, neighbourhoods and communities where we celebrate and share our heritage.

Whau Local Board recognises the importance of climate change and the need to take local action to ensure that we meet our regional, national and global climate change targets. This Low Carbon Plan shows our commitment to support low carbon initiatives in Whau.

*The Auckland Plan*, and subsequent *Low Carbon Auckland: Auckland's Energy Resilience and Low Carbon Action Plan* lays the foundation for Tāmaki Makaurau / Auckland's transformation to a highly energy, resilient, low carbon city. It sets an aspirational target of a 40 per cent reduction in greenhouse gas emissions by 2040 [based on 1990 levels]. To achieve this goal the plans set out the need for a Tāmaki Makaurau / Auckland-wide focus. This will require collaboration and cooperation between businesses, industry, government and communities. An essential ingredient of this is action at a local level, where we contribute at a community level to the collective action needed for Tāmaki Makaurau / Auckland's transformation, to meet Aotearoa / New Zealand's climate change commitments and the global United Nations Sustainable Development Goals – which came into effect in January 2016.

This action plan can only be successfully implemented with the support and participation of the Whau community. We invite you to join us in implementing this plan, and we encourage community groups and residents to become part of leading our transition towards a low carbon future within Tāmaki Makaurau / Auckland.

As international and local knowledge and learning increase, and as new opportunities are identified, this plan will be updated within the next three years and will remain a living document.

## 2 Our Current Carbon Footprint – 881,540 tonnes CO<sub>2</sub>e pa

The Whau area is home to some 84,000<sup>1</sup> residents. With an average carbon footprint of 9.6 tonnes per person for Aucklanders<sup>2</sup>, the Whau local board area generates an estimated 881,540 tonnes of carbon dioxide emissions (CO<sub>2</sub>e) per annum<sup>3</sup>.



Figure 1 Image source EnerGap – Visualising One Tonne of CO<sub>2</sub> Emissions.

## 3 Whau's Low Carbon Goals and Targets

The Auckland Low Carbon Action Plan sets out detailed targets and actions to show how Whau can support achieving Tāmaki Makaurau / Auckland's goal of a 40% reduction in greenhouse gas emissions by 2040 [based on 1990 levels], to ensure that we become a low carbon community within Tāmaki Makaurau / Auckland. For Whau residents, this will mean reducing their carbon footprint from 9.6 tonnes of CO<sub>2</sub>e emissions per person, to 5.8 tCO<sub>2</sub>e tonnes per person per year by 2040. This equates to a 170kg<sup>4</sup> reduction in carbon emissions per person per year for the next 22 years.

## 4 What are Low Carbon Actions?



Low carbon actions are projects and activities which result in changes to our businesses, infrastructure, buildings, consumption patterns and behaviour which lead to a reduction in greenhouse gas emissions.

In October 2017 Auckland Council launched a new community and council initiative – Live Lightly – Noho Māmā, which shows everyday lifestyle choices we can all make to save money, have a healthier life and enjoy Papatūānuku! It is a collaboration between community groups, Auckland Council and partners aiming to engage with Aucklanders and offer ways people can make a real difference. Feedback from mana whenua indicated a need to focus on low or no cost solutions and initiatives enabling behaviour change.

<sup>1</sup><http://temp.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/localboardplans/Documents/whaudlbp2017.pdf>

<sup>2</sup>[https://assets.locomotive.works/sites/5ab410c8a2f42204838f797e/content\\_entry5ab410fb74c4833febe6c81a/5bae4e4674782004a270eaff/files/City\\_of\\_Auckland\\_Consumption-based\\_emissions\\_Accounts.pdf?1538151756](https://assets.locomotive.works/sites/5ab410c8a2f42204838f797e/content_entry5ab410fb74c4833febe6c81a/5bae4e4674782004a270eaff/files/City_of_Auckland_Consumption-based_emissions_Accounts.pdf?1538151756)

<sup>3</sup>Based on an average carbon footprint of 9.62 tonnes CO<sub>2</sub>e per annum for each of the 84,000 residents (based on C40 Cities consumption-based emissions accounts for Auckland):

[https://assets.locomotive.works/sites/5ab410c8a2f42204838f797e/content\\_entry5ab410fb74c4833febe6c81a/5bae4e4674782004a270eaff/files/City\\_of\\_Auckland\\_Consumption-based\\_emissions\\_Accounts.pdf?1538151756](https://assets.locomotive.works/sites/5ab410c8a2f42204838f797e/content_entry5ab410fb74c4833febe6c81a/5bae4e4674782004a270eaff/files/City_of_Auckland_Consumption-based_emissions_Accounts.pdf?1538151756)

<sup>4</sup>A 3.8t CO<sub>2</sub>e tonne reduction in carbon emissions per person, over a 22-year period requires a 170kg reduction in greenhouse gases (CO<sub>2</sub>e) per annum, per capita.

## 5 Developing the Plan

A Climathon was held in May 2017 and eighteen people attended. Representatives from within the community, including EcoMatters Environment Trust, Kai Whau, Bike Green Bay, Auckland Permaculture, Avondale Community Action, Compost Collective, Sport Waitakere, Generation Zero, Community Waitakere, EcoMatters Community Fruit Harvesting, spent a day generating ideas and creating plans for local low carbon community projects. A full list of ideas raised is provided in Appendix 1. From these ideas we have identified seven key focus areas, flagship projects and detailed actions.

