

WAITAKERE ACTION PLAN ON CLIMATE CHANGE AND ENERGY

Version 1 – 7th September 2006

Executive summary

Waitakere City has set ambitious goals for the reduction of greenhouse gas emissions in the city and from its own corporate operations. Waitakere City is also concerned about the security of supply of electricity to its residents and businesses and knows that it will need to adapt to the effects of climate change. This action plan describes a strategic approach to reach our goals and address issues of security of supply and climate change. It sets out the immediate work programme and gives an indication of long term direction.

Actions focus on the following main outcomes:

- Reducing single occupancy car travel.
- Exploring renewable fuels for vehicles and stationary energy generation.
- Reducing energy consumption, especially electricity consumption.
- Increased public awareness and public debate about climate change.
- Effective planning for the effects of climate change.

Many of the actions described are still in the planning stage and the quantification of the greenhouse benefits of actions is not complete. The action plan is very much a work in progress and will be further developed in parallel with its implementation.

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Introduction:

Purpose of this Action Plan

This climate change and energy action plan outlines the actions currently underway and those planned, to reduce greenhouse gas emissions (therefore slowing climate change), deal with the effects of climate change and increase the security of our electricity supply in Waitakere City. It aims to achieve the ambitious goals we have set to reduce greenhouse gas emissions. This document will evolve over time, actions will be constantly reviewed for their effectiveness and adjusted as necessary, new actions will be developed and added and actions will be quantified as the tools to do so become available. Its purpose is to define the work programme for the immediate future and to indicate the long term strategic approach for achieving our climate change goals. While community input is welcome at any point a formal review will take place as part of the 2009 review of the Long Term Council Community Plan (LTCCP), at which point public input will be sought.

What is climate change?

The greenhouse effect occurs when gases in the atmosphere trap heat from the sun, therefore making the climate on earth suitable for life as we know it. The gases responsible for this effect include water vapour, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and other gases. Since the industrial revolution increasing amounts of some of these gases have been released into the atmosphere and this has created an enhanced greenhouse effect, which is changing our climate.

CO₂ is produced when fuels are burned and the carbon contained in the fuel is released into the atmosphere. Because plants absorb CO₂ when they grow, and this is released when those plants are burned, a closed cycle is created when bio-fuels such as timber or liquid bio-fuels used in cars are burned. Fossil fuels such as diesel, coal and petrol come from plant deposits that have taken millions of years to change into coal and oil. We are using them at a much faster rate than they are replenished. For this reason additional CO₂ is released into the atmosphere that would have otherwise remained locked up in the earth's crust. World-wide, CO₂ is the greenhouse gas most responsible for climate change.

Vegetation clearance has further enhanced the greenhouse effects because there are now fewer plants absorbing CO₂ from the atmosphere than there used to be.

CH₄ is produced in the gut of ruminant animals, such as sheep and cattle. More intensive farming has seen the number of such animals increase and this has added to the enhanced greenhouse effect. CH₄ is also produced when organic material decomposes in anaerobic conditions, such as in a landfill. CH₄ is a much more potent greenhouse gas than CO₂ and is New Zealand's largest source of greenhouse gas emissions, at about 50%.

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There are a number of other man made greenhouse gases most are the result of industrial processes. However in the New Zealand context CO₂ and CH₄ are the most significant.

Why is it a Problem?

The earth's climate systems are complex and interconnected. An increase in temperature has far reaching impacts, such as changes in ocean temperatures, currents, sea-level rises, expansion of the tropics, increased drought and flooding, changes of wind patterns, more extreme rain events, for example. Most scientists now agree that the earth is warming and that the climate is changing, and most believe that this is caused by man made greenhouse gas emissions. There is less certainty about the rate of warming in the future and the risk of the earth's climate system abruptly changing due to feedback mechanisms that would further influence the climate (such as for example the change in global ocean circulation patterns and melting of the ice caps).

The New Zealand Government has published projections of climate change to 2080. While these projections are uncertain about the rise of annual average rainfall in Waitakere City, storm-events are projected to be more extreme. The 1 in 100 year event may become the 1 in 20 year event. This would put additional stress on an already stretched stormwater system and may decrease soil stability especially in steeper areas. Flooding may become more common along streams and rivers. Sealevel rise will effect coastal settlements and potentially those settlements along the estuaries of the Waitemata Harbour, especially when a king tide coincides with a heavy rainfall event. Increases in temperatures and changes in rainfall patterns may also affect biodiversity and some species may be unable to adapt. Conditions may be more favourable for introduced and potentially invasive species and new biosecurity threats. Increased temperature and humidity may also affect human health with a rise in infectious diseases and heat-stress. Warmer more humid summers may result in more people installing air conditioning and therefore increase the demand for electricity, warmer winters may decrease demand. While more work is needed to better predict localised effects it seems clear that the effects will be mainly negative.

What is the international response?

New Zealand is a signatory to the Kyoto protocol, an agreement negotiated in 1997 to delay global warming by reducing greenhouse gas emissions. Different targets were established for different countries based on their ability to manage emissions. The target for New Zealand is to stabilise its emissions at 1990 levels. Countries that don't meet their targets for the first commitment period (2008-2012) can buy emissions credits off those countries that exceed their targets. At this stage it is likely that New Zealand's emissions will exceed 1990 levels significantly, possibly by as much as 30% by 2012.

