Understanding and Managing Climate Risks and Liability for Councils

Professor Karen Hussey
Director, Centre for Policy Futures
The University of Queensland
& Climate Councillor

…with thanks to **Chris McEwan & Dr Tayanah O'Donnell** for input.

CLIMATE COUNCIL

Key Themes

How does climate change expose councils to liabilities? What sort of claims could councils face? How can councils manage this preemptively?

How do councils assess climate change risk? What are some of the risks at the local level?

…and a little bit on:

Mitigation actions that councils can undertake

Adaptation actions that councils can (and increasingly must) take

CLIMATE COUNCIL

Context

- Local government is at the forefront of responding to the impacts of climate change
- Local governments & also local businesses must increasingly consider climate change when assessing liabilities
- Australian councils are charged with a broad array of responsibilities for natural and man-made risks and hazards so this can be mainstreamed but the 'politics' of that will inevitably vary from one area to another
- Legislation varies from one state/territory to another
- Capacity (human & financial) varies markedly between councils, but such differences are taken into account in considerations of liability

CLIMATE COUNCIL

Climate change and council risks and responsibilities

- Manage inundation of coastal infrastructure and settlements and inland flooding as a result of extreme weather events
- Mange the effects of flooding, drought and/or extreme weather events on services provided by Councils, e.g. the effects of drought on water supplies
- Manage council assets and infrastructure where these are threatened by sea level rise, erosion or extreme weather events
- Manage changes in demography and patterns of economic activity, including for continued development
- Manage and conserve coastal hinterland and public resources (beaches, parks)
- Raise awareness of the implications of climate change for property values and land use
- Zone land appropriately to minimise the risk of loss of life and asset value
- Respond to changes in Australian Government and relevant State / Territory policy frameworks and regulatory regimes

CLIMATE COUNCIL

(Baker & MacKenzie 2011: 17-18)

Climate Change & Liability

Climate liability is different for the following reasons:

- Nature of the loss & damage potentially suffered by property owners
- Range of potential claims is significant
- Challenge of establishing causation & responsibility
- Level of understanding amongst key stakeholders is very low
- Failure to act creates liability rather than positive actions
- Uncertainty in long term predictions

CLIMATE COUNCIL

Climate Change & Liability

There are four key types of claim which councils are likely to encounter

- Development: both refusal to approve development due to climate risk & approval of development despite climate risk
- Land Use: such as property owners wishing to construct coastal defences or demanding the council do so
- Property: challenges to compulsory purchase orders or compensation for diminished land values
- Disclosure: Requests for information from Council on risk

CLIMATE COUNCIL

(Baker & MacKenzie 2011)

Key practices to manage climate liability

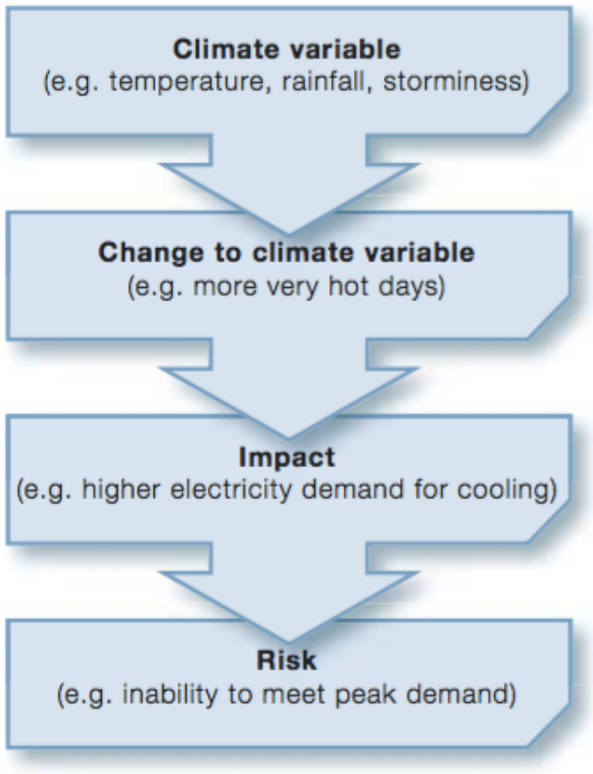
- **Leadership & direction**: strategic plan, public statements, regular briefings
- Keep up to date with climate change mitigation/adaptation **science**
- Develop **localised expertise and capacity** on climate change
- **Communicate** risks to stakeholders often and in 'fit for purpose' language
- Develop clear **criteria for decision making** in line with best scientific evidence and *ensure you have processes of review to adjust criteria as uncertainty is resolved*
- Exercise **reasonable care** when making planning decisions
- **Lobby** for regulatory reform at the state or federal level where that would help your cause i.e. integrated coastal zone management

CLIMATE COUNCIL

How can you measure your risk?

