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SHOROC

Shore Regional Organisation of Councils

*Incorporating Manly, Mosman,
Pittwater & Warringah Councils*

27 May 2009

Ms Carolyn Littlefair
Senior Committee Officer
Standing Committee on Natural Resource Management (Climate Change)
Parliament House
Macquarie Street
Sydney NSW 2000

Dear Ms Littlefair

RE: Managing Climate Change Impacts on Biodiversity Inquiry - Submission by SHOROC on behalf of the councils of Manly, Mosman, Pittwater and Warringah.

Shore Regional Organisation of Councils (SHOROC Inc.) welcomes the opportunity to make a submission to the Standing Committee on Natural Resource Management (Climate Change).

SHOROC is an incorporated association of local councils that service areas adjoining Sydney Harbour and Sydney's Northern Beaches. The organisation comprises the Councils of Manly, Mosman, Pittwater and Warringah.

As members of SHOROC, Councils cooperate on matters of common interest, of mutual benefit or of regional significance and seek to influence the decision making of other levels of government to meet the needs of the region and to protect its environment and lifestyle.

SHOROC council areas are in close proximity to the coastline, have a number of low lying areas, have significant areas of natural bushland, contain a number of waterways and are rich in biodiversity. Climate change and its anticipated impacts are thus of major concern to Councils and their residents.

Biodiversity in the SHOROC region incorporates terrestrial, aquatic and marine based plants, animals and micro-organisms. Most biodiversity of flora and fauna is contained in the region's bushland areas and waterways, however the region's urban and rural residential areas include reserves, private gardens and street plantings that also contain important biodiversity and which are significant wildlife and habitat corridors. Biodiversity in the region includes many species, populations and ecological communities listed under the NSW Threatened Species Conservation Act. Threatened species, populations and ecological communities within the SHOROC region are listed in Table 1.

Table 1, Threatened species, populations and ecological communities within the SHOROC region.

Scientific Name	Common Name	Level of Threat
Genoplesium baueri	Bauer's Midge Orchid	Vulnerable
Tetratheca glandulosa	Tetratheca glandulosa	Vulnerable
Pimelea curviflora var. curviflora	Pimelea curviflora var. curviflora	Vulnerable
Leptospermum deanei	Leptospermum deanei	Vulnerable
Grevillea caleyi	Caley's Grevillea	Endangered
Persoonia hirsuta	Hairy Geebung	Endangered
Phascolarctos cinereus - endangered population Pittwater	Koala population in the Pittwater LGA	Endangered Population
Petaurus norfolcensis - endangered population Barrenjoey Peninsula	Squirrel Glider population on the Barrenjoey Peninsula, north of Bushrangers Hill	Endangered Population
Eudyptula minor population - endangered population	Little Penguin population in the Manly point area	Endangered Population
Perameles nasuta population - endangered population	Long-nosed Bandicoot population at North Head	Endangered Population
Duffys Forest Ecological Community in the Sydney Basin Bioregion	Duffys Forest Ecological Community in the Sydney Basin Bioregion	Endangered Community Ecological
Pittwater Spotted Gum Forest	Pittwater Spotted Gum Forest	Endangered Community Ecological
Swamp oak floodplain forest of the NSW North Coast, Sydney Basin and South East Corner bioregions	Swamp oak floodplain forest	Endangered Community Ecological
Swamp sclerophyll forest on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions	Swamp sclerophyll forest on coastal floodplains	Endangered Community Ecological
Sydney Freshwater Wetlands in the Sydney Basin Bioregion	Sydney Freshwater Wetlands in the Sydney Basin Bioregion	Endangered Community Ecological
Eastern Suburbs Banksia Scrub in the Sydney Basin Bioregion	Eastern Suburbs Banksia Scrub in the Sydney Basin Bioregion	Endangered Community Ecological

The condition of the region's biodiversity is affected by a number of natural and human induced factors such as bushfire, invasion by pests and weeds, land and river bank clearing, development, encroachment, fragmentation and water pollution. Climate change is a factor in itself but is likely to exacerbate the severity and frequency of other factors that adversely affect biodiversity such as storms, heat-waves, drought and/or lack of water and/or flooding.