Why is Energy important?

This plan is called the Climate Change and Energy Action Plan because our use of fossil fuel based energy is at the core of climate change. CO₂ emissions are caused by the burning of fossil fuel to generate energy, be it in cars, industrial boilers or power stations. The generation of

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electricity from renewable sources, such as wind, solar or hydro does not generate CO₂ emissions. To reduce greenhouse gas emissions we therefore need to use less energy and switch to energy from renewable sources.

The efficient use of electricity and increased renewable generation will increase security of supply. The Auckland area and within it Waitakere City relies heavily on electricity imported from the south. Only about 25% of the electricity used in the Auckland Region is generated locally. Waitakere City does not have any major local generation. The lines into the region and within the region are close to capacity threatening the security of electricity supply. Using less electricity and generating electricity locally or to the north of Auckland will increase security and may delay major transmission investments.

Waitakere City's response

Waitakere City adopted Agenda 21 in 1993 and has considered greenhouse gas emissions and climate change in its strategies and policies since then as part of the Eco City vision. This commitment is reaffirmed by the current strategic direction, with one strategic platform dedicated to Clean Air and Sustainable Energy. Climate change considerations also weave through most of the other strategic platforms and priorities with Council aiming to reduce car travel, energy consumption, and waste generation and therefore reduce greenhouse gas emissions. The recently developed Community Outcomes also make specific reference to greenhouse gas emissions.

In 2004 Waitakere City joined the international Communities for Climate Protection (CCP™-NZ) campaign. CCP™-NZ is delivered by the International Council for Local Environmental Initiatives (ICLEI) and funded by the Ministry for the Environment. The programme provides encouragement and guidance to local Councils via a strategic framework and peer support locally and internationally.

The programme covers five milestones:

- Milestone 1** Conduct an inventory and forecast for community and corporate (Council) greenhouse gas emissions;
- Milestone 2** Establish greenhouse gas emissions reduction goals;
- Milestone 3** Develop and adopt a local action plan;
- Milestone 4** Implement the local action plan and quantify the benefits of implementing actions;
- Milestone 5** Monitor and report on implementation of the local action plan and progress towards achieving the reduction goal.

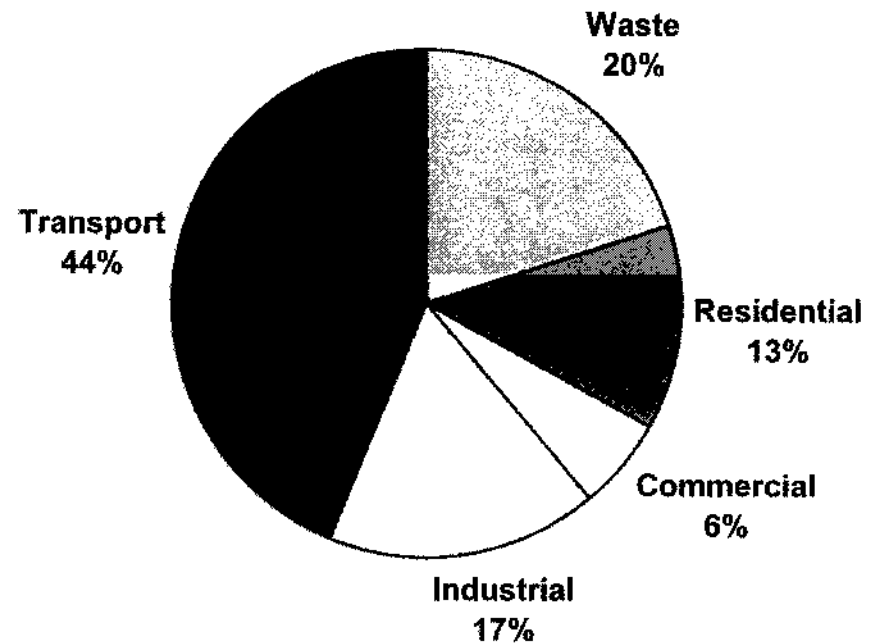
Waitakere City Council has completed milestone one and this action plan completes milestones two and three. While Waitakere City Council already has many actions under way, implementation of this action plan will formally start in the 2006/07 financial year.

