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## **RESPONSES TO CLIMATE CHANGE**

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### **1. Purpose of Report**

To respond to recommendations referred to officers at the report back on the *Climate Change and Governance Conference* (the Conference) organised by Victoria University in March 2006, to set out how the Council is currently responding to the issue of climate change and to provide an update on central government climate change work programme planning.

### **2. Executive Summary**

Councillors Foster and Wade-Brown reported to the Strategy and Policy Committee on 24 May 2006 following their March attendance at the Conference. The following recommendations were noted and referred to officers for a further report:

- Recommendation 7: Agree that work to give effect to the Council's implementation of the LTCCP and any future reviews of Council's seven strategies include consideration of climate change impacts
- Recommendation 8: Request that officers review the Council's policy responses to the threat of climate change and related energy issues
- Recommendation 9: Request the Supporting Information Template be amended to include consideration of climate change issues
- Recommendation 10: Recommend to Council the establishment of a Councillor working party to consider and develop further policy responses including a communications strategy regarding climate change and related energy issues.

It is advised that officers support recommendations 7 and 8, and that recommendations 9 and 10 are seen as being not necessary at this time.

Central government is considering its long-term policy on climate change. Its proposed leadership will embed the Council's work programme in a national context and promote alignment with the work of other local authorities.

Responding to climate change has clear and obvious benefits across a range of outcomes. It not only deals with Environmental matters, but also produces desired Transport, Urban Development, and Social outcomes, without penalising people unduly.

The Council is committed to mitigating the effects of, and adapting to, climate change and has responded by introducing appropriate policies and practices. The Council has been proactive in initiating a range of trials and programmes of action, some requiring the commitment of significant funding.

### **3. Recommendations**

It is recommended that the Committee:

1. *Receive the information.*
2. *Note the range of Council's current responses for mitigating the effects of, and adapting to, climate change, detailed in this report.*
3. *Note that central government is considering its long-term policy on climate change and that the proposed national leadership will embed the Council's work programme in a national context promoting alignment with the work of other local authorities.*
4. *Note that the recommendations from the report back on the Climate Change and Governance Conference referred to officers for further report have been considered.*
5. *Agree that work to give effect to the Council's implementation of the LTCCP and any future reviews of Council's seven strategies include consideration of climate change impacts.*
6. *Agree that officers review the Council's policy responses to the threat of climate change and related energy issues.*
7. *Note that the Council policy programme is reported to the full Strategy and Policy Committee, and that the formation of a Councillor working party to consider climate change and related energy issues is not recommended.*
8. *Note that current local government sector work on the decision-making requirements of the Local Government Act 2002 should be completed in the next few months and will contribute to the Council's planned update of the Supporting Information Template and associated guidelines, including reflection of environmental considerations.*

### **4. Background**

Responding to climate change has clear and obvious benefits across a range of outcomes. It not only deals with Environmental matters, but also produces desired Transport, Urban Development, and Social outcomes, including enhanced quality of life, urban vitality and reduced congestion, without penalising people unduly.

#### **4.1 Council's current policy and actions related to climate change**

The Council is committed to mitigating the effects of, and adapting to, climate change and has responded by introducing appropriate policies and practices. The Council has been proactive in initiating a range of policy responses, trials and programmes of action, some requiring the commitment of significant funding. Possible additional approaches to climate change mitigation and adaptation will be considered within the planning for implementation of the seven strategies as approved by the Council in the LTCCP. Implementation planning for the LTCCP will be reported to the Strategy and Policy Committee on 21 September 2006.

This section details what the Council is currently doing.

##### **4.1.1 Adaptation of infrastructure to climate change**

One of the most important roles for the Council in respect of climate change is adaptation of its infrastructure to cope with predicted changes. Councils are required to take the effects of climate change into consideration when making decisions under the Resource Management Act (RMA) Climate Change Amendment Act (2002). This means that New Zealand councils need to upgrade their management plans for stormwater drainage systems to ensure adequate capacity, water supply, and flood protection systems such as levees and sea walls.

It is imperative that the information is accurate, and trends clear, before action is initiated. A recent NIWA report, with findings on the potential impacts of climate change for Wellington, was presented at the 7 December 2005 Elected Members Briefing session. Of particular significance for Wellington, the report describes:

- expected annual rainfall and intensity changes
- potential changes to extreme wind patterns
- potential changes to sea levels and wave climate.

Based on this type of information, the Council reviews its asset management, civil defence, hazard management and land-use plans. For example, when the Council recently upgraded its stormwater systems in the central city area, the updated Code of Practice for Land Development required a design that ensured the projected sea level rises over the next 50-100 years were taken into account. This is the type of planning that is necessary to avoid potential infrastructure failures.