Councils play an important role in protecting and enhancing biodiversity as land manager (management of parks, planting of street trees), planning authority (planning, development consent, approval for removal of trees), natural resources manager, and regulator and enforcer. However local councils work within the policy and regulatory framework set by State government so it is important that the State have a consistent approach that gives priority to the enhancement of biodiversity and enables councils to develop local policies and programs. The focus of this submission is on actions that State government can take to strengthen biodiversity protection, especially within the context of climate change.

This submission has been prepared by staff representing each member Council and was endorsed by the SHOROC Board on 20th May, 2009.

Matters for attention of the inquiry

Overview

Key to any discussion about how climate change will impact on biodiversity is the need to recognise the importance of maintaining and monitoring resilience of ecosystems and ecosystem health. There is a need to build resilience of existing ecosystems and manage the ecosystems so that they can respond and adapt more readily to the threats from climate change.

Associated with this is the need to ensure the connectedness of areas of biodiversity with viable habitat corridor links to allow movement of species. To assist with adaptation to climate change, the need for sufficient high quality corridors becomes important.

Unintended consequence of policies and activities of State government's impact on biodiversity.

Metropolitan areas, such as the area covered by SHOROC, have a rich biodiversity. There are policies and activities of State government bodies that threaten resilience of ecosystems because the objective of enhancing biodiversity is given little or no weight compared with other objectives of the government body. There is a need for consistent policy priority across all areas of government policy to maximise the protection of biodiversity.

Potential threats flowing from the policies and activities of State Government include:

- *Metropolitan Strategy targets for dwellings and employment.*
Councils are under pressure to meet targets to increase land available for additional residential dwellings and commercial employment generating uses without clear direction that, in established parts of Sydney, the targets for dwellings and employment uses should be accommodated within the existing developed footprint. Targets will need to be increased to accommodate replacement housing for the number of dwellings that will be lost due to sea level rise.

Local government is required to change their approach to biodiversity management and alter land use planning strategies to assist ecological communities adapt to climate change. To minimise threats to ecosystem health we need to minimise and/or remove human impact from natural ecosystems. In order to address both State government's targets and protection of biodiversity, Councils need stronger planning controls which, for example, consider the effects of multi-subdivisions next to key wildlife habitat.

- *Implementation of the Standard Template set by Department of Planning.*
Rigid implementation places significant restrictions on Councils that prevents their use of zoning as a tool to protect areas that may be important for the protection of biodiversity such as parts of bushland or a habitat corridor. For example pockets parks and school playgrounds are not able to be zoned for environmental protection regardless of the strategic location of these, or their importance as refuge for local populations of wildlife under pressure from urbanisation.

Zoning also becomes an issue when bushland blocks zoned residential are permitted to be developed instead of already cleared vacant land zoned recreational. Although in many cases this development is inevitable, there needs to be more focus on retention of habitat where possible, offsetting net loss, and establishment of wildlife corridors. Landscaping must incorporate local indigenous species in order to preserve genetics and recreate suitable habitat.

- *The move towards flexible development controls.*
Creation and maintenance of effective biodiversity corridors requires the cooperation of private land holders. The Department of Planning is encouraging flexible development controls but to achieve biodiversity protection outcomes, there needs to be in place the power to set prescriptive development standards and controls in LEPs and DCPs and in conditions of development consent (which require the establishment and maintenance of gardens that promote biodiversity) particularly in those areas that are identified as biodiversity corridors. These conditions must be enforced by suitably qualified Private Certifying Authorities to ensure that the environmental standards and controls developed by Councils are upheld throughout the latter stages of the development process.
- *Management of state government lands*
Some State government departments such as the Department of Lands are significant landholders of bushland. However it is understood that some lands held by the Department in the Northern Beaches area are being investigated for suitability for rezoning to uses that would result in significant loss of bushland. There is a need for such land to remain as bushland and be managed to enhance biodiversity. There should be conservation agreements between Department of Lands and Councils to protect land (containing bushland) belonging to Department of Lands that is in the care and control of Council so it will not be sold for development.
- *Management of Roads*
Roads developed and managed by the Roads and Traffic Authority (RTA) are a significant vehicle for the transmission of weeds as is evidenced by the amount of invasive weed species along such roads. To better manage weed dispersal via roads, Department of Primary Industries (DPI) funding is required to develop action plans for targeting new weeds. RTA and DPI need to take a proactive approach to weed control and management.

