

Corporate Climate Change Adaptation Planning for Councils

Module 3 Developing the Adaptation Plan



I. MODULE OVERVIEW

This module outlines the *developing the adaptation plan* phase of corporate adaptation planning within council. It covers the process required for delivering a corporate adaptation plan that details corporate council risks from climate change, the associated actions for dealing with those risks, strategic actions and a proposed implementation approach. This phase will require bringing together the Adaptation Working Group for another workshop, this time to identify adaptation actions and evaluate proposed actions for mitigating council's climate risks.

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OBJECTIVES

- Identify and evaluate adaptation actions that will adequately mitigate council's corporate climate risks.
- Prioritise adaptation actions using risk management effectiveness.
- Develop and implement a corporate adaptation plan that details climate risks and associated actions for dealing with those risks.



ACTIVITIES

- Hold a workshop with the Adaptation Working Group



OUTPUTS

The output will be:

- a corporate adaptation plan for council that complements existing council plans and strategies

2. DEVELOPING THE CORPORATE ACTION PLAN

The purpose of this workshop with the Adaptation Working Group is to propose adaptation actions to treat extreme and high risks as identified through the previous module, and to develop an approach and timeframe for implementation that will form the basis of the corporate adaptation plan.



BEFORE THE WORKSHOP

Develop an understanding about how to develop a corporate adaptation plan and think about the actions it might include. As a starting point read the *Climate Change Adaptation Actions for Local Government* report developed by the Australian Greenhouse Office in 2007, or the *Climate Adaptation Manual for Local Government: Embedding Resilience to Climate Change*, by the Australian Centre for Excellence in Local Government in 2014.

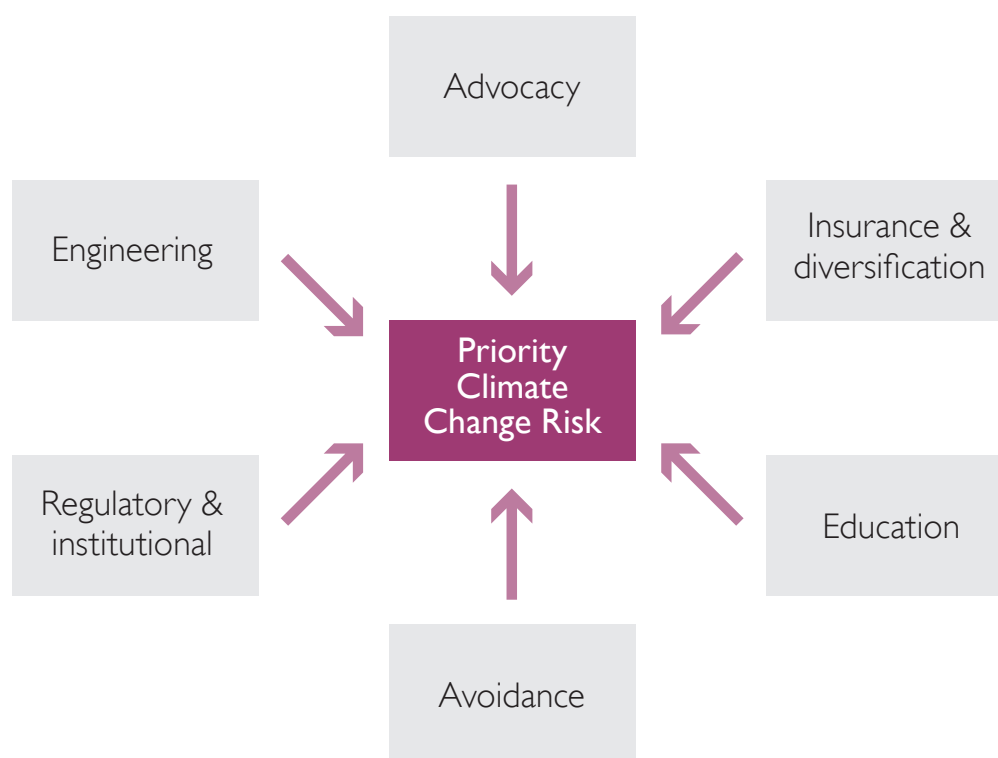
www.dpac.tas.gov.au/divisions/climatechange/adapting/local_government/corporate_adaptation_planning/developing_adaptation_options/

www.ancelg.org.au/news/local-resilience-climate-change

Adaptation actions can involve technological and infrastructure

measures, education, planning, advocacy or a combination of measures. Identifying and prioritising climate change adaptation actions in a strategic manner will ensure actions are well planned and address both short- and long-term considerations.