Ensuring that infrastructure is adequate for future climatic change is vital for economic growth. Of particular importance for the Council is consideration of the upcoming Wellington Water Management Plan and the long-term land-use planning for coastal areas. While the cost of adaptation might be significant for some upgrades, it is often considerably lower than the cost of repairing the damage caused should infrastructure repeatedly fail due to delayed investment. The Council's approach to infrastructural asset management means the work is part of 'business as usual'. This means the work is distributed over time and that the cost margins for upgrades are minimised. The Asset Management Plans ensure that all future works are carried out to current codes and

requirements, and the normal cycle of renewal provides for future-proofing by ensuring all works are designed to meet the future requirements for the life of the asset.

#### ***Climate's Long-Term Impact on New Zealand's Infrastructure (CLINZI) study***

Wellington City Council is the second New Zealand local authority to participate in the CLINZI study. This is a new initiative by the New Zealand Centre for Ecological Economics based at Landcare Research in Palmerston North. The objective of the CLINZI project is to:

- ensure that strategic infrastructure systems and services are evaluated for their vulnerability to climate impacts
- improve the ability of planners to make strategic decisions about infrastructure system investments in the context of climate change risk.

Officers will use the results of the CLINZI study, due in September this year, to identify potential areas for improvement relating to asset management and future development.

#### **4.1.2 Climate Change Partnership – New Zealand (CCP-NZ) programme and Energy Management Plan**

The Council is showing leadership by working to mitigate its greenhouse gas emissions within its own operations through committing to the CCP-NZ programme. The Council will be developing an Energy Management Plan to be implemented by an energy manager, as nearly all of the emissions from Council operations are related to energy consumption. In addition to reducing greenhouse emissions, the Council should save expenditure on energy through reduced consumption.

The Council recently agreed to a corporate greenhouse gas reduction goal through the LTCCP. The goal has two stages. First, the Council aims to stabilize its greenhouse emissions to 2003 levels by 2010. Then, the Council aims to reduce its emissions from the 2003 levels by 20% by 2020.

The Council has also agreed to support in principle the community goals to stabilize community emissions at 2001 levels by 2010, and to reduce community emissions to 10% below 2001 levels by 2020. The community goal will be finalised in February 2007 through consultation on the community outcome indicators.

The Energy Manager post is a new position that will sit within Property and Parking Services. The position has recently been advertised.

#### **4.1.3 Sustainable Building Guidelines**

One of the key initiatives to support the environmental priorities in the LTCCP is the Council's development of Sustainable Building Guidelines. These will:

- provide tools for private developers, architects and residents to facilitate the incorporation of sustainable building features and practices in new building developments and urban intensification projects

- develop in-house standards to promote the incorporation of sustainable building features and practices into new Council building facilities and building retrofits.

Using more energy efficient technology and renewable energy applications will help to keep energy consumption and the resulting greenhouse emissions from new developments, including new Council buildings, at sustainable levels. The development of the Sustainable Building Guidelines will include both investigating how regulatory tools can be applied and advocating to central government regarding sustainable features in the Building Code to achieve desired outcomes. The first stage of this work is due for completion by June 2007.

#### **4.1.4 Reduced Automobile Dependency**

New Zealand's transport sector accounts for more than 40% of the nation's total energy consumption. The consumption of petrol and diesel produces greenhouse gases and the Council can make an important contribution in reducing these emissions through encouraging reduced automobile dependence. Reducing automobile dependence can occur concurrently with improving the quality of life of residents and maintaining economic growth.

##### ***Travel Demand Management and Bus Priority***

The Council has agreed to develop a Travel Demand Management Programme, an initiative that aims to improve the efficiency and performance of the City's transport system, promote the use of active modes and introduce travel planning initiatives. An initiative to increase bus priority has also been agreed.

##### ***Smart Growth***

The successful implementation of the Urban Development and Transport Strategies will result in growth and densification along a spine in the central area, around key suburban centres, and on key transport routes. This should result in a city where more trips can be made using active modes, and where passenger transport systems have a stronger role in the transport mix. This would also help to reduce automobile dependency and the related emission of greenhouse gases. Information from the NIWA report on Climate Change (see section 4.1.1) has helped to inform the Urban Development Strategy in relation to the location of future population growth.

#### **4.1.5 District Plan Considerations**

District Plan policies that determine appropriate land use and location of developments are an important mechanism for mitigating the effects of, and adapting to, a changing climate.

