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Submission to the Inquiry into climate change and environmental impacts on coastal communities.

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MEMBER FOR DOBELL**

Climate change presents many challenges for the electorate of Dobell. Rising sea levels, the predicted increased occurrences of east coast lows bringing more extreme storm events, increased bushfire activity and water shortages have the potential to cause major problems for this electorate.

Dobell extends along the coast from just north of the Terrigal Lagoon through to Norah Head. Areas such as Wamberal beachfront and North Entrance have been identified as areas particularly vulnerable to rising sea levels and greater storm activity. Both suburbs have recently experienced severe beach erosion that has eroded the yards of private property and destroyed fences, decking etc. As sea levels rise and storm events/surges become more severe and potentially more frequent it would not be unexpected to lose a number of homes within these areas.

At Norah Head coastal erosion has forced the local council to issue orders to residents to dismantle structures from the backyards of properties to reduce pressure on the seaward slope to assist in prevention of major land slippage. Heavy rain plus wave energy impact on the toe of this slope has placed a number of homes in the unenviable position of currently having no backyards plus the potential of losing their homes to the sea. Wyong Shire Council and the State Government have both committed extensive amounts of monies to try and minimise the rate of erosion of this slope. The reality is that these works may not prevent a loss of these properties if a severe storm were to impact onto this part of the Dobell coast line

This is a popular recreation area for locals and tourists alike. Ocean baths provide safe swimming and it is popular with recreational fishermen and women. The Norah Head lighthouse and the annual whale migrations attract many tourists to the area.



Photo from 1995 showing soil slippage.

On the June long weekend 2007 a storm, associated with an east coast low caused some locally severe flooding around Tuggerah Lake and Wamberal Lagoon. Many people were forced to leave their homes and many more were without power for several days. Sewerage and stormwater facilities were unable to cope with the severe flooding.

In a research paper entitled “The Ecological History of Tuggerah Lakes What the newspapers Said” a report by the CSIRO in October 1998 details a long history of flooding with damage to roads and bridges and the occasional loss of life. Extensive flood mitigation has been carried out but climate change makes some of the supposed benefits of much of this work problematic.

<http://www.clw.csiro.au/publications/technical98/index.html>



June 2007 Wyong



June 2007 Ourimbah Creek

Areas around Wamberal Lagoon and North Entrance have already been identified as areas at risk of increased sea levels, storm surges and changes to wave direction, height and intensity. These areas have been adversely affected in the past by extreme weather events. Much of the development along these particular areas was built prior to current Coastal Management Strategies and although LGA's now carefully constrains the development that occurs along these beach areas, the market price of these properties remains quite high.



Wamberal Beach



Wamberal Beach 1978

A study for Gosford city Council states “coastal investigations show that the foreshores of the Terrigal/Wamberal embayment have experienced a gradual recession over at least the past fifty years, interspersed with more severe episodes of storm erosion. The identified shoreline recession is ongoing and is gradually exposing the foredune (and development thereon) to more frequent storm erosion events. This has been dramatically demonstrated during the storms in 1974 and in 1978.” (Taken from Environmental Impact Statement commissioned by Gosford City council in 2003. NSW Department of Commerce and Manly Hydraulics Laboratory)



North Entrance



June 2007 Flooding at North Entrance

It is possible that a breakwall or similar structure at the North Entrance could lessen the severity of storm surges on the vulnerable areas of the North Entrance and allow for the opening of the channel from the Lakes to the ocean during flood events⁴ but a comprehensive study would need to be performed. This was an election commitment of the Labor member for Dobell Craig Thomson during the election campaign.

The demographics of Dobell make disaster planning problematic. There is a large commuter population with over 30,000 working people travelling to either Sydney or Newcastle on a daily basis. There is a large elderly population. The population of Dobell is concentrated in urban villages separated by various waterways. There is pressure to supply more land for housing development to ease population increases of the greater Sydney region.

Local industries such as tourism and hospitality would be negatively impacted on by greater frequency of extreme weather events caused by global warming and areas which are popular tourist destinations such as Wamberal and The Entrance would be adversely affected by rising sea levels.

Dobell is also vulnerable to increases in bushfire frequency and intensity. In 1994, Central Coast residents were isolated for several days when transport links were closed due to fire closing rail and road transport links. Intermittent closures occur nearly every bushfire season. In the west large tracts of wilderness area abut sparsely populated river valleys. On the eastern side of the highway urban villages are surrounded by bushland and although there are well designed bushfire plans, the sorts of bushfire weather activity seen in other areas of Australia over the last few years could have a devastating impact upon the residents and environment of Dobell.