A stocktake of local and Tāmaki Makaurau / Auckland-wide low carbon initiatives, which will make a positive contribution towards reducing Whau's carbon footprint, was also undertaken. A summary of these initiatives is provided in Appendix 2. Targets and actions, which can be amplified through the implementation of this Action Plan, have been incorporated.

Climate change means warmer temperatures, increased drought, rising sea level, increases in rainfall and the number of storm events. Actions which reduce the impact of these changes, and improve the resilience of our community, have also been incorporated within this plan.

Auckland Council is currently working to refine climate change projections for the Tāmaki Makaurau / Auckland region. An assessment prepared in collaboration with NIWA provides more detail on the nature of projected impacts for the Whau area. This action plan will be updated to reflect these findings as solutions emerge with time.

## 6 Implementing the Plan

The intention of this Action Plan is implementation and ownership by the whole community. The Whau Local Board will support the implementation of this Action Plan where possible through a variety of mechanisms including: advocacy (including to other governing bodies); funding to enable local project delivery; further investigation of potential low carbon initiatives; leadership (delivering projects directly as well as enabling and encouraging others); partnerships; promotion; monitoring and recognition.

## 7 The Action Plan

Our localised Low Carbon Action Plan focuses on seven key action areas. For each of these areas the Action Plan includes:

- Targets based on achieving regional, national and global greenhouse gas emission reduction targets.
- Opportunities to amplify existing local and regional initiatives.
- Suggestions made through the Climathon process, including:
  - Seven flagship low carbon projects which we will endeavour to support and where possible, prioritise seed funding.
  - A monitoring framework for measuring progress against these targets.



Figure 2 Everyday lifestyle choices we can all make to save money, have a healthier life, and care for the planet.

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Action Area	Flagship Project <sup>5</sup>
1 Championing Change	<p><b>A Whau Low Carbon Network</b></p> <p>A low carbon network with regular get-togethers designed to empower and enable local climate champions to meet our low carbon targets. This will require a facilitator to coordinate the establishment and operation of this group with the support of the council Low Carbon Team.</p>
2 Low Carbon Food	<p><b>Whau Free Food Map</b></p> <p>Support the regional efforts to coordinate Tāmaki Makaurau / Auckland's food system<sup>6</sup> at a local level through Kai Whau. This may include actions such as creating a free food map showing our markets, fruit trees, community gardens and all activities that promote growing and sourcing food locally. Further, providing a food matching service to share the surplus and reduce our food waste, while eliminating the use of single use plastic bags and encouraging composting.</p>
3 Low Carbon Homes and Buildings	<p><b>Low or Zero Carbon Home Energy</b></p> <ul style="list-style-type: none"> <li>• Support developers, CCO's and Housing New Zealand to maximise the number of housing developments or redevelopments in the area that are low or zero carbon.</li> <li>• Amplify the uptake of energy efficiency in our homes through increased delivery of our Home Energy initiative.</li> </ul>
4 Shop Low Carbon	<p><b>Tracking our Footprints</b></p> <p>Support the measurement and tracking of the carbon footprints of residents through the promotion of the carbon footprint tool and use this data to inform Low Carbon Network projects.</p>
5 Low Carbon Economy	<p><b>Whau Low Carbon Leaders</b></p> <p>Support the development of a low carbon economy network targeted at supporting businesses and social enterprises to adopt low carbon business models and practises which reduce their greenhouse gas emissions. Work with experts to create, identify or deliver programmes from the council, CCO's and other organisations that support business and social enterprise becoming part of a low carbon economy.</p>
6 The Way we Travel	<p><b>A Workplace Hub</b></p> <p>Free up Whau whānau time and money by eliminating or reducing long daily commutes for our residents and reduce daily car commute emissions. Work with key employers and businesses to establish shared workspace which encourages walking, cycling, train, bus, and ride sharing to significantly reduce carbon emissions.</p>
7 Green Spaces	<p><b>A Beautiful Carbon Sink – Tāmaki Makaurau / Auckland's Urban Ngahere</b></p> <p>Encourage every Whau resident to support the planting of a tree every year until 2030, to plant a million trees in Whau and beyond. Empowering local residents, businesses and groups to accelerate the planting of trees, increasing carbon capture, biodiversity and the health and beauty of Whau, Tāmaki Makaurau / Auckland, and Aotearoa / New Zealand.</p>

<sup>5</sup> Note that these flagship projects may be subject to change, due to community interest and further legislative changes.

<sup>6</sup> Food system: comprises the production, processing, distribution, consumption and waste recovery/disposal of food.

## 7.1 Championing Change: Live Lightly, Noho Māmā

One of the strongest themes at our Climathon was the desire to create a network of low carbon champions across the Whau, sharing ideas and examples and rewarding successes within the community to empower the community to adopt low carbon living.



With a multi-ethnic mix of residents: 45 per cent identify as European; 32 per cent as Asian (mainly Indian and Chinese; but also Filipino, Sri Lankan and Korean); 17 per cent are from the Pacific; 10 per cent are Māori; more Middle Eastern, Latin American and African people than the whole of Tāmaki Makaurau / Auckland<sup>7</sup>; there is an opportunity to draw on our rich diversity to empower and enable our communities. We will prioritise activities that are led by the community, encouraging and supporting people from all walks of life to actively participate in low carbon initiatives in their community, using the talents, insights and contributions of our diverse community. We will work together to enable our communities to achieve our targets.