##### ***District Plan Change 32***

The Council is required to have particular regard for the benefits of renewable energy under the RMA Climate Change Amendment Act (2002). The Council has given effect to this obligation by approving District Plan Change 32 that encourages the use and

development of renewable energy for which resource consent might be sought. Because of Wellington's potential for wind farm development, District Plan Change 32 has specific rules for assessing wind farm proposals.

### ***Flooding***

As noted in 4.1.1, the Council is required to take the effects of climate change into consideration when making decisions under the RMA Climate Change Amendment Act (2002). This is reflected in prudent development decisions for land use in areas prone to river and sea flooding.

### **4.1.6 Waste Management**

The decomposition of organic materials in a landfill results in the production of gases such as methane, a particularly potent greenhouse gas. The Council has initiatives that reduce methane gas emissions, and in so doing is reducing the impact on climate change.

#### ***Landfill Gas Flaring***

As part of the resource consent for the Northern and Southern Landfills, the Council is required to manage the methane gas created. It does this by trapping and flaring it to reduce the contribution to greenhouse gas emission. Achieving useful energy applications for the released methane is also being explored.

#### ***Liquid Waste Management***

The Council has been diverting sewage sludge away from the landfill and into the Council's composting facility since 2000 and has recently celebrated achieving a 100,000 tonnes milestone. The sewage sludge is mixed with green waste and turned into compost. When organic matter like sewage sludge and garden waste is placed in the landfill, it decomposes anaerobically (without oxygen) and results in methane emissions (hence the need for the methane flaring at the landfills). When sewage sludge and green waste are composted, methane is not emitted because the composting decomposition process is aerobic, and the resulting emissions are less potent.

#### ***Kai to Compost Trial***

The Council has been conducting a kitchen waste collection trial with 50 businesses in Wellington. Food waste is collected from the businesses and deposited at the Living Earth facility for composting. Officers are now looking at options for whether a permanent service is viable. The project has diverted 186 tonnes of food waste from the landfill, which would have resulted in around 165 tonnes of greenhouse gas emissions (CO<sub>2</sub> equivalent). Operationally, a mix of food waste and liquid waste is being processed. So far 100,000 tonnes of combined waste has been processed in this way.

### **4.1.7 Community Projects**

The Council funds a number of community projects that have a resource efficiency component, which includes using energy more efficiently and reducing energy consumption. These projects include the:

- *EnviroSchools Programme* where students, with the support of their community, plan and design to create a more sustainable school
- *EnviroSmart Programme* and the *Sustainable Business Network's Get Sustainable Challenge*, which focus on improving the environmental performance and resource efficiency of businesses in Wellington
- Wellington City Council *Environmental Grants Pool*, which includes energy efficiency or renewable energy projects as one of the target areas for funding.

#### **4.2 Central government climate change and energy policies**

Central government policy plays an important role in providing the context and mandate within which Wellington City Council will work. Central government activities include:

- development of the New Zealand Energy Strategy and National Energy Efficiency and Conservation Strategy looking forward to 2050 (drafts are due to Cabinet in October 2006)
- identification of opportunities for industry, central and local government to work together to seek synergies between reducing greenhouse gas emissions and improving both economic productivity and environmental sustainability
- monitoring of research on trends and opportunities in climate change science, technology, economics, and international policy and carbon markets
- coordination of cross-sector initiatives to ensure a whole-of-government approach

Central government is considering its long-term (30-40 years) policy on climate change. In June 2006 the Government released a draft strategy, *Climate Change Solutions: Whole of Government Climate Change Work Programmes*. The scope of the work is expected to substantially increase efforts, moving from a mainly reactive to a more strategic approach to mitigation and adaptation. Partnership with local government will be a core feature. Potential outcomes of the work include:

- inserting climate change issues into existing central and local government work programmes to provide a coordinated whole-of-government response
- identifying adaptation priorities and responsibilities between different agencies
- providing targeted and scale-relevant information and tools to industry sectors and the community
- clarifying timelines for delivery, identifying critical gaps in knowledge and resources, and identifying new work programmes for funding.

The proposed Government work programme is closely aligned with Wellington City Council's initiatives to date. Central government leadership will embed the Council's work programme in a national context and promote alignment with the work of other local authorities.

## 5. Discussion

In March of this year Councillors Foster and Wade-Brown attended the international *Climate Change and Governance Conference* in Wellington organised by Victoria University. They provided a conference report to the Strategy and Policy Committee on 24 May 2006. Four recommendations were referred to officers for further consideration and report back. The recommendations have been reviewed and the officer response is outlined below.

