Barriers to Effective Climate Change Adaptation

Redland City Council Submission

Barriers to Effective Climate Change Adaptation

Productivity Commission Issues Paper (October 2011)

1. This is a Redland City Council officer prepared submission and does not necessarily reflect the opinions of all elected Redland City Councillors. However, this submission is based on a recently prepared submission endorsed by Council to the Queensland State Government for the *Climate Change: Adaptation for Queensland Issues Paper.*

2. Redland City Council, through its elected members and officers, already actively participates in and works with the Federal and State government counterparts, lobbyists, and the wider community on climate change adaptation. Council actively participates in Southeast Queensland regional agendas for climate change adaptation. We welcome the opportunity to assist the Productivity Commission in the review of the barriers to Climate Change Adaptation.

3. Council acknowledges that the Commonwealth and the States have achieved much to date and continue to progress actions on climate change. Council recognises however there is much more to be done and a lot more leadership to be exercised on climate change adaptation. The following comments are necessarily brief and intended as constructive input to the Productivity Commission inquiry.

4. Redlands has a clear adaptation plan, but the objectives are not straightforward to achieve. Council finds itself asking very similar questions to those before the Commission, and actively seeks partnership and support from other Councils and levels of government. Council has found itself rather alone in asking such questions, though this has changed in recent years. The broad goals of our community on adaptation to changing climate are included in the Redlands 2030 Community Plan and reflected in Council's Corporate Plan 2010-2015 (web link). In 2010, Council also adopted "*Confronting Our Climate Future",* a comprehensive strategy to 2030 for Redland City to reduce greenhouse gas emissions, respond to climate change and achieve energy transition (web link). Council developed and adopted a Climate Change Risk Analysis and an Adaptation Plan in 2008 and 2009, covering all of Council assets and operations (with assistance of small LAPP funding grant from the Federal Government). These documents guide Council decision making on climate adaptation for local matters, e.g. Council buildings, vulnerable infrastructure, local service delivery.

What is 'Effective Adaptation' in Redlands?

5. Climate change impacts such as mean sea level rise and temperature increase are certain and already happening. When the sea level reaches a new height it (permanently) removes land uses and development potential, causes social disruption and removal of environmental values. This is dissimilar to other risks, such as bushfire, which are more strongly event based, and do not permanently remove use rights, or values, or disrupt societies. This 'long term certain change' is new to the modern Australian/Redland community even though we are accustomed to dealing with extreme events. Our adaptation has to encompass this new dimension to be effective, as well as encompassing the predicted increase in ferocity of extreme events.

6. Effectiveness or 'safety' of adaptation in the Redland's is likely to be judged by the community in the future in response to the scale and severity of future impacts, most likely during extreme events, rather than by the level of risk management or preparedness (hazard reduction) that government has put in place – however adequate that may be. Subjected to the ferocity or impacts of extreme weather events, the public will find it difficult for some decades to separate out what is 'normal' from what is due to the incremental increases (in temperature or sea level say) due to climate change. The longer the recurrence interval of the event, the more likely it will be that it is blamed on climate change.

7. At this stage our thinking is that effective adaptation is that which:

    a. Reduces greenhouse gas emission and therefore climate changes;

    b. Results in no loss of life or injury;

    c. Understands and intervenes to minimize impact on property, service delivery and business operations – including those of Council;

    d. Understands and intervenes to minimize social upheaval and dislocation, and to strengthen the community's resilience and ability to return to a harmonious state;

    e. Understands and manages where we are able, the upheaval and dislocation in natural environments – Council focuses on habitat management and a few focal species;

    f. Plans for and controls development under legislation to meet the above;

    g. Increases the community's planning, preparedness, response and recovery to extreme events (weather and other) through the Redlands Disasters Plan.

8. Effective adaptation needs to be more strongly aligned with sustainability and both need to be culturally embedded into 'business as usual' practices. Although more comfortable with and accepting of climate change, Australians don't make the strong link with sustainability quite so much, and we should. Long term planning for any risk must go hand in hand with sustainability planning. Our community has recognised that we cannot successfully plan for adaptation to climate change without a strong sustainability plan grounded in the community. This is the only way to make affordable infrastructure investment decisions over the next 100 years with community support and a sense of whether such actions are sustainable.

