Mayor’s Foreword

Tackling climate change is one of humanity’s most pressing issues. The evidence for global warming is undeniable and the implications are immense for both our environment and economic wellbeing.

Around 40 per cent of our greenhouse gas emissions in Auckland come from transport. With the electrification of rail, the construction of the City Rail Link and rapid growth in commuter rail trips to 20 million a year, we have taken effective steps towards tacking the growth in emissions. Electric light rail now being planned and the ultimate replacement of diesel with electric buses will add significantly to that contribution.

So too will the planned intensification of our housing around public transport hubs and arterial routes, and promotion of active modes of transport, which deliver environmental and health benefits alongside reducing congestion.

We are getting our waste sorted. In partnership with our communities we can lower emissions from waste and we have already reduced the amount of household waste by 10 per cent.

My commitment to planting an additional million trees over three years has seen over 170,000, primarily native, trees and shrubs already in the ground, with another 250,000 being grown for next season through our partnership with Department of Corrections. This is creating important carbon sinks as well as protecting water quality and improving our living environment.

The information we have on Auckland’s emissions inventory does show that we are decoupling emissions from population and economic growth. However the reality is that between 2014 and 2015, Auckland’s greenhouse gas emissions have increased by 411 kt CO\textsubscript{2}e or 3.8 per cent for gross emissions and by 148 kt CO\textsubscript{2}e or 1.5 per cent for net emissions. Clearly we need to sustain and increase our efforts.

As Mayor of Auckland I am committed to the council working together with the community to reduce our carbon emissions for the sake of our community, environment and future generations.

Phil Goff
Mayor of Auckland
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Auckland’s climate story

In this annual update we share the highlights of our climate journey so far, and signal the step up that is required to play our part in limiting global temperature increase to 1.5°C. We’re heading in the right direction, but now we need to pick up the pace.

Auckland is changing rapidly and so is our climate. As we grow and change, we’re committed to fighting climate change and reaping the tangible benefits of doing so for all Aucklanders: better transport choices, greater housing affordability and a healthier environment for us all to enjoy.

Beyond Auckland, a groundswell of ambition and commitment to a zero carbon future is growing to meet the challenge. Internationally, the historic Paris Agreement went into force in November 2016. The agreement represents a global effort to limit temperature increase to 1.5°C, and New Zealand was one of the first countries to ratify. Our new government has signalled a commitment to a zero carbon future, stepping up our Paris commitments and the subsequent action needed to make it happen.

Local action and collaboration with government is required to help meet our national aspirations and those that we have here at home. As a C40 city, Auckland has drawn from a network of global best practice and added our own to the mix as we collaborate with the best and brightest cities taking climate action. And we’re getting some real work done on the ground.

Auckland’s Energy Resilience and Low Carbon Action Plan (“the action plan”) was launched in 2014. The action plan focuses on five transformation areas: transport, built environment, energy, waste and forestry. Over the past three years significant progress has been made across these transformational areas. Some of the highlights since the launch of the plan are shown below.

While we commit our best efforts to reducing emissions, there is growing awareness of the need to be prepared to adapt to the effects of climate change. Leading cities around the world are increasingly taking an integrated approach, considering both mitigation and adaptation to climate change in their planning.

Earlier this year, the ‘Tasman Tempest’ caused flood damage in New Lynn and disrupted the region’s water supply. With events like these set to become more frequent, Auckland needs to consider how prepared it is to adapt to the impacts of a changing climate.

Through addressing our emissions trajectory hand in hand with increasing resilience, we will amplify opportunities to improve air and water quality, deliver improved health and equity outcomes as well as ensuring that Auckland is in step with the global transition to a low carbon economy.

Seven regional waste management services merged, resulting in 30 per cent diversion of inorganic waste from landfills

The refit of the council’s 135 Albert Street head office achieved a world-leading 6 Green Star sustainability rating

Developing an urban forest strategy to increase Auckland’s canopy cover

Adapting to climate change: Council commissions research to understand climate change impacts in Auckland

Greater access to clean, reliable and affordable energy

Greener buildings with more warm, dry and energy-efficient homes heated with affordable energy

We live among trees and feel connected to nature. Our air is clean and healthy.

