



**Shire of Irwin Coastal Adaptation Information Forum**

**Summary Report**

**April 2015**



## Shire of Irwin Coastal Adaptation Information Forum – Summary Report



On 23 April 2015, the Shire of Irwin and the Northern Agricultural Catchments Council (NACC) hosted a Coastal Adaptation Information Forum in Port Denison. This forum brought together members of the community and representatives from the Department of Planning (DoP), Curtin University, NACC and the Shire to discuss the Shire's new coastal planning project – the Coastal Hazard Risk Management and Adaptation Plan (CHRMAP). The Shire is leading the project with partners from the DoP, Curtin and NACC. Around twenty community members and stakeholders attended the workshop and witnessed three presentations before taking part in a question and answer session and informal discussion. The workshop discussed topics such as coastal assets, hazards, processes, coastal data, planning, protection infrastructure, communication, and partnerships.

The Shire's Manager Planning Services, Doug Fotheringham, introduced the forum. Ben Bassett, Senior Planning Officer from the DoP then presented on State Planning Policy 2.6 – Coastal Planning. Ben discussed policy measures for coastal hazard risk management and adaptation; coastal protection works, coastal foreshore reserves; coastal strategies and management plans; guidelines for determining physical process impacts on different coastal environments; public interest; and the precautionary principle. He explained that the Shire's CHRMAP project had to follow the guidelines set by the policy.

Ranjan Sarukkalige from the Curtin University's Department of Civil Engineering then presented on Curtin's role in the project. This includes researching all available information on coastal planning issues from a world and national view; investigating the issues pertaining to the Shire's coastline; and developing modelling scenarios for inundation and coastal erosion along the coastline. This research has been summarised within the CHRMAP Literature Review, which is now available on the Shire's and NACC's websites. Ranjan presented on these issues and identified the risks that coastal communities face as a result of sea level increases, warming ocean temperatures, and other coastal processes. He also explained that the modelling approach for the project will involve both inundation and erosion modelling. The inundation modelling will incorporate bathtub modelling along with more dynamic modelling incorporating potential wind and wave impacts.



The final presentation was delivered by Jessica Stingemore from NACC, who focused on coastal hazards along the Shire's coastline, risk assessment and coastal planning options before identifying the next steps for the project, which will involve the community identifying, analysing and evaluation coastal risks and adaptation options. Building on Curtin's research, Jessica identified that the Shire's key hazards are located at Port Denison Foreshore, Granny's Beach, Surf Beach, Irwin River mouth, Freshwater Point and Seven Mile Beach.

## Grannies Beach



At the end of the presentations, the question and answer session discussed:

- the importance of the type of sand used for replenishing projects;
- the impact of trench dug in the early 80s on a sandbar, which was located between the river mouth and Nun's Pool;
- that limestone is immediately below the sandbar at the river mouth, which may explain why the sandbar builds-up regularly;
- the development of the Port Denison Harbour has impacted on coastal erosion along Granny's and Surf beaches;
- the variability of sea level rise across different world regions, which is due to different currents and weather patterns;
- tidal impacts which have been seen upriver beyond the bridge as recently as March 2015; and
- the DoP clarified that modelling of the river can only be incorporated into the coastal CHRMAP if it is primarily driven by coastal processes.



A number of community members also brought along some memories and photo's for the Shire's Draft Flooding Study. The study is being carried out to better understand the potential impacts of climate change and sea level rise on the Irwin River.

Following the Forum, Curtin University will begin modelling coastal inundation and erosion scenarios at key areas along the coastline.

Once this work has been completed, the Shire and its partners will arrange a public workshop for the community and other stakeholders to take part in a risk assessment for the most significant coastal hazards and assets.

This workshop is likely to be take place towards the end of 2015.

## Risk Assessment: Example



- Green = environmental
- Purple = social
- Yellow = economic



If you have any queries with regard to this coastal planning project, please do not hesitate to contact Doug Fotheringham, Manager Planning Services, Shire of Irwin on 9927 0000 or at [mps@irwin.wa.gov.au](mailto:mps@irwin.wa.gov.au).