



Submission on *Living with a Warming Climate* – *DRAFT ACT Climate Change Adaption Strategy*

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If you have any queries regarding this submission please contact Clare Henderson Executive Director on 02 6229 3202 or director@conservationcouncil.org.au.

The Conservation Council ACT region is the peak non-government environment organisation for the Canberra Region, and has been the community's voice for the environment in the Canberra region since 1979.

We represent the interests of community conservation organisations in the region as well as the broader environmental interests of all the citizens of the ACT.

Our mission is to achieve an ecologically sustainable and zero net carbon society through advocacy, education, research and engagement with community, the private sector and government.

The Conservation Council is active in a number of campaign areas. Our current focus includes:

- **Biodiversity Conservation** – protecting our unique ecological communities and the Bush Capital
- **Climate Change** – a regional, national and global challenge
- **Planning** – the right things in the right places
- **Transport** – connecting people and places
- **Waste** – being efficient through closed-loop systems
- **Water** – smart use of a scarce resource
- **Governance** – for a Smarter, Sustainable Canberra

1. Overview

The Conservation Council ACT Region welcomes the opportunity to comment on the draft ACT Climate Change Adaption Strategy – *Living with a Warming Climate*.

While recognising the need for adaptation to climate change, the Conservation Council has previously taken the position that the priority has to be mitigation and then adaptation. It is generally more cost-effective to mitigate than to adapt. However both need to occur and it has been important to focus on mitigation rather than bypass it and go straight to adaptation without dealing with the cause of the problem.

We still hold that mitigation work is important and we must continue to reduce our emissions. While our local ACT targets are good and we are making progress in delivering them, the ACT must bring its climate targets into line with the current global context. Temperature records for 2015 broke a range of records for warmest global averages, and the new global agreement on climate change reached in Paris in December 2015 committed the world to keep warming well below 1.5 degrees from pre-industrial levels. There is a new urgency to decrease emissions rapidly. To bring the ACT's climate actions in line with the global context, the ACT Government should commit to:

- Bring the zero net emissions date forward from 2060 to 2040,
- Reach 100% renewable energy for electricity by 2020, and
- Full divestment of Government investments from fossil fuel industries by 2018.

The ACT Government also needs to continue advocacy work to ensure national and international targets are well below the 1.5 degree threshold to avoid 'dangerous' climate change.

At the same time we recognise that greenhouse gas emissions since the mid-1800s have built-in a level of climate change even if emissions were to reduce to close to zero in a short space of time. We need to now consider adaptation measures and we commend the ACT Government for continuing to address climate change through the draft Climate Change Adaptation Strategy.

We commend the development of resilience through adaptation measures and note that this resilience needs to be developed and enabled for human and non-human systems as well as through tangible and intangible assets.

2. Scope and focus: mainstreaming climate change adaptation across society

The draft strategy identifies the complexity of climate change adaptation, and the wide range of objective areas and action recommendations illustrates the cross-cutting nature of the challenge. The complexity of adaptation challenges are not comprehensively covered in this draft. It is perhaps unrealistic to capture every action the ACT Government and other sectors should take in this Strategy, when specific expertise and knowledge from the various sectors involved must underpin action. The Conservation Council believes that the most important and practical outcome of this Adaption Strategy is to stimulate the holistic, all-of-government and all-of-community understanding of climate change, its impacts, and literacy in how to mitigate or respond to them. The strategy acknowledges that 'mainstreaming' is required:

This draft Adaptation Strategy requires climate change impacts to be 'mainstreamed' into policies and practices across government, households, businesses and the community¹.

The Conservation Council urges the ACT Government to focus the Adaptation Strategy on processes to see mainstreaming take place, within Government, and in key sectors of society. The Adaptation Strategy should clearly outline the range of laws, Government policies and programs that must adopt climate change adaptation thinking to continue successfully into the future and suggest how this is best achieved.

Recommendation 1.
Focus the Adaptation Strategy on clear processes for mainstreaming climate change adaptation through law, Government policies and projects.