Public transport, cycling and walking are the preferred means of travel. Auckland’s fleet is powered by sustainable, low-carbon energy sources.

Auckland has achieved zero waste to landfill
Our climate commitments

The pace of climate change action around the world continues to gather momentum. Cities and regions are stepping up as innovation hubs to tackle local greenhouse gas emissions, while also seizing the opportunities from the threat of climate change to improve the long term quality of life for communities. For Auckland, transforming to a low carbon city will deliver tangible and compelling benefits for all – like cleaner air and water, healthier communities and better places to live with more accessible transport and housing choice.

Auckland is committed to reducing emissions and ensuring our region is resilient to the impacts of climate change. Auckland Council has been on this journey since 2012 and now we’re scaling commitment alongside the growing ambitions of cities, businesses and governments on a global scale.

Our first emissions reduction target is set in the Auckland Plan at 40 per cent reduction by 2040. Auckland’s vision is established for a prosperous city with a thriving green economy, powered by efficient, affordable and clean energy, using sustainable resources.

Auckland’s Mayor commits to the Global Covenant of Mayors, and pledges to reduce Auckland’s greenhouse gas emissions, track progress and prepare for the impacts of climate change through a climate change adaptation action plan.

Auckland joins the global network of over 90 cities committed to tackling climate change while at COP21, where the Paris Agreement was negotiated. C40 membership enhances and resources Auckland’s ability to work with and learn from leading global cities facing similar climate challenges.

The council and central government agree a strategic approach to guide the development of Auckland’s transport system over the next 30 years and reduce transport-related greenhouse gas emissions.

The Paris Agreement between 196 countries signals a concerted global effort to limit global temperature increase by reducing emissions. The aim is to keep global temperature rise well below 2°C, whilst pursuing efforts to limit the rise to 1.5°C.

Auckland signs the C40 Paris Pledge for Action in support of the objectives in the Paris Agreement to limit global temperature rise to less than 2°C and raise ambition before the agreement takes effect in 2020.

The Unitary Plan sets policy for a quality compact urban form which can enable low carbon growth. It also sets the objective to ensure communities are more resilient to natural hazards and the effects of climate change.

The National Institute for Water and Atmospheric Research (NIWA) is commissioned to model the impacts of climate change on the Auckland Region to 2110. This research allows us to better understand the risks, vulnerabilities and opportunities associated with our changing climate so we can better plan, invest and build for the future.

The Mayor signs a declaration to transform Auckland’s streets into greener, healthier, and more prosperous places to live. Making our streets safe and accessible for everybody and improving our air quality will improve the quality of life for all citizens, and help tackle climate change. Auckland has pledged to transition to fossil fuel free streets by:

• procuring only zero-emission buses from 2025
• ensuring a major area of our city is zero carbon by 2030.

Our efforts to reduce emissions have had an impact, but we still have some way to go to see the reductions necessary to meet the 2020 target.

Auckland’s current target is to reduce emissions by 40 per cent by 2040. However, recent evidence from the C40 Cities network has highlighted that cities need to take more urgent action to meet the Paris Agreement commitments.

To support cities aspiring to the ambition of the Paris Agreement, C40 developed carbon budgets and trajectories for each member city. Auckland was assigned a steep decline trajectory. This means to play our part in limiting global temperature rise to 1.5°C, Auckland’s emissions would need to sharply decline over the next 5-10 years, reaching net zero emissions by 2050.

This steep decline emissions pathway would mean limiting our carbon budget to 164 mega-tonnes of carbon dioxide equivalent (MtCO₂e) over the next 33 years. Under our current targets we are projected to emit 282 MtCO₂e which will exceed our allocated carbon budget.

This means that the next few years matter and cities will need to pick up the pace on integrated climate action.

HOW ARE WE TRACKING?

The action plan set an interim target of 10-20 per cent reduction in emissions by 2020.

Over the past three years our emissions per capita have reduced, however Auckland’s continued population growth has been higher than projected, leading to an overall increase in emissions.