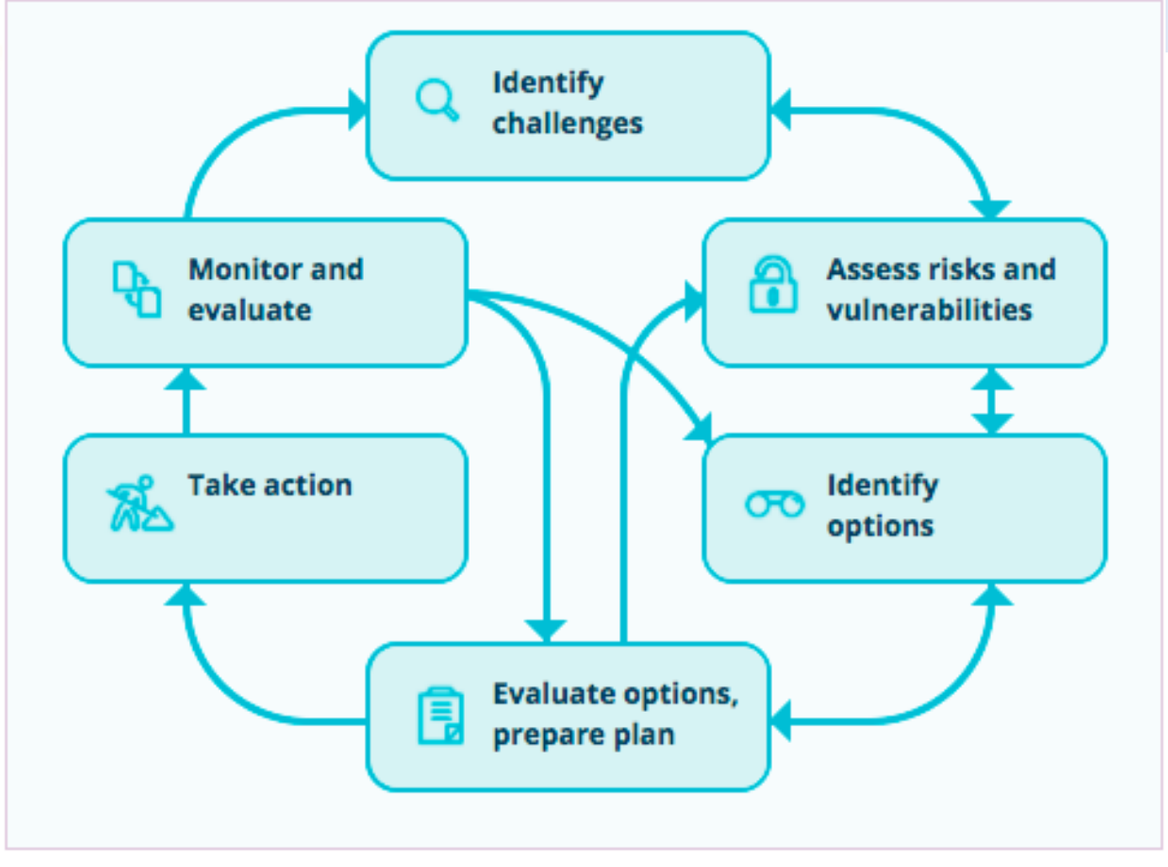
CLIMATE COUNCIL

Climate Change & Risk



Who can undertake this assessment?

- High-level assessment might be provided by Australian Government and/or State government agencies
- Internal capacity
- Consultants
- Scientists/researchers



CLIMATE COUNCIL

Climate Change & Risk

1 first pass risk assessment	A **rapid starting point** for understanding broader climate change risk, with few resource requirements and low cost **Screen** climate change-related **hazards** that can affect an organization's business operation
2 second pass risk assessment	**Standard risk assessment process**, which can incorporate the organization's existing risk management framework. Help identify and prioritize **organization wide** broader climate change risks (e.g. **which sector of any business/geographical area/community is at risk**) using nationally available data sets and expert knowledge (hotspots). Understand **organization's capacity** to tackle andy identified future climate-related risks and provide input towards developing an adaptation plan Help understand requirement for any **further detailed data**
3 third pass risk assessment	For a particular prioritised sector of the organization (i.e. a beach, an infrastructure type), develops a detail estimation of **rate of change** (when the risk will cross the tolerable limit and need some action) and **extent of impact** (how bad it will be for the affected systems) Help towards implementation of a particular adaptation plan

CLIMATE COUNCIL

See *Coast Adapt* (funded by NCCARF & Australian Govt.) for extensive information & analysis:
https://coastadapt.com.au/how-to-pages/how-to-conduct-a-climate-change-risk-assessment

Mitigation in Local Government

The biggest emission reductions for councils are likely to be in this order:

1. Renewable energy
2. Waste
3. Transport
4. Energy Efficiency in Built Environment

…But reverse order is likely to be easiest to pursue

Plenty of examples from CPP about what councils can achieve individually and/or collectively

Transforming the narrative to one of risks and opportunities can valuable in dealing with the politics of climate change

CLIMATE COUNCIL

Adaptation in Local Government

Key direct impacts requiring adaptation at the local level

- Heat extremes
- Water Availability
- Food Security
- Sea level rise, storms, flooding
- Energy Systems

