greater WELLINGTON
REGIONAL COUNCIL

Report	08.143
Date	4 March 2008
File	CP/13/02/01
Committee	Regional Sustainability Committee
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Milestone 2 Setting Emission Reduction Goals

1. Purpose

To seek the Committee's approval for emission reduction goals for council's own operations (the '*Corporate'* segment) as part Greater Wellington's participation in the Communities for Climate Protection® - New Zealand ("CCP®-NZ") Programme.

2. Significance of the decision

The matters for decision in this report do not trigger the significance policy of the Council or otherwise trigger section 76(3)(b) of the Local Government Act 2002.

3. Background: CCP-NZ Programme

Greater Wellington joined the CCP-NZ Programme in February 2007. CCP-NZ is a New Zealand Government initiative delivered by the International Council for Local Environmental Initiatives ("ICLEI") Oceania as part of ICLEI's international Cities for Climate Protection (CCP) campaign. The CCP-NZ Programme is based on a milestone framework:

Milestone 1 Milestone 1 is an inventory of greenhouse gas emissions (GHG) from council's own operations ('*Corporate'*) and an analysis of the greenhouse gas emissions from the council area as a whole (the '*Community'* segment).

Milestone 2 Set emissions reduction goals.

Milestone 3 Develop a local action plan to achieve these goals.

Milestone 4 Implement and quantify the benefits of policies and measures of the action plan.

Milestone 5 Monitor progress towards the reduction goal.

Greater Wellington has produced a *Corporate* emissions profile. Data was obtained from records of fuel use, energy use and waste production. The *Community* emissions profile was obtained from the CCP-NZ Proxy data for the Wellington region, supplied by the CCP-NZ office.

The Milestone framework provides information necessary for determining a strategic approach to reducing emissions. It also serves as a reference against which to measure the Council's achievements as we progress through the milestones.

Greater Wellington achieved Milestone 1 in July 2007.

4. Setting Emission Reduction Goals

4.1 Types of emission reduction goals

There are several types of reduction goals that can be used by Greater Wellington – conservative; political; bridge; and/or stretch. Different types of goals can be used for different timeframes. For example, conservative goals are best suited to short time frames whilst stretch goals are better for longer-term.

4.2 External considerations

Goal setting can provide Greater Wellington with opportunities externally, even when the goals apply to the organisation itself. The goals are an opportunity for the following:

- Leadership in the community – by setting a good example.
- Working with other organisations, particularly other local authorities, to show leadership in the sector. This will also provide opportunities to develop stronger and broader working relationships.
- Changing behaviour – both within and outside the organisation.
- Raising the profile of the Region and Greater Wellington. This may have spin-offs for businesses, tourism etc.
- Innovation. Meeting goals may require innovative approaches.

4.3 Internal considerations

Internally, both the process of setting goals and identifying actions to achieve them, provide a number of opportunities for Greater Wellington, such as:

- Raising the profile of internal sustainability by having clear targets and measures for climate change – a key component of sustainability.

- Improving our internal systems and processes so that we can measure progress towards a desired end.

- Providing a strategic framework for climate change that will both inform and complement other Greater Wellington strategies. Actions for reducing emissions are generally extremely cost effective, and cost savings can drive decision-making.

4.4 Other local authority goals

Appendix 1 shows the goals that have been set by a number of other local authorities in New Zealand and internationally who are working under the CCP-NZ programme.

Local authority emission profiles differ widely because of varying responsibilities and ways of discharging functions. Therefore, it is important that each local authority decide on the most appropriate processes and goals for their own organisation.

4.4.1 Wellington Region

In the Wellington Region, Wellington City Council's revised *Corporate* goal is carbon neutrality by 2012 and *Community* reduction goal of 30% by 2020 and 50% by 2050 from a 2003 base year. Carterton, Masterton and South Wairarapa worked together and agreed on a joint *Community* goal of 10% by 2010 and 70% by 2025 below 2001 levels.

See below a summary table of CCP-NZ Participants in the Wellington Region.

Wellington Region CCP-NZ Participants
Status in Programme

CCP-NZ Council	Base Year	Corporate Target	Community Target	Milestone Progress
Carterton District Council	2001 Corporate 2001 Community	10% below 2001 by 2010 70% below 2001 by 2025	10% below 2001 by 2010 70% below 2001 by 2025	Completed M3 Corporate and Community. Working on implementing M4 actions.
Greater Wellington Regional Council	2006 Corporate 2001 Community			Completed M1 and developing M2 goals and M3 plans. Several M4 actions planned.
Kapiti Coast District Council	2001 Corporate 2001 Community	15% below 2001 by 2010	Stabilise at 2001 levels by 2010 20% reduction by 2015	Completed M3 Corporate and Community. Working on implementing M4 actions.

Masterton District Council	2001 Corporate 2001 Community	Cap for 2010 at a 25% increase on 2001 levels 70% below 2001 by 2025	10% below 2001 levels by 2010 70% below 2001 by 2025	Completed M3 Community. Working on M3 Corporate.
Porirua City Council	2006 Corporate 2001 Community			Working on M1 Corporate and Community.
South Wairarapa District Council	2001 Corporate 2001 Community	5% below 2001 by 2010 and 70% below 2001 by 2025	10% below 2001 by 2010 and 70% below 2001 by 2025	Completed M3 Community. Working on M3 Corporate plan
Wellington City Council	2003 Corporate 2001 Community	Revised target Carbon Neutral by 2012	Stabilise by 2010 and 20% reduction by 2020	Completed M3 Corporate and Community. Working on implementing M4 actions.

Source: CCP-NZ Programme Office

Upper Hutt City Council are currently considering participation in the CCP-NZ Programme. Hutt City Council is not considering participation in the programme at this stage.

Refer to Appendix 1 for a snapshot of emission reduction goals set by other local authorities in New Zealand and internationally.

4.4.2 New Zealand

The most ambitious goal has been set by Kaikoura District Council (100% reduction of 2001 *Corporate* emissions by 2020) and the most conservative include South Wairarapa District Council (5% of 2001 *Corporate* by 2010).

Auckland Regional Council is aiming for 25% of 2006 *Corporate* emission reduction by 2010. Taranaki Regional Council aims to stabilise 2001 emission levels by 2010 for *Corporate.*

4.4.3 International

Goals from throughout the world indicate that many local authorities are opting for a 20% reduction goal over a 15 to 20 year period, following the example of Toronto, Canada which became the first city in the world to set a greenhouse gas emissions reduction goal. Toronto endorsed the goal in 1990, aiming to reduce greenhouse gas emissions by 20% from 1988 levels by 2005. A report commissioned by the council indicates that the City has cut its emissions by 67% from 1990 levels – exceeding it goal by more than three times. All told, the city has cut annual emissions from the equivalent of 2.3 million tonnes of carbon dioxide equivalents (CO_2e), to only 765,000 tonnes.

A 20% reduction goal is supported by more than 250 councils worldwide.

5. Carbon neutrality

Initial assessments, based on Greater Wellington GIS mapping, indicate that Council has land that is sequestering carbon at sufficient rates to be carbon neutral. Therefore, without doing anything to improve energy efficiency, Greater Wellington is in effect carbon neutral for its *Corporate* emissions.

However, carbon neutrality is a matter of definition. Greater Wellington has options as carbon neutrality can be achieved with or without certification.

Carbon Neutrality without certification

Greater Wellington may decide to be carbon neutral without certification. However, there are risks involved. To be seen to be carbon neutral requires independent verification to be transparent, even though we are confident that we are already carbon neutral.

