



Inquiry on the
current and future
impacts of climate
change
Submission
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1.0 About us

The Western Australian Local Government Association (WALGA) is the peak industry body for Local Government in Western Australia. WALGA is an independent, membership-based organisation representing and supporting the work and interests of 138 Local Governments in Western Australia.

WALGA provides an essential voice for approximately 1,220 Elected Members and approximately 14,500 Local Government employees as well as over 2.5 million constituents of Local Governments in Western Australia. WALGA also provides professional advice and offers services that provide financial benefits to the Local Governments and the communities they serve.

2.0 WALGA's submission

The comments contained in this submission have been considered and endorsed by WALGA State Council.

3.0 Background

The Australian Government's Environment and Communications Reference Committee inquiry takes account of the full range of projected climate scenarios into the future and includes a non-exhaustive list of matters to which it will have regard. Many of the items are of interest and concern to Local Governments. This submission primarily focuses on those matters of direct relevance to Local Governments in Western Australia, namely, the current and future impacts of climate change on:

- the vulnerability of infrastructure in coastal areas;
- local roads;
- public, recreation and tourism facilities;
- insurance arrangements for buildings and infrastructure; and
- the adequacy of current state and Commonwealth policies to assess, plan and implement adaptation plans and improved resilience.

It should be noted that local communities will be affected by impacts on private properties, energy, telecommunications and water infrastructure, transport networks and health and education facilities. Local Governments as service providers will also be affected by these impacts.

4.0 Statement on Climate change

Local Government recognises that the global climate is changing as a consequence of increased concentrations of greenhouse gas emissions in the atmosphere. Local Government considers climate change to be a serious threat to our current way of life and the Earth's ecosystems and acknowledges that delayed action on climate change mitigation and

adaptation strategies will increase costs and potential liabilities to Local Government in a range of areas, particularly planning and infrastructure management and risk management.¹

Local Governments have a keen interest in climate change issues, and have been actively engaging in a wide range of climate change mitigation and adaptation actions for a number of years.²

5.0 Climate change adaptation is a key issue for Local Governments

Local Government is in many ways at the forefront of climate change adaptation. As the closest sphere of Government to the community, Local Governments are expected to manage the impacts of climate change such as reduced rainfall, increased fire risk, increased risk of heat stress in the community, extreme weather events and sea level rise that increases the potential for erosion and inundation in coastal and estuarine areas.

State Planning system

WALGA is of the view that the State Planning system has not been altered sufficiently to take into account climate change issues, the only recent changes to the State Policy framework has been the inclusion of a Sea Level Rise Position Statement (2010), Coastal Hazard Risk Management and Adaptation Plans (CHRMAP) (2014) and Bush Fire Planning provisions (2015).

WALGA has been advocating with the Department of Planning, Lands and Heritage (the Department) to improve their climate change policy position. The Department did initiate a review of State Planning Policy 3.4 Natural Hazards and Disasters (2006) which has the opportunity to incorporate more climate change factors, however, it is unclear how far into the review process the Department is or when a draft will be released.

Coastal adaptation

The effects of climate change are already being felt throughout Western Australia, and Local Governments are already devoting significant resources to adaptation planning and response, such as through the expensive and complex process of developing and implementing CHRMAPs. The CHRMAPs seek to put in place long term planning around risk management and adaptation (eg, applying an 'adaptation hierarchy' of avoidance, planned or managed retreat, accommodation or protection of assets³).

¹ WALGA Policy Statement on Climate Change 2009. Available here: https://walga.asn.au/WalgaWebsite/media/EradsMedia/website_climatechange_Policy_Statement_Climate_Change_Feb2016.pdf.

² See for example WALGA's *Local Government Climate Change Project Map*: <http://www.walgaclimatechange.com.au/clickable-map.htm>.

³ Western Australian Government (Department of Planning and WA Planning Commission), *Coastal hazard risk management and adaptation planning guidelines* At 28. Available here: https://www.planning.wa.gov.au/dop_pub_pdf/CHRMAP_Guidelines.pdf (Accessed 26 April 2016).