The Adaptation Strategy should also focus on suggestions for how businesses, communities, and sectors can mainstream climate change adaptation to ensure all societal functions continue successfully in a changing climate.

Recommendation 2.
Focus the Adaptation Strategy on clear processes for mainstreaming climate change adaptation for businesses, communities and all sectors of ACT society.

¹ Living with a Warming Climate – DRAFT ACT Climate Change Adaption Strategy, p2

Currently, the draft Adaptation Strategy does not include enough focus or detail on human impacts and responses. It outlines some key human impacts, but lacks detail, and focuses on mainly engineering solutions. The Strategy states that: “it identifies that some people in our community and some ecosystems in our region have a higher vulnerability to the risks from climate change and therefore warrant particular consideration.”² The Adaption Strategy should include identification of these vulnerabilities including age, health (including mental health), education, income, and how they are represented in the ACT community.

We are aware that many people feel the impacts of climate change already. We know our most vulnerable are likely to unfairly carry the additional impacts and costs of climate change, whether from exposure to extreme weather events and sea level rise, unequal rises to costs of living, threats to health and security.

It is important that adaptation strategies clearly target disadvantage and vulnerability in populations. Up to a point wealthier humans will have better mobility and capacity to avoid some of the impacts of climate change and adaptation strategies should be aimed at establishing processes to assist broader and more vulnerable groups and systems. Climate change adaptation efforts should also aim to increase participation, equity and access for the disadvantaged in our community.

Recommendation 3.
Ensure that the Strategy clearly articulates issues of social vulnerability and consider adaptation measures to deal with vulnerability.

3. Structure and name

There is often public confusion between global warming and climate change and climate change does not always appear as ‘warm’. Flood events, for example, might be caused by warming but their immediate characteristic might be cold and wet. Some people also welcome warmer weather and might not relate to calls for action around a warming climate. The ACT region NARCLIM models³ show that perhaps the key climate change impact might be shifting rainfall patterns which have far-ranging consequences ahead of the impacts of increased temperature per se. It might be better to refer to a changing climate rather than a warming climate in the title.

Recommendation 4.
Name the document ‘Living with a Changing Climate’ rather than ‘Living with a Warming Climate’.

² Strategy p2

³ Strategy, p18

The strategy notes that it covers urgent short term actions for 2016-2020, but does not indicate that many more ongoing actions are required, and how and when this strategy will be updated (see discussion below under part 4 Government objectives). We suggest that the Strategy clarify that this is a 2016-2020 framework in the title, and recommend a clear process for review.

***Recommendation 5.
Clarify that this is a 2016-2020 framework in the title and outline
a specific process for review.***

It is very important to consider the impact of climate change on humans and human systems as the Strategy does in setting out the government's objectives.⁴ At the same time, humans are also part of a larger ecosystem of connection with non-human life and this should be recognised in the Strategy's objectives. This could be done as a specific objective relating to the need to enhance biodiversity adaptation.

A secondary option would be to amend the Resilience objective with additional words to recognise the need for enhancing and building the climate resilience of our ecosystems.

There seems to be an emphasis on engineering solutions, especially in the 'Mainstreaming' and 'Leadership' objectives, rather than ecological and human considerations. Ecological considerations should be considered as a key objective of an adaptation strategy or else they will be overwhelmed.

***Recommendation 6.
That the Strategy includes a key objective / outcome of
enhancing capacity for biodiversity adaptation and ensure the
focus is not just 'engineering' solutions***

There are two sets of criteria used in the Strategy – Outcome areas and Sectoral Areas – and it is unclear how they link.

- The four Outcome Areas are⁵:
 - 1. Territory-wide resilience;
 - 2. A city for all seasons
 - 3. Opportunity for adaptation innovation; and
 - 4. Integration
- And the five sectoral areas⁶:
 - 1. Disaster and emergency management

⁴ Strategy, p9

⁵ Strategy, p4

⁶ Strategy, p3

- 2. Community health and wellbeing
- 3. Settlements and infrastructure
- 4. Water
- 5. Natural resources and ecosystems.