Carbon Neutrality with certification

Greater Wellington can become certified carbon neutral through either domestic or international standards. There are various verification standards and means of quantifying to be certified carbon neutral.

We are currently investigating the costs and benefits of these options. For example, international certification could be achieved through ISO14064. Domestic certification may be achieved through an independent party.

Carbon Neutrality and Emissions Trading for Forestry

In the future, if Greater Wellington uses land eligible for the Government's Emissions Trading Scheme (ETS) for Forestry and the Permanent Sinks Initiative (or in internationally Kyoto-compliant schemes) to offset its emissions, our carbon neutral position could be affected. The costs and benefits of entering into domestic or international schemes will be evaluated at a later date.

Carbon Neutrality and Emissions Trading for Stationary Energy and Transport Fuels

After the introduction of the ETS for fuels (2009) and stationary energy (2010) fuel and energy companies will be required to offset effectively these emissions on behalf of consumers. Therefore, Greater Wellington may not be required to offset its emissions after 2010. However, the finer details of this ETS are yet to be confirmed.

Carbon Neutrality and the Wellington Region

Greater Wellington could set a carbon neutral goal for the Wellington region by contributing its total allocation of carbon absorbing land to offset the *Community's* emissions. This would, of course, create problems (costs) for carbon neutrality for *Corporate.*

The issue of carbon neutrality is discussed here for completeness only. It does not affect the setting of our *Corporate* emission goals. With or without carbon neutrality, the responsible approach for *Corporate* is still to reduce GHG emissions.

6. Community Goals

The *Community* (regional) emissions profile is shown in Appendix 2. Wellington Region community greenhouse gas (GHG) emissions in the 2001 base year[1] were 2.1 million tonnes (c.f Auckland region, 9 million tonnes and Canterbury region, 4.3 million tonnes). Transport is the largest component of Wellington's emissions with over 1 million tonnes of greenhouse gases produced. Correspondingly, petrol is the greatest source of GHG producing almost 40% of all sources. However, the comparison with other regions does highlight the efficiency of our public transport system.

Agriculture is not included in this 2001 base year analysis, a directive from the Ministry for the Environment. Agriculture is included in the Greenhouse Gas Protocol for Local Government which is currently being reviewed, and ICLEI would like to implement that standard in New Zealand in 2008/09.

6.1 Wellington Regional Strategy

To complete Milestone 2 Community of the CCP-NZ Programme, Greater Wellington must set separate emission reduction targets for *Community*.

As we are working on a regional level, our targets would influence, and be influenced by, the territorial authorities in the region – the majority of which are in the CCP-NZ programme. Consequently, in the early stages of joining the programme, we set up a regional climate change group to discuss common issues and approaches. This group mainly includes CCP-NZ co-ordinators from the local authorities in the region.

It is clear that climate change and emissions reduction measures are important and high profile issues. If the region is serious about reducing its CO_2 emissions, there will need to be collective action. Therefore, it is appropriate that the issue of *Community* emissions be discussed and addressed at wider community level in order to produce a collective regional approach.

One of the objectives of the Regional Economic Development Agency (REDA), *GrowWellington,* is to investigate the possibility of becoming a carbon neutral region and it is logical that work towards this end should eventually become part of the Wellington Regional Strategy.

[1] 2001 is the base year for community emissions -data provided by CCP-NZ office.

Greater Wellington should initially provide a sound base for the *Community* part of the CCP-NZ programme by developing an overall set of goals for the community/region and a proposed programme of action to achieve these goals.

7. Greater Wellington Corporate Emissions

Greater Wellington *Corporate* inventory is shown in Appendix 3. *Corporate* GHG emissions for the 2005/06[2] year were 6,361 tonnes (c.f Auckland Regional Council, 1,400 tonnes and Environment Canterbury, 1, 217 tonnes).

Electricity consumption is the largest source of Greater Wellington's greenhouse gas emissions accounting for 80%. The majority of electricity use (75%) is taken up by Water Production and Supply. The comparative councils mentioned above do not include water production and supply. If we exclude Water from the calculation, Greater Wellington's emissions total is 1,600 tonnes and vehicle fleet is the greatest source of emissions.

[2] 2005//06 was chosen as the base year for corporate because it was the most recent date for which data could be collected.

8. Government Policy Context

Central government has adopted a comprehensive programme to address climate change issues. Some key dates are shown below. Greater Wellington's target dates need to coincide and complement central government target dates. The suggested dates for Greater Wellington are 2012, 2020, 2050. The table below shows the central government policy context of these dates.

Timeframe	NZ Government Policy
2008	June – ETS for **forestry** commences (eligibility backdated to 1 January 2008)*
2009	June – ETS for **liquid fossil fuels** (mainly transport) *
2010	June - ETS for **stationary energy and industrial process emissions***
2012	2008-2012 Kyoto reporting period
2013	June - ETS for **agriculture**, **waste** and all other emissions*
2020	Central government to be carbon neutral Achieve a net increase in forest area of 250,000 hectares from 2007 levels
2025	Electricity sector to be carbon neutral (90 per cent of electricity generation from renewable sources)**
2030	Stationary energy sector to be carbon neutral**
2040	Transport sector to be carbon neutral (per capita transport greenhouse gas emissions reduced by half of those in 2007)***
2040	Total energy sector to be carbon neutral**
2050	The Intergovernmental Panel on Climate Change (IPCC) report concluded that the world needs to reduce global emissions output by 50-80% from 2000 levels by 2050 in order to keep the effects of climate change to manageable levels.

**Emissions Trading Scheme*
***New Zealand Energy Strategy to 2050 and New Zealand Energy Efficiency and Conservation Strategy*
****New Zealand Transport Strategy*

8.1 The New Zealand Emissions Trading Scheme (ETS)

The New Zealand Emissions Trading Scheme (ETS) is central government's overarching tool for several key strategies. New Zealand's scheme will cover six GHGs and the scheme defines activities (forestry, liquid fuels, stationery energy, industrial processes, agriculture and waste) that cause or contribute directly or indirectly to GHG emissions.

In the future, Greater Wellington will have to consider its position under the New Zealand Emissions Trading Scheme ("ETS").

Until the current Climate Change (Emissions Trading and Renewable Preferences) Bill is enacted and the Regulations published the Council will not be in a position to forecast potential costs and benefits under the scheme.

For ETS for Forestry, Council is not in a position to decide whether or not it should enter the carbon trading scheme for trees planted after 1989. The Council expects to receive a small free allocation of carbon units for forests planted before 1990. The Government is yet to decide whether or not it will make a free allocation for indigenous forests.

The first recommended target date for emissions reduction, 2012, comes after the introduction of the ETS for liquid fuels (2009) and stationary energy (2010). Fuel importers and electricity generators are expected to pass down costs to users. Setting emission reduction goals and subsequent actions will build Greater Wellington's resilience in this changing market place and will result in a win-win situation, protecting ratepayers from exposure to higher costs and using finite resources efficiently.

9. Corporate Emissions by Sector

The recommended goals for each sector for the years 2012, 2020 and 2050 are based on estimated savings in each *Corporate* sector.