In developing adaptation actions to treat identified risks, the following diagram is a useful visual tool for considering the inputs.



Source: Southern Tasmanian Councils Authority 2013

A successful corporate adaptation plan should consider the following:

- **Internal integration:** Identification of links and integration across all service areas, strategies and plans within council.
- **External partners and coordination:** Identification of actions and issues that exist outside council's influence or responsibility, or that extend beyond council's boundary. This should enable a more coordinated approach for action at a regional, state or national level.
- **Monitoring, evaluation and review:** Effective management requires regular monitoring and review to consider whether actions are achieving the desired results and whether any early assumptions have changed (e.g. based on new climate science data or adaptation trials).

The corporate adaptation plan should also include a timetable for completion, and a description of who is responsible for delivering each component of the plan. A regional approach to adaptation planning may also be beneficial, so consider partnering with councils within your region. This approach may also result in an alliance of strategies and the development of larger actions.

Familiarise yourself with the later section of this module 'Corporate adaptation plan', which suggests a useful structure for the plan and a guide to content.

Prepare the *Action Prioritisation Spreadsheet*, by copying over priority risks from the Risk Assessment Tool. www.dpac.tas.gov.au/divisions/climatechange/adapting/local_government/corporate_adaptation_planning/developing_adaptation_options/

The Action Prioritisation Spreadsheet incorporates a Multi-Criteria Analysis Tool (MCA Tool), which is used to prioritise identified adaptation actions. The criteria used to prioritise actions include: political feasibility, cost, community acceptance, influence level and concurrent effects. The suggested weighting of each criterion as set out on the Action Prioritisation Spreadsheet may be adjusted to suit each organisation's strategic priorities, and will ideally be set to comply with the strategic plan. Instructions to assist you with the MCA Tool are included with the spreadsheet.



DURING THE WORKSHOP

Identify new adaptation actions

- Form breakout groups of 3–5 people, if applicable.
- Distribute the Adaptation Action Tool containing the priority risks.
- Assist each group to develop up to five adaptation actions for each risk, using the Adaptation Action Tool.

Evaluate the effectiveness of adaptation actions

An adaptation action should change the likelihood and/or consequences of risks to council resulting from climate change impacts. Some actions may require implementation in order to progress other actions.

Assist each group to re-evaluate the likelihood and consequence of the risk, following the implementation of each adaptation action.

Ensure consensus is achieved on the list of adaptation actions included in the plan.

Transfer the data from the 'Risk identification and Evaluation' section of the Risk Assessment Tool across to the 'Formulate Actions and Re-evaluate Risk' section, as described below.

Using the risk assessment tool to determine effectiveness of actions

1. Insert adaptation actions (1) and agreed new likelihood and consequence (2) following implementation of action.

| Risk Statement | Likelihood | Consequence | Success Criteria | Level of Risk | Applicable Land Use | Proposed adaptation action(s) | Treated Likelihood | Treated Consequence | Residual Risk | Co |
|--|------------|--------------|------------------|---------------|---------------------|--|------------------------|---------------------|---------------|----|
| Increased average temperature leading to increased prevalence of weeds and decline in biodiversity | Possible | Catastrophic | Environmental | Extreme | Peri-urban | Increase implementation of Biodiversity Management Plans | Likely | Minor | Low | |
| | | | | | | Implement community education plans | Almost Certain High | | | |
| Increased average temperature leading to increased prevalence of weeds and decline in biodiversity | Possible | Major | Environmental | High | Peri-urban | | | | | |
| | | | | | | | | | | |
| Increased average temperature leading to increased prevalence of weeds and decline in biodiversity | Possible | Catastrophic | Environmental | Extreme | Peri-urban | | | | | |
| | | | | | | | | | | |

- The tool will calculate the new level of risk (I). Evaluate whether this new level of risk is appropriate and realistic.