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Our Emissions

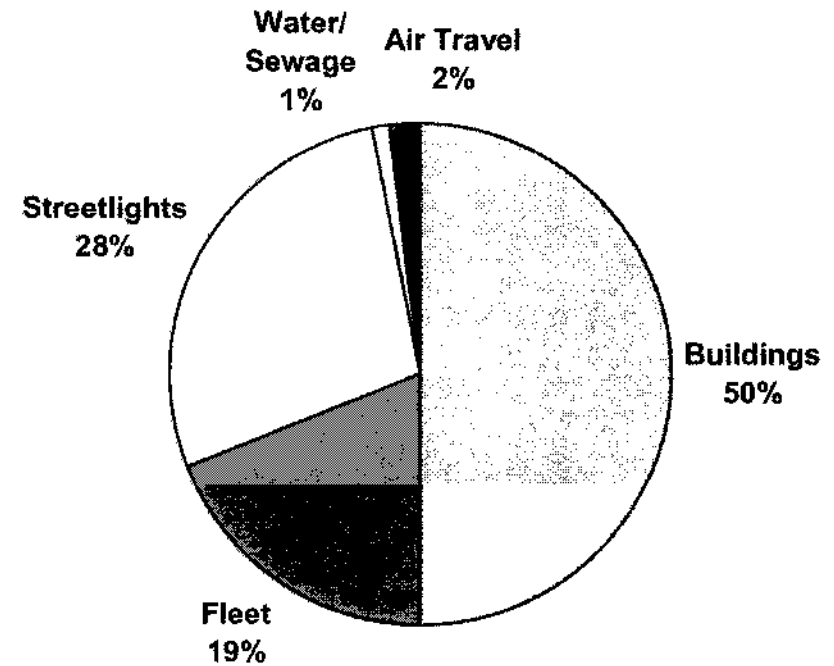
In 2004/05 Council undertook an emissions inventory which measured greenhouse gas emissions in the city (the community inventory) and from Council's own operations (the corporate inventory). Emissions are accounted for in CO₂ equivalents (CO₂e), which means that emissions other than CO₂ are converted to a figure that represents their global warming potential relative to CO₂. One tonne of CH₄ for example has the same effect as 21 tonnes of CO₂, and therefore counts as 21 tonnes of CO₂e

- Community base year 2001 greenhouse gas emissions were 900,353 tonnes CO₂e. In a business as usual scenario, where no action is taken, these emissions are expected to rise by 25% by 2010. The largest sources of greenhouse gas emissions from the community analysis include the transport and solid waste sectors.



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- Corporate base year 2002 greenhouse gas emissions were 6,059 tonnes of carbon dioxide equivalents (CO₂e). In a business as usual scenario, where no action is taken, these emissions are expected to rise by 65% by 2010. The largest source of greenhouse gas emissions from council's operations is electricity use for buildings and streetlights.



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The Waitakere City Goal

In April 2006 Council adopted the following draft goals that are confirmed with the adoption of this action plan:

Community emissions (base year: 2001):

- Reduce greenhouse gas emissions by 15% per capita by 2010 (this would lead to a stabilisation of total emissions);
- Reduce greenhouse gas emissions by 40% per capita by 2021 (to three tonnes per capita);
- Reduce greenhouse gas emissions by 80% per capita by 2051 (to one tonne per capita).

Corporate emissions (base year 2001):

- Stabilise total greenhouse gas emissions by 2010;
- Reduce total emissions by 50% by 2021.

These goals are based on the long term community goal to reduce per capita emissions to one tonne per year. This figure is based on research conducted by the International Panel for Climate Change (IPCC) and it is hoped that in the long term global emissions of one tonne per capita would eventually lead to climate stabilisation (at a temperature somewhat warmer than today).

Setting a per capita goal is appropriate for a city that is experiencing rapid population growth and it brings the somewhat abstract issue of climate change down to a level of individual responsibility. The community goals are supported by ambitious corporate goals to demonstrate Councils commitment to climate protection and to ensure that Council continues to lead by example in this area.

Currently there is a trend of growing emissions that needs to be reversed in order to move towards global stabilisation of climate. The goals are therefore based on the stabilisation of emissions in the short term and a reduction in the longer term. The Communities for Climate Protection goals are flexible goals to aim for and to provide inspiration, rather than mandatory targets to hit or miss. They are clearly stretch goals and may need to be adjusted as the actions under this plan progress and as the benefit of actions is quantified. ICLEI are currently developing quantification tools and applying these tools will provide more certainty about how our goals can be reached. Quantification will occur in parallel with the implementation of this plan to ensure the current momentum is maintained.

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How Will We Achieve Our Goals?

Our goals are ambitious, they are based on what we need to achieve to help stabilise the climate globally, rather than on what we are confident about achieving. While we believe that we can and need to reach our goals, there is no guarantee that we will. Climate change is a complex issue and many of the solutions lie outside Council's and our community's direct control. Council is however committed to do what it practically can to reduce emissions from its own operations and from our community.

At the community level we are targeting both the biggest sources of emissions, transport and waste, and the low hanging fruit, residential energy use. There are two main ways of reducing emissions from these sources:

- Reducing those activities that lead to emissions, such as vehicle use, electricity consumption and waste production.
- Switching to methods that have lower emissions, such as fuel substitution or different ways of waste disposal.

We also want to raise the profile of climate change and the knowledge about what actions will help us reduce greenhouse gas emissions. If the climate is to be stabilised in the long term, all of use will have to change the way we use energy and some hard decisions will have to be made politically at the national level. This can only occur when our community is well informed about the impacts of climate change and the solutions to reduce emissions. Council aims to lift the profile of climate change by encouraging debate, public education and through demonstration projects

At the corporate level our biggest source of emissions is from our buildings and we are already a leader in sustainable building construction and operation. However there is always room for improvement and we will continue to work of this. To reach our long-term goals (2021) it will be necessary to go beyond efficiency actions and to switch some of our energy use to renewable sources.

