



TRANSFORMING BUNBURY'S WATERFRONT PROJECT – KOOMBANA BAY COASTAL HAZARD RISK MANAGEMENT AND ADAPTATION PLAN (CHRMAP)

FREQUENTLY ASKED QUESTIONS

What is a CHRMAP?

A CHRMAP is a Coastal Hazard Risk Management and Adaptation Plan. It is a strategic planning document that informs community and decision-makers about the potential hazards, risks and actions needed to meet the challenges of sea level rise and the coastal hazards of erosion and inundation (flooding). The CHRMAP identifies areas and assets vulnerable to sea level rise and coastal hazards, and develops strategies and actions for management of coastal hazards and risks into the future.

What are the different types of coastal hazards?

The State Coastal Planning Policy (SPP2.6) identifies and describes the various types of coastal hazards that need addressing through coastal hazard risk management and adaptation planning:

- Erosion refers to shoreline movement where the shoreline retreats landward, reducing the width of the coastal foreshore reserve and/or the distance to any fixed assets or infrastructure behind the beach;
- Inundation means the flow of water onto previously dry land. It may be either permanent (for example due to sea level rise) or a temporary occurrence during a storm (storm surge).

Will my use and enjoyment of the coastal areas covered by the CHRMAP be impacted?

In the short-term, it is likely that existing protection and adaptation measures will be sufficient to maintain current beach areas and use and enjoyment will be unaffected. Active management may be required following extreme storm events and to maintain amenity (in line with current maintenance activities). In the medium to long-term, significant decisions will need to be made and the community's input will be an important part of this process.

Why has the Transforming Bunbury's Waterfront project prepared coastal erosion and inundation hazard maps?

The South West Development Commission (SWDC) is currently preparing environmental approval documents for the assessment of the Koombana Bay Marine Structures project by the Environmental Protection Authority.



The Environmental Protection Authority provided an Environmental Scoping Document (ESD) to the SWDC for the Koombana Bay Marine Structures project detailing a number of requirements that need to be met in relation to coastal processes. This coastal hazard risk management and adaptation plan (CHRMAP) has been prepared to identify coastal erosion and inundation risks, to assist with the completion of the SPER, to partially fulfil the ESD requirements, and respond to SPP 2.6.

SPP2.6 requires local governments across the state to consider coastal hazards (erosion and inundation) when assessing local planning scheme amendments, structure plans and development applications. The maps will also help the City of Bunbury and broader community to understand the potential extent of coastal erosion and inundation hazards (within the TBW project area) and consider these hazards when making planning decisions. The maps may also be used by landowners and the broader community when considering the potential extent of coastal erosion and inundation on their assets and potential investments.

How have these maps been prepared?

SPP2.6 provides a methodology that identifies appropriate coastal process allowances for erosion and inundation. This methodology considers components for storm surge erosion from a potential 1 in 100-year storm event, historical erosion trends, sea level rise over the next 100 years and a safety factor of 0.2 m per year. It also considers inundation from a 1 in 500-year storm event plus sea level rise over the next 100 years. The maps have been prepared by qualified Coastal Specialists and reviewed by State Government.

Are the maps a prediction of where the shoreline will be in 2030, 2070 and 2120?

No. The hazard maps do not predict future shoreline positions. The hazard areas on the maps provide a representative indication of the areas that may be vulnerable to coastal erosion and inundation over various planning timeframes. Identifying these areas is important and necessary for future planning purposes.

What are CHRMAP adaptation pathways?

Adaptation pathways are a list of possible responses to coastal hazards. Adaptation options are set out in the State Coastal Planning Policy:

- 'Avoid' – avoid the presence of new development within an area predicted to be affected by coastal hazards;
- 'Planned or Managed Retreat' - the relocation or removal of assets within an area identified as likely to be subject to intolerable risk of damage from coastal hazards over the planning time frame;
- 'Accommodate' – design and/or management strategies that render the risks from the identified coastal hazards acceptable or tolerable; and
- 'Protect' – protect areas where there is a need to preserve the foreshore reserve, public access and public safety, property and infrastructure that is not expendable.



Adaptation pathways include trigger points. These will trigger a management action to implement the identified adaptation option. For example, a storm event may trigger the managed retreat of an asset.

Are the hazard maps likely to change in the future?

An important part of the CHRMAP process is to identify future coastal monitoring activities and to use the information collected through these activities to review the CHRMAP and associated maps at regular intervals (e.g. approximately every ten years). The CHRMAP and associated maps may also be reviewed as other new or updated information becomes available.

The maps don't cover all of Bunbury. Are there maps that cover the rest of Bunbury?

This project only covers the TBW project area that only includes part of Bunbury. The City of Bunbury is planning to undertake a CHRMAP for the whole of Bunbury in the next few years.

How can I be involved?

Opportunities to contribute what you value and consider important in future planning were provided in April 2018 during the values gathering phase. The draft CHRMAP has now been prepared and the document incorporates the values expressed in that survey. The SWDC and its project partners welcome your input on the document including the interpretation of the coastal values around Koombana Bay and our proposed responses to identified hazards.

The SWDC invites you to a community engagement session to discuss the Transforming Bunbury's Waterfront draft CHRMAP. Coastal engineers, planners and SWDC representatives will be on hand to discuss the information in person. The format will include a short presentation followed by an opportunity to informally discuss and ask questions of the project team. Details of the sessions are as follows:

When: 31 January 2019 5:00pm to 6:30pm

Where: Dolphin Discovery Centre

Please note that RSVPs are not required but there will be a presentation which will start promptly at 5pm.

The full draft CHRMAP report is available on the Transforming Bunbury's Waterfront project website if you wish to download a copy: www.transformingbunburyswaterfront.com.au .

Comments can be provided via www.transformingbunburyswaterfront.com.au .

Further information

State Planning Policy 2.6: State Coastal Planning Policy is available from:
www.planning.wa.gov.au

Sea Level Change in Western Australia: application to coastal planning (2010) is available from:
www.planning.wa.gov.au