A number of coastal Local Governments have completed or are in the process of developing CHRMAPs including, but not limited to, the City of Joondalup, Shire of Gingin, Shire of Dandaragan, City of Cockburn and the Shire of Harvey. But, unlike other states such as New South Wales, South Australia, Victoria and Queensland there is currently no coastal management legislation and/or strategy in Western Australia that defines and establishes the principles, objectives and actions, including roles and responsibilities for integrated coastal zone management. The adoption of such legislation and strategy would support a consistent and coordinated approach to the development of CHRMAPs, which has been (and continues to be) an issue in Western Australia.

A State Government policy framework could potentially be supported by an Intergovernmental Agreement on the Coastal Zone, National Coastal Policy and National Coastal Management Strategy that would define the roles and responsibilities of all levels of government and would establish consistent and coordinated principles, objectives and actions across Australia.

Extreme weather events

Extreme weather events in isolation, or when combined with rising sea levels, will potentially result in coastal erosion and increased risk of inundation in coastal and non-coastal areas. In at risk areas, extreme weather events such as floods, bushfires and storms can result in damage or loss of infrastructure such as roads, social services infrastructure, public, recreation and tourism facilities and can have impacts on the cost and acquisition of insurance for buildings and infrastructure.

Local Governments are already seeking to take action to address these risks. For example, the Eastern Metropolitan Regional Council (EMRC) is undertaking a detailed flood study in the Swan and Helena Rivers in Western Australia. The Understanding and Managing Flood Risk in Perth Project⁴ includes flood mapping, identification of flood risks and development of appropriate strategies to treat these risks. The project seeks to build resilience in the region by providing the information and tools to minimise risks to assets in foreshore areas and in emergency management responses.

However, challenges for Local Governments seeking to address these risks include lack of access to adequate funding, relevant information and tools, and overarching (State and Federal level) policies and strategies.

Local government infrastructure and assets

Currently, Australia's Local Governments are responsible for the management of a range of assets (eg, roads, footpaths, parks, stormwater drainage systems, coastal retaining walls, water supply and waste water systems, buildings and other structures.) valued at approximately \$212 billion.⁵ Many of these assets have a life span greater than 50 years and

⁴ EMRC, *Understanding and Managing Flood Risk in Perth Project*. Available here: <http://www.emrc.org.au/understanding-and-managing-flood-risk.html> (Accessed 20 July 2017).

⁵ Balston, JM, Kellett, J, Wells, G, Li, S, Gray, A & Iankov, I, *Quantifying the costs of climate change on local government assets*, 2013, National Climate Change Adaptation Research Facility at 5. Available at:

so will be affected by climate change, including increasing frequency and intensity of heat waves, bushfires and storms:

How these changes in the climate will impact on existing Local Government assets and their management has not been well understood and existing financial and asset management tools have not effectively incorporated climate change scenarios into municipal planning processes.

The challenge for Local Governments Australia wide is to adapt to the likely impacts of climate change in a timely and feasible way. To date there has been very little information and no available tools to translate these impacts into municipal financial and asset management plans. Councils have indicated that they are overwhelmed by the amount of information made available to them on climate change but do not know how to translate this information into planning processes to improve their capacity to adapt the built environment.⁶

Green infrastructure

The loss of tree canopy cover, often as a result of pressure to meet urban infill targets and for greenfield development, is also a significant issue for Local Governments and impacts adaptation planning (eg, the urban heat island effect compounds heat waves and extreme heat weather events) and less urban forest means less mitigation of carbon emissions. In the absence of appropriate planning mechanisms, Local Governments in Western Australian are addressing this issue by developing Urban Forest Plans but are facing a number of challenges including:

- inconsistent Western Australian Government policies, specifically the R-Codes and Liveable Neighbourhoods;
- inadequate protection for existing trees;
- lack of a requirement for revegetation in new developments;
- lack of funding in support of urban forest measures; and
- a lack of knowledge (from community, staff and councillors) regarding the benefits of an urban forest.

