Submission No:	72
Date Received:	6-6-08
Secretary:	

Manly Council

Reference: 06062008: SRAJH: CPS
Enquiries: Skye Rose

6th June, 2008

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Ms Janet Holmes
Committee Secretary
Standing Committee on Climate Change, Water, Environment and the Arts
House of Representatives
Parliament House
PO Box 6021
CANBERRA ACT 2600
Via email ccwea.reps@aph.gov.au;

Dear Ms Holmes,

Re: Inquiry into climate change and environmental impacts on coastal communities

Council welcomes the opportunity to make submission to the House of Representatives Standing Committee on Climate Change, Water, Environment and the Arts concerning climate change and the environmental impacts on coastal communities.

Manly is particularly exposed to the direct implications of Climate Change. This is predominantly due to its landform, having predominantly low lying topography and being largely surrounded by coastline with no part of Manly more than 1km from either the Harbour or ocean, and also due to past land use planning decisions.

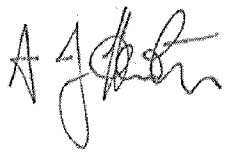
A national icon, internationally renowned tourism destination and as Australia's oldest tourist resort, Manly's environs, including the National Estate Heritage Listed Manly Beach, are likely to experience the full effects of sea level rise, amongst other effects. The Manly Town Centre, for example, is located on an extremely exposed narrow isthmus of sand, separating the waters of North Harbour from the Pacific Ocean.

While science continues to identify more definitive predictions, there appears to be reluctance from upper tiers of government to commit to a holistic management approach. Council, like many local governments in Australia, is having to take leadership on this issue, in response to resounding scientific research and overwhelming community concern, yet has limited knowledge and lacks the resources to address an issue which poses unheralded social, economic and environmental threats.

Integrated Coastal Zone Management requires the consideration across the triple bottom line encompassing environmental, social and economic impacts and it is from this position that Council positions its submission, as attached. As an active member, Council has also contributed to the preparation of the Sydney Coastal Council Group's submission to the Inquiry and therefore also supports the content and recommendations contained within.

Thank you for the consideration of Manly's submission to the inquiry. It is hoped that this enquiry initiates a cohesive, balanced multi-governmental approach to addressing the challenges posed by climate change.

Yours faithfully,



A.J. Hewton
Divisional Manager
Corporate Planning and Stratetgy

Attached: Manly Council's consideration of the Inquiry's Terms of Reference

1.0 INQUIRY'S TERMS OF REFERENCE

1.1 EXISTING POLICIES AND PROGRAMS RELATED TO COASTAL ZONE MANAGEMENT, TAKING IN THE CATCHMENT-COAST-OCEAN CONTINUUM

There are currently few statutory obligations placed on councils in NSW to address climate change within their existing policies and programs. Policy development and action has therefore been mostly limited to the discretion of the elected Council's direction and community support, often choosing to voluntarily participate in programs such as the Cities for Climate Protection program and/or seek external government funding.

1.1.1 Council's Existing Policy and Programs

Council has substantial policy in place supporting Climate Change mitigation and adaptation measures, including important strategies and actions identified in Council's Manly Sustainability Strategy 2006, Corporate Management Plan 2007, the Local Air Quality and Greenhouse Action Plan 2001 (currently under significant review), Coastline Management Plans and Estuary Management Plans, Coastline Hazard Definition Studies to name a few. Our Climate Change Strategy is currently being finalised, and funding has been secured through the Australian Greenhouse Office's Local Adaptations Pathways Program to undertake -a Climate Change Risk Assessment and prepare an action plan. A Climate Change Education Strategy is currently being finalized.

In addition, Council is a member of several important pilot studies in conjunction with the Sydney Coastal Councils Group and also the Australian Greenhouse Office with Hornsby Council for a Carbon neutral framework that can be transferable to other Councils. Council is an active 'Plus' member of the International Cities for Climate Protection Program (CCP). Indeed, Council was the first Council in NSW to complete both the CCP milestones, and the NSW Government's Energy Smart Business Program.