Recommended reduction goals				
Corporate Sector	**GHG emissions ($C0_2e$ tonnes) 2005/06**	**2012** (% reduction)	**2020** (% reduction)	**2050** (% reduction)
Water Production and Supply	4,761	15	25	35
Vehicle Fleet	890	30	40	60
Buildings and Installations	384	20	30	50
Employee Commute	247	30	40	60
Waste	40	30	50	80
Airline Travel	39	5	10	40
Total Reduction Goals		**18%**	**28%**	**41%**

Some approaches that will be required to achieve these goals in the short to medium term are outlined below for each sector:

Water Production and Supply	Water demand management - Water conservation initiatives - Comprehensive regional strategic approach Water production and supply - Additional efficiency gains through equipment refurbishment and/or replacement and on-site renewable generation
Vehicle Fleet	Reduction in vehicle fleet – numbers and trips. Vehicle fleet to meet guidelines of Sustainable Fleet Review. Greater emphasis on process (car maintenance) and behaviour (driver education) measures.
Employee Commute	*Go Smart* implementation.
Buildings and Installations	Building Management System introduced.
Waste	Waste Minimisation Strategy introduced.

More detail about actions to reduce measures is provided in Appendix 4. Also detailed actions will be contained in the Draft Local Action Plan which will be developed after the emission targets have been set.

10. Corporate Goals Summary

Based on the emission reduction estimations for each sector, it is recommended that Greater Wellington should adopt the following goals to reduce its *Corporate* emissions (figures have been rounded):

- 20% below 2005/06 levels by 2012
- 30% below 2005/06 levels by 2020
- 40% below 2005/06 levels by 2050

11. Next Steps

Community Goals

Greater Wellington will develop some draft goals for the C*ommunity* part of the CCP-NZ Programme and develop a proposed programme of action to achieve these goals. These should than be integrated into the work of the Wellington Regional Strategy as it is important that there is a collaborative approach to reducing emissions in the region.

Corporate Goals and Action Plan

The CCP-NZ programme requires that both the emission reduction goals and the action plan be approved by Council. Once the goals are agreed on, the next step will be to develop the action plan to achieve the goals, building on work already done.

The production of an Action Plan to reduce our emissions is Milestone 3 of the CCP-NZ programme. Greater Wellington will use the development and implementation of the Plan to raise the profile of internal sustainability within the organisation. Goal 8 of *Making Greater Wellington Greater* is "continue our sustainability journey". The action plan provides an approach for doing so.

12. Communication

Internal communication about Greater Wellington's reduction goals will be based around the action plan which is yet to be finalised.

13. Recommendations

That the Committee:

1. ***Receives** the report.*

2. ***Notes** the content of the report.*

3. ***Approves** the corporate emission goals for Greater Wellington.*

4. ***Develops** a draft overall set of "community" goals for the region and a proposed community action plan to achieve these goals.*

5. ***Agrees** that the draft community goals and proposed "community" action plan be eventually integrated into the work of the Wellington Regional Strategy Committee.*

Report prepared by:	Report approved by:
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Appendix 1: New Zealand and International emission reduction goals

(a) New Zealand emission reduction goals (other then Wellington Region)

Council	Base Year	Corporate Target	Community Target
Auckland Regional Council	2006 Corporate	25% reduction (excluding agriculture), from base year by 30 June 2010	
Hamilton City Council	2001 Corporate 2001 Community	Slow rate to 11% increase by 2010 on 2001 levels 20% reduction by 2020 on 2001 levels	Stabilise at 2001 levels by 2020
Kaikoura District Council	2001 Corporate 2001 Community	100% by 2020	
South Wairarapa District Council		5% below 2001 by 2010 70% below 2001 by 2025	10% below 2001 by 2010 70% below 2001 by 2025
Taranaki Regional Council	2001 Corporate 2001 Community	Stablise to 2001 levels by 2010 (proposed)	Stablise to 2001 levels by 2010 (proposed)
Waitakere City Council	2002 Corporate 2001 Community	Stabilise by 2010 50% reduction by 2021	15% per capita by 2010 (this would stabilise emissions) 40% per capita by 2021 (to 3 tonnes per capita) 80% per capita by 2051 (to 1 tonne per capita)

(b) International emission reduction goals

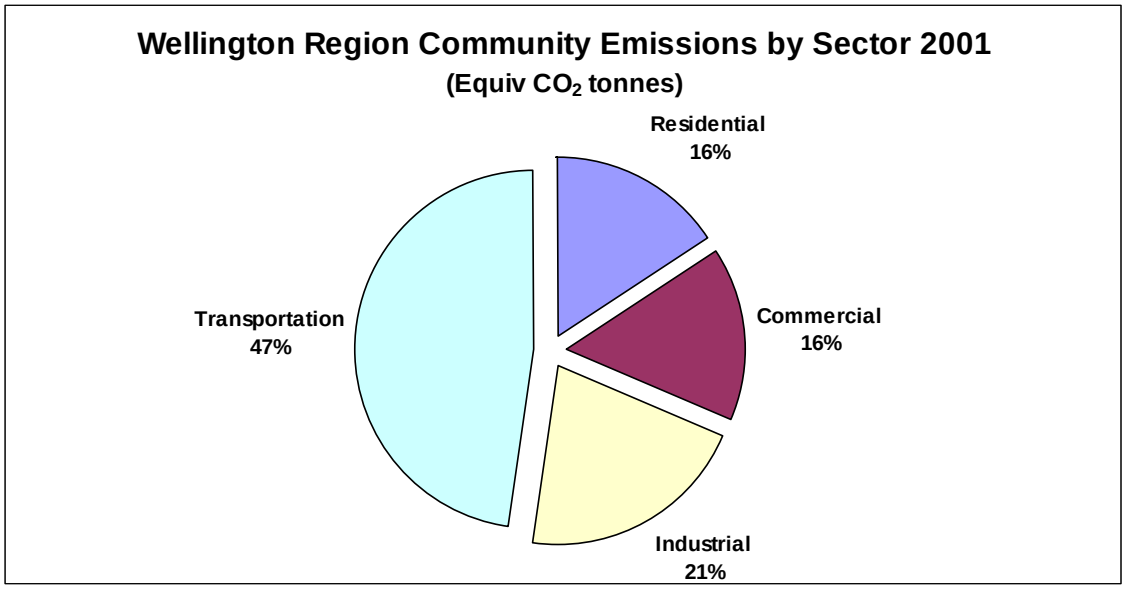
Table 2. International Community Reduction Goals (Source: http://www.iclei.org/co2/fact/igiocpfig13.htm).

