

TO: Finance, Strategy and Development Committee

FROM: Manager Corporate Policy Team

MEETING DATE: 29 November 2010

SUBJECT: **CLIMATE CHANGE ADAPTATION PROJECT PLAN**

SUMMARY

In April 2010, the Finance and Strategy Committee received a report from Professor Blair Fitzharris, entitled 'Climate Change Impact on Dunedin'. The Committee moved that the Chief Executive prepare a Climate Change Adaptation Project Plan for consideration within six months.

A cross-department team was set up to develop the Project Plan. The Project Plan has been finalised, reported to the Executive Management Team and is presented for consideration by the Finance, Strategy and Development Committee.

Options for resourcing the work on climate change, peak oil and the sustainability framework utilising existing budgets, are being assessed by staff. In the short term the work will be progressed by the Corporate Policy team with temporary assistance from a Masters student from the University of Otago.

IMPLICATIONS FOR:

- | | |
|-------------------------------------|---|
| (i) Policy: | Yes. An approved Project Plan will result in changes to the Climate Change Policy, plus other policies as and when reviewed eg Second Generation District Plan. |
| (iii) LTCCP/ Funding Policy: | Yes. Funding will be required to be reallocated from existing budgets to fund the project plan and implementation. |
| (iv) Strategic Result Areas: | |
| (a) Customer Service | Yes. Submissions have indicated a strong community desire for the Council to provide leadership in this area and plan for climate change impacts. |
| (c) Strategic Advice | Yes, some of the actions in the project plan result in improved strategic advice as they involve incorporating the latest information on climate change. |
| (d) People Development | Yes, creating a dedicated 'Sustainability Advisor' will introduce new skills to the |

	Council, and will ensure continued upskilling of staff with regard to climate change, peak oil, and corporate sustainability.
(v) Activity Management Plans:	No
(vi) Community Boards:	Yes, Community Boards will be involved when planning how to deal with climate change impacts in their area.
(vii) Sustainability:	Yes, early adaptation to climate change impacts will make Dunedin more sustainable as a city in the longer term. This is in line with the 'Forward Looking' sustainability principle. Creating a dedicated 'Sustainability Advisor' will ensure the Council has adequate resources for this growing area of work.

RECOMMENDATIONS

- 1 That the Committee approves the Climate Change Adaptation Project Plan for implementation.
- 2 That the Committee notes that implementation of the Climate Change Adaptation Project Plan will require reallocation of existing budgets and resources.

INTRODUCTION

This report presents the Climate Change Adaptation Project Plan, for approval.

BACKGROUND

On 26 April 2010, the Finance and Strategy Committee requested that the Chief Executive prepare a Climate Change Adaptation Project Plan for consideration by that committee within six months. A cross department team was established to develop the content of the project plan. Attachment 1 shows the membership of the team. The project plan is attached to this report.

For the past sixteen months this work has been progressed by an existing staff member seconded to the Corporate Policy Team three days per week. This secondment was due to end in December 2010 but ceased on 1 November due to other work priorities.

DISCUSSION

Project Plan

The Climate Change Adaptation Project Plan for Council is attached (Attachment 2) for consideration by the Finance, Strategy and Development Committee. The key elements of the Plan are:

- Mainstreaming Adaptation – Early actions
- Setting up a Joint Climate Change monitoring and adaptation group
- Alignment to Council's Risk Management Framework
- South Dunedin Study
- Climate Change opportunities
- Vulnerability and Impact studies for remaining hotspots and for critical infrastructure.

Funding for Project Plan

The project plan can be implemented over the next three years using the \$67,500 per annum budget for climate change and sustainability work. It should be noted that this plan primarily covers background research that will enable options and implementation plans to be identified. It is proposed that this budget be used to complete the work items listed in the project plan, starting with the most urgent:

2011/12

- South Dunedin study identifying a range of risks and scenarios, presenting probable engineering solutions and other mitigation methods along with indicative costs and impacts for each.

2012/13

- Similar studies would be completed for two of the other hotspots – the Lower Taieri Plain and Dunedin International Airport; and the populated estuaries along the Pacific Coast.

2013/14

- Final background studies would be completed.

This plan enables the work to be completed within existing budgets. It also assumes that a dedicated staff resource is established to drive the plan. Staff are currently reviewing resourcing options through reprioritising of existing budgets.

Funding for consultation and development of implementation plans

Completing the studies for each hotspot area will enable the Council to understand the adaptation methods, costs and impacts for each area. What will then be required is to use the content of each study, and in consultation with the community, to identify preferred options for each area, along with an implementation plan. It is likely that in future years individual departments will need to increase the budgets set aside for both the consultation and development of implementation plans, and for the actions within the implementation plans. These figures can be accurately estimated in future budget rounds when more is understood about the costs of preferred solutions.

