HUNTER COUNCILS

Submission by the Councils of the Hunter Region to the NSW Legislative Council Standing Committee on Natural Resource Management (Climate Change)

Re: Inquiry into the adequacy of management strategies to address the impacts of climate change on biodiversity in New South Wales ecosystems and any options for improving these strategies

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For the purpose of developing this submission, Hunter Councils Inc and its 11 member councils (the Councils of the Hunter) have directly considered the objectives and actions included in the *NSW Biodiversity and Climate Change Adaptation Framework (2007-2008).* It is considered that this document provides a clear reference point against which the adequacy of NSW Government management strategies to address the impacts of climate change on biodiversity can be directly evaluated. As such, the comments and recommendations included in this submission primarily aim to provide advice, from a local government perspective, on how the NSW State Government can improve the effectiveness of implementation of key actions already endorsed and included within this Framework document.

In general the Councils of the Hunter support the overall intent and objectives of the Framework that aim to deliver:

- a coordinated statewide response to implement the objectives and actions set out in the National Action Plan;
- initial priority biodiversity and climate change adaptation planning actions for NSW agencies to undertake over the next two years to reduce risks to biodiversity;
- procedures for NSW government agencies to work together to reduce the vulnerability and increase the capacity of the biodiversity of NSW to adapt to climate change;
- appropriate coordination, linkages and information transfer between agencies; and
- collaboration between agencies to raise awareness, promote research and develop tools to implement the above adaptation actions.

At an overall level, however, the Councils of the Hunter have significant concerns regarding what appears to be a lack of consistency between different government agencies in regard to their level of commitment and progress toward implementing actions in the Framework for which they have an identified management responsibility. The Councils of the Hunter consider that it is absolutely paramount that that the NSW Government and its agencies demonstrate clearly and consistently that the Government's climate change objectives in

relation to biodiversity are being translated across all levels and areas of Government policy, planning, strategy, research and on ground action. Failure to do so reduces confidence among councils that the Government is serious about addressing the priorities and implementing the actions included in the Framework. Reduced confidence of this nature can make councils apprehensive about undertaking biodiversity related risk assessment and adaptation planning activities, due to the potential for considerable effort and investment to be undermined by state government decisions that appear at odds with the Framework. For example, while councils may wish to include provisions within their LEPs in regard to climate change and biodiversity, little provision is made for such action within the NSW standard LEP template or within Regional Planning & Conservation Strategies. This is contrary to specific actions included in the Framework, the nature of which are outlined below.

Action Area 1: Share knowledge about biodiversity and climate change, and raise awareness of adaptation actions.

Action - Developing climate change profiles for each Catchment Management Authority (CMA) in NSW – these were developed by DECC and the CSIRO and will assist local land users by providing information about climate change impacts as well as suggested adaptation techniques. Lead agency – DECC.

Comment / Recommendation:

The Councils of the Hunter consider that the profiles that have been developed for each Catchment Management region are too generic to effectively inform biodiversity risk assessment and adaptation planning processes by councils and other key stakeholders. To be effective for this purpose, it is considered that they need to be enhanced in the following ways:

1. In light of the complexity of biodiversity and the multiple levels at which it can be considered for planning and management purposes (e.g. species, population & community levels), the profiles require the inclusion of substantial additional biodiversity related scientific data and information, along with further accompanying guidance from DECC as to how this information can be used at local and regional levels to effectively understand, consider and plan for the impacts of climate change on biodiversity. Local Government is a key stakeholder who will be involved in the development and implementation of biodiversity adaptation strategies at both local and regional levels. At present however, the existing regional profiles do not provide adequate information to effectively inform council activities in this regard.

2. The climate forecasts included in the profiles also need to provide greater certainty in regard to the probable change in climate parameters to be experienced, and account for variations at sub regional and local scales. In this regard, research undertaken by Hunter Councils Inc and its member councils has already superseded the profile for the Hunter-Central Rivers region both in terms of the certainty of climate change predictions provided and the sub regional level at which these changes have been identified.

   This research, which has been undertaken in conjunction with the University of Newcastle and Macquarie University has identified significant sub regional variation

in the impacts of climate change across the Hunter, Central and Lower North Coast region for key climate variables including temperature, rainfall, wind, humidity, evaporation and extreme events. The variation that has been identified highlights the need to effectively understand changes in climate at a much finer scale than is currently provided in the regional profiles in order to effectively understand and prepare for the impacts of climate change on biodiversity resources.

Action Area 2: Research and monitor impacts of, and adaptation to, climate change.

Action - Initiate programs to improve knowledge essential for adaptation planning which will enhance ecosystem resilience to climate change. Lead agencies – DECC and DPI.

Comment / Recommendation:

The range and scope of potential research required to better understand and manage the impacts of climate change on biodiversity is enormous. Strategic guidance is therefore needed from the State and Commonwealth Governments to identify and prioritise the focus of research being undertaken by a range of stakeholders to ensure that its value and outputs is compatible with the needs of land managers responsible for developing and implementing adaptation strategies at regional and local levels. In this regard it is recommended that the State Government consult with local government and other key stakeholders to identify particular information and research needs and priorities.