### Our Targets

- Create a network of low carbon – Live Lightly champions – for homes, schools, business and community. Improving education, raising awareness and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning, with a focus on women, youth and local and marginalised communities.
- By 2020 > 300 residents have measured and can track their carbon footprints, as they adopt recommendations to reduce their carbon emissions.

### Our Actions

**A Whau Low Carbon Network:** Create a Whau low carbon network with regular get-togethers designed to empower and enable local climate champions to meet our low carbon targets. A facilitator will be required to coordinate the establishment of this group with the support of the council Low Carbon Team.

- Implement our flagship projects to seed the development of a Whau low carbon network.
- Provide support to coordinate and host low carbon events and training sessions, providing tools, training and resources for the Low Carbon Network.
- Work with mana whenua to identify and deliver low carbon outcomes for Māori.
- Empower residents to start a conversation about climate change issues and solutions.
- Celebrate successes and communicate low carbon living ideas e.g. low carbon cool ideas blog, low carbon street, low carbon star award.
- Support low carbon community education events.
- Provide funding support for projects which support low carbon and Live Lightly themes.

<sup>7</sup> <http://temp.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/localboardplans/Documents/whaudlbp2017.pdf>

## Ten Most Effective Actions for Residents to Live Lightly:

Recent research conducted by Auckland Council identified the 10 most effective actions for residents to 'Live Lightly' to reduce their carbon footprint. These actions form the basis of the council's new Live Lightly campaign which is designed to empower communities to take practical actions to reduce their climate change impact.

- reduce your car trips
- reduce the impact of flights
- prevent food waste
- eat more plant-based meals
- eat local and seasonal food
- use hot water efficiently
- insulate your home
- think before you buy
- grow biodiversity at home and beyond
- start a conversation about climate change issues and solutions.

Whau supports the United Nations Sustainable Development Goals for Climate Action.



## 7.2 Low Carbon Food

Support the consumption of local, seasonal food and plant-based meals, as well as the prevention of food waste within Whau. This will help bring the community together, empowering local businesses and enabling residents to share their rich cultural food heritage. Sharing and developing community knowledge about both growing and cooking food will build the resilience, food security and health of the community, as well as reducing our food related carbon emissions.

The food we purchase and throw away makes up approximately 20 per cent of our personal daily carbon emissions.<sup>8</sup> How and where food is produced, processed, distributed or wasted all has a big impact. New Zealanders throw away 122,547 tonnes of food a year.<sup>9</sup> We waste food by buying too much, storing it incorrectly and it going off in the fridge. This also contributes to climate change with methane emissions from rotting food.

### Our Targets

- To increase the ability of our residents to enjoy locally produced seasonal food with a low carbon footprint – measured as km<sup>2</sup> of urban agriculture.
- Composting facilities and/or services at all council managed community facilities, local food markets and schools by 2020.
- Over 300 residents have completed Compost Collective workshops by 2020 and have set up composting systems for their home, business or community.

<sup>8</sup>[https://assets.locomotive.works/sites/5ab410c8a2f42204838f797e/content\\_entry5ab410fb74c4833febe6c81a/5bae4e4674782004a270eaff/files/City\\_of\\_Auckland\\_Consumption-based\\_emissions\\_Accounts.pdf?1538151756](https://assets.locomotive.works/sites/5ab410c8a2f42204838f797e/content_entry5ab410fb74c4833febe6c81a/5bae4e4674782004a270eaff/files/City_of_Auckland_Consumption-based_emissions_Accounts.pdf?1538151756)

<sup>9</sup><https://lovefoodhatewaste.co.nz/food-waste/what-we-waste/>

## Our Actions

### Whau Free Food Map

Support the regional efforts to coordinate Tāmaki Makaurau / Auckland's food system<sup>10</sup> at a local level through Kai Whau. Create a free food map showing our markets, fruit trees, community gardens and all activities that promote growing and sourcing food locally. Provide a food matching service to share the surplus and reduce our food waste, while eliminating the use of single use plastic bags and encouraging composting.

- Recognise, promote and strengthen the value and contribution of local urban and rural food systems to improve resilience, resource use efficiency and community food security.<sup>11</sup>
- Assess Whau's local food production and distribution capacity, as well as the potential degree of self-sufficiency, and the associated opportunities and benefits.<sup>12</sup>
- Ensure ongoing production of perishable horticultural commodities close to urban markets by preserving high-class agricultural soils and setting aside land in new and redeveloped urban areas for garden allotments.<sup>13</sup>
- Support effective ways of reducing carbon emissions by reducing waste in the planning, production, consumption and disposal of food.<sup>14</sup>
- Enhance existing education and outreach programmes to achieve sustainable urban food production.<sup>15</sup>
- Support the regional efforts to coordinate Auckland's food system at a local level.<sup>16</sup> Including the identification of policy gaps, and improved coordination, across these and the wider food system, to enhance and build resilience for Tāmaki Makaurau / Auckland's food system. Collaborating with stakeholders including: EcoMatters Environment Trust, Kai Whau, Bike Green Bay, Auckland Permaculture, Avondale Community Action, Compost Collective, Sport Waitakere, Generation Zero, Community Waitakere, Community Fruit Harvesting, Sustainable Business Network, Kai Auckland, Auckland Regional Public Health Service, Healthy Families and Gardens4Health.
- Encourage local food production, including the creation of the Whau free food map, bring your own bag initiatives, community demonstration gardens, surplus food exchanges and compost facilities. Include a list of retailers, cooking classes and food premises that sell local, seasonal, plant based foods, while minimising food waste.