Implementation - Staff Resource

In order to ensure that the Project Plan is implemented, it is proposed that a staff resource is committed to progress this work:

- Driving the actions within the climate change project plan, and leading subsequent work on climate change adaptation in the longer term
- Progressing the Council's response to peak oil issues, including developing a Peak Oil Strategy (subsequent to the Council receiving the Peak Oil Impacts on Dunedin report scheduled for the end of October 2010); providing cross council leadership on peak oil issues
- Ongoing implementation of the Council's sustainability framework, in particular articulating the Council's sustainability priorities and publicising current initiatives (which are many), co-ordinating staff training, developing performance measures and reporting annually on these.
- Promoting the sustainability principles and ensuring integration with AMP and other Council processes.
- Supporting the Community Sustainability Panel.
- Co-ordinating the input and actions of the multiple departments involved in sustainability related activities.

The work areas are getting larger, and the need to plan for the future is fundamental to the work of the Council.

CONCLUSION

Development of the Climate Change Adaptation Project Plan represents a significant step forward by the Council and it is presented for the Committee's approval. The Committee is advised that the implementation of the plan will require the reallocation of existing budgets and resources. The activities outlined in the proposed Project Plan can be funded from existing budgets, over the next three years. Staff are investigating staff resourcing options, pending the Committee's endorsement of the Plan.

Prepared by:

Prepared by:

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Manager**

Nicola Johnston
Manager Corporate Policy Team

Approved for submission by:

Sue Bidrose
**General Manager Strategy and
Development**

Reviewed and Tony Avery
approved by: **General Manager City Environment**

Date report prepared: 18 October 2010

Attachments

- 1 Membership Climate Change Adaptation Group
- 2 Project Plan - Climate Change Adaptation

ATTACHMENT 1

MEMBERSHIP CLIMATE CHANGE ADAPTATION GROUP

Name	Position	Department
Tony Avery	General Manager City Environment	
Sue Bidrose	General Manager Strategy and Environment	
Nicola Johnston	Corporate Policy Manager	Corporate Policy
Gene Ollerenshaw	Asset Planning Manager	Corporate
Neville Auton	Energy Manager	Corporate
Sarah Connolly	Acting Transportation Planning Manager	Transportation Planning
Anna Johnson (Paul Freeland)	City Development Manager	City Planning – City Development
Alan Worthington	Resource Consents Manager	City Planning – Resource Consents
Graeme Hamilton	Transportation Operations Manager	Transportation Operations
Laura McElhone	Asset Planning Manager 3 Waters	Water and Waste Services
Ian Featherstone	Solid Waste Manager	Water and Waste Services
Mick Reece	Community and Recreation Services Manager	Community and Recreation Services
Greg Sligo	Business Development Team Leader	Community and Recreation Services
Rob Garrett	GIS Team Leader	Business Information Services

PROJECT PLAN

CLIMATE CHANGE ADAPTATION PLAN

Background:

In April 2010, Professor Blair Fitzharris completed the 'Climate Change Impacts on Dunedin' report, on behalf of the Dunedin City Council.

On 26 April 2010, The Finance and Strategy Committee moved that the Climate Change Impacts on Dunedin report by Professor Fitzharris be:

- a) adopted by the Council for planning purposes;
- b) be used to update the Climate Change Policy 2006; and
- c) that the Chief Executive prepare a project plan for consideration by the Finance and Strategy Committee within six months on how the Council can respond to the report.

This project plan addresses a-c inclusive. A 20 year period has been used for the project plan.

General Project Description:

Smooth adaptation to a changing climate involves the following five elements, all of which contribute to implementation of adaptation measures.

- Awareness raising and capacity building.
- Knowledge, data, tools.
- Risk assessments.
- Evaluation and monitoring.
- 'Mainstreaming' adaptation into policies, plans and strategies

The project plan consists of a mixture of these elements. The plan is split into actions and tasks. There is some overlap between different actions as they can be completed concurrently.

A cross-department Climate Change Adaptation Group has been set up, and will be responsible for leading the implementation of the project plan. Certain stages will also require collaboration with other key stakeholders, in particular the Otago Regional Council.

The proposed actions are as follows:**Action 1: Project set up**

The administrative side of setting up the project including identifying membership and setting up a project team and advisory group. This phase includes gaining formal sign-off from EMT and from the Finance and Strategy Committee.

Proposed timing: Already completed (July 2010).

Action 2: 'Mainstreaming' Adaptation – Early actions

This phase includes actions that the Council will take immediately to update the Council's current practices in light of the information in the Fitzharris Report. These are:

- Revise minimum floor levels for the city and incorporate in Building Consent Requirements.
- Update the DCC Climate Change Policy 2006 using information from the Fitzharris Report.
- Develop interim guidelines for DCC resource consent planners based on the Fitzharris Report.

Proposed timing: By June 2011

Action 3: Set up Joint Climate Change Monitoring and Adaptation Group

The purpose of this phase is to set up a Joint Climate Change Monitoring and Adaptation Group with the Otago Regional Council and others in the city that may be able to assist eg University of Otago. The group will be particularly responsible for:

- Developing a public relations strategy which will also raise awareness of sea level rise and other climate change impacts.
- Identifying best practice and relevant initiatives available through central and local government guidance and support materials.
- Developing a knowledge and data gap analysis and improvement plan.
- Mapping of different coastal inundation scenarios.
- Production of Hazard Maps for flooding, sea level rise, storm surge and tsunamis.