To date the information available to councils in regard to climate change has primarily related to the protection and management of built assets and infrastructure, with little information having been provided by the NSW Government in regard to biodiversity. Consequently, a lack of knowledge, available science and baseline data to inform accurate risk assessment and adaptation planning for biodiversity is presently a key issue for councils. This includes the fact that there is a fundamental lack of information presently available to councils on the actual nature, extent and characteristics of existing biodiversity resources. This makes it extremely difficult to identify the potential impact of climate change on species and communities and in particular, to identify those most vulnerable to change. As such, there exists a definite need to assist local government and other stakeholders through the provision of baseline data on biodiversity (e.g. species and community distribution maps). It would also be of benefit to undertake regional scale gap analysis processes for the purpose of identifying priority components for conservation and the level at which conservation efforts should be focused (e.g. at individual or sub species, community, habitat or landscape levels).

In regard to actually providing information to councils, it is recommended that an information / knowledge hub (preferably web based) be established to provide direct access by councils and other stakeholders to the considerable amount of research and data that is being conducted and collated at various levels by governments, academics, conservation organisations (e.g. International Union for Conservation of Nature) and other stakeholders. Access to information through such a forum would provide confidence to councils that they are accessing the `best available' science for decision making purposes and enhance their capacity to translate complex science into on ground adaptation strategies.

It is also recognised that there is benefit in councils providing regional and local scale biodiversity information to inform broader research, data collation and conservation initiatives. As such, it is recommended that an information hub of this nature should have the capacity to include local and regional scale research with the potential to inform broader biodiversity and climate change research efforts.

Action Area 3: Incorporate adaptation strategies that deal with the impacts of climate change on biodiversity into policy and operations.

Action - To finalise regional strategies that require LEPs to incorporate climate change adaptation strategies into land use planning and development assessment processes, to help protect biodiversity. Lead agency – DoP

Comment / Recommendation:

It is the position of the Councils of the Hunter that clear leadership and a demonstrable commitment from the State Government is needed to align and incorporate the actions of the NSW Biodiversity and Climate Change Framework across the range of state government legislation and policy, regional planning and conservation strategies, LEP instruments, Catchment Action Plans and biometric tools used to inform Property Vegetation Planning, BioCertification and Biobanking processes. Clear alignment of this nature is needed to provide certainty and capacity to state agencies, councils and other stakeholders that their adaptation planning initiatives are clearly compatible with broader state objectives and that their implementation is supported by relevant state legislation, policy and strategy.

In particular, the Councils of the Hunter are concerned that despite direction being provided within the Biodiversity and Climate Change Framework from 2007, the NSW Department of Planning has not taken effective action to encompass these directions within NSW planning policies, strategies and tools. This is reflected in the fact that at present there is little or no provision for climate change adaptation measures related to biodiversity within key planning processes such as regional planning strategies or the standard LEP template. The Lower Hunter Settlement Strategy and associated Conservation Strategy for example, provide no effective consideration of, and as such, do not adequately plan for the impacts of climate change on biodiversity in the region. Additionally, where the Department was active in generating information that would assist councils with adaptation planning initiatives, such as the development of detailed LiDAR mapping for the Hunter and Central Coast region, this information was unavailable to councils for a considerable level of time due to embargoes on the information being imposed at senior government levels.

In regard to the standard LEP template in particular, there appears to be inadequate consideration of climate change in relation to biodiversity. Because LEPs provide a primary mechanism through which councils can regulate land use planning activities to achieve biodiversity outcomes, it is recommended that greater capacity be included within the template to enable councils to proactively plan for this purpose. This could potentially be achieved through the inclusion of appropriate objectives within specific zones and through the use of appropriate constraints mapping to identify areas important for long term biodiversity conservation (e.g. climate change refugia). Were this to occur, the standard LEP template would have the potential to provide clear direction at a local council level in

regard to adaptation planning strategies to maintain long term biodiversity conservation outcomes.

It is also noted that the standard LEP template has removed the provision for councils to include a `coastal zone' in their LEP. Given the considerable potential for impacts on biodiversity to occur in coastal areas (e.g. from sea level rise and storm surge), it is considered that retention of a coastal zone, including appropriate objectives as outlined above, may assist councils in effectively mitigating the impacts of climate change on biodiversity in these vulnerable coastal areas.

Action: Collect detailed data on low-lying coastal settlements and test it against CSIRO projected climate change scenarios to inform land use planning, then use the data to identify measures to protect elevation-dependent biodiversity such as salt marsh, and inform biodiversity and reserve planning. Lead agencies – DoP and DECC.

Comment / Recommendation:

Detailed data provided to councils in regard to low lying coastal settlements to date has tended to focus primarily on built infrastructure and assets. While this certainly reflects the primary concerns of many councils in NSW at present, in order to meet the objectives of the Climate Change and Biodiversity Framework, greater information needs to be provided to councils in regard to biodiversity impacts in low lying areas to adequately inform adaptation planning processes.

