# SPEAKING NOTES
# FOR DAVID PAPPS

## Climate Change Adaptation Forum
## Tuesday 22 September 2009 at 1:30 pm

Good afternoon ladies and gentleman.

Firstly may I say that I acknowledge the traditional owners of the land we are meeting on, the Ngunnawal people. I respect their continuing culture and the contribution they make to the life of this city and this region.

**Why we need to adapt**

It is perhaps particularly apt that we remember the traditional owners of our lands at an event such as this. Over the thousands of years that they have cared for these lands they will have had to adapt to changing circumstances, but I wonder if anything has been as rapid and seemingly unpredictable as what we face today.

I'd like to give you some very recent statistics that ought to give an indication of how our climate and environment are changing.

At the close of winter just a few weeks ago, Canberra had experienced 17 consecutive winters with above average maximum temperatures. 2009 was the third warmest winter on record. The

average minimum temperature this winter for Canberra was 2.3 degrees Celsius, some 1.7 degrees above the historical average of 0.6 degrees, and the warmest since winter 1991.

There were only 38 frosts this last winter, well below the winter average of 58[1]. A record warm winter night occurred on 24 August with a minimum of 12 degrees.

But on 12 June 2009 Canberra also experienced its coldest day for 66 years reaching a maximum of only 4 degrees in Canberra, with some town centres only reaching 2.6 degrees.[2]

These statistics raise three important points:

1. Canberra is most likely experiencing an overall warming trend; [3]

2. the climate can still be very variable, which increases uncertainty about potential impacts; and

3. most importantly, the Canberra community needs to be able to adapt to a changing climate.

The Australian Government recently identified that Australia is more exposed to the impact of climate change than any other developed economy.[4]

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[1] http://www.bom.gov.au/climate/current/season/act/summary.shtml
[2] http://www.gungahlinweather.com/
[3] http://www.abc.net.au/news/stories/2009/01/19/2469461.htm
[4] http://www.pm.gov.au/PM_Connect/PMs_Blog/Climate_Change_Blog

The scientists back this up. A recent report by Will Steffen[5], Executive Director of the ANU Climate Change Institute, identified three key messages:

- The climate system appears to be changing faster than expected.
- Uncertainties still surround some important aspects of climate science, especially the rates and magnitudes of the major processes that drive serious impacts for human societies and the natural world.
- There is a need to adapt to the threats of recurring severe droughts and potential increases in extreme climatic events such as heat waves, floods and bushfires.

Another recent report by researchers at the ANU identified that Canberra will be hit harder by climate change than any other capital city because of its inland location.[6]

The continued drying trends and increasing temperatures in our region are posing increased risks to issues such as water, bushfire, biodiversity and health - but if managed well can also be the catalyst to bring about change that supports a broader sustainability agenda, including real opportunities for supporting sustainable growth.

[5] http://www.anu.edu.au/climatechange/wp-content/uploads/2009/07/climate-change-faster-change-

**What is government's role in adaptation?**

Individuals and businesses will need to adapt to climate change. It is important that individuals and businesses do their own risk assessment and manage these risks through having appropriate insurance, contingency plans and the like.

The role of government in adaptation is to:

- facilitate private actions through providing information about climate change and removing barriers to effective adaptation;
- manage risks to public assets such as our national parks and urban infrastructure; and
- manage risks that individuals cannot manage on their own, through for example our emergency services and health systems.

The ACT Government is a strong supporter of adaptation research to provide the necessary information base for further action on adaptation. In its 2008-09 Budget, the ACT Government provided a one-off grant of $2.5 million to assist in the establishment of a Climate Change Adaptation Research Centre at the Australian National University.

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and-more-serious-risks-final.pdf

**What is the ACT Government's focus on adaptation?**

Adaptation strategies generally focus on two key areas:

- enhancing resilience; and
- building the capacity to cope with new climate conditions.

As both Minister responsible for climate change, water and the environment, and for emergency services, I have a unique responsibility for developing strategies across both these areas.

**So what is the ACT Government already doing?**

***Building capacity***

Today's forum showcases many aspects of the climate change adaptation challenge - aspects of governance and collaboration, the integration and coordination challenges, individual sector views and responses, and the supporting tools and training.

All of these need to come together at the local and regional levels - this is where the climate change impacts are being realised and responses are required.

The ACT Government reflected this in its *Weathering the Change* climate change strategy. Through the provision of $100,000, Action 30 of that strategy initiated the first phase of an integrated vulnerability and adaptation assessment for the Australian Capital

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[6] http://www.abc.net.au/news/stories/2009/01/19/2469461.htm

Region - essentially covering the ACT and south-east NSW. It was supported by a joint commitment to the project last year between the ACT and NSW governments.