As there is significant support in the Manly Community for Climate Change action, Council has established the Climate Change Working Group, having community, Councillor and Council staff representation. There are also at least 6 other community Special Purpose Committees of Council guiding Council on various aspects of Climate Change including Manly's Scientific Advisory Panel, Manly Community Environment Committee, Manly Sustainability Strategy Management Group, the Manly Coastline Management Committee and Harbour Foreshores Committee, and the Manly Lagoon Catchment Coordinating Committee.

Council has also contributed significant funds directly to Climate Change initiatives, including allocating $150,000 for a climate change 'icon' mitigation project, engagement of a permanent Community Climate Change Education Officer and has also applied for considerable grants. Council's Sustainability Education focuses upon considerations of climate change.

There remains, however, a significant backlog of strategies identified in Manly's adopted policies not implemented due to funding constraints. Many are of an urgent nature and Council is anticipating more actions will result from projects such as the risk assessment and review of the current Greenhouse Action Plan.

1.1.2 Community Advocacy in action for Climate Change in Manly

For many years, Manly Council and its Manly Environment Centre have been proactive in empowering the community to understand, accept and take action on climate change. Working in partnership with international, national and local non-government organisations like

Greenpeace, Nature Conservation Council, International Fund for Animal Welfare, Clean Energy for Eternity, a cavalcade of events, projects and activities directly involved tens of thousands of people and indirectly through associated media and a multiplier effect.

The most recent events include:

- Manly Ocean Care Day:
  - 2005 – Theme Climate Change saw Councillors and Church leaders join the community in signing Greenpeace's 10 metre banner
  - 2006– Climate Action Group lobby for solar rebate retention
  - 2007 – Theme: International Polar Year. 6,000 People formed a human sign on Manly Beach "Lifesaving Energy" jointly organized with Clean Energy for Eternity Group.
- Sustainable House Day with ANZESS 2005, 2006, 2007 – three sustainable houses open to the public
- "Weathering the Storm" Climate Change Forum 2006 – Hosted by Dr. Karl Kruszelnicki, International/national experts addressed 450 locals.
- Walk against Warming 2006 (Nature Conservation Council) – Manly contingent join thousands
- Movie "Crude" – special showing August 2007
- Talks on insurance risk, Peak Oil and sustainable design.

1.2 THE ENVIRONMENTAL IMPACTS OF COASTAL POPULATION GROWTH AND MECHANISMS TO PROMOTE SUSTAINABLE USE OF COASTAL RESOURCES

Local government plays an important role in preparing vulnerable coastal communities to manage the consequences of climate change. Considering the social impacts of climate change, particularly the projections of sea level rise on coastal settlements is vital, particularly the unique demographic, geographic and economic characteristics of the locality including the key social issues identified in the Manly Social Plan (2004-2009). Council has an obligation to ensure access and equity programs and actions for mandatory disadvantaged community groups.

1.2.1 Health

Manly's population is ageing with 19% of residents over the age of 60 years (2006 ABS Census). Age is associated with vulnerability to higher temperatures and increased risk of hyperthermia and death from respiratory and cardio-vascular diseases during prolonged periods of heat.

Increased rainfall is forecast to cause spread of insect borne diseases, such as Malaria and Ross River fever and gastrointestinal viral infections. Manly's proximity to large areas of natural bushland (Guringai National Park, North Head, Dobroyd Point Park) and open fresh water systems (Manly Dam and Manly Lagoon) increases the likelihood of more intense insect breeding. This will require development of a mosquito management plan, should the climate change progress as predicted.

To prepare for the effects on climate change, more health care infrastructure and more medical services will be needed, particularly for older people and for socially isolated people. However, over the last decade, the number of nursing homes and aged care services in Manly has declined steadily. It is crucial that State and Federal Governments provide adequate funding for increased provision of health services, Home and Community Care (HACC) services. Also the

retention of Manly Hospital to serve the local community is highly desirable as it could accommodate the new facilities required in the future.

RECOMMENDATION:
1. That the State and Federal Governments provide adequate funding for increased provision of health services, Home and Community Care (HACC) services.