Action Area 4: Provide adaptation planning methods and tools to deal with climate change impacts on biodiversity

Action - Develop predictive models and tools which can deal with variability and uncertainty and can be incorporated into biodiversity conservation programs. Lead agencies DECC & DoP.

Comment / Recommendation:

Through experience and research completed by Hunter Councils Inc and its member councils, it has become clear that predictive models and tools developed entirely at a state level will not be effective in addressing the variability across the state and within regions themselves in regard to the impacts of climate change on biodiversity. As such it is recommended that DECC work closely with or provide resources to regional bodies (e.g. Regional Organisations or Councils and Catchment Management Authorities) to develop or tailor these models and tools to ensure they accommodate regional variation.

Additionally, while the Framework identifies the need for development of predictive models and tools, it is unclear to date which agencies or other stakeholders will actually be responsible for the ongoing application of these. Given the active participation of councils in NSW in undertaking risk assessment and adaptation planning processes, The Councils of the Hunter consider that these resources should be readily available for implementation by local government. To enable this to occur, it is recommended that clear mechanisms and processes be established to facilitate the transfer of these resources to councils for their application and use. It is also considered that these products need to be developed in

consultation with end users to ensure an effective understanding and application of the final products that are developed.

In light of previous comments included in this submission, it is also imperative that the Department of Planning is committed to ensuring that the outcomes generated by these models and tools are effectively incorporated within regional and local land use planning mechanisms and strategies.

Finally, it is also considered that GIS mapping resources and data represent a key tool through which local government will be able to effectively assess the risk posed to biodiversity by climate change and to undertake appropriate adaptation planning in response. In this regard, councils would welcome assistance from the NSW Government through the provision of appropriate mapping and data products, preferably at least at a regional scale to inform these processes. In particular, this could include specific data / information resources to assist in identifying key biodiversity assets of conservation priority under various climate change scenarios.

Action - Implement a climate change adaptation and capacity building program for local government. Lead agency – Local Government and Shires Association (LGSA).

Comment / Recommendation:

It is the opinion of the Councils of the Hunter that council capacity building programs are most effectively delivered at local and regional scales, and that resources should be directed to provide this level of focus through Regional Organisations of Councils or similar organisations. This approach provides for greater levels of staff participation across all management levels and hierarchies of councils (including elected representatives) and provides significantly enhanced opportunities to tailor capacity building activities to local issues and characteristics. Particularly given the diversity across the state and within regions associated with the nature and management of biodiversity, it is considered that a broad, state wide approach to council capacity building is not sufficient to provide the level and nature of participation and enhanced capacity that is needed.

Additionally, while the LGSA has progressed implementation of a capacity building program for local government, with this including development of the web based `Climate Action Pack' and delivery of a series of regional workshops, to date the program has primarily included an emphasis on built environment & infrastructure and legal and insurance issues. While this is understandable given that these issues were identified as a priority by councils through a state wide needs analysis survey, it is considered that the existing program may not necessarily be meeting the expectations of this particular action included in the Framework. As such, if the LGSA capacity building program is to continue to be used as the key means of raising the capacity of councils to consider and plan for the impacts of climate change on biodiversity, adequate resources will need to be allocated to ensure inclusion of an increased biodiversity focus and provide more effective engagement and capacity building of councils at a regional level. Alternatively, as outlined above, Regional Organisations of Councils also provide an opportunity through which to target resources for the delivery of tailored, regionally specific capacity building initiatives.

Action Area 5: Minimise the impacts of climate change on key ecosystems and species.

Action - Identify and monitor the most vulnerable species and ecological communities at risk from climate change. Lead agency – DECC.

Comment / Recommendation:

While this action recognises DECC as the lead agency for this action, it is imperative that DECC recognise and engage the wide range of stakeholders who have a direct and active role in managing vulnerable species and ecological communities outside of the reserve system, including on private land. This will necessitate the development (in consultation with stakeholders) and resourcing of a wide range of strategies to engage the participation of councils, private landowners and community groups in implementing strategies that are required to effectively mitigate the threat of climate change to these species and communities across NSW.

Additionally, current NSW (DECC) management of biodiversity focuses on species level and above and has little scope for consideration of local scale variants, or the infra-specific variation of a species upon which natural selection processes operate. Natural selection is therefore “blind” to diversity between different species and ecosystems, only operating on variation within a species itself (i.e. between disjunct populations of a species and between individuals of a species). Therefore for maintenance of the evolutionary processes required for species to adapt to climate change, data on local variants and populations of species is vital and should be incorporated into government biodiversity conservation planning processes and tools (e.g. Biometric tool, Biobanking assessments etc.).

Action - Recognise the priority of coastal ecosystems and wetlands, as these have been identified as being highly vulnerable to the risks from climate change. Lead agencies – DECC and DPI.

Comment / Recommendation:

As noted earlier in this submission, the removal of the provision by councils to include a `coastal zone’ in their LEPs has the potential to weaken the ability of councils to effectively plan for the long term conservation and management of these vulnerable ecosystems.