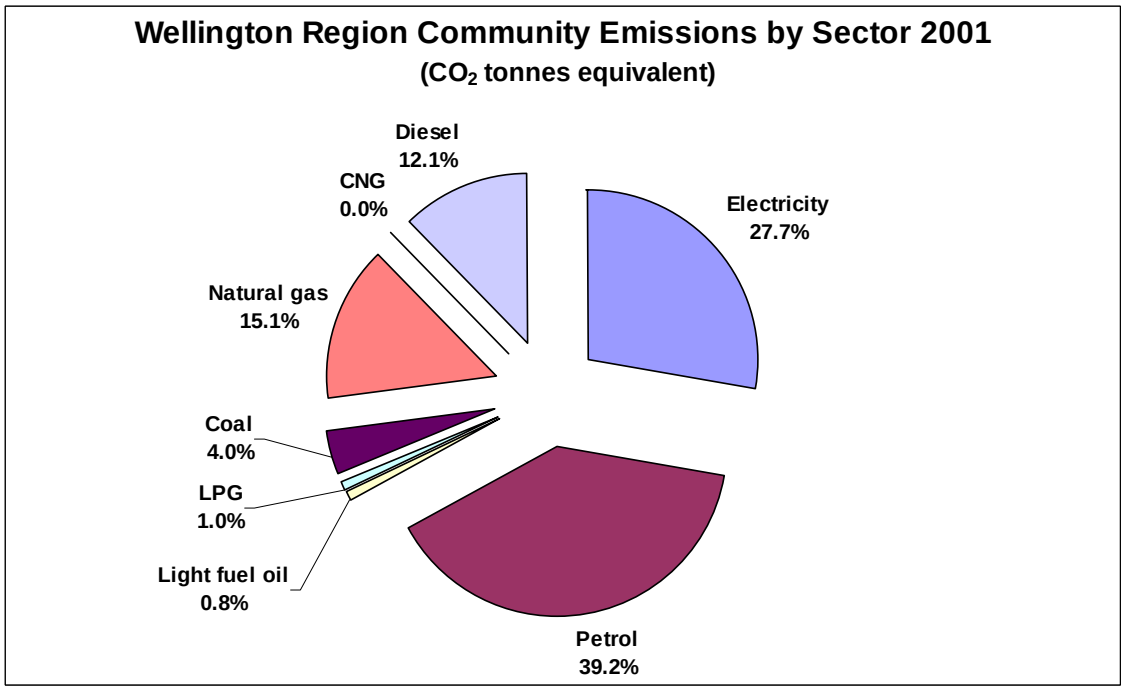
Country	City	% Reduction	Base Year	Target Year
Australia	Melbourne	Zero Net Emissions by 2020		
Austria	Graz	50	1987	2010
Czech Republic	Prague	25	1990	2010
Denmark	Copenhagen	30	1990	2005
Finland	Helsinki	17	1991	2010
Germany	Heidelburg	25	1990	2005
Italy	Bologna	7	1990	2005
Netherlands	Amsterdam	Stabilise	1987	2015
Sweden	Stockholm	20	1990	2005
Switzerland	Zurich	30	1990	2020
Canada	Vancouver	20	1990	2005
USA	Portland	20	1988	2010
Japan	Satama Prefecture	20% per capita	1990	2010
Sweden	Vaxjo	100% (corporate)	1993	2010
Uganda	Gulu	20	1990	2005

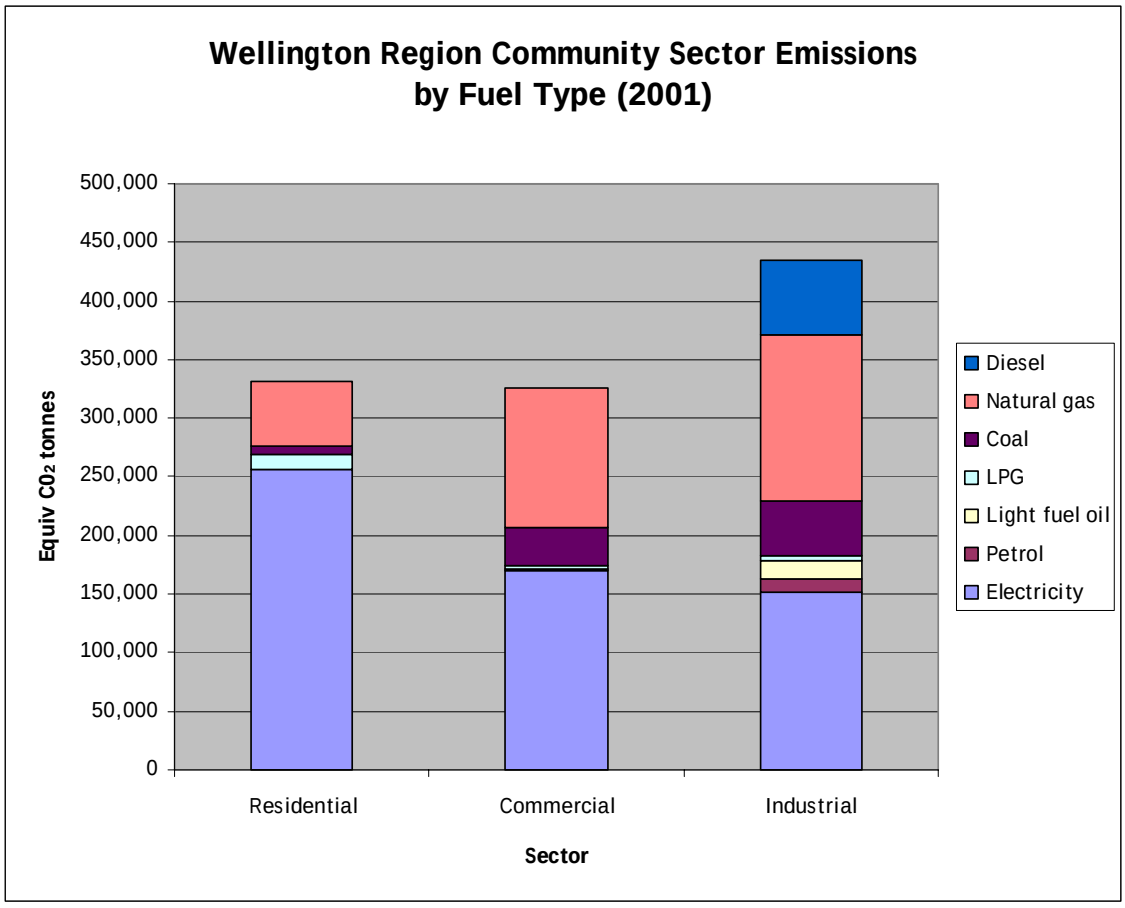
Appendix 2: Wellington Region (Community) Emissions Profile

13.1 Emissions profile

The data below shows the emissions for the Wellington Region based on data provided by the CCP-NZ Programme office.







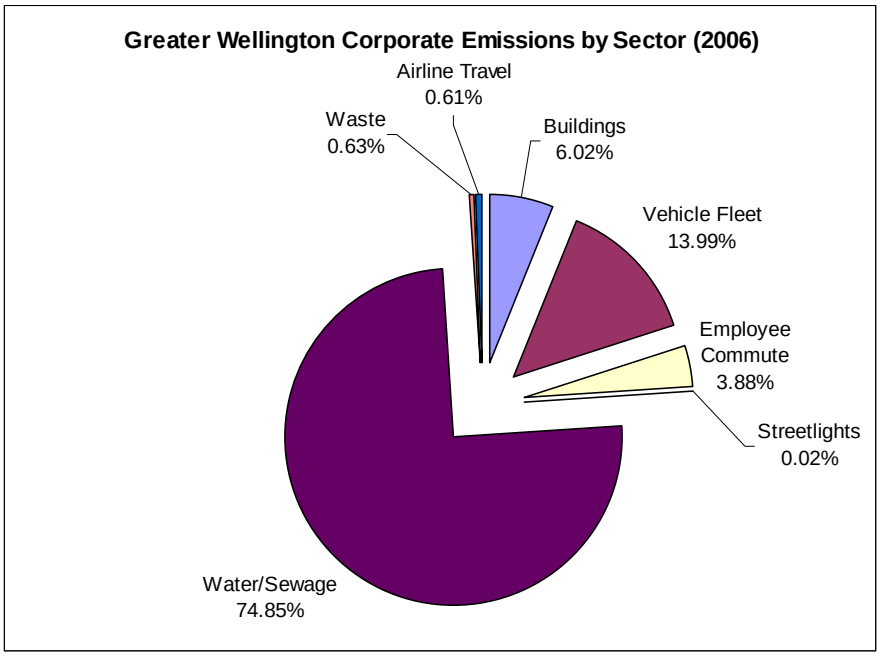
Note: excludes Transport fuels.