In addition, the number of animals lost as "road-kill" is significant particularly on roadways crossing bushland corridors. The RTA need to be proactive and innovative in developing and implementing programs to reduce fatalities by providing bridges or underpasses for both biodiversity and genetic movement.

- *Focus of biodiversity policy on threatened species.*
Primacy given to protection of identified specific species draws attention away from the importance of maintaining diversity in general and building resilience of all ecosystems. Often the presence of threatened species in an area encourages the protection of particular habitat. Core habitat needs the same level of protection as habitat containing threatened species, populations and ecosystems.

A considerable amount of the funding currently available to biodiversity conservation goes in to preparing recovery plans but not implementing, monitoring or evaluating recovery actions. More funding is needed to progress identified actions which protect species or strengthen resilience of ecosystems.

- *Management of existing data regarding biodiversity and wildlife*
Information and data held by the Department of Environment and Climate Change (DECC) regarding biodiversity contained in records such as the Wildlife Atlas which are submitted by Wildlife Rehabilitation groups are not mapped, published or made available to land managers. There is a need to improve and standardise this information to provide state-wide mapping information to Council's and other land managers so species location (present

or now absent) is available. This would greatly assist in the planning and management of wildlife corridors across developed and undeveloped landscapes.

- *BioBanking(Biodiversity Banking and Offset Scheme)*
Under the NSW BioBanking scheme, Council land and public property should be eligible to be considered as BioBank sites. This would result in a potential income flow to care for and sustain high biodiversity areas and Endangered Ecological Communities. Council resources alone are inadequate to effectively manage these areas - particularly in highly urban areas.

Need for strengthened policy, legislation and programs

Riparian corridors

Landscapes connected with vegetation corridors are key to preserving biodiversity. Healthy riparian corridors provide habitat for a diverse range of aquatic and terrestrial species, a link between core habitat areas and protects water quality by trapping nutrients, sediments and pollutants. Riparian vegetation reduces bank and channel erosion particularly with increased extreme storm events.

Extreme weather events such as periods of drought and increased storm events (with associated runoff) are predicted consequences of climate change which will increase the susceptibility of riparian corridors to damage.

There is a need to strengthen legislation to recognise the importance of riparian corridors in protecting biodiversity and core habitat links. *Degradation of native riparian vegetation along NSW water courses* was listed as a Key Threatening Process under the *Fisheries Management Act 1994* in 2001. A Threat Abatement Plan is now required from DPI to influence planning processes with regards to effects of proposed development/activities on riparian vegetation within LGAs.

While currently there is need for a permit from DECC, to undertake any works within a riparian zone, the protection offered by permits is not strong enough, often leading to damage.

The Coastal Protection Act needs to be strengthened. There is a need for a clear definition of what is a "tributary", to have stringent obligations that flow from having land that is a tributary to have clear enforceable requirements that will assist to retain water in the landscape.

Inter-tidal areas

Intertidal areas will be affected by sea level rise. The impact on these areas is often overlooked. Some inter-tidal areas within the LGAs covered by SHOROC include protected intertidal areas at Barrenjoey Head and Narrabeen Head in the Pittwater LGA, Long Reef Aquatic Reserve in Warringah LGA, and Cabbage Tree Bay in the Manly LGA.

Sea level rise may contribute to the loss of important habitats, for example, Saltmarsh Endangered Ecological Community at Careel Bay within the Pittwater Estuary is at risk due to climate change. Saltmarsh is a key indicator of a healthy estuary as it provides habitat and nutrient cycling. As the saltmarsh at Careel Bay is surrounded by residential properties there is nowhere for the community to migrate to as sea levels rise. Stronger planning controls and legislation regarding the protection of inter-tidal areas is required for private land to help conserve significant areas of high conservation value.

Aquatic / marine biodiversity

We need to consider whether existing marine protected areas provide adequate coverage and protection with respect to climate change.

There is a need for clear guidelines for determining new marine parks. Conservation of marine environments and biodiversity needs to be a higher priority. LGAs need to lock significant marine areas into aquatic reserves to protect/conservate habitat.

It would be of considerable benefit to adopt the Marine National Parks Policy No. 10 to provide some protection of marine biodiversity including those species affected by commercial and recreational fishing. Adoption of the policy ensures sustainability of marine ecosystems.