<sup>10</sup> Food system comprises the production, processing, distribution, consumption and waste recovery/disposal of food

<sup>11</sup> DIRECTIVE 8.6 <http://theplan.theaucklandplan.govt.nz/>

<sup>12</sup> Action 16, page 68.

<http://temp.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/theaucklandplan/Documents/lowcarbonaucactionplanfullversion.pdf>

<sup>13</sup> Actions 16 and 17, page 68.

<http://temp.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/theaucklandplan/Documents/lowcarbonaucactionplanfullversion.pdf>

<sup>14</sup> Action 8

<http://temp.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/theaucklandplan/Documents/lowcarbonaucactionplanfullversion.pdf>

<sup>15</sup> Action 18, page 68.

<http://temp.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/theaucklandplan/Documents/lowcarbonaucactionplanfullversion.pdf>

<sup>16</sup> Food system comprises the production, processing, distribution, consumption and waste recovery/disposal of food

- Encourage the planting of fruit trees.
- Encourage schools to install educational food gardens and to compost, promoting initiatives like Garden to Table.
- Promote the reduction of food waste and composting, including compost collective workshops for homes.
- Encourage local businesses and community organisations to reduce their food waste, share any surplus and compost.

## Actions Residents Can Take

### Live Lightly

#### Prevent food waste

#### Eat more plant-based meals

#### Eat local and seasonal food

What you can do:

[livelightly.nz/what-you-can-do/eat](https://livelightly.nz/what-you-can-do/eat)

- Choose local, seasonal food.
- Set-up a vege or herb garden, either at home or in a community garden.
- Try a plant-based diet or introduce Meat Free Mondays to reduce your carbon footprint.
- Get practical advice and support to set up or maintain a community garden from Gardens4Health.
- Reduce your food waste [lovefoodhatewaste.co.nz](https://lovefoodhatewaste.co.nz)
- Reduce food and garden waste, attend a free workshop and receive a discount on a composting system [compostcollective.org.nz](https://compostcollective.org.nz)
- Check out Zero Waste Marae [parakore.maori.nz](https://parakore.maori.nz)
- Seek funding: Local Board Community Grants, Waste Minimisation and Innovation Fund.

Share a photo of your vege garden, local, seasonal, plant-based meal or compost system on social media:

[www.facebook.com/livelightlyak/](https://www.facebook.com/livelightlyak/)

<https://livelightly.nz>

Whau local board supports the United Nations Sustainable Development Goals for Climate Zero Hunger.



### 7.3 Low Carbon Homes and Buildings

With redevelopment of several areas within Whau planned there is an opportunity for agencies and communities to work together to provide healthy, affordable, well-connected, low or zero carbon housing.

There is also the opportunity to reduce carbon emissions resulting from the energy and refrigerants used by our existing community facilities, commercial buildings and homes. Our focus is on becoming more energy efficient, reducing refrigerant losses and increasing the uptake of solar and wind technologies, to lower carbon emissions. These changes result in reduced costs, better health outcomes and greater resilience for our communities.

#### Our Targets

- To improve the energy performance of existing buildings and maximise the number of new buildings that are low or zero carbon.
- All rental properties insulated to comply with new government regulation by 1 July 2019.<sup>17</sup>
- Reduce community facilities' carbon emissions 40% by 2040.<sup>18</sup>
- Reduce community facilities' carbon emissions 1.7% per annum.

#### Our Actions

##### Low or Zero Carbon Home Energy

Amplify the uptake of energy efficiency in our homes through increased delivery of our Home Energy initiative for existing homes and by working with developers, CCO's and Housing New Zealand to ensure that all housing developments or redevelopments in the area are low or no carbon.

- Improve access and enable greater uptake of existing initiatives to improve household energy efficiency, and levels of insulation within Whau's existing buildings. Including those offered by Auckland Council, Ministry of Business, Innovation and Employment, the Energy Efficiency Conservation Authority, New Zealand Green Building Council and others. Explore opportunities to provide additional support e.g. subsidies, bulk buying, working with landlords.
- Support the reduction of energy costs and carbon emissions across the community by encouraging energy audits and working to increase the uptake of energy and water efficient appliances, fixtures and fittings.
- Ensure that community facility carbon emissions are reduced, and all maintenance, redevelopment or new buildings and infrastructure is completed in accordance with environmental principles e.g. solar lighting.
- Investigate opportunities to increase the uptake of solar and wind energy sources and amplify the uptake of low carbon technology products e.g.: renewable energy; solar; energy and water efficient appliances; and electric vehicles, through collaboration and community initiatives.

<sup>17</sup> <https://www.tenancy.govt.nz/maintenance-and-inspections/insulation/compulsory-insulation/>

<sup>18</sup> Aggregated data for Rua Contract area: includes Albert-Eden, Puketāpapa, Whau, Waiheke and Great Barrier. Local Board data is captured and will be available in future.