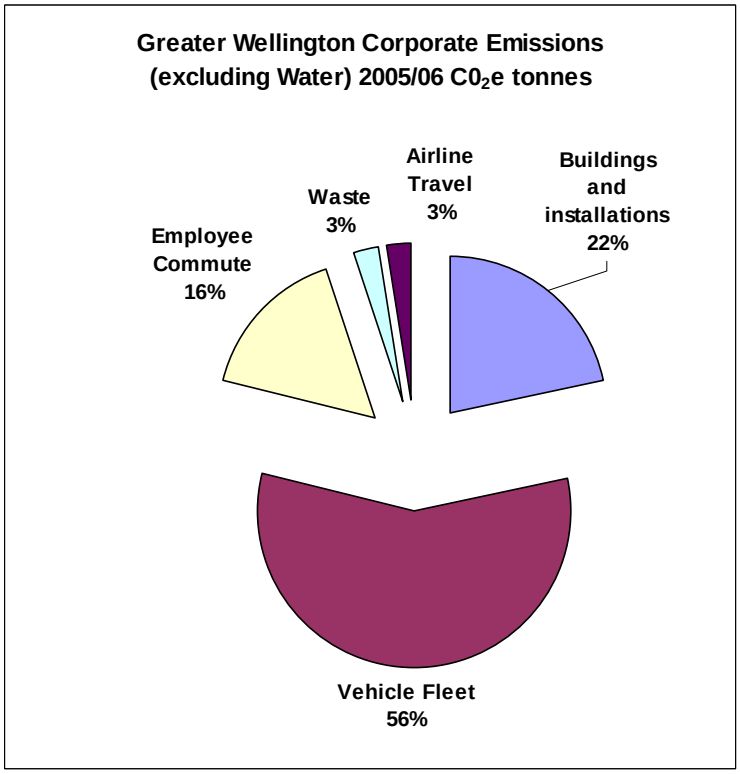
Greater Wellington Regional Council Community Greenhouse Gas Emissions in 2001 Summary Report			
	Equiv CO_2 (tonnes)	Equiv CO_2 (%)	Energy (GJ)
Sectors			
Transportation	1,002,122	47.8	14,967,812
Industrial	435,464	20.8	7,345,234
Residential	330,840	15.8	5,957,580
Commercial	326,214	15.6	5,778,228
Total	**2,094,639**	**100**	**34,048,854**

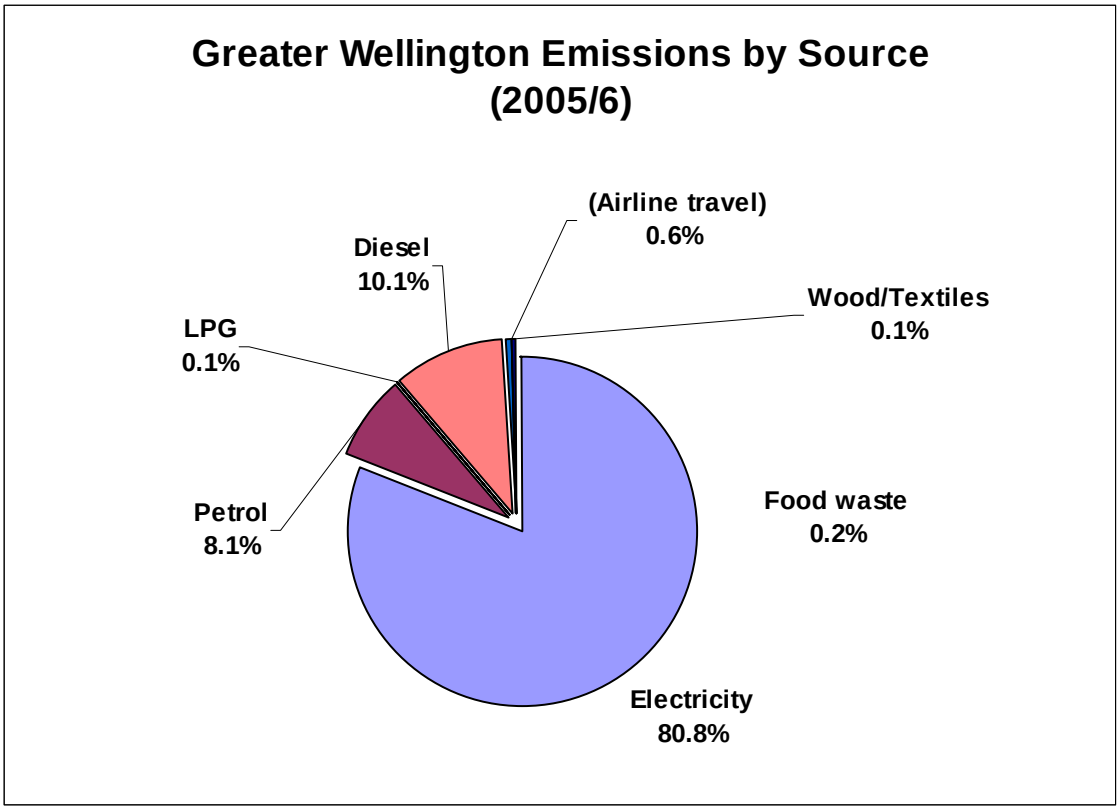
Greater Wellington Regional Council Community Greenhouse Gas Emissions in 2001 Source Report			
	Equiv CO_2 (tonnes)	Equiv CO_2 (%)	Energy (GJ)
Sources			
Petrol	821,639	39.2	12,336,916
Electricity	579,806	27.7	10,436,606
Natural gas	317,012	15.1	6,061,422
Diesel	254,359	12.1	3,702,455
Coal	83,995	4	929,152
LPG	21,100	1	349,334
Light fuel oil	16,310	0.8	224,966
CNG	419	0	8,004
Total	**2,094,639**	**100**	**34,048,854**

Appendix 3: Corporate Emissions: Greater Wellington

The data below shows the *Corporate* emissions for Greater Wellington Regional Council.






Greater Wellington Emissions by Source (2005/6)
(Airline travel) 0.6%
Diesel 10.1%
Wood/Textiles 0.1%
LPG 0.1%
Petrol 8.1%
Food waste 0.2%
Electricity 80.8%

Greater Wellington Regional Council

Corporate Greenhouse Gas Emissions in 2006
Summary Report

	Equiv CO_2 (tonnes)	Equiv CO_2 (%)	Energy (GJ)	Cost ($)
Sectors				
Water Production & Supply	4,761	74.9	74,507	2,368,797
Vehicle Fleet	890	14	13,098	377,599
Buildings	383	6	5,997	303,580
Employee Commute	247	3.9	3,688	
Waste	40	0.6		3,642
Other	39	0.6		
Streetlights	1	0	13	832
Total	**6,361**	**100**	**97,302**	**3,054,450**