Our climate commitments

Table

<table>
<thead>
<tr>
<th>Year</th>
<th>Action</th>
<th>Description</th>
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Auckland’s emissions performance

PROGRESS ON THE PLAN

Since the launch of the action plan, 71 per cent of actions have been completed or are in progress. However, 26 per cent of these are considered to be behind schedule or facing challenges. There have been challenges in implementation due to uncertainty around the ownership of and responsibility for actions across the region. The final 3 per cent of actions have either stalled or are not able to be delivered in their current format. This is largely due to Auckland’s circumstances changing since the launch of the plan.

AUCKLAND’S EMISSION TRENDS

The council has been compiling an annual city-wide greenhouse gas inventory since 2009. Tracking the city’s emissions and their sources provides important insights on our progress to date and informs our decision-making for Auckland’s ongoing low carbon journey.

In the 2015 inventory\(^2\), Auckland’s gross emissions were 11,309 kilo-tonnes of carbon dioxide equivalent (kt CO\(_2\)e) or 10,267 kt CO\(_2\)e (net emissions\(^3\)) including carbon removal by forests. Between 2009 and 2015, net emissions have increased by 2.1 per cent while gross emissions have increased by 7.1 per cent. This increase was mainly driven by activities in the industrial processes and product use sectors, as well as from transport.

This trend shows that despite making progress on the implementation of the action plan, we need a significant shift to achieve our 40 per cent by 2040 reduction goal. Although the need to accelerate our emissions reduction effort is clear, we are already seeing some progress with Auckland’s emissions decoupling from our population and economic growth.

From 2009 to 2015, Auckland’s population increased from 1.4 million to 1.6 million residents and GDP increased from NZ$69.8 billion to NZ$81.0 billion. By comparison, net emissions in 2015 were 6.5 t CO\(_2\)e per capita, a decrease from 7.1 t CO\(_2\)e per capita in 2009.

Auckland’s latest inventory\(^4\) shows that road transport and stationary energy, particularly industry, remain the most significant sources of emissions, contributing to more than 60 per cent of total emissions in the region.

\(^{2}\) Due to the reporting cycle, the most recent available data is for 2015.

\(^{3}\) Net emissions are gross emissions less the removals by forests.

Highlights of 2017

Read on for the highlights of 2017.

TRANSPORT  BUILT ENVIRONMENT  ENERGY  WASTE  FORESTRY
Moving Aucklanders

Transforming the way we travel is a key focus for the action plan, as transport represents 40 per cent of Auckland’s emissions. Many initiatives in this area over the past year have contributed to growing numbers of Aucklanders embracing active and public transport. Two new records were set over the last year: 20 million train trips and 90 million public transport trips in total – Auckland’s highest in more than 60 years. The number of people cycling into the city centre has doubled in the past two years and there are now four times more pedestrians than vehicles on Queen Street during the day.

IMPROVING AUCKLAND’S CYCLING AND BUS SERVICES AND INFRASTRUCTURE

Significant investment has gone into Auckland’s active and public transport infrastructure in the past year, with the construction of over 14.2km of cycleways and a further 7km of busways. This has improved the safety and appeal of cycling as a transport choice for Aucklanders and has improved the speed and consistency of Auckland’s bus network. The commissioning of 76 double-decker buses on 12 key arterial routes, along with 56 more city centre-bound trips each weekday has also contributed to a 5 per cent increase in daily bus capacity, (close to 5,400 spaces a day).

$39.1m of cycling infrastructure delivered

Transport Action: Ensure significant improvements to cycling infrastructure

35% of Aucklanders now cycle, up from 20% in 2014

Transport Action: Improvements to bus priority measures

14.2km of cycleways were built in the past year

ENHANCING OUR ELECTRIC RAIL SERVICES

Trains have become an increasingly popular choice for Aucklanders with demand on the rail network increasing by 16 per cent over the last year. Auckland Transport has purchased 15 new electric trains to meet the growing demand and prepare for the electrification of the railway line between Papakura and Pukekohe. It is also a big step in getting ready for the City Rail Link which is currently under construction.

More than half of the people who travel across the Auckland Harbour Bridge into the CBD during the weekday morning peak do so by bus. The Northern Busway has helped enable this shift. Despite high population growth in the city centre, in the past five years there has been no increase in private car travel into the city.