It seems at the end of the strategy that the Outcome areas miss a lot of the detail and nuance discussed under each sectoral area. The Outcome Areas and the actions under each seem to be more engineering action focused, with only some other types of actions like stakeholder engagement for monitoring.

For example, under 'Community health and wellbeing sector' an emerging issue in the table on p 48 is identifying community, health and refuge facilities. This issue does not make it into the 'Proposed actions' list on page 49. Then, the two proposed actions from page 49 are scattered in different 'outcome areas' in section 4.2 proposed actions.

This might be remedied by a conceptual flowchart at the top of the document to guide the reader on how each Sectoral area generates ideas that then end up in the 'proposed actions' list.

Recommendation 7.
Include conceptual flowchart to show how Sectoral areas generate ideas for 'proposed actions' list.

For example, the Strategy might explain that the Sectoral Area of community health and well-being shows a range of concerns, and potential actions. Then looking through the limitations this strategy faces, the Outcome Areas focus on only two actions from community wellbeing, and then include an explanation as to why those two are the ones that are included.

Recommendation 8.
Provide explanations as to why particular identified issues are not matched with actions or why only some actions are included.

4. Overall feedback: include discussion of costs, and expand community and business engagement

There could be further consideration given to cost and ways of resourcing adaptation. The Executive Summary states that:

Taking collective action to adapt to a changing climate will incur some costs. However this will be an investment that mitigates the risk of higher costs in the longer term.⁷

⁷ Strategy p3

The strategy would provide much to our adaptation efforts if it can suggest potential ways the ACT Government and community can think about the costs and how to pay.

This might include using some interstate or overseas examples, like the Queensland flood levy, or the example of privatisation of fire fighting in the USA leading to perverse outcomes where private homes are protected, while overall fire management is neglected.

Given that the strategy is designed to make ACT Government directorates, decision-makers, individuals, businesses etc. prepared for climate adaptation, thinking about the costs and ways to handle them could be very useful. At the very least flagging costs as an area for discussion with stakeholders would be useful.

***Recommendation 9.
Consider including further discussion of costs of and resources for adaptation.***

Outcome 4: Integration (page 61) is currently limited in its recommendations about engaging and working with stakeholders outside of the ACT Government. The Strategy aims to mainstream climate change adaptation approaches for business, individuals, households and the community. A Sustainability Alliance may be too limited to achieve this. The Integration section should consider approaches that are best for each sector, for example providing incentives and regulation to ensure businesses large and small tackle climate change adaptation across industries. The ACT Government could seek partnerships with specific experts and peak organisations that can provide advice on different areas. For example ACTCOSS might partner with the ACT to identify how climate change adaptation can best protect disadvantaged people, and roll out implementation within the community development sector. The ACT Government might partner with the Conservation Council to gain knowledge from various environmental member groups about how ACT Conservation strategies need to change to enable climate change adaptation to take place.

***Recommendation 10.
Expand Outcome 4: Integration actions to explore specific engagement approaches with all relevant sections of the ACT community.***

5. Detailed comments

Executive summary:

There are three dot points of the purpose of the strategy⁸ and it might be useful to add or incorporate a point about listening to stakeholder knowledge, experience and ideas to inform our collective strategy. Research on climate adaptation highlights stakeholder engagement as a key factor to success. It should be made explicit that the Government intends to learn from stakeholders across the community – the dialogue both gets the stakeholders thinking about what they are able and going to do, as well as provides a more realistic picture of what is happening in the ACT community and in different sectors, providing stronger ideas for action specific to our community.

It might be too prescriptive to say “However, reducing greenhouse gas emissions is **only half** the task and robust adaptation efforts need to be implemented and adapted over time.”⁹ Perhaps better to say “an important part of the task”.

There should be mention of the ACT Government role observing and responding to mitigation and adaptation drivers at a larger scale including national and international climate policies, identifying other driving factors like migration into Australia, and how this will impact our ability and approach to adaptation. This might be added under ‘Why is adaptation important?’ on page 2 following ‘the ACT Government’s adaptation efforts need to:’ include an additional dot point on engaging with factors at larger scales that will influence the ACT’s adaptation efforts.