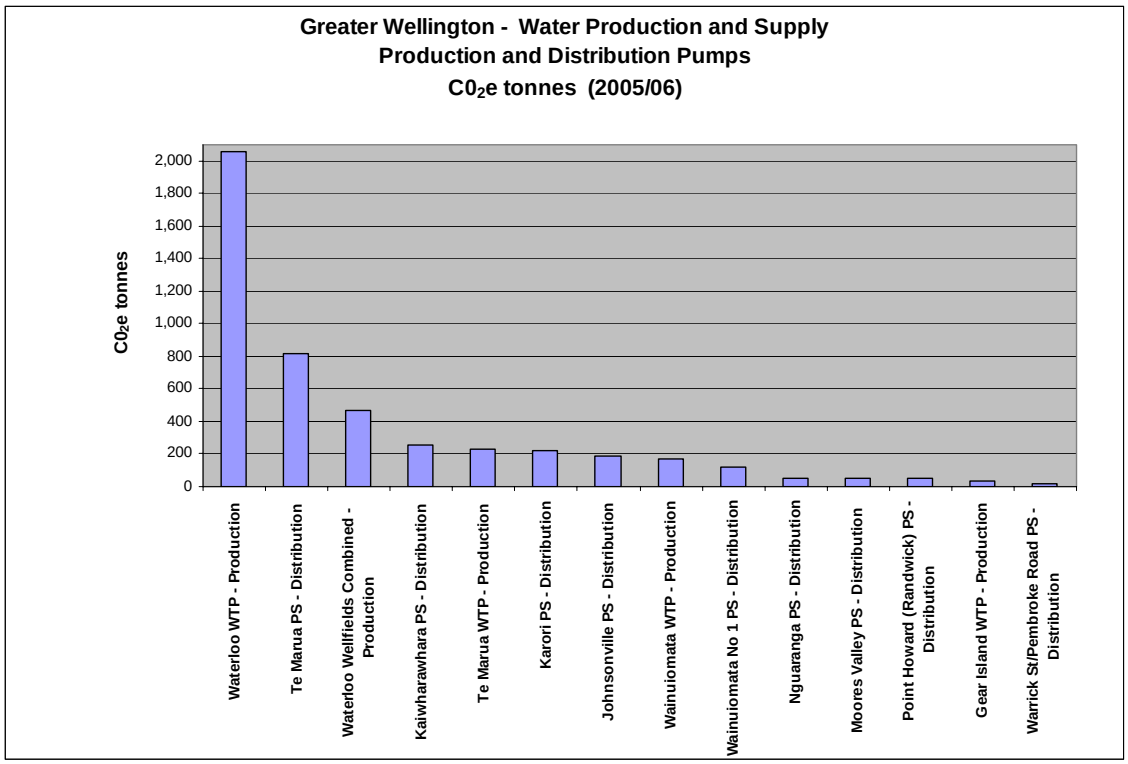
Greater Wellington Regional Council

Corporate Greenhouse Gas Emissions in 2006
Source Report

	Equiv CO_2 (tonnes)	Equiv CO_2 (%)	Energy (GJ)
Sources			
Electricity	5,122	80.5	80,175
Diesel	638	10	9,280
Petrol	515	8.1	7,740
Carbon Dioxide	39	0.6	
Food waste	11	0.2	
Wood/Textiles	9	0.1	
LPG	6	0.1	106
Natural gas	0	0	1
CNG	0	0	1
Other waste	0	0	
Total	**6,361**	**100**	**97,302**

Appendix 4: Corporate Emissions by Sector

1. Water Production and Supply



For Water Production and Supply, the major source of direct GHG emissions comes from electricity: 40 large pumps are the major users. As shown in the diagram above, the Waterloo Pump Station produces the largest single amount of emissions - 2,059 tonnes of $C0_2e$ in the 2005/06 financial year.

As every water production system is unique, there are no efficiency benchmarks for comparison. It should be noted that Greater Wellington has been given industry awards for innovation in making the pumping systems more efficient.

Results from a recent energy audit of these pumps show that only 2% further estimated gains in energy efficiency can be achieved by 2012. Therefore, further emission reductions can only be achieved through water demand management programmes and through renewable on-site generation.

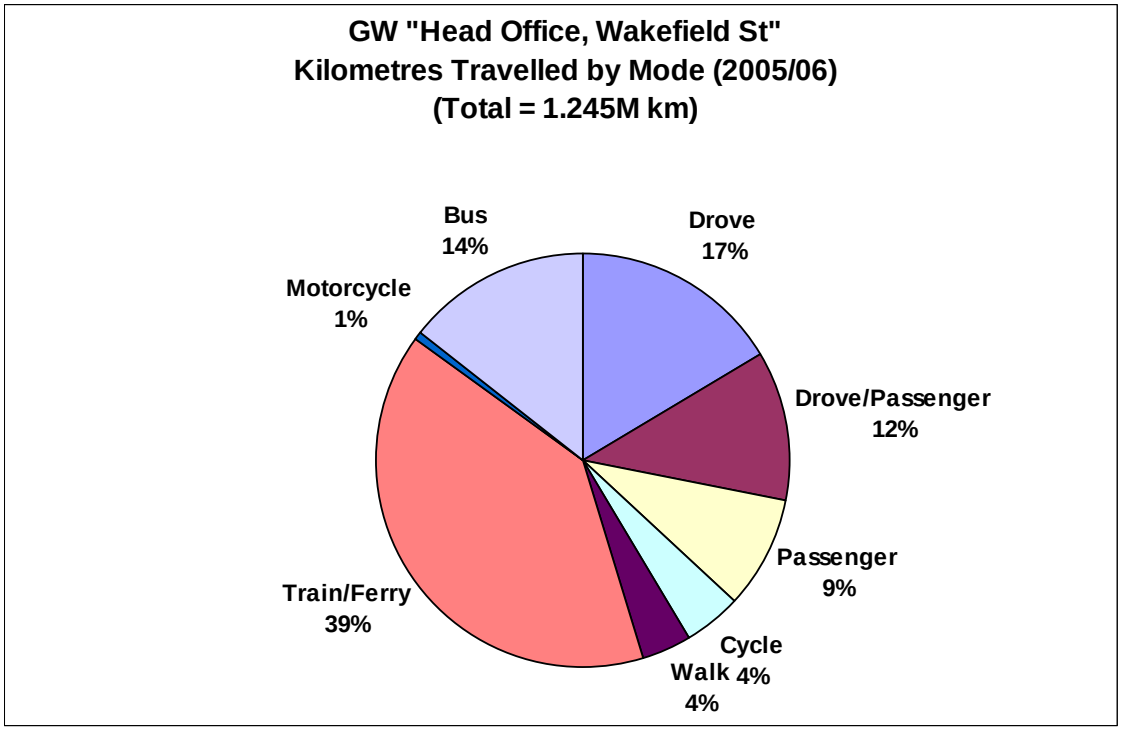
A comprehensive regional approach will be required. Possible approaches will be universal metering (suburban, business and household), providing subsidies for water efficient appliances, domestic rain water tanks, grey water and water recycling. All these initiatives will require relevant public information and education programmes.