The first phase of the project - essentially a scoping stage - is being jointly coordinated by the ANU Climate Change Institute along with the ACT and NSW Governments, in consultation with a wide range of other researchers and stakeholders. It commenced earlier this year and the initial report is due by November 2009.

The primary focus of this initial phase is to summarise the current state of knowledge and identify some of the areas most in need of additional work to support future policy and community interventions and understanding. The project presents a real opportunity to show how governments and communities can collaborate and respond in an active and coordinated way to the challenges that are already becoming evident.

This vulnerability and adaptation assessment will also be a valuable input into the development, during 2010, of the Second Action Plan to deliver on the ACT's *Weathering the Change* strategy.

***Building resilience***

The region has the capacity to show leadership in how to adapt to climate change in a creative and positive way.

Canberra is already on the adaptation pathway and I'd like now to take you through some of the most critical areas we are currently addressing.

**Bushfires**

The bushfires of 2003 were tragic and people are still experiencing the loss and impacts of that event. The bush has recovered well, but will take many years to recover fully.

While we would hope that the events of 2003 will never recur, the impacts of climate change mean that we need to be ready for more intense fire seasons.

The fires in Victoria earlier this year were a tragic reminder of that, and there are significant bushfires in the south-east region already this fire season – these fires started in winter! What this means is that the window for preparatory work for the fire season to reduce hazards is narrowing, while the emergency services need to be on alert for longer.

In Canberra, historical analysis shows that very extreme bushfire conditions occur approximately once every seven years. Some climate change modelling suggests that this may increase to once every five years by 2020, and more frequently to less than once every two years by 2050.

The ACT Government recently released a draft *Strategic Bushfire*

*Management Plan* for public comment, which sets out strategies and actions to better manage bushfires and reduce the consequences to life, property and the environment.[7] The Plan builds on the January 2005 version of the *Strategic Bushfire Management Plan*.

Since 2005, the ACT Government has responded to the ACT Coroner's findings of the Inquiry into the 2003 bushfires. Also, the Bushfire Cooperative Research Centre has undertaken research nationally and in the ACT to better understand and inform bushfire management.

The draft *Strategic Bushfire Management Plan* provides the basis for implementing the ACT Government's response to the Inquiry, as well as incorporating many of the recent advances in bushfire management. Issues identified include the need for a mosaic of fuel management across the landscape of the ACT, improved community education and awareness, and better preparedness and response to bushfires when they occur.

**Water security**

The ACT has been faced with a prolonged drought since 2002. Thus, water security is one of the few issues that is on the minds of virtually every single person, from homeowners or businesses worried about their water bills to sports clubs looking for ways to keep their playing fields green, and finally to government that is

[7] http://www.esa.act.gov.au/ESAWebsite/content_esa/bushfires/sbmp/draft_strategic_bushfire_managment_plan_hi_res.pdf

tasked with the challenge of ensuring security of supply. Most Australian jurisdictions have undertaken or are currently undertaking infrastructure investment to ensure adequate water supply for the future.

The ACT Government has already taken the first steps to securing a long-term water supply for Canberra.

In the short term, the Government has accepted the advice of ACTEW on the ACT's water security with ACTEW now proceeding with an enlarged Cotter Dam which will increase the dam's capacity from 4 gigalitres to 78 gigalitres.

The Government is also proceeding with plans for a pipeline to pump water from the Murrumbidgee River into the Googong water storage and a project to purchase water from the lower Murrumbidgee. Water from the Murrumbidgee will be stored in the Tantangara Reservoir in the Snowy Mountains for future release to Googong Dam. Together these projects will deliver an additional 35 gigalitres of water to our storages.

As well as providing large-scale infrastructure for water security, the ACT Government has a number of programs to reduce water usage.

The ACT Government is also reviewing *Think water, act water*, the ACT Government's strategy for sustainable water resource

management. While the initial plan met the immediate water management needs for the ACT, it is now important to review *Think water, act water* to look at the future needs for our water management over the next 20-30 years.

**Biodiversity**

The effects of climate change and the dangers of not adapting to it are most pronounced in our most vulnerable ecosystems.

The Government has realised this and has well-established programs in place:

- *Weathering the Change* allocated $50,000 to develop an Ecosystem Connectivity Map to get a better understanding of the impact on species and ecosystems of changes to rainfall and temperature patterns and soil type. Connectivity helps to boost the resilience of ecosystems to the effects of climate change by providing a continuum of different climatic zones, altitudes and ecosystem types that allows species to adapt. Work on this project is well under way and nearing completion.