An increase in tree canopy cover not only addresses biodiversity loss due to development pressures, but is an effective means to adapting to a changing climate. This has numerous positive impacts including:

- reducing the urban heat island effect;
- increasing the ability of urban environments to deal with extreme weather events such as storm water run-off;
- cooling buildings and infrastructure;
- reducing heat stress; and
- carbon sequestration.

https://www.nccarf.edu.au/sites/default/files/attached_files_publications/Balston_2013_Quantifying_cost_of_climate_change_impacts.pdf (Accessed 27 July 2017).

⁶ Ibid.

6.0 Adequacy of State and Commonwealth policies

Adaptation planning

There is little in the way of State and Commonwealth plans or resources directed to adaptation, despite the fact that Local Governments are *currently* undertaking adaptation action, and needing to make plans for future adaptation action. There is a particularly significant policy vacuum within the Western Australian Government, with negligible demonstrated and coordinated leadership and long-term planning across all areas. For example, the WA Government Climate Change Strategy⁷ which was released in October 2012 is inadequate and in need of an update and review.

Furthermore, whilst there are policies, programs and limited funding (particularly given the extent of the Western Australian coast) available to address coastal climate change, there is minimal capacity or resourcing to address other current and expected issues arising from changes in temperature, rainfall, and extreme weather events, including floods, heatwaves and bushfires. This will directly impact local government infrastructure and service provision in many areas including; social services infrastructure, local roads, public facilities, recreation and tourism facilities and insurance arrangements for buildings and infrastructure.

There will be other indirect consequences for Local Governments as a result of potential impacts to private properties, energy, telecommunications and water infrastructure, transport networks and health and education facilities. These impacts will be felt by local communities who will seek support and assistance from Local Government.

Climate change is likely to have significant impacts upon the housing stock across WA. However, to date the only genuine policy response or control adopted to ensure that the future supply of housing is appropriate to its environment in WA is the bushfire planning and building controls adopted in December 2015. Greater guidance and clarity is needed to assist Local Government and landowners with regards to coastal inundation and other potential hazards. For example, building controls could be readily adopted to ensure that the future supply of homes are better able to deal with heat wave extremes through the application of better materials and more careful design, whilst also assisting in the delivery of more energy efficient buildings. The *Building Act 2011 (WA)* also needs to require Occupancy Certificates for single residential properties, to confirm that the Energy Rating prepared at the start of the project, has actually been achieved once the build is completed.

Local Governments require effective and consistent legislation, policy and regulatory frameworks at the State and Commonwealth Government levels to support Local Government policy frameworks in order to deliver a coordinated approach to tackling the risks and impacts of climate change. As outlined above at 5.0, one way this could be

⁷ Western Australian Government (Department of Environment and Conservation), *Adapting to Our Changing Climate*. Available here: <https://www.der.wa.gov.au/images/documents/your-environment/climate-change/adapting-to-our-changing-climate-october-2012.pdf> (Accessed 11 July 2017).

achieved is through an Intergovernmental Agreement outlining roles and responsibilities at all levels of government.

Effective and consistent legislation, policy and regulatory frameworks are required, however, without any clear implementation plans, it can be difficult to apply; different interpretations and allocation of priority can occur at different Local Governments. This can be clearly seen in the draft *Green Growth Plan* produced by the State Government. While there was a considerable amount of effort in the preparation of the *Green Growth Plan*, there was no indication by the State Government as to the development of, and consultation process required around, the significant outstanding issues of both a sustainable funding mechanism and a detailed implementation plan. Without any thought to how legislation or policies will be funded or implemented, it is difficult for the Local Government sector to address the policy changes being sought by the State or Commonwealth. **Additional support and resourcing is needed to adequately address the risks and impacts of climate change, which are already occurring, and will continue into the future.** Particularly, support and assistance is required by smaller, less well-resourced Western Australian Local Governments. The Australian Local Government Association's *Submission to the 2017-18 Budget*⁸ seeks \$100 million over four years, provides practical examples of the type of support needed for Local Governments and notes their modelling shows that this proposal would boost national GDP by as much as \$453 million and create 4,700 new local jobs.