1.2.2 Housing

To allow for population growth of approx. 10,000 people by 2026 (Manly -Section 94 Contribution Plan, 2004), Manly is set to accommodate 2,400 new dwellings and 1,000 jobs by 2031 (North East Subregional Strategy, 2007). Sustainable planning in response to Climate Change on coastal areas needs to allow for higher density housing in town centres away from flood prone and storm surge areas. It is essential that new development provides a residential mix to cater for the needs of the ageing population and key workers.

In Manly, some of the highest residential density areas are located in flood prone land along Manly Beach, Manly lagoon and on the Manly Flat area, whereas there are low residential density areas on more elevated lands. To mitigate against the possible effects of sea level rise, Manly needs to consider that future development should occur on land not affected by the predicted sea level rise and potential inundation. Technical assistance and funding from State and Federal governments is needed to prepare the planning instruments to achieve the desired social mix and environmental standards to address climate change impacts.

RECOMMENDATION:
2. That technical assistance, standards and funding from State and Federal Governments be provided to prepare the planning instruments to achieve the desired social mix and environmental standards such as preparations for future development to be limited to land not affected by the predicted sea level rise and potential inundation.

1. 2.3 Infrastructure

The stormwater, sewer and transport infrastructure in urban coastal environments are in need of renewal and often need to operate beyond the intended capacity. The likely increase in extreme events such as rainfall and storm surge combined with increased commercial, residential and tourism pressures will see much of this infrastructure fail. Indeed, with sea level rise, much of this infrastructure will need to be lifted, or more appropriately, redesigned and decentralised to meet the challenges of climate change. Indeed, the major sewer line from the North Beaches through to the North Head Sewage Treatment Plant at North Head runs directly behind the ocean wall across the sand town centre isthmus, placing it in a potentially highly erosive position in times of storm surge. This ocean wall has been breached over 15 times in the past 50 years.

Special attention needs to be given to the protection of the existing infrastructure in these locations because of the increased risk of flooding and potential loss or damage to a broad range of public infrastructure, including roads, bridges, pathways, playing fields, landscaped parks, playgrounds, pools, and wharves. The total value of such infrastructure would be in the billions of dollars.

In Manly much community infrastructure, roads, schools, shops, sport fields, community services such as childcare centres and meals on wheels, and public transport are located directly on the coastline which is already subjected to significant flooding, potentially directly affected by changing climate conditions including sea level rise. Sufficient capacity of well-located infrastructure to support key areas of service delivery for the whole population should be

promoted. Upgrading and maintenance of the Council's community services and facilities and physical infrastructure is crucial to ensure access for all, including people with disabilities.

Financing infrastructure maintenance is already a significant problem for most councils. Coupled with the effects of climate change, the situation will become untenable.

RECOMMENDATION:

3. That a Building Australia Fund be established to provide financial assistance to councils in order to undertake annual renewal and maintenance works for infrastructure that may be adversely affected by the impacts of climate change and population change. This program should also be supported with a clear set of guidelines for the best practice management of infrastructure with emphasis on climate change implications. Implementation of these guidelines should be a prerequisite for funding support.

1.2.4 Public Safety

Climate change predicts severe natural disasters. Emergency plans for significant events including Tsunami, combating fires, floods, storms and mass evacuation should be in place. Council can initiate or convene appropriate programs e.g., training of volunteers, allocating shelters, providing power generators and aid supplies.

With climate change comes risk to primary food production and food shortages may be expected. All this will lead to the rise of food prices, increased cost of living and negative impacts on nutrition, especially for the most vulnerable members of the community. Changed rainfall patterns may lead to water shortages or floods and associated impacts on water quality. Coastal erosion may result in integrity loss of the town's potable water mains and/or contamination from failed sewage infrastructure. Monitoring of water quality, water restrictions and/or adequate supply of fresh water for drinking is vital for ensuring community health is protected. Installation of rainwater tanks and use of grey water policy should be promoted in appropriate locations away from environmentally sensitive locations.

To prepare for wetter and hotter climate, management plans for control of overflows and water contamination associated with sewerage and waste services, as well as efficient and timely waste collection are essential.