- Investigate opportunities to collaborate with developers, Housing New Zealand and central government to ensure developments are low carbon or zero carbon and eliminate the use of fossil fuels.
- Encourage a range of buildings to accommodate small businesses and a variety of housing choices.

## Actions Residents Can Take

### Live Lightly

#### Use hot water efficiently

#### Insulate your home

What you can do:

[livelightly.nz/take-action/energy](https://livelightly.nz/take-action/energy)

- EcoAdvisor – Get advice on the right materials and strategies to create a warmer, drier and more sustainable home.
- HEAT Kit – Hire a Home Energy Audit Toolkit from the library to check your home insulation and find out how you can save on your power bill.
- Retrofit Your Home – make your home warmer, dryer, and more energy and water efficient, access up to \$5,000 (including GST) in financial assistance [www.aucklandcouncil.govt.nz](http://www.aucklandcouncil.govt.nz)
- Healthy Rentals – Get advice and assistance for tenants and landlords to help create a healthy and energy efficient home [www.aucklandcouncil.govt.nz](http://www.aucklandcouncil.govt.nz)
- Seek Homestar or Greenstar – certification for new homes and buildings [www.nzgbc.org.nz](http://www.nzgbc.org.nz)
- Seek funding: Grants for insulation are available to some households [www.aucklandcouncil.govt.nz](http://www.aucklandcouncil.govt.nz) and [www.energywise.govt.nz](http://www.energywise.govt.nz)
- For energy saving tips visit EcoMatters [www.ecomatters.org.nz](http://www.ecomatters.org.nz)

Share a photo of your home's eco-design features on social media:

[www.facebook.com/livelightlyak/](https://www.facebook.com/livelightlyak/)

<https://livelightly.nz>

#livelightlyWhau

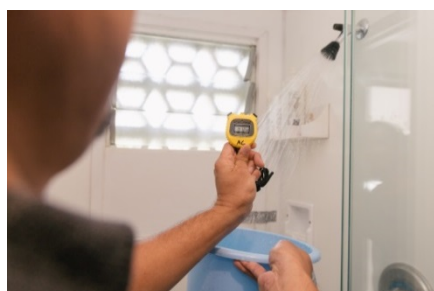


Figure 3 and Figure 4 Hire a Home Energy Audit Toolkit from the library and save money on your power bill.

## 7.4 Shop Low Carbon

Each product bought, used, consumed and disposed of comes with its own carbon footprint. Low carbon consumers are consumers who are well informed and think carefully before each choice to purchase a product.

They consider how to save money and reduce their carbon emissions by: sharing products, buying quality products that last, choosing to repair, buying second hand, shopping local, and improving their health and wellbeing by choosing products with sustainably sourced local materials and ingredients. Shopping in this way means less carbon emissions and less waste. Tools like environmental certification and labels help make these choices easier.

### Our Targets

- An average carbon footprint for Whau residents of three tonnes per person by 2040.
- To encourage residents to think before they buy and to choose low carbon locally made products and services.
- Reduce household waste per capita per annum by 30 per cent to 110kg by 2018.<sup>19</sup>

### Our Actions

#### Tracking our Footprints

Support the measurement and tracking of the carbon footprints of residents through the promotion of the carbon footprint tool<sup>20</sup>, and use this data to inform Low Carbon Network projects.

- Work with EcoMatters, Environmental Choice, EECA, Consumer New Zealand and other organisations to support initiatives that encourage low carbon consumption habits and choices e.g.: local food, Buy Whau Made/locally made, Ban the Bag, preloved, or recycled products.
- Promote low carbon living and consumption at the annual Ecofest West, with a focus on encouraging activities, events and stall holders which celebrate the Live Lightly low carbon message to think before you buy, and to buy locally made low carbon products and services.
- Phase out the use of single use disposable bags within Whau by 2020.
- Encourage and support projects which enable more sharing e.g. tool library.
- Encourage local residents and businesses to Ban-the-Bag eliminating the use of single use plastic bags.
- Support the development of a local community waste drop off centre or area, repair shed and tool library.

<sup>19</sup> [wasteplan.aucklandcouncil.govt.nz](http://wasteplan.aucklandcouncil.govt.nz)

<sup>20</sup> To be launched 2018



## Actions Residents Can Take

### Live Lightly

Think before you buy

[livelightly.nz/what-you-can-do/shop](http://livelightly.nz/what-you-can-do/shop)

Challenge: Make every dollar count by choosing to reduce your consumption or to buy locally produced sustainable products and services.

What you can do:

- Buy quality, local, preloved or recycled products.
- Look out for local repair cafes to fix anything broken.
- Look for environmental certification on products: Environmental Choice, Declare, and high water and high energy star ratings on appliances, fixtures and fittings.
- Sign up for the Sustainable Whanau Challenge.
- Sign up to the Ecomatters newsletter to find out about local eco-events and training [ecomatters.org.nz](http://ecomatters.org.nz)

Share a photo of your favourite low carbon business or product on social media:

[www.facebook.com/livelightlyak/](https://www.facebook.com/livelightlyak/)

[www.livelightly.nz](http://www.livelightly.nz)

#livelightlyWhau



Figure 5 Shop local and in season

## 7.5 Low Carbon Economy

Our vision is for more successful and resilient businesses in Rosebank, New Lynn, Kelston and Avondale, all working together to attract new markets and innovate.<sup>21</sup> We want to see more people achieving higher education achievements, gaining well-paid employment and working locally to become a part of the emerging low carbon economy.