WALGA is deeply concerned that the current approach adopted by State Government in WA is one which seeks to reduce its resource commitments and legal liabilities relating to climate change, rather than undertaking a collaborative approach to tackle the issue effectively. This is perhaps most prevalent in relation to the management of coastal inundation, where despite the statutory mechanisms available to the State Government which allow it to manage coastal hazards most effectively at a regional level, a considered response has yet to have been adopted. Furthermore, the State Government is responsible for approving all subdivision applications and endorsing Local Planning Schemes. However the Western Australian State Government appears to be seeking to distance itself from these responsibilities and the guidance provided to Local Government to dealing with the issue is, at best limited.

WALGA contends that much more effort is needed at the regional level to ensure that resources are used efficiently and most effectively. For example, with regards to coastal management, it is important that any adaptation measures examine the impact on the entire sediment cell and not simply the local impacts. Likewise, regional level attention is needed to combat the impact of the urban heat island and the adverse implications of a heat wave across the Perth Metropolitan Region.

Despite the limited response in some areas, WALGA contends that lessons can be learned from the model adopted by the State Government in tackling bushfire risk. The identification by the State Government of bushfire prone areas, with Local Government consultation, has

⁸ ALGA, *Submission to the 2017-18 Budget*, at 13-14. Available here: http://alga.asn.au/site/misc/alga/downloads/submissions/2017/Budget_submission_1718.pdf (Accessed 3 May 2017).

provided a consistent and largely proportionate approach to the risk of bushfire upon property. WALGA suggests that a similar approach could be adopted to other hazards posed by climate change.

Further, in a submission to the State Government on the *Peel Region Scheme Floodplain Management Policy*, WALGA raised concerns about the legal liabilities arising from the approval of development within the floodplain that is later affected by a flood event; and further, the absence of any guidance concerning legal and social responsibilities arising from a redefinition of the boundaries of the floodway and flood fringe. WALGA queried whether the legal implications of the policy for both State and Local Governments as decision making bodies have been tested, and whether legal advice regarding the application of the policy has been sought. In order to answer some of these concerns, independent legal advice was obtained.

The Association was also concerned that the *Peel Region Scheme Floodplain Management Policy* also ignored the cumulative impacts of development within, and adjacent to the floodway. Whilst in isolation the impact of a single development may be relatively small, the cumulative impact of many small developments is likely to be very significant, particularly in the context of development within and adjacent to a floodway. These examples show that Local Government requires additional clarity from the State Government to adequately address the risks and impacts of climate change.

Disaster Relief and Recovery Arrangements

The Western Australia Natural Disaster Relief and Recovery Arrangements (WANDARRA) funding program, jointly funded by the Western Australian and Australian Governments, makes funding available to Local Governments for the restoration and replacement of essential public assets owned by a local government to the extent necessary “to restore the asset to the equivalent of its pre-disaster standard.”⁹ **WA Local Government supports the betterment of assets, that is, ensuring that funding to reinstate a damaged or destroyed asset allows it to be reinstated to a more disaster resilient standard.** This is to prevent a situation where, for example, valuable infrastructure is washed away and then identically replaced every few years. With increased extreme weather events due to climate change, the return period for a particular event is lessened, therefore the benefits from increasing the resilience of the infrastructure are greater. Disaster relief funding of course remains an essential part of an adequate response to climate change, but of equal importance is ensuring an adequate focus on building resilience, to ameliorate the effects of disasters.

7.0 Conclusion

Western Australian Local Governments are at the forefront of addressing climate change and a collaborative approach involving all levels of government, key sector stakeholders and the community is essential to adequately planning for the impacts of climate change.

⁹ Western Australian State Government (Office of Emergency Management). Local Government WANDARRA funding: <https://www.oem.wa.gov.au/funding/wandrra/local-government>. (Accessed 26 July 2017)

Strong policy and strategic direction, in consultation with Local Government, is needed from the State and Federal Government to provide effective, consistent and long-term policies.