RECOMMENDATION:

4. That the Federal and State Governments work with councils to identify and prioritise consistent emergency response provisions and agreed actions for all combat agencies in the event of damage to or loss of public and private property and assets in the coastal zone.

1.3 THE IMPACT OF CLIMATE CHANGE ON COASTAL AREAS AND STRATEGIES TO DEAL WITH CLIMATE CHANGE ADAPTATION, PARTICULARLY IN RESPONSE TO PROJECTED SEA LEVEL RISE

The level of uncertainty of climate change projections makes it difficult for local governments to prioritise commitment to adaptation. The most effective adaptation requires knowledge of both how the climate will change and how the changes will affect the environment, society and the economy.

The provision of consistent information on climate change impacts (applicable at regional and

local scales) needs to be available centrally and "marketed" to various audiences. To achieve this requires the development of a framework that allows for the integration of climate change research and data on potential impacts into local policy and adaptation actions.

Council supports the Sydney Coastal Councils Group Inc in the call for the provision of a high resolution national Digital Elevation Model (DEM) for the coastal zone. Consistent management strategies are difficult to implement when councils have systems with varied scales and data sharing agreements. This has resulted in the inconsistent, piecemeal and inefficient collection of this information. To address this requires the Federal Government to take responsibility for the development of a national DEM model available to all spheres of government for the coastal zone and near-shore environments.

This will require the integration of information such as DEM into local policy and action as well as adaptation policies and strategies. Resilience mapping is also required to support this.

Council strongly supports continued funding for programs such as the National Climate Change Adaptation Program and Local Adaptations Pathways Program. Each of these programs offers Local Government the opportunity to identify, trail and implement adaptation actions within a risk management framework.

RECOMMMENDATION:
5. That the Federal Government take responsibility for the development of a central information source that allows for timely access to regionally and locally relevant climate change projections and scientific research.

6. That the Federal Government take the responsibility for the development of a national Digital Elevation Model, available all spheres of government for the coastal zone up to the 10 metre contour and including near-shore environments.

7. That the Federal Government fund resilience mapping to identify areas having significant climate change risk as a priority measure for funding.

1.4 MECHANISMS TO PROMOTE SUSTAINABLE COASTAL COMMUNITIES

1.4.1 Planning

The objects of the NSW Environmental Planning & Assessment Act 1979 are very broad and require the balancing of the objectives to achieve positive environmental outcomes.

As all councils in NSW have been directed to prepare new comprehensive Local Environmental Plans (LEPs) by the Department of Planning it is essential that the new generation of plans be based on the best available scientific data and technical advice. NSW has fallen behind other states which have adopted a level for future sea level rise, and in some instances have progressed to the point of establishing development controls to ensure that proposed development takes into consideration the potential for beach erosion and inundation of low lying coastal areas and waterways by establishing setbacks that factor in the projected impacts of climate change over a 100 year time frame. This accords with the precautionary principle which was added to the NSW Local Government Act in 1997 requiring that action not be deferred if there was a significant potential environmental impact although the precise details of the impacts are unknown.

The NSW Department of Planning has gazetted an LEP template as part of standardizing planning controls across the State. However, a recent statement by the Minister for Planning

confirms that the NSW Department of Planning does not plan to introduce specific legislation or planning controls to address climate change in the short term. Further, there is pressure through the present planning reforms to speed up development processing across NSW. As much of the development is occurring in coastal areas it is imperative that the impacts of climate change be addressed as a matter of urgency to ensure that buildings and infrastructure are setback sufficiently to protect them from damage through erosion and inundation arising from climate change.

The aforementioned Digital Elevation Model (DEM) mapping, should be rolled out along the entire coastal plain of NSW as a matter of high priority and form the basis of technical advice to Local Government from the State and Federal Governments to inform the preparation of new LEPs. This needs to be supported with clear direction as to the magnitude of climate change impacts councils should be basing important planning and management decisions upon.

RECOMMENDATION:
8. That the Digital Elevation Model mapping, be undertaken along the entire coastal plain of NSW as a matter of high priority and form the basis of technical advice to Local Government from the State and Federal Governments to inform the preparation of new LEPs.

9. That consistent standards on the magnitude of climate change impacts be developed for councils to base planning and management decisions upon.