- *Weathering the Change* also provided $50,000 for the preparation of a Sphagnum Bog Map and Recovery Plan. Sphagnum bogs have intrinsic ecological values and are also an important part of our ground-water storage systems. This project is essentially completed.

- A third strategy involves the National Recovery Program for the Corroboree Frog and the ACT Action Plan for the northern species. As part of this, a captive husbandry program has commenced at Tidbinbilla Nature Reserve. Progeny of the captive husbandry program will be released back into the wild to augment the size of wild populations, helping them buffer environmental disturbance.

**Urban forests and treescapes**

The retention, management and extension of our urban forests and treescapes are critical to the ability of our human and natural ecosystems to respond to climate change.

Trees in the urban environment are important to our capacity to adapt to climate change because they assist in the mitigation of the extremes of climate that we are likely to face.

- In summer trees can provide shade. This is significant - estimates put air-conditioning energy savings at 25-50% and up to 80% for individual buildings.
- In winter, trees can minimise the impacts of frost and limit cold air movement.
- Trees also buffer the impacts of wind, reducing dust and other particulates in the atmosphere, which is important for people with respiratory illnesses.

Trees in the rural and urban environment are critical to the ability of the natural environment to adapt to climate change. Trees and other vegetation provide corridors of access linking our nature reserves and our open spaces, which is critical for building resilience in our fauna populations - more critical since the 2003 bushfires.

**House and gardens**

Many of the actions that people are taking in making their homes more energy efficient will not only reduce their carbon emissions but will also help them to live more comfortably in hotter temperatures without the need for air-conditioning.

The ACT Government's GardenSmart service – part of the Government's $19.1 million program *Switch your thinking* - is provided to residents to help with garden design, maintenance and watering practices to help make Canberra's gardens more water-efficient. This is a relatively simple yet very important part of adapting to climate change.

**Health impacts**

We are beginning to understand that changes in climate will have a significant effect on human health. The World Health Organisation notes that we need to recognise that the long-term good health of our population is dependent on the continued stability and functioning of the biosphere's life-supporting

systems.

The ANU Climate Change Institute is looking at the impact of the climate change on the health of Canberrans and the effect this will have on the delivery of health services in the ACT.

ACT Health will be considering the outcomes of the report when it is delivered in November, and it is anticipated that findings will be taken into account in future planning and identification of core adaptation strategies to be undertaken within the Division of Population Health.

**Energy Policy**

The primary focus of the Government's proposed Energy Policy will be how to reduce emissions associated from energy use. The Energy Policy will reinforce the Government's commitment to maintaining reliable electricity and natural gas supplies and the timely delivery of infrastructure to meet consumer expectations and support the ACT's growth.

The Energy Policy will continue the Government's active commitment to the utilisation of renewable energy, the introduction of energy efficiency and demand management programs and seek to maximise the long-term benefits to the ACT through education, skill development, industry capacity and research capabilities.

**Looking to the future**

There is much that still needs to be done to adapt to Canberra's changing climate. The approach needs to be evolutionary as we get a better understanding of the implications of the changing climate, and as we build on our capacity to deal with it.

The immediate challenge for the ACT Government, and for all Canberrans, is to arrest our continued growth in greenhouse gas emissions.

The Government is bringing forward Action Plan 2 of the ACT's Climate Change Strategy, *Weathering the Change*, which, after extensive community consultation, is scheduled to be released in 2010.

A progressive policy approach to climate change will advance issues in a timely and responsible way, while allowing sufficient flexibility for the Government to respond to emerging research, thinking and developments in national and global climate change policy.

While all governments and all citizens have a role to play in reducing our collective emissions, adaptation is, at its essence, a local and regional agenda. We may be able to learn from others' experiences and share our knowledge, but Canberrans will have to deal with a unique set of circumstances within our local context as we do adapt.

This forum will play an important part in the concerted effort needed to understand the implications of climate change for the local area and to build resilience in our natural systems, the built environment and our response systems.

I've already touched on a number of focus areas for our adaptation efforts – fire, water security and biodiversity. These areas of focus will remain important, but we also need to start thinking about the impacts on people's health and the health system and further building the capacity of the emergency services to deal with increasing incidents of natural disasters.

But we are making headway. The forum today is the type of discussion that will help to build our knowledge and capacity through the sharing of knowledge.

I encourage you all to remain committed - while we are on the path to adaptation, there is much more that is needed to deal with the uncertain future we will have to face even after we get to a carbon neutral future.