



THE ENTRANCE PENINSULA COMMUNITY PRECINCT

ENCOMPASSING: THE ENTRANCE; THE ENTRANCE NORTH; LONG JETTY TOOWOON BAY; BLUE BAY; SHELLY BEACH & MAGENTA

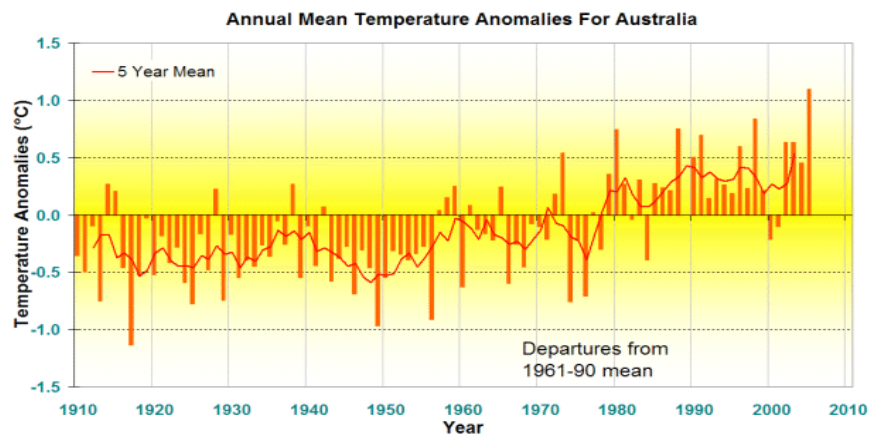
The Wyong Shire Councils' Senior Officer, Terrestrial Ecology and Sustainability, Karen Douglas' presentation, 19 October, 2010 at 7:00pm on "Climate Change – A Risk Management Approach"

TEPCP gave Karen a warm welcome and thanked Karen for her attendance. Karen explained that her presentation was about the risks to council and that she would not talk about Council's Climate Change Policy, Council's Floodplain Management Study nor The Council's Coastal Zone Management Plan but concentrating on the risks Council has identified as a result of Climate Change.

Karen explained that the purpose of the presentation was to help give community a broader understanding of the climate change dilemma from a local government perspective. She explained the difficulties in predicting outcomes in the future and a decision was made that the risks arising in 2100 was too hard to access and that a horizon of 2050 was adopted. The focus of the presentation was to first presented the outcomes of Council's climate change risk assessment, its setting, its context and its outcomes. It is intended that the Council's approach to its preparedness for climate change, takes a whole community approach rather than a "What's In It For Me" approach.

Karen presented the Climate Projections for the Central Coast for year 2050 noting:

- That temperature, the mean daily minimum and maximum projected to increase between 1.5°C and 3.0°C.



- That rainfall, spring and summer to increase (20-50%), winter rainfall to decrease.
- That sea level will rise by 2050 by 400mm.
- That coastal recession on sandy beaches is between 5m to 10m for each 100mm of sea level rise (i.e. 20m to 40m)

The Risk Assessment has identified the following five functional areas that are impacted by Climate Change: Infrastructure and Property including Water and Sewerage; Recreational Facilities; Health and Community Wellbeing; Planning and Development and Natural Resources.