To help improve security of supply and to reduce greenhouse gas emissions Council will aim to facilitate distributed generation and other forms of local energy. Council will work with other with similar aims and will attempt to grasp opportunities as they arise.

Council also has a responsibility for ensuring that our community is well placed to adapt to the inevitable effects of climate change and we will need to ensure that we take these effects into account when we plan our infrastructure. To do this well more localised projections of climate change and modelling of the effects on infrastructure are needed.

The next section sets out the actions we will undertake to help us achieve our goals.

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Climate Change Actions

There are many initiatives already under way in Waitakere City that result in the reduction of greenhouse gas emissions. Some were set up with this purpose in mind, however most are primarily undertaken for other reasons and have the reduction of greenhouse gases as a co-benefit. Some are co-ordinated by Council, others by the community. This action plan covers all actions both past, existing and new to give a full picture of initiatives. It is likely that Council is unaware of some of the community actions and groups active in this area are encouraged to contact Council for information exchange and mutual support. Actions are grouped by topic area and include community and Council actions.

Many of the actions listed are still in the planning phase and targets and outcomes are being developed. Over time the gaps in these tables will be filled and the greenhouse gas benefit will be quantified where possible. This action plan is very much a work in progress.

Transport – our biggest issue

Transport is responsible for 44% of Waitakere City's greenhouse gas emissions. The actions listed here aim to reduce single occupancy car travel and to increase vehicle efficiency. Only key actions are included, the Draft Transport Strategy for Waitakere City 2006-2016 should be referred to for detailed transport projects and expenditure.

Transport actions have many benefits apart from the reduction of greenhouse gas emissions, these include:

- Health benefits through more physical activity (walking and cycling).
- Economic and social benefits of better urban design to reduce car use (mixed use, urban intensification, local employment).
- Road safety improvements (initiated by school travel plans and other projects).
- Reduced air emissions and associated health benefits.
- Increased fuel efficiency.
- Reduced congestion.

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<i>Action</i>	<i>Projects</i>	<i>Co-ordinated by</i>	<i>Timeline</i>	<i>Budget</i>	<i>Outcomes and Target</i>
Support community transport projects	<p>School Travel Plans – comprehensive plans to reduce the number of children driven to school. Target is for the majority of schools to have travel plans by 2016. Currently travel; plans operate at:</p> <p>Fruitvale School Henderson South School</p> <p>Lincoln/ Rathgar cluster: Waitakere College, Liston College, St Dominics College, Henderson Intermediate, Henderson North School, Pomaria School</p> <p>Rutherford Cluster: Rutherford School, Rutherford College, Te Kura Kaupapa Maori O te Kotuku</p> <p>Walking School Buses currently at</p> <p>Arahoe School Birdwood School Fruitvale School Hobsonville School Kaurilands School Marina View School Matipo Rd School Tirimoana School Titirangi School Fruitvale School</p>	WCC (Transport Assets) and Local Schools	ongoing	\$150,000 per primary school, \$300,000 per secondary/intermediate school	Six additional schools each year
	Way to Go! Campaign – a pilot community travel plan for New Lynn	WCC, Auckland Regional Council, Energy Efficiency	completed	\$10,000 Council contribution	Increase public transport mode share.

Action	Projects	Co-ordinated by	Timeline	Budget	Outcomes and Target
		and Conservation Authority		to \$300,000 project	
	Carpooling demonstration Project	WCC (Strategic Unit)	07/08	\$30,000	One project
	Workplace travel plans –After the completion of Councils own workplace travel plan, Council will be working with other local agencies to develop more of these.	WCC (Transport Assets) and local workplaces	Ongoing from 2007	Advice only	At least 30% of people work from home, or travel to work by walking, cycling, public transport or as vehicle passengers.
Sustainable Urban Planning Council aims to plan for neighbourhoods where people can access services and jobs locally by walking cycling or on public transport	NorSGA Sustainable urban planning for limited expansion of the urban limit to the north of the city. Aims include the creation of local employment with a significant reduction in car travel.	WCC (Strategic Unit, Strategic Projects, City Development, Transport Assets)	ongoing		
	Hobsonville Development A new urban mixed use development that hopes to only generate half as much car travel as a standard development	Hobsonville Land Company WCC (Strategic Projects, Strategy Unit, Transport Assets, City Development)	ongoing		Half car travel generated by the development.
	Massey neighbourhood project – a project to make an existing Massey neighbourhood more sustainable including the reduction of car reliance.	WCC (Strategic Unit), Housing New Zealand, Beacon Project, Massey community	06/07		