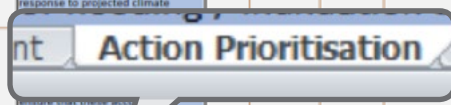
| Risk Statement | Likelihood | Consequence | Success Criteria | Level of Risk | Applicable Land Use | Proposed adaptation action(s) | Treated Likelihood | Treated Consequence | Residual Risk | Code |
|--|------------|--------------|------------------|---------------|---------------------|---|--------------------|---------------------|---------------|------|
| Increased average temperature leading to increased prevalence of weeds and decline in biodiversity | Possible | Catastrophic | Environmental | Extreme | Peri-urban | Increase implementation of Biodiversity Management Plans Implement community education plans | Likely | Minor | Low | |
| Increased average temperature leading to increased prevalence of weeds and decline in biodiversity | Possible | Major | Environmental | High | Peri-urban | | | | | |
| Increased average temperature leading to increased prevalence of weeds and decline in biodiversity | Possible | Catastrophic | Environmental | Extreme | Peri-urban | | | | | |

- Highlight and copy (Ctrl C) adaptation actions (I) from the “Risk Treatment” tab and paste (Ctrl V) into the “Action Prioritisation” tab (2). Include risk codes ensuring that actions that treat multiple risks are recorded (3).

| | Risk Statement | Likelihood | Consequence | Success Criteria | Level of Risk | Applicable Land Use | Proposed adaptation action(s) | Treated Likelihood | Treated Consequence | Residual Risk |
|----|--|------------|--------------|------------------|---------------|---------------------|--|--------------------|---------------------|---------------|
| 14 | Increased average temperature leading to increased prevalence of weeds and decline in biodiversity | Possible | Catastrophic | Environmental | Extreme | Peri-urban | Ensure appropriate audits of development control permits in bushfire prone areas | Likely | Minor | Moderate |
| 15 | | | | | | | Review LEP and development control plans in response to updated bushfire mapping accounting for climate change | Likely | Moderate | High |
| 16 | | | | | | | Advocate for funding for community education and communication programs for bushfire risk | Almost Certain | Insignificant | Moderate |
| 17 | | | | | | | Work in partnership with Tas Fire and other relevant stakeholders to develop community education programs regarding increased fire risk and fire management in response to projected climate change impacts | Unlikely | Moderate | Moderate |
| 18 | | | | | | | Fire Service and State Emergency Services to update emergency management planning provisions to ensure that these account for increased bushfire risks identify areas of the LGA which are at risk of flooding / | Rare | Insignificant | Low |
| 19 | Increased average temperature leading to increased prevalence of weeds and decline in biodiversity | Possible | Major | Environmental | High | Peri-urban | | | | |



| Action Code | Adaptation Action | Cost | Risks treated | Multi Criteria Analysis | | | | | Total Score | Responsible Business unit | Timeline for implementation | Comments |
|-------------|--|------|------------------|-------------------------|---------------------------|--------------------------|-----------------|------------------------|-------------|---------------------------|-----------------------------|----------|
| | | | | 20% Immediacy | 20% Political feasibility | 20% Community acceptance | 20% Flexibility | 20% Concurrent effects | | | | |
| 15 | Ensure appropriate audits of development control permits in bushfire prone areas | | 1-AT | | | | | | | | | |
| 16 | Review LEP and development control plans in response to updated bushfire mapping accounting for climate change projection data | | 1-AT, 2-AT, 3-FR | | | | | | | | | |
| 17 | Advocate for funding for community education and communication programs for bushfire risk | | 1-AT | | | | | | | | | |
| 18 | Work in partnership with Tas Fire and other relevant stakeholders to develop community education programs regarding increased fire risk and fire management in response to projected climate change | | | | | | | | | | | |
| 19 | Fire Service and State Emergency Services to update emergency management planning provisions to ensure that these account for increased bushfire risks identify areas of the LGA which are at risk of flooding / | | 3-FR | | | | | | | | | |



Source: Hyder 2012



AFTER THE WORKSHOP

- Finalise any risk analysis that may not have been completed during the workshop.
- Review the ease of implementation of adaptation actions to ensure they are appropriately prioritised.
- Compile the outputs into the climate change adaptation plan.