Figure 2 - Impact Ranking by Scenario

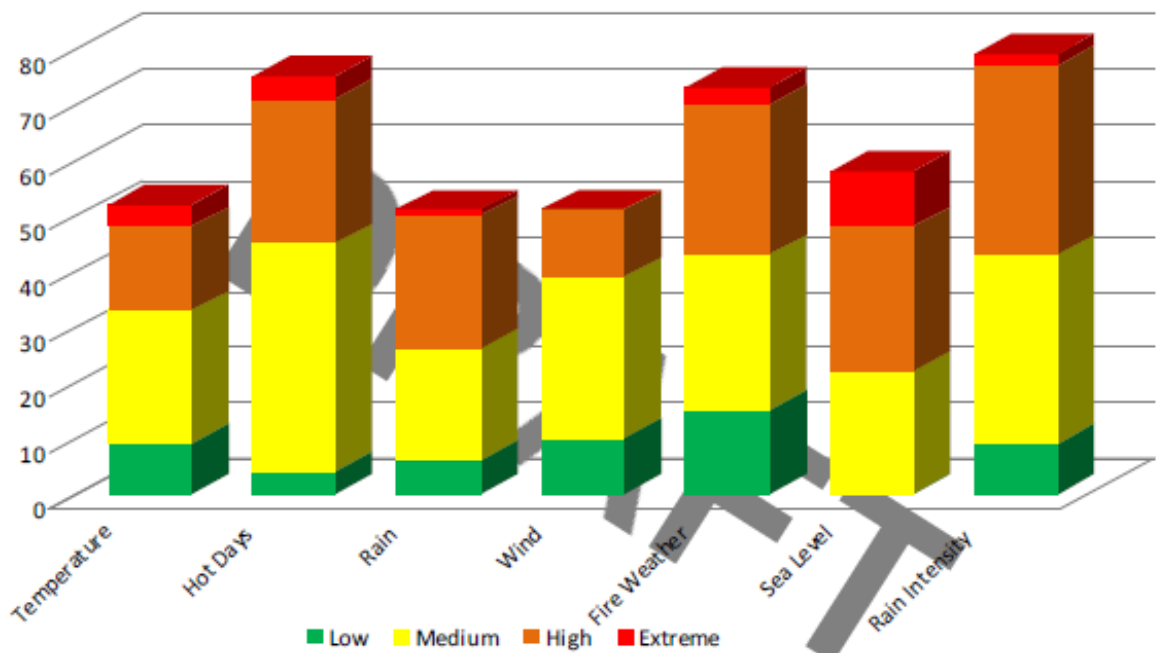
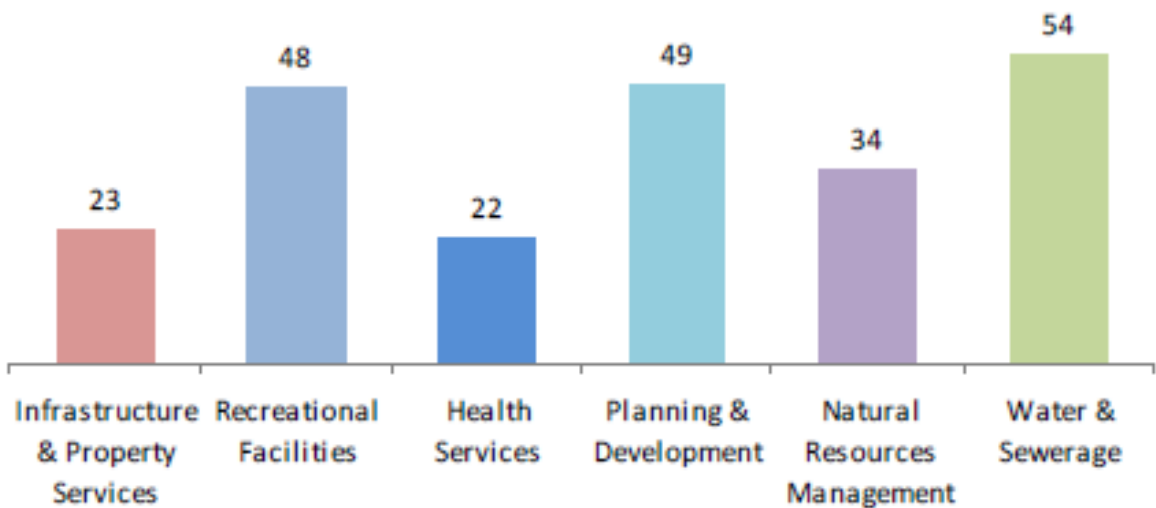


Figure 3.1 Impact by Functional Area - filtered



Karen explained that **Infrastructure and Property Services** risks identified included:

- Increased damage and reduced level of service due to increased inundation, fire risk, wind and storm damage.
- Increased costs to maintain serviceability of foreshore assets due to sea level rise
- Increased damage to roads, causeways, bridges due to increased rainfall intensity, flooding or coastal inundation

Water and Sewerage have been identified as the functional area most at risk from Climate Change. When treatment plants overload and fail due to intense fire/wind/storm events, infiltration or loss of power/telecommunications the result is that neighbourhoods become uninhabitable when the sewerage system does not work. It impacts low lying waste water facilities or pump stations. The flooding, inundation, infiltration, overflows and deterioration/corrosion result. Addressing this will be a Council priority.



Fires impact on catchment yield causing a loss of raw water quality from ash, debris and sediment

Recreational Facilities are at risk from beach and coastal erosion with the loss of beaches and public foreshore. Lakeside facilities and recreational infrastructure are at risk, due to storm and rain events, and sea level rise impacts, e.g. cycle ways in hazard areas affected by weather and permanent inundation.

Karen pointed out that **Health and Community Wellbeing** is also at risk from Climate Change. There will be an increase in heat stress in the broader community, especially amongst vulnerable groups. There will be a increase in food spoilage due to premises experiencing power failure caused by flooding and increased power demand in heat wave conditions. Water recreational activities will be at risk from sewerage surcharge; algal blooms and pollution.

Addressing the **Planning and Development** risks associated with Climate change are particularly difficult for Council. The risks resulting from increased inundation of infrastructure will limit land suitable for economic development. There is a risk that a rising water table may lead to permanent inundation of residential and business districts. To meet higher flood levels road design will be needed to accommodate increased piped drainage and overland flow paths. There is greater risk to existing roads where there is limited ability to retrofit improvements.

From a community perspectives development controls in flood risk areas could be viewed as too onerous and could lead to challenges to planning decisions. There may be increased community expectations for Council to invest and protect infrastructure and property from increased flooding and sea level rise. With extreme events there may also be increased community anxiety associated with the expectation of Council's engagement and direction.

There is a great risk to the natural environment. **Natural Resource** Management will need to consider the risks associated with the possible loss of key coastal ecosystems, dunes, estuaries, saltmarsh, intertidal zones and wetlands due to sea level rise. There is the risk of the loss of functional corridors that permit the movement of genetic material to be considered. As well as increased erosion due to rainfall intensity, the silting up of waterways and estuaries due to sediment and nutrient movement and removal and the loss of remnant vegetation and habitat due to water and heat stress.

There are a lot of issues for Council to ponder in developing an action plan:

- Protect, adapt or retreat? Multiple options?
- Educate, prepare, build capacity and resilience?
- Serviceability of vulnerable localities?
- Who pays?
- Will it affect me? How?

Karen indicated that these were risks to be assessed in conjunction with the development of Council's Climate Change Policy, Council's Floodplain Management Study and the Council's Coastal Zone Management Plan

Luke Nayna thanked Karen on behalf of TEPCP for her presentation.