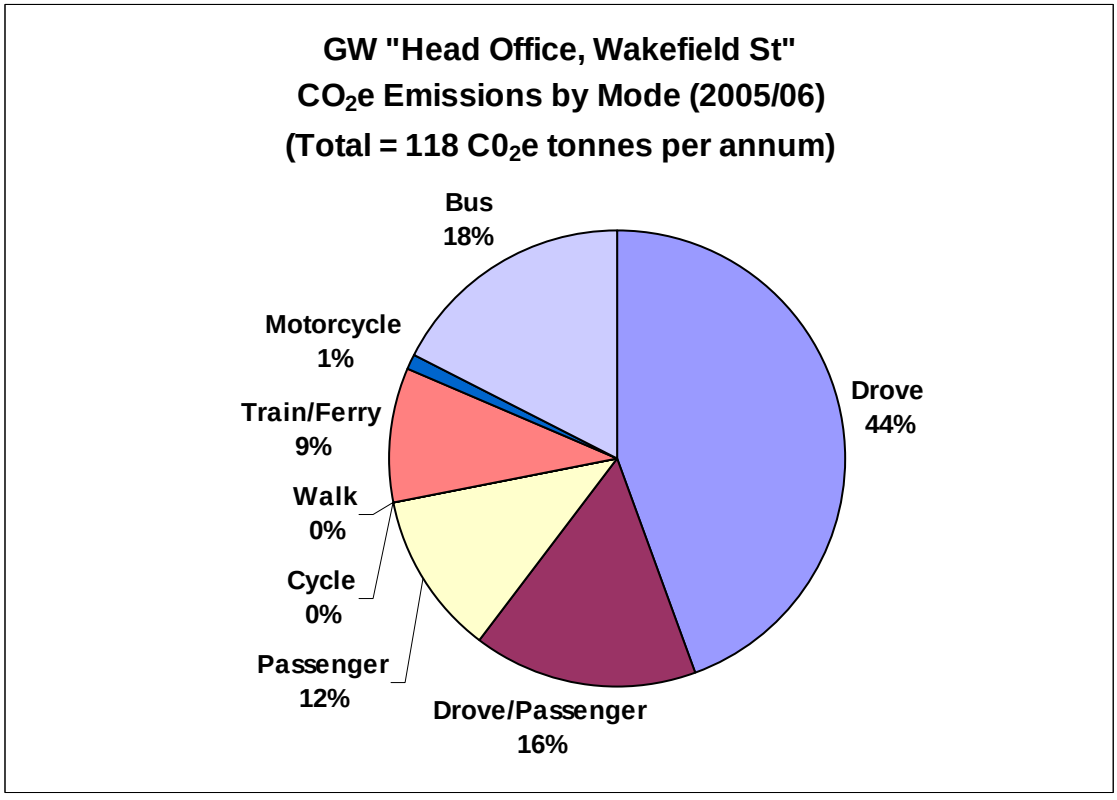
Greater Wellington is currently looking at mini hydro and wind generation options. However, there are uncertainties about resource consents and also about implications of the emissions trading scheme.

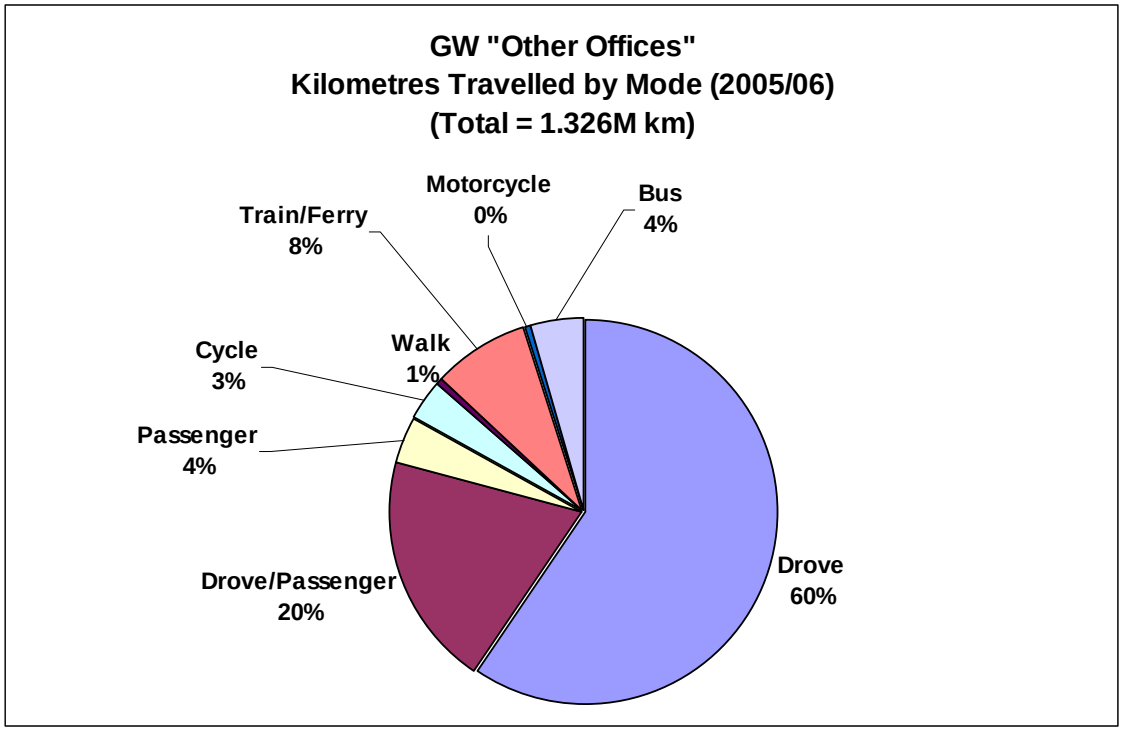
For example, by 2012 a mini hydro could be installed and running at Te Marua and some reservoir sites. A possible 10% reduction could be achieved, which could mean that we would exceed our recommended 2012 emission reduction goal.

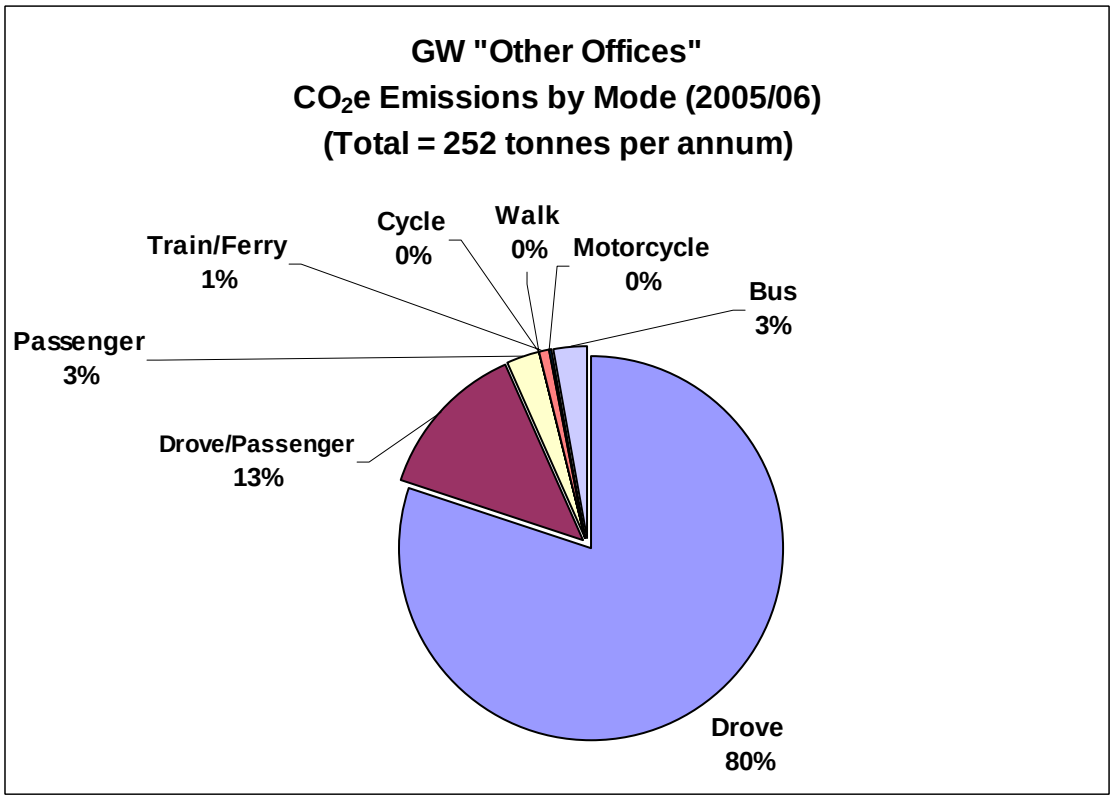
2. Vehicle Fleet and Employee Commute

See below findings based on fuel card data for Vehicle Fleet combined with Go Smart Survey results for Employee Commute. Estimates were used where hard data was not available (e.g. calculating kilometres travelled where only minutes taken for journey were provided).