9. Effective adaptation planning should propose a funding scheme that will assist with early actions to mitigate future costs and prevent excessive disaster management and recovery costs in the medium and long term. Establishment of a funding scheme will necessarily require that regional, state and national risks and vulnerabilities are prioritised so that the cost benefit of actions can be analysed and funding appropriately allocated. In Queensland, the Coastal Hazard Adaptation Plans introduced under the Queensland Coastal Plan go some way toward providing such a mechanism. However, greater power and obligation on parties may be required in future than the current mechanism provides.

What are the barriers to Effective Adaptation in Redlands

10. Market failures

a. Absence of drivers for commercial sector to provide public adaptation plans. This is significant in Redlands where so many small businesses depend on infrastructure and services provided by commercial operators such as telecommunications (Optus/Telstra), sea transport (barge operators) and commuting (ferry operators). The higher their exposure to risk, the more critical it is that these plans be prepared.

b. There is at this stage almost no commercial sector service provision of climate change risk analysis to the community. There are many locally based energy efficiency service providers but none specialising in identifying climate change risk exposure or response planning.

c. Great lack of interest in planning for adaptation in the community –we can't get business operators exposed to early sea level rise interested at this stage.

d. Better information to address uncertainty is needed. The State/Commonwealth should work to lessen the uncertainties and provide stability in market responses to the lack of information. The community is currently exposed to wild forecasts about property values, insurances, disasters, from anyone who has a vested interest or lobby position. Winners and losers will emerge as individuals taking advantage of uncertainty and our collective response must be to minimise uncertainty for effective adaptation.

11. Policy and regulatory imposed barriers and regulatory impediments

a. Local government and its communities will not be able to afford to buy back inundated land. Redland City Council has a long history of managing land buy back schemes on the Southern Moreton Bay Islands (SMBIs). In 2001, Council established a Voluntary Purchase Scheme for over 500 lots where detailed drainage investigations had identified major drainage problems that made it highly unlikely that Council would issue the necessary approvals for a dwelling house. This was based on the long-standing planning position to not support development on drainage constrained land and highly restrict the alteration of drainage paths through engineering works such as the filling of land.

b. What happens to the land where the titled owner has decided to retreat and walk away? A proactive forward planning process is needed for such land to ensure certainty rather than chaos, for example, exploring options such as renting land through leasehold arrangements, or a scheme to return land to state ownership. For example, as information and modelling becomes more accurate and locally specific, the State should issue forecasts about areas not likely to be inundated that provide clear certainty to the property market. Conversely in areas forecast to be inundated in the next 50 years (or 100 years) the State should determine well ahead of time what "retreat" will take place and the terms under which such land is to revert back to the Crown.

c. In the Redland community there are many assets and essential services that are beyond the jurisdiction of this Council and therefore not covered by local plans. Our community needs guidance and leadership from state and national governments for climate adaptation. The best short term response, we believe is to provide a clear framework for the roles and responsibilities of different levels of

government, different geographic jurisdictions and different sectors of the community. We believe that this framework is essential for enhanced partnership, collaboration, and co-ordination between the efforts of these parties. The framework ought to articulate for each state, key regional strategic assets at risk, degrees of risk/vulnerability/exposure, assigned priorities for action and implementation, and identify where each level of government has a clear leadership role. Since responsibility for implementation of climate adaptation actions occurs across all Ministerial portfolios, there is a need for a central body (e.g. COAG) that can track and report implementation and release funds for adaptation consistent with state and regional priorities.

d. Local government is being increasingly burdened with responsibility to implement delegated State policy. Larger local government may be able to absorb this burden, but smaller local governments cannot which will lead to increased costs, implementation delays and a focus on pragmatic priorities. Despite the above needs, effective adaptation is an outcome that cannot be simply delegated by legislation to clarify process, legal, or policy concerns. State and Federal governments will need a far more proactive and facilitatory approach to this issue.