Proposed timing: Start immediately, tasks to be completed by June 2012.

Action 4: Alignment with Council's Risk Management Framework

This action will involve tailoring the Council's risk management framework and process to deal with the uncertainties involved in climate change projections, their potential impacts and the wide range of possible policy responses and adaptation options. All risks (threats and opportunities), adaptation and treatment options will be assessed, monitored and reviewed using a standardised approach which will be incorporated into the annual planning process. The action will involve the following tasks:

1. Research of existing relevant guidelines and practices.
2. Tailoring the Council's risk management framework and process.
3. Developing of risk assessment techniques and benefit costing guidelines.
4. Assessment of climate change risks and the range of potential adaptation options.
5. Implement risk monitoring and review processes.
6. Integrate approach into the AMP and annual planning processes.

Proposed timing: Tasks 1- 3 March 2011, tasks 4-5 June 2011, task 6 August 2011.

Action 5: South Dunedin Study

The Fitzharris Report identified five hotspots in the city that are at risk as a result of sea level rise, storm surge and inundation. The project team have identified that of these five, South Dunedin is the highest priority as a result of already high and rising groundwater levels and modelling which predicts ponding of water within 20 years in certain parts of South Dunedin. Of all the hotspots identified, the possible impacts on South Dunedin affect by far the most residents, businesses and critical infrastructure. It is, therefore, appropriate to focus on this area first.

The first stage will be the completion of a South Dunedin Study, which will assess a range of risks and scenarios, present probable engineering solutions, mitigation methods and other adaptation options appropriate to different increases in sea level/groundwater level, storm surge and inundation. This will include costing of options. It will also include a Social Impact Assessment. The analysis work completed by the Ocean Beach Project Team understanding the impacts of climate change on Ocean Beach will be an essential building block for this action.

This report will be used to develop an implementation plan for South Dunedin, in consultation with the community. This will be the subject of a separate Project Plan, with associated costs including the cost of implementing the plan.

Proposed timing: Final consultants report to be received by June 2012.

Action 6: Climate Change Opportunities

Develop a climate change opportunities plan for the city. This will result in a separate 'Climate Change Opportunities' Project Plan.

Proposed timing: Final report by June 2012.

Action 7: Further Council adaptation

Incorporating the findings of the Fitzharris Report into other key Council documents eg

- City Development Strategy
- Second Generation Plan

Proposed timing 2011 – mid 2012

Action 8: Detailed Vulnerability and Impact Studies for the remaining four hotspots, and for critical infrastructure.

The South Dunedin Study will allow us to develop an approach that we can then use for the other four hotspots identified in the Fitzharris Report. The team has prioritised these as follows. It is envisaged that each of these will be taken forward with a separate Project Plan. Timing for completion of detailed vulnerability and impact studies and Project Plan is indicated in brackets:

- The lower Taieri Plain including Dunedin International Airport (completed by June 2013)
- Populated estuaries along the Pacific Coast (completed by June 2013)
- Harbourside shoreline including the entrance to Otago Harbour (completed by June 2014)
- Conservation lands of upland regions (completed by June 2014).

A similar approach will be required for critical infrastructure. This is the responsibility of the owner of the infrastructure.

Proposed timing: Individual Project Plans in place for each of the four hotspots and for critical infrastructure by June 2016.

Relevant Key Result Areas for Corporate Policy:

- KRA 1 Provision of advice and information.
- KRA 2 Community/Stakeholder relationship management.
- KRA 8 Strategy and policy development.
- KRA 9 Corporate projects.

Also contributes to KRAs for other departments and teams – Transportation Planning, CARS, W&WS, TransOps, City Planning, EDU.

Project Objective

- To identify the key stages in an approach to adapt to changing climate, and a timetable for implementation of these key stages.

Key Deliverables:

- Establish Joint Climate Change Monitoring and Adaptation Group
- Public relations strategy
- Revised minimum floor levels incorporated in Building Consent requirements
- Interim guidelines for DCC resource consent planners
- South Dunedin Study and Project Plan
- Knowledge and data improvement plan
- Hazard Maps
- Revised risk management framework
- Climate change opportunities plan
- Detailed vulnerability and impact studies for remaining 4 hotspots and for critical infrastructure

Project Scope:

Provisional List of Matters to be considered

- As outlined above.

Key Stakeholders – to include :**DCC:**

- Corporate Policy
- Transport Planning
- Transport Operations
- CARS
- City Planning, Resource Consents
- City Planning, Policy Team
- City Property
- EDU
- MCA
- BIS – GIS

External to DCC:

- Local Iwi
- Otago Chamber of Commerce
- Property developers
- Otago Regional Council
- University of Otago
- Ratepayers & Householders Association
- South Dunedin Residents Association
- Community Boards
- NZTA
- Dunedin International Airport
- KiwiRail
- Historic Places Trust
- Wider community
- Insurance Industry Representative