Ultimately, the aim of this exercise is to generate an action plan that will be endorsed by the council for integration into existing strategic and business plans. The role of the Adaptation Working Group, therefore, is to consider how to engage management and staff in accepting the plan and assisting with its delivery.

3. CORPORATE ADAPTATION PLAN

A robust corporate adaptation plan has the following core components.

- General Manager and/or Mayor commitment (foreword)
- Executive summary
- Glossary
- Introduction (background, context, purpose and scope, legal implications of climate change)
- Projected climate change
- Council's corporate risks
- Strategic and governance actions
- Corporate adaptation actions and stakeholder involvement
- Implementation (financial and resource requirements, monitoring, evaluation and strategic priorities).

Additional components that could also be included in the plan are:

- Acknowledgements
- Purpose and scope
- Map of the local area with boundaries defined
- Budget information
- Methodology
- Future projections for socio-economic changes
- Integration of the plan with other council documents and plans
- A section for the community
- References.

General Manager/Mayor commitment

Commitment from the GM/Mayor is essential for the corporate adaptation plan, as it requires investment and input from across many areas of council. A statement should appear in the plan as a foreword to outline their commitment to planning and taking action against the impacts of climate change.

Executive summary

The executive summary should introduce the key objectives, actions and findings outlined within the plan in a non-technical manner. It should enable the reader to glean the body of the plan and not be simply an introduction.

Glossary

The glossary is a list of technical terms within the plan and their meaning.

Introduction

The introduction should set out the purpose and scope of the plan, and should also define the legal implications of climate change, and how these pertain to local government. The introduction may also link to council's strategic plan, and any other relevant plans, as well as include some regional context (include elements of Module 1), and how the plan can build upon existing regional initiatives.

Projected climate change and council's corporate risks

This section of the action plan should define the relevant projected climate change impacts for the local area, and the associated risks and opportunities. It should also provide an overview of each relevant climate impact and the associated priority risks. Following is an example:

| Risk Code | Risk statement | Success criteria | Risk level | Council services primarily affected | Other stakeholders |
|-----------|--|------------------|------------|---|--|
| AT1 | Increased temperature, changed properties of road seals, reduction in asset quality/suitability, public safety issue | Public safety | High | Infrastructure and property | Department of Infrastructure, Energy and Resources |
| AT2 | Increased population resulting in pressure on council to provide services | Service delivery | Extreme | Corporate, planning and community development | |
| AT3 | Increased chance of vector-borne disease resulting in increased demand on council environmental health resources | Public safety | Extreme | Planning and community development | |

The corporate adaptation plan should concisely link each action to the relevant impact. More importantly it should assign responsibilities and timeframes for each action to aid in their implementation. Ideally, the plan should be presented in a table format, and be customised to each council business unit or group of common business units (i.e. one table per business unit), as illustrated in the table on the following page.

Note that some actions may be applicable to one or more business units, while others may require shared stakeholder responsibility and support from council's senior management. These actions may be considered separately.