The Walking School Bus programme provided safe, accompanied journeys to school for 4306 children, and developed 110 new routes.
Sorting Auckland’s waste

Auckland’s first Waste Management and Minimisation Plan (WMMP) was launched in 2012 and has driven significant change in the volume of waste generated by Aucklanders. Since the launch of the plan, Auckland’s per capita waste has reduced from 160kg in 2010 to 144kg in 2017. Auckland’s unique approach to reclaiming waste as a resource for the benefit of communities has been recognised as world-leading. For the second year running, Auckland’s waste programme has been nominated as a global finalist for the C40 Cities Awards.

However, each year Aucklanders still generate enough rubbish to fill an area as big as Eden Park and taller than the Sky Tower. With this in mind, and to ensure our waste efforts continue to drive us closer to our zero waste goal, a key activity this year has been updating Auckland’s WMMP. The WMMP update identifies more opportunities to add value back into Auckland from its waste stream and will focus on moving us towards a more circular economy. The updated WMMP, which will be consulted on, seeks to build on the partnerships created since its initial adoption and to increase the awareness needed to further reduce the region’s waste.

RESOURCE RECOVERY NETWORK

Auckland’s resource recovery network is growing, boosting local economic development and building stronger communities through successful new local hubs. This network of community-run facilities provides places where residents can drop off their unwanted goods and materials for others to buy, trade, upcycle or re-sell.

Five community recycling centres have been established since 2014, each diverting around 70 per cent of the waste they receive from landfill, creating 50 full and part-time new jobs. By treating reusable items as a resource and recognising their value for others in the area, communities have seized the opportunities to run their own recycling centres through social enterprises.

FOOD WASTE COLLECTION SERVICE

Over 2000 households across Papakura, Manurewa and the North Shore have been involved in a pilot scheme to divert organic waste from landfill by encouraging households to separate their food waste for collection in a kerbside bin. The collected material is then processed for beneficial refuse which includes the production of compost and soil enhancers. Working directly with residents, local schools and community members, the service is due to be rolled out across urban Papakura in March 2018, serving around 18,000 properties on a weekly basis. A wide collection service is expected to be rolled out to the rest of the region in 2020.

PARA KORE KI TAMAKI

Para Kore ki Tamaki is a zero waste initiative developed with Ngati Whatua Orakei to support marae across the Auckland region to work towards zero waste. Para Kore ki Tamaki enables waste minimisation from a te ao Māori context, where marae are able to divert waste from Papatūānuku through fostering kaitiakitanga practices. The programme provides a catalyst for taking the kaitiakitanga message from the marae into homes and the wider community. Successful marae divert over 75 per cent of waste.

Para Kore has engaged over 84,000 people to keep valuable resources circulating and out of landfill.
City Rail Link

The City Rail Link (CRL) will transform Auckland’s rail network, doubling rail capacity in the city and enabling 30,000 people an hour to move during peak time. The CRL’s 3.45km of twin tunnels will turn the downtown Britomart Transport Centre from a one-way terminus into a two-way through-station and will add two more city stations that better connect the Auckland rail network.

Completion of the CRL was identified as one of the key actions to increase public transport use in Auckland and reduce transport emissions. It is on track for completion by 2024.

EMBEDDING CARBON REDUCTION INTO CRL’S DESIGN AND CONSTRUCTION

As one of Auckland’s largest infrastructure construction projects, the CRL identified significant opportunities to embed carbon reduction early in the planning process. To maximise these opportunities, the project team adopted the Infrastructure Sustainability Council of Australia (ISCA) Infrastructure Sustainability (IS) rating framework. Under the IS framework, the CRL was awarded a “leading” rating for the design and construction planning of the first two project stages of the CRL: construction of the Britomart and Albert Street tunnels. As part of this Leading rating, CRL was specifically recognised for its pioneering work integrating mana whenua cultural values into the project, an approach that has helped to further improve ISCA’s IS rating framework.

Zero Waste

The CRL has a zero waste to landfill goal through construction and so far the first two project stages have achieved 98 per cent diversion from landfill for construction and demolition waste, 81 per cent diversion for spoil and 75 per cent for office waste.