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Action	Projects	Co-ordinated by	Timeline	Budget	Outcomes and Target
	City Growth Strategy and Plan Change 16 promotes mixed use, urban intensification and protection of the Waitakere Ranges.	WCC (Strategic Unit)	06/07		
	Towncentre programme Henderson New Lynn Westgate	WCC (City Development)	ongoing		
Public Transport	Service Improvements , including <ul style="list-style-type: none"> 15 min frequency rail 	ARTA WCC (Strategic Unit) Service Providers	ongoing	Funded by ARTA	55% of residents are satisfied with level of service of public transport Increase use of buses and trains.
Public Transport Infrastructure Improvements	Bus <ul style="list-style-type: none"> Bus lanes and other bus priority measures Bus stop shelters and timetables Park and Ride 	WCC (Strategic Unit, Transport Assets)	ongoing	\$27.2 million WCC funding over the next 10 years	Bus lanes on: <ul style="list-style-type: none"> Lincoln Road / Great North Road - 2011 Clark Street - 2012 Hobsonville Road - 2016 Edmonton Road / Te Atatu Rd - 2016 Royal Road - 2016 Park and Ride at Westgate by 2016
	Ferry Infrastructure <ul style="list-style-type: none"> Precinct Improvements Park and Ride 	WCC (Strategic Unit, Transport Assets) ARTA	2010-16	\$1.6 million WCC funding over next 10	Hobsonville – 2011 West Harbour - 2016

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<i>Action</i>	<i>Projects</i>	<i>Co-ordinated by</i>	<i>Timeline</i>	<i>Budget</i> years	<i>Outcomes and Target</i>
	Rail <ul style="list-style-type: none"> • Double Tracking • Station improvements • Park and Ride 	WCC (Strategic Unit, Transport Assets) ARTA		\$6 million over next 10 years	Double tracking completed by 2009. At least 65% of residents perceive that train and bus stations are accessible and safe.
Encourage walking and cycling	Walking and Cycling Strategy	WCC (Strategic Unit)	2006	\$4.5 million over 10 years	
	Cycle ways programme	WCC (Transport Assets)	2005-2016	\$17.5m	
	New footpaths	WCC (Transport Assets)	ongoing	\$500,000 pa	
	Increased footpath maintenance	WCC (Transport Assets)	Catchup 2006-2008		
General Travel Demand Management	Charged Car Park Trials	WCC (Strategic Unit)	ongoing	\$314,000 over ten years	
Reduce car emissions	Free vehicle emissions testing at the Council owner vehicle testing station	WCC (Vehicle Testing Station)	ongoing	Part of operational budget	
	Biofuel Project – a project to pilot bio diesel with a large local fleet	WCC (Transport Assets)	06/07	\$20,000	
Promotion and Education	Vehicle efficiency education project – educating car dealers and the public about vehicle efficiency using an online database.	WCC (Cleaner Production)	06/07	\$10,000	
Leading by Example –	Council Travel Plan – a comprehensive travel plan aimed to	WCC (Transport Assets)	06/07	\$100,000	10% reduction in single occupancy travel to

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<i>Action</i>	<i>Projects</i>	<i>Co-ordinated by</i>	<i>Timeline</i>	<i>Budget</i>	<i>Outcomes and Target and from work.</i>
Corporate actions	change transport behaviour of WCC staff implemented with move to the new building in July 2006				
	Fleet audit – this has resulted in improved fleet efficiency, such as improvements to the booking system, ongoing fuel usage monitoring and instalment of back seats in pool vehicles.	WCC (Cleaner Production)	completed		NA
	Fleet Purchasing Policy – vehicle efficiency and consideration for bio fuels is incorporated in the tendering process.	WCC (Corporate Services)	ongoing	General operations	
	Hybrid cars – the fleet now includes several Toyota Prius cars	WCC (Corporate Services)	ongoing	General operations	
	Fleet bicycles	WCC (Corporate Services)	06/07	General operations	How many?
	Relocation of the Civic Centre – one of the underlying reasons of the move to Henderson was increased public transport access for staff and the public.	WCC	July 2006	General operations	10% reduction in single occupancy travel to and from work.

Building Energy Use– because it makes sense

Building energy consumption contributes 19% to Waitakere City's greenhouse gas emissions. It makes sense to make building energy efficiency a priority, because there are many easily implemented actions (low hanging fruit) and because building energy use is mainly in the form of electricity, security of supply can therefore be improved by increasing efficiency. Buildings stay with us for a long time and if emissions are to be drastically reduced in the medium to long term future, action is required now. Because Waitakere City is a growing city it is particularly important to influence new buildings. This section includes building design and operation.

Reducing energy use in buildings has many benefits apart from the reduction of greenhouse gas emissions, including:

- Health benefits through warmer drier houses.
- Reduced running costs of buildings.
- Local employment through energy retrofits.
- Increased security of supply through reduced demand.
- Water and waste outcomes through holistic environmental programmes targeting households and businesses.