Main outcomes listed on page 4: suggest that outcome four explicitly mention flexibility as well as integration and efficacy. Taking a learning approach (applying interventions, assessing success, seeking ongoing input from stake holders to learn and improve as we go) is essential.

Introduction

1.1 Purpose - Suggest adding a dot point about listening to community knowledge to build better Canberra region-specific action ideas. Currently it says the strategy aims to communicate to people, inform government policy and encourage individuals, businesses to do more. This should include the key link of dialogue between stakeholders and Government to make sure actions that both take are informed. Government must be integrating ‘on the ground’ knowledge from different sectors and community stakeholders at this early stage to improve its strategy. The principle of dialogue should be reflected in evaluation and future work: climate change has many uncertainties, so we need to be reflective and flexible. Ongoing opportunities to discuss progress with stakeholders learn from how things have gone, and adjust the strategy will be an important part of building our resilience and ability to adapt over time.

1.2 Government objectives

⁸ Strategy p1

⁹ Strategy p2

Point 4 mentions that this is a short term strategy, with actions to take up to 2020, to then 'set on path to transformative adaptation'¹⁰. It would be helpful for the Strategy to outline what kinds of transformative adaptation might be needed, as the executive summary says the Government is focusing on incremental change. We suggest that the Strategy clarify what transformative adaptation is anticipated to be required, and clarify that this is a 2016-2020 framework in the title.

Overall these objectives, too, should make the point about engaging various stakeholders in dialogue about adaptation over time. Mainstreaming could mean discussion across cabinet areas/departments - does it mean this? Does it mean discussions with different sectors? It would be useful to add another point, or review and clarify in these existing points the objective of effective dialogue within Government and across community.

1.3 The Changing climate

On page 10 the examples of the Victorian bushfires, train tracks failing and brown outs are used.

It might be useful to also include the example of Hurricane Katrina in USA and the lack of adequate response as a failure of social capital/ resilience, to illustrate what resilience means. This will better explain the 'Adaptive capacity' and 'resilience' terms page 10-11.

Page 11: Figure 3, box 1 the relationship between mitigation and adaptation

The Box about adaptation and mitigation is limited, and undermines the ACT's local mitigation efforts. By giving mitigation examples of carbon pricing, and stating 'mitigation must be pursued at a global scale', it ignores that many mitigation actions happen on the local scale. Mitigation must happen internationally, but local jurisdictions are driving changes that feed into international solutions: demonstrating what is possible in terms of concrete solutions. Improving energy efficiency of buildings, increasing public transport and reducing car use and emissions, encouraging renewable energy installations are all local level interventions the ACT has either implemented successfully or is planning. Many of these types of mitigation efforts are opportunities for adaptation. More energy efficient buildings should be easier to cool to avoid heatwave impacts. Increased Public transport can increase community resilience and health, which supports community adaptation capacity.

¹⁰ Strategy, P9

Adaptation, also, must happen internationally. We will be dealing with international issues like climate refugees. A lot of research explores the overlap of mitigation and adaptation. This is a useful, and important, framework, to approach local adaptation and help avoid maladaptation. Adaptation efforts that are exacerbating our use of greenhouse gas intensive resources are not a good outcome (for example if we invest in a range of engineering solutions that are emissions intensive, we are exacerbating the problem. We should stretch our engineering solutions to find lower-emission innovations to help inform adaptation/mitigation efforts everywhere).

The Strategy would benefit from inclusion of discussion of the mitigation/adaptation overlap at local level, and integration of these understandings into the Mitigation information on page 11.

Sector 1: disaster and emergency management

The 'Sharing Responsibility' section on page 35 refers to volunteerism as the 'realistic way to increase 'surge capacity' of the services to prepare for and respond to [extreme weather] events.' Serious concerns have been raised about the existing reliance on volunteers to meet increasing emergency service response demands, for example from front line fire fighters¹¹. The Strategy should include further exploration of the merits and limitations of volunteerism to tackle increasing demands on services as the climate warms.