### **5.1 Recommendation 7: Agree that work to give effect to the Council's implementation of the LTCCP and any future reviews of Council's seven strategies include consideration of climate change impacts**

Climate change impacts are already considered where appropriate in the ongoing review processes for the Council's plans, policies and strategies. Responses to climate change issues are prominent in the LTCCP three-year priorities in the Environmental, Urban Development and Transport Strategies.

As discussed in section 4, the Council has already initiated several plans and policies to mitigating the effects of, and adapt to, climate change. Officers advise that the consideration of climate change impacts are already included in work to implement the LTCCP and will also be included in future reviews of the seven strategies, and therefore support Recommendation 7

### **5.2 Recommendation 8: Request that officers review the Council's policy responses to the threat of climate change and related energy issues**

The Council has recently agreed a new set of strategic priorities through the seven strategies of the LTCCP. The Council policy response to climate change will continue to be considered as part of the consequent implementation work. Continued alignment with the central government work programme will also be considered. Implementation planning for the seven strategies will be reported to the Strategy and Policy Committee on 21 September 2006. Officers advise that work will be done to review the Council's policy response to the threat of climate change and related issues, and support Recommendation 8.

### **5.3 Recommendation 9: Request the Supporting Information Template (SIT) be amended to include consideration of climate change issues**

When making decisions, climate change is one of a number of important issues that the Committee needs to consider. The SIT attached to each committee report currently provides opportunity for consideration of climate change issues, particularly under *Strategic Fit* and *Financial Implications*.

In addition, the local government sector, through the Society of Local Government Managers (SOLGM) legal compliance programme, is looking into developing an approach which will assist councils to more fully deliver on the decision-making requirements of the Local Government Act 2002. That work will contribute to the Council's planned update of the SIT and associated guidelines, including how



environmental considerations can be reflected. The SOLGM work should be completed in the next few months.

It is therefore advised in regard to Recommendation 9 that no change be made to the supporting template at this time.

**5.4 Recommendation 10: Recommend to Council the establishment of a Councillor working party to consider and develop further policy response including a communications strategy regarding climate change and related energy issues**

In the past there were a larger number of councillors and numerous sub-committees, and occasional working parties were also formed for specified tasks within stated time-frames. Currently Councillor Wade-Brown is the Environmental Portfolio leader and the policy programme is reported to the Strategy and Policy Committee. This unitary approach is preferred as it means all Councillors can attend workshops and briefings, and all can be involved in decision making.

The Environmental Portfolio Reference Group meets regularly to share information and to discuss issues as new policy recommendations are developed for consideration by the Council. Officers report background and emerging information and developments to all Councillors at Elected Members Briefing Sessions so that they may be well prepared for their deliberations. Additional guidance is available from Local Government New Zealand which offers workshops for Councillors, including climate change and local body obligations in this area.

Officers consider there is already a high level of political involvement with climate change issues and do not recommend the formation of a Councillor working party at this time. Officers also advise that a communication strategy is not required at this time and that the Council's Marketing and Communications Directorate is well placed to assist with the development of a communications strategy, if and when required.

## **6. Conclusion**

The Council's policies and its practice reflect its commitment to mitigating the effects of, and adapting to, climate change. Over time, Wellington will reduce its contribution to climate change, and become increasingly resistant to the impacts of gradual changes and increasingly resilient in regard to extreme events. A newly proposed whole-of-government work programme should provide national leadership and alignment across councils.

Responses are offered to the four recommendations from the 24 May 2006 report, which were referred to officers.

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<b>Supporting Information</b>
<p><b>1) Strategic Fit / Strategic Outcome</b>  <i>This report describes the Council's activities in responding to the LTCCP Environmental Strategy. It specifically details the Council responses to climate change issues.</i></p>
<p><b>2) LTCCP/Annual Plan reference and long term financial impact</b>  <i>This report has no financial implications.</i></p>
<p><b>3) Treaty of Waitangi considerations</b>  <i>This report has no Treaty implications.</i></p>
<p><b>4) Decision-Making</b>  <i>This report does not require a significant decision to be made.</i></p>
<p><b>5) Consultation</b></p> <p><b>a) General Consultation</b>  <i>This report does not require consultation.</i></p> <p><b>b) Consultation with Maori</b>  <i>This report does not require consultation.</i></p>
<p><b>6) Legal Implications</b>  <i>Council is required to take the effects of climate change into consideration when making decisions under the RMA Climate Change Amendment Act (2002).</i></p>
<p><b>7) Consistency with existing policy</b>  <i>This report describes the Council's activities in responding to the LTCCP Environmental Strategy. The advice provided supports existing policy development, review and reporting processes.</i></p>