Energy

Construction energy savings for the first two project stages are projected to avoid 2,393 tonnes of CO\textsubscript{2}e emissions, (a 29 per cent reduction from the base case), while operational savings from energy efficiency initiatives at Britomart once the CRL is running are expected to equate to nearly 15,000 tonnes of CO\textsubscript{2}e emissions over its lifetime.

Social outcomes

CRL is also using its procurement process to create pathways for quality employment with a focus on skills legacy, apprenticeships and new jobs for those facing barriers to employment. The CRL build will create about 1600 jobs throughout the life of the construction. Contractors are being asked to provide internships, cadetships, apprenticeships or equivalent pathways to learning, as well as upskilling and reskilling, to equip people for the present and future.

Transport oriented development

In addition to improving access to most parts of the city centre and major employment areas, the City Rail Link is expected to promote substantial redevelopment around the station precincts. Investment in quality rail infrastructure has been shown to accelerate private investment and broader regeneration projects. The Karangahape Station and Mt Eden Station redevelopments will unlock additional high-density residential capacity and generate urban renewal within the inner-city fringe catchment. This will provide housing stock to help reduce Auckland’s housing shortage over time. Furthermore, such development brings people and services closer together, shortening or eliminating travel distances and enabling more trips to be taken by foot or bicycle – all while decreasing emissions.
Walking the talk

VERIFYING OUR FOOTPRINT

This year, the council independently verified our greenhouse gas emissions inventory. We took this step to ensure that our footprint is being accurately measured and our reduction plan is focused on the council’s most significant emission sources. The audit confirmed the robustness of our inventory and that the council’s buildings – such as our offices, service centres, libraries and leisure centres – account for the largest portion of the council’s footprint at 61 per cent. Other significant sources were council-owned farms and our vehicle fleet.

GREENING OUR INFRASTRUCTURE

Originally a simple stormwater improvement project, the restoration of Te Auaunga/Oakley Creek has developed into an opportunity to radically improve the environment and social wellbeing of the Mt Roskill area through the use of green infrastructure techniques. The community has been extensively engaged in the planning process, and the scope of the project includes not just flood mitigation aspects but new cycle paths, walking trails, play spaces, a community fale, outdoor classes, and a beginners’ BMX track, in the reserves bordering the creek. The project exemplifies best practice by anticipating climate change and population growth, enabling greater urban intensification in an existing flood plain and building a future-focused opportunity to radically improve the environment and social wellbeing of the Mt Roskill area through the use of green infrastructure techniques.

The refit of the council’s head office at 135 Albert Street achieved a world-leading six Green Star rating for the office interior. Features include a building management system that automatically senses and adjusts heating/cooling, and the use of LED lights with motion sensors to automatically turn lights off and on. These initiatives have resulted in savings of 414 tonnes of carbon equivalent per year and annual cost savings of $300,000.

OVERHAULING OUR MAINTENANCE CONTRACTS

Recently Auckland Council overhauled our parks, open spaces and building maintenance contracts to deliver more efficient and effective outcomes for Auckland. As part of this review, the council embedded community and environmental outcomes into the new supplier contracts. These revised contracts now include targets around energy, water, waste and carbon reduction as well as broader goals for innovation, diversity, youth and local community employment. The new contracts took effect on 1 July 2017. Suppliers must report quarterly on progress and show annual improvement against their targets.

Capturing carbon

In addition to reducing greenhouse gas emissions from our activities, the action plan recognises that increasing carbon capture across the region is a key part of moving to a low emissions future. Over the past year, two key projects focused on increasing the number of trees in Auckland.

AUCKLAND URBAN NGAHERE (FOREST) STRATEGY

Auckland’s urban ngahere is the realm of Te Waonui o Tāne (the forest domain of Tāne Mahuta,) and consists of the network of all trees, other vegetation and green roofs – both native and naturalised – in existing and future urban areas.

The urban ngahere strategy aims to provide a clear and coherent framework for the management of the urban forest with a focus on the forest itself, as well as the people, flora and fauna who live within it. Auckland is growing at record pace and has committed to greater intensification and housing density through the Auckland Plan and Unitary Plan. Poor planning results in loss of green spaces and trees, as the density of development increases. To do intensification well, developments should be well planned and executed so the key services and amenities are protected. The strategy is a response to the growth and intensification concerns and has a long term vision to not only protect but enhance our green spaces, trees, and other amenities.