In Manly there are areas of low lying land behind the beachfront and around Manly Lagoon that are extremely vulnerable to sea level rise and inundation as part of this area is already flood prone. Many private landholders in these vulnerable locations have developed houses, pools and wharves which would also be lost or damaged. Existing flood studies need to be updated and appropriate planning controls agreed by all levels of government to discourage further development of the most vulnerable areas.

In addition to zoning and planning controls, there is a need for the introduction of new controls through the Building Code of Australia to ensure that buildings are designed and built to the standard necessary to withstand high wind and water damage. Mandatory requirements to reduce energy and water consumption through sustainable design and construction will be necessary to bring a substantial change to current project home design and technology to address climate change. Standardized Development Assessment criteria for the coastal zone would also be beneficial.

RECOMMENDATION:

10. That new controls through the Building Code of Australia be introduced to ensure that buildings are designed and built to the standard necessary to withstand high wind and water damage, including mandatory requirements to reduce energy and water consumption through sustainable design and construction to bring a substantial change to current project home design and technology to address climate change.

11. That a systematic review of all environmental planning instruments and legislation be undertaken to ensure adequate and nationally consistent approaches to consideration of climate change through development assessment.

12. That standardised Development Assessment criteria for the coastal zone be developed.

In development assessment, it is essential that ecologically sustainable urban development principles are observed to protect the population from the negative impacts of climate change

on the environment. Broad National policies and standards are needed to be introduced to address these issues through building codes and other related measures.

With respect to private properties and planning there is significant debate about relevant planning timeframes and lines and when and how these are modified over time. There is also debate about advising the public of climate change implications/risks (eg: Section 149 certificates) with potential property de-valuing concerns versus people's right to know. It is necessary to have a clear policy direction on this from upper tiers of government so Councils have support and clear direction, without having to go through the courts to see where responsibility lies.

RECOMMENDATION:
13. That Government provide clear direction and support regarding advising the public regarding properties at risk and the implementation of planning controls to restrict development.

1.4.2 Heritage

It is considered that climate change has the potential to significantly affect the Aboriginal heritage of NSW. Particularly in eastern regions much of the physical evidence is located in coastal areas, including rock carvings, middens, shelters and burial sites. Many of the sites are in open space and national parks which tend to be located along waterways and including beachfront land. Climate change has the potential to destroy Aboriginal heritage through the erosion and inundation of these lands to the extent that much of the remaining heritage will be lost forever.

RECOMMENDATION:
14. That funding is made available to identify Aboriginal Heritage sites at risk of climate change on the coastal zone, and to identify conservation measures in response.

Much of the existing identified built heritage in Sydney dating from 1788 was constructed on the low lying areas which were easier to clear and develop. These include the flat of Manly but also historic areas in the City of Sydney such as The Rocks, Glebe and Balmain. Steeper areas were protected for much longer because of the technical difficulties of building. These areas are likely to be significantly affected by climate change through flooding and inundation.

There is a need for both State and Federal governments to take positive action to introduce and support measures, including taxation subsidies for retention of buildings, rather than rewarding the demolition and disposal of existing buildings. It is recognized that the embodied energy in older buildings is not factored in to the cost of demolition.

In order to change some existing perceptions regarding the adaptive re-use and adaptation of older houses and buildings it is essential that the Federal and State governments across Australia co-operate and co-ordinate their laws, policies and actions to address the urgent need for change at the government, community and household levels.

RECOMMENDATION:
15. That both State and Federal governments take positive action to introduce and support measures to protect items of heritage from climate change impacts.

16. That legislation, policies and actions across the nation be coordinated to change the existing perceptions regarding the adaptive reuse and adaptation of older buildings, including taxation subsidies.

1.4.3 Biodiversity & Threatened Species

State Government (NSW) has developed a Climate Change and Biodiversity Adaptation Plan, which identifies actions to assist in the management of biodiversity, by the state, with respect to climate change impacts. Unfortunately we are in a position that little is known about the likely impacts and best adaptation responses and therefore most of the actions relate to filling in large data gaps through research so that more informed decisions can be made in the future. Furthermore biodiversity is often not a high priority for governments and it is essential that money be injected into these identified actions and also into the timely communication of these results to relevant parties.