The largest area of employment is manufacturing, with 468 businesses and 5670 people working in this sector; the largest number of businesses are in the rental, hiring and real estate services (15% of all businesses in the area); followed by construction (13%), and professional, scientific and technical services (11%).<sup>22</sup> There is a significant opportunity to reduce the carbon emissions created by our local businesses and by our residents, as consumers of these products and services.

### Our Targets

- Create a low carbon network for Whau businesses and social enterprises to foster the development of a profitable local low carbon economy.
- At least 100 local businesses implementing low carbon plans and carbon reduction targets by 2020.

### Our Actions

#### Low Whau Carbon Leaders

Support the development of a low carbon business network targeted at supporting businesses and social enterprises to adopt low carbon business models and practises which reduce their greenhouse gas emissions. For example: Work with experts to create, identify or deliver programmes from the council, CCO's and other organisations that support business and social enterprise becoming part of a low carbon economy.

- Support emerging businesses and social enterprises to adopt and generate low carbon outcomes.
- Work with Avondale, Blockhouse Bay, New Lynn and Rosebank Business Associations to develop a network to support the adoption of low carbon practises by the local business community and partner with business to design and deliver low carbon initiatives and create a profitable local low carbon economy.
- Work with agencies, CCO's and organisations to encourage more local businesses to work together and grow through innovation, partnership and collaboration to increase local employment and avoid the need for long commutes.
- Encourage the development of businesses and social enterprises that reduce resource consumption and carbon emissions, especially those that involve the sharing, re-use or recycling of resources.

<sup>21</sup> <http://temp.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/localboardplans/Documents/whaudlbp2017.pdf>

<sup>22</sup> <https://www.aucklandcouncil.govt.nz/environment/state-of-auckland-research-report-cards/Pages/demographics-report-card-whau-local-board-area-2016.aspx>

## Actions Residents Can Take

### Live Lightly

Think before you buy

[livelightly.nz/what-you-can-do/shop](https://livelightly.nz/what-you-can-do/shop)

Challenge: Make every dollar count by choosing to reduce your consumption or to buy or sell locally produced low carbon products.

What you can do:

- Buy quality, local, preloved or recycled products.
- Measure your carbon footprint.
- Get an energy audit, monitor and manage your energy consumption.
- Join the Sustainable Business Network [sustainable.org.nz](https://sustainable.org.nz)
- Join the NZ Sustainable Business Council [sbc.org.nz](https://sbc.org.nz)

Share a photo of your favourite low carbon business or product on social media:

[www.facebook.com/livelightlyak/](https://www.facebook.com/livelightlyak/)

[www.livelightly.nz](https://www.livelightly.nz)

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Figure 6 EcoHub and Store at EcoMatters, New Lynn. Photo by EcoMatters Environment Trust.

## 7.6 The Way we Travel

Fossil fuels burnt for transport produce 39 per cent of Auckland's overall carbon emissions<sup>23</sup> and 23 per cent of our individual footprints.<sup>24</sup> By encouraging walking, cycling, train, bus, ride sharing, as well as the use of electric vehicles in Whau we will support a reduction of these emissions. Changes that residents make to their travel behaviour can result in a significant reduction in their emissions.

### Our Targets

- By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.<sup>25</sup>
- 100% of Whau schools participating in Travel Wise by 2020.
- 20 public electric vehicle charging points by 2020.
- 20 minutes to all we need by walking, cycling and public transport<sup>26</sup> by 2030.

### Our Actions

#### A Workplace Hub – 20 minutes to all we need by walking, cycling and public transport

Free up Whau whanau time and money by eliminating or reducing long daily commutes for our residents and reduce daily car commute emissions. Work with key employers and businesses to establish a shared workspace encouraging walking, cycling, train, bus, and ride sharing to significantly reduce carbon emissions.

- Promote our neighbourhood walking, cycling, public transport, and ride sharing. Support the expansion of a green network of cycleways and walkways across the community and initiatives which increase bike use and enable as many residents as possible to access work, shopping and recreation within 20 minutes of home (e.g. encourage businesses to incentivise cycling – PednSave, signage, teaching, bike parks at bus stops and shops).
- Create a Whau Travel Plan<sup>27</sup> which creates an inventory of existing and proposed sustainable travel infrastructure and resources, consulting with the community to identify potential improvements.
- Make public transport more attractive, advocate for improved public transport, including combining bike to bus transport, with increased bike parking provision.
- Investigate the creation of water transport along and across the Whau 'Tour de Whau'.