In addition to growth pressures, recent regulatory changes that removed blanket tree protection rules in urban areas, threats from pests and diseases, and potential future challenges caused by climate change are putting increasing pressure on Auckland’s urban ngahere. The strategy also aims to maximise the benefits provided by the urban ngahere, from carbon capture and air quality improvements through to amenity, community and cultural benefits.

Work on the urban ngahere strategy is ongoing, following approval of the vision and framework by the council’s Environment and Community Committee. The council is currently in the process of engaging with key stakeholders to finalise the strategy.

MILLION TREES PROGRAMME

‘Million Trees’ is a mayoral initiative that contributes to greening our city, capturing carbon, protecting our water quality and improving our living environment. Over three years the council will plant one million predominantly native trees and shrubs across Auckland in partnership with iwi, schools, public and private-sector organisations, and the public. 170,000 primarily native trees have already been planted this year, contributing to the goal of one million this term.

“The response to Million Trees has been fantastic. The enthusiasm and energy of the council, local boards, the private sector and schools has been overwhelming. We are partnering with Department of Corrections, Trees that Count; and nurseries, communities and other organisations to green our city and deliver a natural asset to Aucklanders for generations to come.”

– Mayor Phil Goff
Delivering the action plan requires collaboration and partnership across all of Auckland. Ensuring we reduce our emissions and prepare for the impacts of our changing climate involves mana whenua, mataawaka, businesses, residents, community and non-governmental organisations, as well as local and central government.

UNDERSTANDING CLIMATE CHANGE IMPACTS IN AUCKLAND

This year, the council and council controlled organisations commissioned the National Institute for Water and Atmospheric research (NIWA) to provide insights into our changing climate between now and 2110. The scale of change we may see is influenced by the level of greenhouse gases within the atmosphere. This project includes two scenarios, one in which our global emissions peak by around 2040 and then decline (RCP 4.5) and the other where emissions continue to rise (RCP 8.5). The findings highlight the likely changes we can expect, such as increased temperature, hot days and intensity of rainfall events, along with increased drought risk and oceanic changes, such as sea level rise and acidification.

These changes will impact us in a range of ways. We are likely to see physical and mental health effects from increased exposure to heat and severe weather events, and our infrastructure and assets will need to function under different conditions to those which we experience today. Our changing climate is already affecting the ability of our environment to provide essentials such as food and clean water and we are seeing increasing risks to biodiversity and biosecurity. There are also opportunities however, such as warmer winters reducing heating needs, innovation in irrigation practices and more growing days for crops.

The scale of change will depend on how quickly we reduce our emissions in the atmosphere and so we need to take a cohesive approach on emissions reduction and climate resilience to make the most of every decision we make. For example, water sensitive design and green infrastructure not only helps us manage stormwater more effectively, but can also improve water quality, reduce emissions and improve our health by providing more active places to exercise and meet up.

Moving forward, this information will support our decision-making and enable us to increase our understanding of the risks, vulnerabilities and opportunities that come from a changing climate.

For the full report visit knowledgeauckland.org.nz.

HELPING AUCKLANDERS REDUCE THEIR CARBON FOOTPRINT

This year the council, community groups and partners teamed up to create the Live Lightly initiative. It focuses on making it easier for Aucklanders to live low carbon lifestyles by highlighting the everyday lifestyle choices we can all make to save money, have a healthier life and care for Papatūānuku.

Through the action plan and Live Lightly we have started the conversation in schools, work places, marae, community centres, as well as in homes, and Aucklanders have been reducing household emissions through the Sustainable Whanau Challenge.

Our daily decisions about how we travel, what we eat, how we use energy and water at home, and what we throw away have an impact on our personal carbon footprints, our local environment, economy and our communities. We all need to pitch in to reduce the impact of the way we live. For more information on what you can do to reduce emissions visit livelighty.nz.