Sector 2: community health and wellbeing

In the discussion of community-wide resilience under 'Medical services and community health' section, page 39, there could be mention that the ACT bushfire response and evident social capital demonstrates the point that health is more than medical, but also comes from a caring community. Research has analysed how Canberrans social capital (caring for one another) helped our response in 2003.

This section could also include discussion of population pressures from external drivers such as migration and food security. If likely national and international pressures occur, such as reduced food availability and increased refugee migration, the ACT will be affected. This might be worth mentioning to make sure it is considered in future adaptation planning, even if there are not many short term actions to take now.

This section could also include the increased risk of disease from issues like water borne disease (mentioned in the water section), and increased range of disease vectors like mosquitos.

Assessment table sector 2 - page 40

¹¹ See the NIEIR report for the Australian Fire fighters union of Australia (P9-12) http://www.ufug.com.au/files/6613/6572/2205/NIEIR_Firefighters_and_Climate_Change_Final_and_Consolidated_report.pdf

Many of the aims or ideas in this table reflect local mitigation/adaptation overlaps. The desired outcomes could usefully mention the additional mitigation outcomes of more efficient buildings, cooler city environments reducing power usage etc.

Proposed actions Sector 2 - page 41

As this sector connects with many community services, it would be good to see how the ACT Government is in dialogue/ working with our community development/ services sector to keep learning from on-the-ground expertise for the most appropriate responses. This is mentioned in the integration section at a general level, but this document could provide some specific examples, which sectors to engage with and on which priority areas. Stakeholders like ACTCOSS could add essential information about social inclusion factors that would increase our social capital/ social resilience in times of stress. UnionsACT could provide information on economic and workforce issues. Health Care Consumers ACT could provide advice on challenges for healthcare and people with health conditions.

Either in this section or under 'partnerships' in the Integration section' there could be inclusion of current actions the ACT Government is taking to engage with community development and public health sectors to inform their planning for adaptation OR recommend that these dialogues are started.

It should be noted that this also applies to the Settlements and Infrastructure section, as factors about our built environment are directly linked to community health and inclusion

Sector 3: Settlements and Infrastructure – page 42

This section would benefit from addition of understanding of social inclusion and equity of our settlements and infrastructure, which all link to community resilience.

Further suggestions to consider:

- The importance of indoor, cooled public spaces to enable all people to survive in a heatwave. Access to libraries, shopping centres, and other air conditioned places are important for everyone.
- Covered bus shelters and increased communication about bus delays and route changes are vital for people who rely on public transport to stay safe in bad weather, especially the very young, the elderly, and people with health conditions.
- Either in this section or under 'partnerships' in the Integration section' include a process to engage with community development/ community services sector to understand how our infrastructure can work better for all people, especially disadvantaged.

Indicators for measuring resilience - page 62

We welcome the inclusion of a learning approach in the evaluation framework.

We suggest a specific evaluation/ feedback process for the 'Sustainability Alliance' and/or specific sectoral stakeholders, as well as the general community survey. There might be benefit from a specific roundtable series for stakeholders with relevant expertise.

Recommendation 11.
Consider all additional detailed comments as outlined above.

Some resources to consider:

ACOSS survey work on climate change and the community sector provides useful snapshot of key issues for communities and climate change adaptation:

https://www.nccarf.edu.au/sites/default/files/attached_files_publications/Mallon_2013_Adapting_community_sector.pdf

Community resilience for disaster response:

<http://link.springer.com/article/10.1007/s10615-015-0556-z>

Community capacity building: learning from ACT 2003 bushfires

<http://search.informit.com.au/documentSummary;dn=870116212372793;res=IELHSS>

[Adaptation Pathways: Re-thinking conservation in the face of transformational climate change](#) [pptx 3.7mb] Michael Dunlop, CSIRO

Prof Dunlop provided a short thought-provoking presentation to a Conservation Council event on climate change and biodiversity in September 2015 and his work might inform inclusion of additional material on biodiversity adaptation measures.