<sup>23</sup> <http://temp.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/theaucklandplan/Documents/lowcarbonactionplanfullversion.pdf>, page 24

<sup>24</sup> [https://assets.locomotive.works/sites/5ab410c8a2f42204838f797e/content\\_entry5ab410fb74c4833febe6c81a/5bae4e4674782004a270eaff/files/City\\_of\\_Auckland\\_Consumption-based\\_emissions\\_Accounts.pdf?1538151756](https://assets.locomotive.works/sites/5ab410c8a2f42204838f797e/content_entry5ab410fb74c4833febe6c81a/5bae4e4674782004a270eaff/files/City_of_Auckland_Consumption-based_emissions_Accounts.pdf?1538151756)

<sup>25</sup> UNSDG Sustainable City target <http://www.un.org/sustainabledevelopment/cities/>

<sup>26</sup> <https://www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/local-boards/all-local-boards/Documents/whau-local-board-plan-2017.pdf> Pg. 23

<sup>27</sup> The Whau Travel Plan will map existing and proposed infrastructure, routes across all low carbon travel modes, and identify actions required for improving accessibility of low carbon transport across the community.

- Support the development of local share car schemes and carpooling for areas outside bus routes (e.g. Gifford Avenue).
- Encourage the establishment of shared workspace to eliminate the need for long commutes to work and encourage ride sharing.
- Increase awareness of electric vehicles, and their carbon emission benefits, by encouraging and advocating for the provision of public electric vehicle charge points.
- Support local schools actively encouraging walking and cycling through the Travelwise programme. Seek feedback from schools on improvements required to increase students walking and cycling.
- Endorse and encourage initiatives for long-term planning and infrastructure solutions for low carbon transport.

## Actions Residents Can Take

### Live Lightly

Reduce your car trips

Reduce the impact of flights

[livelightly.nz/what-you-can-do/move](http://livelightly.nz/what-you-can-do/move)

Challenge: Leave your car at home.

What you can do:

- Walk or cycle more.
- Plan your bus or train trip [AT.govt.nz](http://AT.govt.nz)
- Find someone to share a ride with [smartravel.org.nz](http://smartravel.org.nz)
- Have your say, make suggestions to improve walking, cycling and public transport aces in your neighbourhood in your submissions on plans for Auckland transport infrastructure and services.
- Have a staycation or offset your carbon emissions if you need to fly.
- Funding: Local Board Community Grants.

Share a photo of your green travel choices:

[www.facebook.com/livelightlyak/](http://www.facebook.com/livelightlyak/)

[www.livelightly.nz](http://www.livelightly.nz)

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Figure 7 Walk, cycle, or catch public transport more. Cycle photo by EcoMatters Environment Trust.

## 7.7 Green Spaces

Maintaining, developing and creating more green spaces within Whau will help reduce the impact of climate change on our communities and maximise carbon sequestration by capturing carbon from the atmosphere.

Increasing the amount of tree canopy cover through street trees, our parks, riparian corridors including vegetation along the Whau, on green roofs and in gardens will help keep us cooler in summer and reduce the impact of heavier rainfall and flooding resulting from our changing climate, as well as supporting our native ecosystems. Riparian margin planting, management and pest control are an essential element in managing stormwater and preventing flooding.

### Our Targets

- Strengthen resilience to climate-related hazards and natural disasters.<sup>28</sup>
- Expand our existing network of tree-based ecological corridors and stepping stones for wildlife across our landscape to achieve a 50 per cent increase in carbon sequestration (compared with 2014 levels) by planting ecological corridors.<sup>29</sup>
- Increase the Whau urban tree canopy cover from 17.2 per cent (2013) to 35 per cent by 2040.
- Encourage ≥ 30 per cent tree canopy cover for our streets.
- Encourage every Whau resident to support the planting of a tree every year until 2040, to plant a million trees in Whau, Tāmaki Makaurau / Auckland and Aotearoa / New Zealand.<sup>30</sup>

### Our Actions

#### A Beautiful Carbon Sink – Tāmaki Makaurau / Auckland’s Urban Ngahere

Encourage every Whau resident to support the planting of a tree every year until 2040, to plant a million trees in Whau and beyond. Empowering local residents, businesses and groups to accelerate the planting of trees, increasing carbon capture, biodiversity and the health and beauty of Whau, Tāmaki Makaurau / Auckland and Aotearoa / New Zealand.

- Develop an Urban Forest Plan for Whau.<sup>31</sup>
- Develop a North-West Wildlink Landscape Plan for the Whau and support the planting of more trees to increase carbon sequestration and our urban tree canopy cover and encourage the spread of a better dawn chorus across Whau.

<sup>28</sup> UNSDG Goal 13: Take urgent action to combat climate change and its impacts  
<http://www.un.org/sustainabledevelopment/climate-change-2/>

<sup>29</sup> North-West Wildlink Prioritisation Report, Auckland Council 2017 and  
<http://temp.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/theaucklandplan/energyresiliencelowcarbonactionplan/Pages/home.aspx>

<sup>30</sup> Equates to approximately one tree per resident per year.

<sup>31</sup> The Urban Forest Plan will provide: an inventory of existing trees; a plan showing the potential urban forest layer; detailed maps – showing the potential locations for trees within residential, commercial, streets, parks and other key areas of Whau; a schedule of trees for replacement and recommendations about the type of trees to be planted to maximise carbon capture, climate change mitigation and enhance biodiversity.

- Encourage green infrastructure, growth of the urban forest and biodiversity as a part of development through the planning process.
- Encourage Auckland Transport to plant more trees within the road corridor, creating streetscapes that benefit the environment, reduce carbon emissions and increase community interaction.
- Encourage residents and businesses to use eco-design practices, to increase planting and biodiversity at home and beyond.
- Encourage involvement in Trees for Survival by all local schools.
- Provide funding support for projects which increase ability to sequester carbon, increase our canopy cover, urban biodiversity and the health of the Whau.