Change won’t happen overnight. From individuals and business to cities and government we need to team up, work together and support each other. This means making different decisions and using our collective impact to affect change. But it also means tackling the really big decisions, such as the form of our city and its development, the quality of our built environment, and major infrastructure like transport – examples outlined throughout this report.

RAISING STANDARDS TO DELIVER SUSTAINABLE BUILDINGS

Improving the performance of buildings presents an opportunity to deliver cost-effective emissions reductions as well as a host of compelling co-benefits. In October, Panuku Development Auckland announced that it will require new homes in its Transform and Unlock locations to achieve at least a 6 Homestar rating. This will result in higher energy efficiency standards and reduced greenhouse gas emissions as well as warmer, healthier homes.

The New Zealand Green Building Council (NZGBC) reports that there has been a tenfold increase in the use of Homestar nationally over the past two years, with much of this growth taking place in taking place in Auckland. Tamaki Regeneration Company and developers including Fletcher Living, Willis Bond and Odckham Regeneration have used Homestar to deliver homes that perform better than those built to Building Code standards. The NZGBC also reports that 80 per cent of new large commercial office buildings in Auckland CBD are now Green Star rated, contributing towards a more efficient and productive built environment.

There is also a rise in the use of tools that consider performance of existing buildings. For example, Green Star Performance measures energy, water, waste and other factors in existing buildings: retail, industrial, health, education, community or other buildings. Auckland Council has started to use Green Star Performance prior to the official launch this year.

5. www.livelightly.nz
6. www.sustainablewhanauchallenge.com

Photograph courtesy of the King Tides project: auckland.kingtides.org.nz

Analysis estimates than an average Auckland family living in a 6 Homestar house, could save around $900 a year in energy and water bills, and reduce their annual greenhouse gas emissions by 390kg.
What’s next for Auckland?

A great deal has changed since Low Carbon Auckland was launched in 2014.

Auckland’s population continues to grow at an unprecedented rate, harnessing new talent, energy and innovation while posing tremendous challenges like housing affordability and infrastructure funding.

New Zealand has a new government and, while climate legislation has yet to change or be enacted, government is clearly focused on the opportunities of climate action and the ambitious and necessary goal of a net zero emissions New Zealand.

The Paris Agreement entered into force a year ago, with increasing momentum toward full implementation in 2020 as well as increasing alignment with local and national agendas like ours.

And, of course, the climate continues to change. Cities are the front lines of climate change impacts and are the vanguard of real climate solutions. There’s everything to gain from climate action – improved health, stronger social connections, lasting economic opportunities. There’s also a lot to lose by not taking that action – costly impacts to property and infrastructure, lost economic opportunities, risks to health and safety.

It’s clearly time to work better together across all sectors to pick up the pace, scale and ambition. From my perspective, this means:

1. We must gather better evidence and analysis to inform smarter decision-making. We’ve made a start to that in partnership with council controlled organisations and the three Auckland-area District Health Boards, commissioning NIWA to assess what a changing climate looks like across Auckland. The next step will be to evaluate which communities are most vulnerable to the low emissions transition and the changing climate, and then to develop and prioritise actions accordingly.

2. We must better integrate our work. Not only do we need to work across sectors better, we need to think of the intersections between areas like transport, energy, housing, waste, and water so that one solution delivers greater efficiencies and multiple benefits. It also means looking at how to simultaneously reduce emissions and prepare for climate impacts, as the solution set for both is often the same.

3. We must set our sights higher. With new international expectations, rising national ambitions, and a commitment to lead as a C40 Cities Innovator city, Auckland is well-poised to double down our efforts and make our shiniest examples the new ‘business as usual’. Keep a sharp eye out for exciting urban regeneration – examples of quality urban living that’s the hallmark of successful low carbon cities. Look for fast construction of world-class walking and cycling infrastructure and the promise of a fully operational City Rail Link – transport choice fueling economic opportunity, better access and healthier Aucklanders. And then ask for more and push for more – like climate positive developments and a carbon-free transport system.

Thank you for your interest and involvement in Auckland’s low carbon transformation. With all that’s ahead of us, we’ll really need you and everyone on board to help shape the exciting next steps.

John Mauro
Chief Sustainability Officer