For the short to medium term, we have recently carried out a review of our vehicle fleet and developed a new vehicle purchasing policy. As a result both the size of the fleet and the nature of the vehicles will change in the future. Further emission

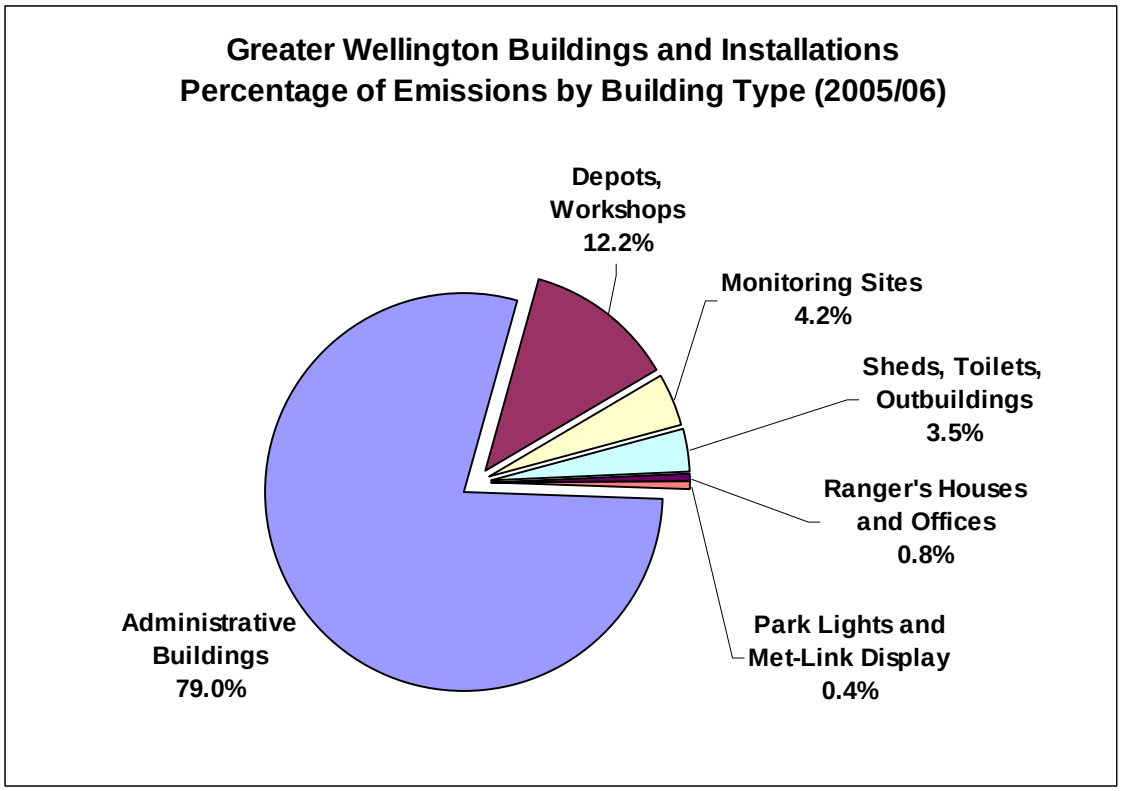
reductions can also be achieved by driver education and process issues, such as vehicle maintenance. It is hoped that we can reduce the fuel use of our fleet by 23% over a three year period.

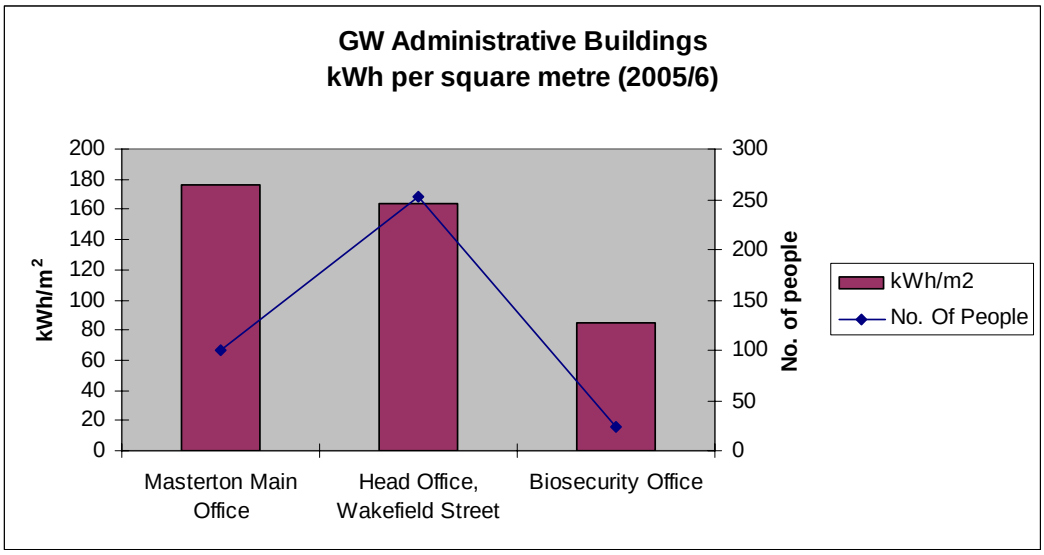
The goals of Greater Wellington's Go Smart Travel Plan for employee commute include reducing drive alone trips by 45% by 2010 and increasing the number of active modes and public transport trips.

In the longer term, the ETS for liquid fuels will have had more time to penetrate market and cars and public transport technology should be much more efficient.

3. Buildings and Installations

The emissions from Greater Wellington buildings and installations are shown below. Administrative buildings make up nearly 80% of building emissions with the Masterton office being the most energy inefficient building. This issue of the Masterton office is currently being addressed by management and Council.





Administrative Buildings	Square Metres	kWh/m2	No. of People
Masterton Main Office	800	176	100
Head Office, Wakefield Street	6500	163	253
Biosecurity Office	220	84	23

An energy audit has recently been undertaken on each of the three buildings above. This was a free service offered by Meridian Energy, through Right House. The audit reports have yet to be received. The recommendations from this report will be fed into the local action plan.

In light of the predicated future increase in energy prices, any improvements in energy efficiency for buildings will result in financial pay-backs. Therefore, it may be timely to review the way in which we manage our buildings and take a more systematic approach.

A Building Management System (BMS) will identify energy efficiency savings for all buildings and installations. Developing a system may mean involving more stakeholders and strengthening links with the Urban Design Protocol, Green Building Council and technology partners such as Right House. Staff are keen to see internal sustainability given more prominence.

4. Waste

Waste contributes only 1% of Greater Wellington's emissions, but a corporate waste minimisation strategy, based on reduce, re-use, and recycle, will raise the profile of internal sustainability and should result in short-term emission reductions. There is certainly room for greater innovation and commitment. In the longer term, Greater Wellington expand this approach, for example by working

with territorial authorities to provide for better facilities waste management facilities for the region, e.g. recycling all grades of plastics.

5. Air travel

Air travel comprises only 1% of all GHG emissions for Greater Wellington and there is little evidence to suggest that there is unnecessary air travel. Nevertheless, staff should be encouraged to reduce air trips if at all possible. Greater Wellington may consider off-setting all staff flights using the airline online facilities so as to re-inforce market demand for improving airline efficiency.