Action	Projects	Co-ordinated by	Timeline	Budget	Target
Support community energy projects	Eco Wise West , a project retrofitting low income houses with insulation using previously unemployed workers	Ecomatters Trust WCC	ongoing	\$100,000 Council contribution to \$570,000 project in 2006/07	300 houses per year
	Household energy efficiency advice project , independent home energy audits. Target, 400 homes.	EcoMatters Trust WCC	ongoing	\$5,000 Council contribution to \$210,000 project in 06/07	400 homes per year.
Promotion and Education	Independent Eco Design Advisor , free eco building advice to the public available 20 hour a week	BRANZ WCC (Strategic Unit)	06/07	\$10,000 Council contribution.	
	Sustainable Home Guidelines – an extensive eco-building guide.	WCC (Cleaner Production)	ongoing	Self funding	

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Action	Projects	Co-ordinated by	Timeline	Budget	Target
	TUSC – Tools for Urban Sustainability Code of Practice. This scheme scores the sustainability of new dwellings, developers achieving a minimum score receive a \$2,000 rebate on their development contribution.	WCC (EcoWater)	06/07		
	Solar Hot Water Project – increased promotion of solar hot water and waiving of building consent fees for such systems. Working with any central government initiative to maximise benefit to Waitakere City residents.	WCC (Strategic Unit)	06/07	\$80,000	
	Cleaner Production programme. The cleaner production programme covers business energy use related to industrial processes as well as building energy use. It also covers waste reduction.	WCC (Cleaner Production)	ongoing	\$30,000	Work with 60 businesses per year.
Research into more sustainable cities	Beacon Project	WCC (Strategic Unit)	ongoing	\$200,000 annually	Majority of houses to have high sustainability standard by 2012
Leading by Example – Corporate actions	Sustainable Buildings Council has detailed sustainability standards for its building, these are outlined in the Better Building Code, which is available to others wanting to build more sustainable buildings. Council's sustainable buildings include: The Massey Leisure Centre and Library The New Lynn Community Centre The Glen Eden Library	WCC (Strategic Unit)	ongoing	No new buildings planned in 06/07	

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Action	Projects	Co-ordinated by	Timeline	Budget	Target
	The New Lynn Library The Henderson Library The Waitakere Central Civic Centre				
	New Building Monitoring and Management – this programme ensures that Council's new buildings are operated efficiently and that their benefits are proven.	WCC (Strategic Unit, Property Management)	06/07	\$50,000	
	Energy management programme to ensure efficient management of Council buildings, streetlights and other infrastructure.	WCC (Cleaner Production)	ongoing	\$20,000 in 06/07 increasing to \$50,000 in 07/08	
	Greenpower - Investigate the possibility of purchasing electricity from new renewable generation for Council buildings.	WCC (Cleaner Production, Corporate Services)	06/07 and ongoing	\$10,000 in 06/07	20% of Council electricity from new renewables by 2011
	Consider solar hot water and rainwater collection whenever buildings are upgraded, including the Massy Leisure Centre	WCC (Property Management)	06/07 and ongoing	Included in general budget for upgrades.	Solar hot water on four Council buildings by 2011.
	Upgrade of WCC pensioner housing to include energy efficiency	WCC (Property Management)			
	West Wave Aquatic Centre plant efficiency programme	WCC (Cleaner Production)	06/07		
	Education about Council's buildings aimed at staff and the public, including brochures, displays, tours, etc	Public Affairs Property Services	ongoing		

Renewable Local Generation – Security of supply without emissions

Generating more electricity from renewable sources means that greenhouse gas emissions are avoided. Local (Auckland Region and north) generation will improve security of supply. Establishing some generation within Waitakere City will have the benefit of raising the profile and public acceptance of renewables.

Action	Projects	Co-ordinated by	Timeline	Budget	Target
Encourage large scale commercial generation	Waitakere City renewable resource assessment – an assessment of local resources has been completed. This showed that there are no commercially viable sites for large land based renewable generation in the city. A substantial resource was identified in the Manukau Harbour in the form of current, wave and off shore wind energy.	Strategic Unit	completed	\$2,000	
	Working with others to achieve generation north of Waitakere. Council aims to work with others to achieve renewable generation north of Waitakere City.	Strategic Unit	06/07	none	
Encourage small scale embedded/distributed generation	Demonstration project. Council would like to see embedded local generation. This pilot project is aimed at resolving the technical issues and encouraging debate.	Strategic Unit	06/07	\$100,000	
	Encouraging renewable generation via the District Plan. A review will be undertaken to ensure that the district plan encourages renewable generation.	Strategic Unit	06/07	\$30,000	
	Work with others to encourage local energy.	WCC (Strategic Unit)	ongoing	none	
	Solar Street lighting	Transport Assets	06/07	\$30,000	

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Waste reduction – cutting CH₄ emissions

Emissions from waste are possibly over reported in the inventory. Council disposes of the city's waste to the Redvale landfill (on Auckland's Northshore) which has a methane management programme in place. However reducing the organic component in the waste stream makes sense and is part of Council's Zero Waste vision. Council has completed a waste management plan and only key projects relating to climate change are included here. Reducing waste has benefits other than the reduction of methane emissions. Fewer resources are used resulting in lower environmental impacts and cost savings. Where organic waste is returned to the soil, via composting, soil quality is also improved.