What reform options do we need in Redlands

12. **Frameworks** that stand out as strengths in our system include the inter-governmental agreements developed through COAG, and co-ordinated frameworks for action developed through regional organisations of Councils. Such frameworks have demonstrated delivery of national, state and regional objectives.

    a. Climate adaptation issues of affordability, legal liability, property value and investment, building local capacity and extension of research findings cannot be solved at any one level alone. Local government needs a coherent and consultative framework at the federal and state levels to set the conditions necessary for action at the local and regional level.

    b. There are models of collective mobilisation and collaboration among Councils in Queensland. The State should facilitate and promote this working together through policy, plans and programs. The State should recognise that each area has unique risks and local strengths and capacities to deal with them. These should become a focus supported by state and federal initiatives to promote local government networking and sharing – learning from each other, comparing practice, leveraging resources, connections and approaches.

13. The elements of a framework should:

    a. Call on essential service and infrastructure providers to publicly plan for climate adaptation to ensure it becomes embedded into business as usual and every-day management – rather than being seen as an add-on or separate cost. Some of these providers are in the commercial sector, and legislation may be needed to support such an approach.

    b. Require that adaptation strategies are legislated and in place at a regional level within the next 10years in order to facilitate proactive planning and influence capital expenditure on key infrastructure assets identified and prioritised as vulnerable.

c. Inform and engage the community so that is understands how decisions are made about key infrastructure and assets.

d. Establish an entity (e.g. the State) to be a clearing house for information about adaptations and responses – not just about risks and impacts from changing climate.

14. **Lack of funding** is a critical adaptation barrier for local government. Local government simply does not have funding to allocate to management of climate change impacts on ecosystems in preference to spending on management of threats to life, property and infrastructure. Council is reliant on the State for mapping regional ecosystems, vegetation, habitat and species and in particular risks and impacts to conservation values. For every key dataset under State management, users of the data, including the State will need climate change vulnerability assessments of each dataset. Once the data custodian has included vulnerability assessment it becomes 'business as usual" and regular review and reporting will drive change under Regional Plans, NRM Plans and local government Planning Schemes.

15. Funding for local emergency management is limited. Redland City struggles to maintain an Emergency Co-ordination Centre, or emergency evacuation centres, and cannot currently even guarantee continuous communication capability in an emergency. Based on lessons from recent emergencies, Redlands may fail its ultimate test on the back of inadequate basic warning, communication and emergency shelter should a significant emergency arise tomorrow. Redlands faces unique challenges with urban populations on island communities that could be isolated for days in the event of a significant cyclone. Local resilience could at this stage best be supported by immediate basic emergency management response systems including relatively inexpensive 2-way radio communication systems, greater support for over eight mainland evacuation centres and providing each island with an emergency management isolation facility.

16. Waste collection and management is an essential service exposed to climate change impacts and consideration of adaptation planning for waste is needed. Transport of waste becomes an issue as increasingly local government landfills close and there becomes more of a need to transport further afield at greater energy and fuel costs. The location of transfer stations and landfills in coastal and island communities becomes compromised by climate change and disasters due to loss of service and isolation. There should be a strategic assessment of closed landfill sites and what the level of risk is from sea level rise and coastal inundation. Waste generation after disaster and recovery should maximise opportunities to reuse, recycle and recover in preference to filling up limited space in landfill. Climate change is likely to increase the incidence of coastal algal blooms (e.g. Lyngbya), and generate significant waste requiring disposal or treatment.

17. **Regional risk analysis.** Overall, Climate Change Adaptation has to be built on risk analysis, understanding and prioritising vulnerabilities and developing resilience. Local government supports the notion of building local resilience; however we will need Commonwealth and State assistance to determine vulnerability and priorities at the local and **regional scales**.

18. Revising and updating national design standards to incorporate climate adaptation margins is also needed. For example, design standards, Australian Standards, Building Codes, use of ARI 100, 200 or 500 years (Average Recurrence Interval), all have implications for the location and design of infrastructure and buildings – dams, roads,

rail, marine infrastructure, and ports. Adaptation can consistently and easily be built into design standards with minimal political intervention. Design standards are managed and monitored by professional and industry bodies and significantly influence the design specifications for infrastructure proposed by both private (commercial services) and public sector.

19. Management of information and ensuring the timing, accuracy and validity of key information sets is established publicly will assist with future adaptation and limit community hysteria. Similar to the concept in item 13 d., the role for an information clearing house is to ensure information is genuine, based on robust science (peer reviewed) and translated into every-day language for the community.

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