## Actions Residents Can Take

### Live Lightly

#### Increase biodiversity at home and beyond

[livelightly.nz/what-you-can-do/grow](https://www.livelightly.nz/what-you-can-do/grow)

Challenge: Plant a tree each year.

What you can do:

- Use eco-design practises in your garden.
- Plant to support native wildlife.
- Join Friends of Whau to support its restoration [whauriver.org.nz](http://whauriver.org.nz)
- Seek funding: Local Board Community Grants, Regional Natural Environment and Heritage Fund.

Share a photo of your planting on social media:

[www.facebook.com/livelightlyak/](https://www.facebook.com/livelightlyak/)

[www.livelightly.nz](https://www.livelightly.nz)

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Figure 8 La Rosa Garden Reserve, Green Bay.



Figure 11 Planting at Chalmers Reserve, Avondale.

## 8 Monitoring Framework

An annual review of progress against these targets and actions is proposed, using the low carbon monitoring framework provided below to measure uptake and impact.

Theme	Target	Monitoring Method	Baseline	Frequency
Living Lightly Champions	Low Carbon Network Established	Number of members	0	Annual
	>300 Whau residents carbon footprints measured and being tracked by 2020	Number of residents using the carbon footprint calculator	0	Annual
Food	To increase the ability of our residents to enjoy locally produced seasonal food with a low carbon footprint – measured as km <sup>2</sup> of urban agriculture	Local Food Markets Community Facilities Community Empowerment/KaiWhau	Establish Baseline	Annual
	100% of council managed community facilities, local food markets and schools composting food waste	Community Facilities Local Food Markets Schools	Establish Baseline	
	>300 households completed Compost Collective workshop and started composting	Compost Collective reports – Waste Solutions	0	Monthly
Buildings	500 additional households involved in initiatives to improve the energy efficiency and/or insulation in their homes	Low Carbon Team	0	Annual
	Percentage of new homes and buildings built that are low or zero carbon (e.g.: ≥6*Homestar, ≥5*Greenstar, meet Passivhaus, Living Building Challenge or equivalent requirements)	New Zealand Green Building Council	Establish baseline	Annual
	All rental properties insulated to comply with new government regulation by 1 July 2019	Ministry of Business, Innovation and Employment	Establish baseline	2020
	1.7% reduction in community facility carbon emissions pa	Energy Monitoring Service – Community Facilities	260,654 kWh <sup>32</sup>	Annual
	40% reduction in community facility carbon emissions by 2040	Energy Monitoring Service – Community Facilities	260,654 kWh (2014)	Annual

<sup>32</sup> Aggregated data for Rua Contract area: includes Albert-Eden, Puketāpapa, Whau, Waiheke and Great Barrier. Local Board data is captured and will be available in future.



Transport	20 minutes to all we need by walking, cycling and public transport – provide access to safe, affordable, accessible and sustainable transport systems for all	Sample survey – Low Carbon Team, RIMU, Auckland Transport	Establish baseline	2018, 2025 and 2030
	100% schools participating in Travelwise	Establish baseline – Auckland Transport Sustainable Schools	Establish baseline	Annual
	20 public EV charging points by 2020	Plugshare	0	Annual
Shop Low Carbon	An average carbon footprint for Whau residents of 3 tonnes per person by 2040	Household carbon calculator (sample)	7 tonnes average per person pa	Annual
	Reduce household waste per capita per annum by 30% to 110kg by 2018	Waste Assessment – Waste Solutions	0	5 yearly
	>300 households completed Compost Collective workshop and started composting	Compost Collective reports – Waste Solutions	0	Monthly
	Phase out the use of single use disposable bags within Whau by 2020	Number of businesses who have phased out the use of single use disposable bags		2020
Low Carbon Economy	100 local businesses with low carbon plans and carbon reduction targets by 2020	To be confirmed – Sustainability Office	Establish baseline	Annual
Green Spaces	Expand network of tree-based ecological corridors to 50% increase in carbon sequestration (compared with 2014 levels)	To be confirmed – Parks	2014 Establish baseline	3 yearly
	Canopy Cover 35% by 2040	LiDAR survey – Parks	17.2% (2013)	3 yearly
	Street canopy cover 30%	Urban Forest Plan for Whau – Parks	Establish baseline	3 yearly
	Every Whau resident to plant a tree every year until 2030, to plant a million trees in Whau, Tāmaki Makaurau / Auckland and Aotearoa / New Zealand	To be confirmed – Parks, Community Facilities, Residents and Community Groups	Establish a method for recording tree plantings	Ongoing

## 9 Appendices

**Appendix 1: Summary of Whau Climathon Ideas and Actions with corresponding Tāmaki Makaurau / Auckland Low Carbon Plan Targets and Local Board Outcomes**

**Appendix 2: Low Carbon Stocktake – Whau and Tāmaki Makaurau / Auckland-wide**

Appendices to this report can be found online on the Whau Local Board website at [www.aucklandcouncil.govt.nz](http://www.aucklandcouncil.govt.nz) under 'Whau plans, agreements and reports'.



Figure 9 Bike Hub by EcoMatters. Photo by EcoMatters Environment Trust



Figure 10 Kids' Cycle Training