| Action code | Adaptation action | Relative cost of implementation | Ease of implementation | Timeline for delivery | Other stakeholders | Relevant council document strategies | Risks treated | Original risk level | Treated risk level |
|-------------|--|---------------------------------|------------------------|-----------------------|---|--|---|---------------------|--------------------|
| 15 | Develop public awareness and education program | \$ | High | 2015 | Department of Health and Human Services, NGOs, State Emergency Services | Strategic Plan, Community Engagement Plan, Emergency Management & Community Recovery Plan, Safer Communities | Increased intense rainfall and flood events resulting in loss of life (FL3) | Extreme | High |
| 16 | Identify vulnerable persons/groups who are most at risk from flood events | \$ | High | 2015 | Department of Health and Human Services, NGOs, State Emergency Services | Strategic Plan, Community Engagement Plan, Emergency Management & Community Recovery Plan, Safer Communities | Increased intense rainfall and flood events resulting in loss of life (FL3) | Extreme | Extreme |
| 17 | Identify flood-prone areas and install warning signage | \$\$ | Medium | 2015 | Department of Health and Human Services, NGOs, State Emergency Services | Strategic Plan, Community Engagement Plan, Emergency Management & Community Recovery Plan, Safer Communities | Increased intense rainfall and flood events resulting in loss of life (FL3) | Extreme | High |
| 18 | Ensure council has planning mechanisms to prevent development in flood-prone areas | \$ | Medium | 2015 | Department of Health and Human Services, NGOs, State Emergency Services | Strategic Plan, Community Engagement Plan, Emergency Management & Community Recovery Plan, Safer Communities | Increased intense rainfall and flood events resulting in loss of life (FL3) | Extreme | High |

Example action plan for environmental health services within a council

Implementation:

The implementation section of the corporate adaptation plan should provide an outline of financial and resource requirements for implementing adaptation actions.

This section of the plan should also outline the indicators, performance measures and/or targets used to measure success. It should additionally identify the people responsible for administering the timing, review, funding and budgets. Strategic priorities may also be considered within the plan.

These priorities are broad climate change adaptation actions that do not necessarily address an individual area of risk, and that may fall across several council service areas. Strategic priorities and actions should be driven by council's executive leadership team. Below are some examples of strategic priority actions.

Ensure legal liability issues are addressed

- Refer to the Baker & McKenzie advice provided to the Australian Local Government Association (listed in Resources).

Update council's risk register

- Integrate climate change risk management into the council's existing risk assessment framework and migrate treated risks to the risk register.

Emergency management planning in relation to climate hazards

- Ensure that the projected impacts of climate change are properly considered in the council's emergency management planning processes. Emergency response plans should be investigated, developed and implemented considering the best available climate change projections. Up-to-date emergency response, mitigation and recovery procedures can minimise consequences when extreme events occur.

Implement communication strategy

- Develop and implement a climate change communication and education plan for the council's staff. Increased staff capacity and awareness will assist in incorporating climate change scenarios and impacts into policy and decision-making processes.

Incorporate identified actions into other the council plans & strategies

- Consider climate change risks and impacts in other council strategies, policies and plans (such as Strategic & Annual Plan). The climate change impacts and risk process outlined throughout this adaptation plan should be considered in the development of future plans, policies and strategies. This will also ensure there are a range of potential internal mechanisms for important actions to be implemented.

Further tips for developing effective action plans

- Consider using diagrams and case studies to break up text.
- Consider including explanatory sections on any issues that are relevant to a local government area.
- The plan needs to be relevant and accessible to the community and media, despite it being developed for internal planning. Council should aim to communicate the plan in a concise manner.
- Consider having the plan reviewed by a third party such as another council or a local expert.
- Consider the benefits of integrating mitigation and adaptation planning to identify areas where the two may be complementary.

To assist you in the development of your corporate adaptation plan, the *Corporate Adaptation Plan template* is provided as a guide. www.dpac.tas.gov.au/divisions/climatechange/adapting/local_government/corporate_adaptation_planning/developing_adaptation_options/



4. MODULE CHECKLIST

- Researched the requirements for a corporate adaptation plan
- Completed workshop with Adaptation Working Group to evaluate adaptation actions
- Updated and disseminated the corporate adaptation plan



5. RESOURCES

Australian Greenhouse Office, 2009 Climate Change Adaptation Actions for Local Government, www.dpac.tas.gov.au/divisions/climatechange/adapting/local_government/corporate_adaptation_planning/developing_adaptation_options/

Australian Centre for Excellence in Local Government, 2014 Climate Adaptation Manual for Local Government: Embedding Resilience to Climate Change, www.acelg.org.au/news/local-resilience-climate-change

Baker and McKenzie, 2011 Local Council Risk of Liability in the Face of Climate Change – Resolving Uncertainties www.climatechange.gov.au/local-council-risk-liability-face-climate-change-%E2%80%93-resolving-uncertainties



Australian Government



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