<i>Action</i>	<i>Projects</i>	<i>Co-ordinated by</i>	<i>Timeline</i>	<i>Budget</i>	<i>Target</i>
Support community waste projects	Composting workshops with free composting bins for participants	EcoMatters Trust			
	Establishment of a community initiatives fund .	WCC (Solid Waste)	06/07 start with money unlikely to be allocated before 2008	Funded by user pays rubbish bags.	
Encourage Recycling	Curb side collection for plastics, cans, glass bottles and paper	WCC (Solid Waste)	ongoing		
Promotion and Education	Waste Minimisation Learning Centre An education centre based at the Refuse and recycling Transfer Station for schools.	WCC (Solid Waste)	ongoing		
	Subsidised Compost Bins available to residents.	WCC (Solid Waste)	ongoing		
	Construction and Demolition Waste Minimisation Programme targeted at local construction projects.	WCC (Cleaner Production)	ongoing	\$5,000 pa	Work with 3 residential building companies on waste minimisation p.a
	Waste Minimisation and Management Plans case studies and support to local businesses and organisations.	WCC (Cleaner Production)	ongoing	\$2,000 pa	Have templates and case studies for Waitakere industries available by 2008.
Leading by	Corporate Waste Audits	WCC (Cleaner	yearly	\$800 pa	

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<i>Action</i>	<i>Projects</i>	<i>Co-ordinated by</i>	<i>Timeline</i>	<i>Budget</i>	<i>Target</i>
Example – Corporate actions		Production)			
	Worm farming of staff cafeteria organic waste and other waste reduction initiatives	WCC (Cleaner Production)	ongoing	General operational budget.	

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Adaptation to Climate Change – preparing for the inevitable

Council is committed to reducing greenhouse gas emissions. However even if global emissions are reduced drastically the climate is still going to change. How much and how quickly will depend on the global community's success in reducing greenhouse gas emissions. If international efforts are successful it is hoped that the climate will eventually stabilise at a somewhat higher average global temperature than today. It is therefore important that we plan for this change.

Preparing for climate change now will mean lower costs in the long term because the impacts due to flooding, inundation and other effects will be reduced.

<i>Action</i>	<i>Projects</i>	<i>Co-ordinated by</i>	<i>Timeline</i>	<i>Budget</i>	<i>Target</i>
Ensure that we adapt to the changing climate as well as possible.	Liaison with Central Government to ensure that Waitakere City Council has relevant up to date information about the effects of climate change.	WCC (Strategic Unit)	ongoing	none	
	Assessment of likely localised effects and impact on Council infrastructure.	WCC (EcoWater)	06/07_07/08	To be confirmed	Modelling of effects completed 2008
Civil Defence Emergency Management	Integrate climate change effects into emergency and civil defence planning	Civil Defence City Services Strategy and Development	06/07 and ongoing	Part of operational budget	
Publicity and Education	Communications programme around climate change.	Strategy and Development	06/07 and ongoing	Part of climate change education	

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Education and Awareness

Climate change is arguably one of the most important issues of the 21st century. Because the effects are long term and the solutions are complex education, awareness rising and debate are needed to raise the profile and understanding of climate change. For our community to make informed decisions it needs to be well informed about the basic science of climate change, the impact human activity has on the climate, how that impact can be reduced and what steps need to be taken to adapt to climate change. While all the above tables have an education component, the main educational projects are listed here. By integrating climate change education with general sustainability education benefits can be maximised.

<i>Action</i>	<i>Projects</i>	<i>Co-ordinated by</i>	<i>Timeline</i>	<i>Budget</i>	<i>Target</i>
Ensure education and public awareness about climate change	Sustainable Living Centre <ul style="list-style-type: none"> • Seminars • Composting workshops • Informal advice and information 	EcoMatters Trust	ongoing	\$40,000 annual Council support	
	Sustainable Living Courses	WCC (Cleaner Production)	ongoing		Include key climate change messages.
	Eco Day Waitakere City's yearly eco festival	EcoMatters	yearly		Special focus on climate change in 2007.
	EnviroSchools Currently active at <i>List schools</i>	??	ongoing	\$30,000	
	Climate Change Events Support local community groups in holding climate change events.	Local groups WCC (Strategic Unit)	06/07	\$10,000	10 events
	Waitakere City Website Update and improve climate change content	WCC (Strategic Unit)	06/07	\$2,000	
	Climate Change Communication Plan	WCC (Strategic Unit, Public Affairs)	06/07	Operational budget	

ASS

Future Initiatives to Investigate

The initiatives in the tables on the previous pages are budgeted and are part of current work programmes. Council is continuously seeking new innovative ways of reducing greenhouse gas emissions. The following initiatives have been discussed by staff and will be investigated further. Council welcomes additional ideas and feedback on its current initiatives or those listed here for further investigation.

Contestable community greenhouse gas reduction fund

Under this project money would be made available to community groups, businesses or individuals for projects with demonstrable greenhouse gas reductions.

Measurement of the greenhouse gas benefits of good urban design

While Council is confident that its urban design approach results in lower greenhouse gas emissions than a more traditional development approach, there is little data available to prove this. One option would be to sponsor a Masters or PhD student to undertake a comparison of different neighbourhoods.

Increasing the percentage of vehicles emissions tested at the vehicle testing station

Council currently offers free emissions testing at the vehicle testing station, however due to resource constraints not all cars are tested. An option would be to fully fund emissions testing through rates.

Public Transport Incentives

This could include free travel passes or subsidies for residents or even free buses.

Solar hot water

Council could offer a loan to residents to purchase solar hot water systems that is repayable through rates. Council could also bulk purchase solar hot water systems to bring the cost down.