A higher degree of protection must be afforded to marine ecosystems in order to conserve biodiversity. To this end, a system of inter-connected national parks, marine parks, aquatic reserves and inter-tidal protection areas should be developed along the NSW coast to conserve marine flora and fauna as well as reefs, rock platforms and other inter-tidal habitat, spawning grounds and estuarine fish nurseries.

Special zoning provisions, creation of easements and reservation of suitable State and Commonwealth lands to facilitate the recolonisation and gradual retreat of estuarine areas of coastal dunes, coastal saltmarsh, mangroves and freshwater wetlands.

The management of natural coastal resources must be undertaken on an ecosystem basis across political and jurisdictional boundaries to ensure that both terrestrial and aquatic ecosystems are addressed as interdependent biophysical units by all management authorities.

Critical Habitat

Critical habitat is habitat identified as crucial for the survival of threatened species, populations and ecological communities (In NSW only 4 habitats have been declared critical, 1 other habitat, for the Wollemi Pine, to be declared critical habitat is still pending). Critical habitat does not consider effects of climate change. For example, In Manly Cove the impact of sea level rise on the Little Penguin colony and its critical habitat needs is not identified in the Recovery Plan or Critical Habitat Declaration.

Community Education and Engagement

Biodiversity conservation is identified as a priority theme in the NSW Environmental Education Plan "Learning for Sustainability" 2006. There is a need to devise and expand programs for widescale community education and engagement so that the public is aware of the issues, understand the benefits of biodiversity, develop a positive attitude to supporting biodiversity conservation and skills in planning and maintaining their properties in a way that is conducive to enhancing biodiversity. Examples of positive actions include retaining any native vegetation on the property, including trees and shrubs and through appropriate design of gardens that can provide food, water, shelter and thoroughfares for fauna and diversity of plantings.

A large proportion of local government areas are held as private land, however landholders often have a low level of understanding for the need of biodiversity conservation, with access to habitat areas for species often restricted. Broad scale state-wide education campaigns are important to increase awareness on climate change mitigation and adaptation as well as how climate change affects biodiversity.

As put forward by Manly Council to the Standing Committee on Climate Change, Water, Environment and the Arts on 6th June 2008 - Sustainability and climate change education should be compulsory in schools and a standardised climate change education school kit be developed and funded with particular attention to biodiversity and coastal impacts.

Need for monitoring and research

We need to emphasise protection at a local scale to increase the opportunity for biodiversity to survive.

There is a need to develop consistent, clear, scientifically based indicators for ecosystem resilience and species distribution. Assessing impacts of climate change will require quality historical species data e.g. breeding; distribution and migration this will help identify the need for monitoring programs. Species most at risk need to be identified by making use of genetic markers to monitor earlier impact of climate change on species distribution and abundance.

The methodology, while rigorous needs to be easy to monitor to set baselines and to assist in identifying when climate changes impact on ecosystems. The same indicators need to be used across all Councils. This allows for monitoring of trends over the longer term.

Vegetation Mapping should be undertaken on a regional scale to identify biodiversity corridors and links for natural migration. This will identify areas to be locked in as wildlife corridors and create connectivity between core habitats. This habitat can then be managed to decrease; weed invasion, land use intensification, fire etc.

Similarly, biodiversity mapping using wildlife records held by the DECC would be very useful in conjunction with vegetation and corridor maps.

New plans to be developed such as comprehensive LEP need to be based on the best quality scientific data available. Plans need to consider inundation of low lying land, beach erosion and building setbacks with respect to future impacts of climate change.

Funding for programs to prevent migration of weed species.

There is a lack of funds for biodiversity conservation. Local Government requires assistance with funding to implement Climate Change adaptation and mitigation measures. Government funding should be available on a priority basis according to areas most vulnerable to the impacts of climate change. Funding for programs to minimise effects of climate change is required for;

- Prevention of weed species migration and quick response to weed incursions
- Education programs to protect and enhance biodiversity
- Research and monitoring
- Planning instruments
- Vegetation, resilience and wildlife mapping to identify species or habitats that may at risk due to climate change.
- Streetscape planning programs (such as that developed by Willoughby Council) to create links between core habitats.

Yours sincerely



Leta Webb
Executive Director