Council intends to prepare a biodiversity strategy (incorporating climate change mitigation and adaptation measures) in the near future (pending the availability of resources).

RECOMMENDATION:

17. That significant research be undertaken concerning climate change implications on biodiversity to assist in informed decision making.

18. That clear management actions be developed by State Government to assist local government in the conservation of these areas.

The recovery planning process for threatened species, populations and ecological communities (state and commonwealth listed) needs to incorporate factors of climate change, most appropriately as a key threatening process, given that the impacts of climate change are likely to have far greater effects than other individual key threatening processes, many of which will be further amplified as a result of climate change.

RECOMMENDATION:

19. That the Recovery Planning Process for threatened species, populations and ecological communities (state and commonwealth listed) needs to incorporate factors of climate change, as a key threatening process.

Prioritisation of providing the means to create bushland corridors in key biodiversity areas, particularly with respect to protecting threatened species, populations and ecological communities and to provide flora and fauna with connectivity between areas of refuge to provide greater opportunity for biodiversity adaptation to the impacts of climate change.

1.4.4 Land management considerations

Community land management planning for sports fields and parks is an area in which few managers are fully aware of the likely impacts of climate change and there is little information readily 'accessible' to them particularly in the form of guidance from state and federal government. That is unless the area forms part of a coastline management plan or floodplain management plan. It is understood that the state government (NSW) is preparing a state plan encompassing open space issues. Climate change impacts on open space have been communicated to those preparing this plan through a local government forum held earlier in 2008. Funding to make ovals and parks sustainable (with climate change) will be important to ensure these types of facilities are available to our communities in the future.

The loss of these lands to climate change has the potential to impose significantly greater population densities without the opportunity for relief in open space areas for passive and active recreation.

RECOMMENDATION:
20. That climate change considerations be significantly incorporated into the NSW State Government's Open Space State Plan.

Another area that has not been well explored, particularly in the various levels of government in Australia, has been the impact of climate change on contaminated lands eg: release of gases, odour, leaching rates and significant inundation implications for those areas adjacent waterways.

RECOMMENDATION:
21. That research be undertaken into the affects of climate change on contaminated and remediated sites and that funding be made available to address any necessary action.

1.4.5 Education

Education is a vital tool to improve awareness on climate change mitigation and adaptation measures and generate cultural change. Australian's have the right to be kept up-to-date with new climate science that is accepted across board by the Australian and international science community to avoid confusing the general public with contradictory information. All community members and groups, such as, residents, schools, businesses must have access to information on actions they can take to mitigate and adapt to climate change. Information on government action and plans must also be easily accessible to the general public.

RECOMMENDATION:
22. That a standard set of climate data and predictions for education purposes that are not at a high technical level be developed to avoid confusion and contradictory messages which may devalue climate change education. This information must ensure that the Australian public are fully aware of the implications which may encourage them to take personal action.

23. That Sustainability and Climate Change education be compulsory in Australian school curriculum.

24. That a standardized climate change education toolkit be developed and funded to cease resources being wasted and reinventing the wheel, with a coastal version developed having a focus on coastal impacts for coastal communities.

1.5 GOVERNANCE AND INSTITUTIONAL ARRANGEMENTS FOR THE COASTAL ZONE.

Climate Change is a global issue that requires governments to move beyond traditional approaches and boundaries of governance and environmental response. At present, governance and institutional arrangements concerning climate change and the coastal zone are significantly disjointed, lack leadership and accountability.

The answer does not solely lie within the many different approaches of the coastal local government authorities of Australia, who are tackling climate change with differing degrees of response and levels of understanding. Local Government seeks strong Federal Government leadership to guide State Governments and councils through a set of strong, consistent yet groundbreaking legislation, policies, standards and responses. This leadership must be

supported with adequate funding to reflect the seriousness of the potential consequences to the coastal zone of the nation.