A climate change forum

A climate change or energy forum for the community has been discussed for some time. One option would be to run such a forum as part of Eco Day in 2007.

Quantifying the benefit of actions

Council needs to quantify the actions in the plan. However there are currently some unresolved issues around the emissions factor for electricity in the methodology proposed for this by the International Council for Local Environmental Initiatives (ICLEI). Because the majority of our actions target electricity consumption it is currently not feasible to quantify our action.

Additionally many of the actions are aimed at a gradual change in behaviour which is hard to model. Long term goals were set on the basis of the reductions that will be needed to achieve a stabilisation of the climate, rather than based on what is achievable. The short term goals however need to reflect the impact that can be made in the next years. Council will continue to work with ICLEI to quantify actions, but in the meantime the targets listed in the tables will guide project delivery.

This action plan is very much a work in progress and targets, outcomes and likely greenhouse gas reductions will be filled in as they become available.

Monitoring progress and review:

Progress will be measured against the stated targets initially. Many of the projects listed are also part of wider strategies and work programmes and their effectiveness will be monitored through those processes. Council will continue to work with ICLEI to quantify actions and to track progress towards the emissions reduction goals.

A formal stock take of actions and their impact will be conducted in time for the 2009 LTCCP review to allow the action plan to be reviewed as part of the LTCCP process. A more informal review is however continuous and members of the public are encouraged to contact Council with ideas, comments and suggestions at any time. The solutions to climate change need to be innovative and some flexibility is therefore required to ensure opportunities can be realised as they occur.

A57

**MINUTES OF A MEETING OF THE PROJECTS SPECIAL COMMITTEE HELD AT
WAITAKERE CENTRAL, 6 HENDERSON VALLEY ROAD, HENDERSON,
WAITAKERE, ON WEDNESDAY, 31 JANUARY 2007,
COMMENCING AT 9.30 AM.**

PRESENT: Councillors RP Dallow, QPM, JP (Chairman)
DQ Battersby, JP
JM Clews, QSO, JP
LA Cooper
C Harding, JP

Deputy Mayor CA Stone (ex officio)

ALSO PRESENT: Councillor WW Flaunty, QSM, JP

OBSERVERS: EAG Grimmer, MNZM (Chairman, Henderson Community Board)

IN ATTENDANCE: Group Manager: Customer Services
Group Manager: Service Management
Senior Engineer: Special Projects
Manager: Property Assets
Leisure Planner
Committee Secretary: A Chan

1 APOLOGIES

18/2007

MOVED by Cr Cooper, seconded Cr Stone:

That apologies from Cr Corban and Cr Hulse for absence be received and sustained.

CARRIED

2 URGENT BUSINESS

There was no Urgent Business.

3 CONFIRMATION OF MINUTES

19/2007

MOVED by Cr Clews, seconded Cr Harding:

That the minutes of the Meeting of the Projects Special Committee held on Wednesday, 6 December 2006, as circulated, be taken as read and now be confirmed.

CARRIED

**4 WAITAKERE CENTRAL TRANSPORT INTERCHANGE - CONSTRUCTION STATUS
NOVEMBER / DECEMBER 2006**

20/2007

MOVED by Cr Cooper, seconded Cr Stone:

That the Waitakere Central Transport Interchange - Construction Status November / December 2006 report be received.

CARRIED

21/2007

MOVED by Cr Stone, seconded Cr Clews:

That the Chief Executive Officer be requested to report back to Council on initiatives by the Mayor to reduce graffiti and vandalism in the rail corridor as discussed with the Ontrack representatives at the Mayoral Forum in 2006.

CARRIED

5 HOUSING FOR OLDER ADULTS REVITALISATION PROJECT UPDATE

22/2007

MOVED by Cr Clews, seconded Cr Cooper:

1. That the Housing for Older Adults Revitalisation Project Update report be received.
2. That the Chief Executive Officer be authorised to accept any funding received from Housing New Zealand Corporation on Council's behalf for the Housing for Older Adults project.
3. That a commitment be given to retaining the current number of housing for older adult units over the next 20 years as required by the terms of the suspensory loan that the Council is seeking from Housing New Zealand Corporation.
4. That Council renew, within the Council's budget approved through the Long Term Council Community Plan 2006-2016, some housing units as a pilot demonstration of what the renewed units will look like.

CARRIED

6 HENDERSON YOUTH FACILITY CONCEPT PLAN

23/2007

MOVED by Cr Harding, seconded Cr Cooper:

1. That the Henderson Youth Facility Concept Plan report be received.
2. That concept layout "Z4" for the Henderson Youth Facility as presented at the meeting be endorsed.
3. That the Director: City Services be delegated authority to sign off any minor changes to the design concept arising from the community youth services workshop.

4. That approval be given to commence detailed design for the Henderson Youth Facility based on concept layout "Z4" as presented at the meeting.
5. That Council officers bring back to the Projects Special Committee a detailed design for the Henderson Youth Facility for approval.

CARRIED

10.50 am

The Chairman thanked Members for their attendance and attention to business and declared the meeting closed.

CONFIRMED AT A MEETING OF THE PROJECTS
SPECIAL COMMITTEE HELD ON

DATE:.....

CHAIRMAN:.....