..but clearly there are indirect of knock-on impacts that also need Council's attention

CLIMATE COUNCIL

Heat Extremes

- IMPACTS
- The average temperature increase across Australia will be 4ºC by the end of the century (Gergis, 2018)
- A 4ºC average increase would mean towns like Alice Springs will have an average of 83 days per year of +40ºC by 2090 (Gergis, 2018)
- Heatwaves not only increase bushfire risk but are major hazard to human health and economic assets

RESPONSES

- 'Heat Action Plans' to increase public awareness and behaviour change
- Establish early warning systems to prepare health services, warn residents, change outdoor labour schedules
- Adopt resilient infrastructure assets for especially vulnerable parts of society
- Urban areas can encourage tree planting and other actions to the reduce the 'heat island' effect

CLIMATE COUNCIL

Water Availability

- IMPACTS
- Australia is likely to experience increased drought frequency and intensity due to climate change
- Both reduced precipitation and extreme heat are likely to affect this process
- Australia is already a continent at high risk from water stress and therefore managing water availability is a critical task

RESPONSES

- New or retrofitted developments can include rainwater collection facilities, swales and other WSUD
- Encourage water-use change amongst businesses and consumers → incentivise reduced consumption
- Work with stakeholders to achieve a sustainable water balance between consumers, agriculture, and the environment

CLIMATE COUNCIL

Food Security

- IMPACTS
- Climate change is likely to affect the growing conditions of many crops
- Natural hazards can create shocks to the system by destroying crops → climate change will make these more intense and frequent
- Councils can help ensure that local supply chains are secure from climate risks

RESPONSES

- Urban councils can work to strengthen rural-urban supply chains
- Peri-urban farming can reduce vulnerability and reduce transport distances, thus also further reducing emissions
- Councils can work with experts to understand their local supply chains and identify vulnerabilities

CLIMATE COUNCIL

Sea Level Rise & Coastal Flooding

IMPACTS

- Australia's population is very vulnerable to flooding due to sea level or more intense and frequent storms
- Councils must deal with the tensions between coastal use and the risk associated with climate change

RESPONSES

- Council should engage with experts to understand risks specific to the local context → these can then be communicated to the stakeholders
- Councils can develop improved coastal flood mapping and local climate change projections
- Councils can strengthen coastal defences & create barriers further inland for flooding and storm surges
- Development guidelines and regulations for high-risk coastal areas must be climate-aware

CLIMATE COUNCIL

Energy Supply

IMPACTS

- Councils should reduce vulnerabilities in their energy supply to:
  - ensure they can meet peak demand during extreme heat
  - ensure supply networks are insulated from potential shocks due to climate change adaptation or hazards
- Adaptation action on energy supply can also help councils reduce emissions meaning it can be both mitigating and adapting

RESPONSES

- Councils can encourage efficiency in the built environment to reduce power consumption
- Decentralised energy generation and micro-generation can help insulate against shocks
- Micro-generation can reduce the usage of consumers and businesses

CLIMATE COUNCIL

Where to go from here?

- Plethora of information (and grants) from other governments and agencies
- No shortage of NGOs, consulting firms, researchers keen to help
- Need to pursue strategies that suit circumstances (context, social mandate, budget, capacity…) and don't under-estimate your collective power in the political landscape
- Considerable benefits from working with other councils/ jurisdictions – see successes from The Climate Council's Cities Power Partnership or C40 Cities Future We Don't Want

CLIMATE COUNCIL

Concluding Remarks

- Councils need to adapt current risk management and liability practices to the 'new normal' of climate change
- You must be aware of, and use, best available science to inform your decision-making – start with the IPCC but then more localised assessments need to be undertaken
- Your decision-making processes with respect to CC need to be transparent and robust, thus demonstrating measure of 'reasonableness'
- Risk assessment for climate change is an iterative process which requires extensive engagement
- The job is never 'done'

CLIMATE COUNCIL

This presentation drew on the excellent work found in the 2011 Barber & McKenzie Report *'Local Council Risk of Liability in the Face of Climate Change*' funded by The Australian Government. Other sources of information include the Climate Council, ALGA, and your state/territory government.

References:

Baker and Mckenzie 2011. Local Council Risk of Liability in the Face of Climate Change. Available here: http://www.environment.gov.au/climate-change/adaptation/publications/local-council-risk-liability

Gergis, J 2018, *Sunburnt country : the history and future of climate change in Australia*, Carlton, Victoria : Melbourne University Publishing, 2018

T O'Donnell, L Gates, 2013. Getting the balance right: A renewed need for the public interest test in addressing coastal climate change and sea level rise, *Environmental and Planning Law Journal* 30 (3), 220-235

Contact

Professor Karen Hussey, Director
Centre for Policy Futures
The University of Queensland
Level 4, Building 20
Staff House Road
St Lucia, QLD, 4072, Australia

T +61 7 3443 3154
E k.hussey@uq.edu.au
www.policy-futures.centre.edu.au