The greatest opportunity lies in prescriptive legislation prepared that is solely dedicated to climate change mitigation and adaptation. There is concern that simply 'tagging' climate change considerations onto existing legislation would result in lessened emphasis on those climate change provisions, and that the review of all relevant legislation would take significant time.

RECOMMENDATION:
25. That dedicated legislation be prepared that is solely dedicated to addressing climate change mitigation and adaptation.

Whilst the majority of this Inquiry appears to focus on adaptation, there are several further key mitigation initiatives that Council believes are essential to minimising the predicted climate change impacts:

- Fossil fuel dependence must be reduced. In order for this to occur, the State and Federal Governments need to take action to encourage the use of alternative fuels and in turn, discourage fossil fuel use. Recommendations to achieve this include:
    - A reduction in car tax applied to hybrid cars and other vehicles to make them more affordable.
    - Significantly improved public transport services subsidized to encourage use. Governments need to view public transport as an essential means to combating climate change, and funnel funding from major road development to support it.
    - Significant research and investment is required for alternative fuels.
- Decentralisation and reuse of the stormwater and sewerage systems.
- Decentralisation of energy generation, recognising non-traditional approaches that could exist with community partnerships.

RECOMMENDATION:
26. That a reduction in car tax applied to hybrid cars and other vehicles to make them more affordable be introduced.

27. That significantly improved public transport services are developed and implemented and are subsidized to encourage use.

28. That funding is allocated to significant research and investment for alternative fuels.

29. That the stormwater, sewerage systems and energy generation all be decentralized with a focus on reuse and alternative sources of energy generation. That the community rebate scheme not be means tested, and be more substantially funded, to encourage much greater uptake regardless of level of income.

1.5.1 Funding

Councils need resources to implement the myriad of policies, strategies and actions including actions from the Climate Change Risk Assessment grant funded strategy. Many of these actions have devolved from upper levels of government without the supporting funding. Yet are current grant funding procedures appropriate for prioritisation of funding? Councils compete for funds on the strength of their applications often due to the technical expertise of current staff.

Manly Council is considering applying to the Department of Local Government (NSW) to implement a Climate Change Levy to implement over $30million of works identified in a recent study commissioned by Council, that identifies appropriate Climate Change adaptation and mitigation measures (see http://www.manly.nsw.gov.au/content.aspx?PageID=40&ItemID=136). Unfortunately, due mostly to financial strain currently being experienced by the community through the current economic climate, there is not general support for Council's proposal.

In delivering over 100 different services to our communities, local government is struggling to finance all these services within the funds generated through rates collection. Local Government requires funding assistance to meet current needs in addition to implement Climate Change adaptation and mitigation measures. Funding should be collected at a Federal or State level to reflect the broader scale nature of climate change.

This funding needs to be distributed on a priority basis, through analysis of the predicted impacts that climate change will have on a Local Government Area (LGA). The Sydney Coastal Council Group's recent work with the CSIRO to determine key vulnerabilities and a Council's capacity to adapt to manage climate change issues at a regional scale would provide some guidance. More information can be found on the SCCG's website. Funding should also be allocated when a council has demonstrated a true commitment to addressing the impacts of climate change which is reflected at least through the policy level.

RECOMMENDATION:
30. That a Climate Change Fund been established to finance local government's mitigation and adaptation strategies for our communities.

31. That the funding be allocated on a priority basis, targeting those areas most vulnerable to climate change impacts where a Council has demonstrated a commitment to addressing the impacts of climate change.

2.0 CONCLUSION

The types of effects of climate change in Manly will be much the same as in most other coastal areas of Australia. But the magnitude of the impact could be much greater due to the landscape attributes of the LGA and the high visitation rates.

For a location such as Manly whose beach attracts many millions of visitors per year, proximity to waterways and low lying landforms make it particularly vulnerable, this issue needs greater consideration by state and federal government.

Climate change science is improving in accuracy and the community is reacting with decreasing levels of skepticism. Such information forms the basis for government to improve the ability to make optimal adaptations. Successful adaptation to coastal risk and vulnerability still relies heavily in the responsibility of the upper tiers of government to initiate, regardless of the current political systems and terms to ensure Australians are given the best possible support and protection from the increasingly certain future.

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