

CHRMAP Community Reference Group

Meeting Outcomes Report — Meeting 5: Coastal Hazard Assessment

Date: Wednesday 22 July 2026
Time: 6.00pm – 7.30pm
Location: Online via MS Teams
Facilitator: Claire Paddison – 361 Degrees

Attendees

Presiding Member: Cr Adrian Hill

Elected Members: Cr Phillip Vinciullo
Cr Rebecca Pizzey
Cr Matthew Count

Community Members: Shirree Blazeski
Fabienne Hill Faskel
Dr Arnold van Rooijen
Ben Allen
Annette Ellerby
Ryan Hunter
Shannon Dee

City Officers: Jamie Parry, Director Governance and Strategy
Rebecca Maccario, Manager Strategic and Organisational Development
Rodney Markotis, Acting Manager Engineering Services
Danielle Bowler, Environmental Development Coordinator
Nicole Adams, Coastal Hazard Planning Officer
Charles Sullivan, Principal Project Engineer Coastal and Civil
Michael Green, Subdivision and Development Engineer

Subject matter experts:

Apologies: Craig Lloyd, Chief Executive Officer
Deputy Mayor John Raftis
Chris Jansen, Manager Engineering Services
Dr Brian Luinstra
Daniel McKeon
Druimé Nolan

Overview

The purpose of the meeting was to provide information regarding the purpose, objectives, methods and outcomes of a Coastal Hazard Assessment.

The objectives of the meeting were to:

- understand the purpose, objectives, methods and outcomes of the Coastal Hazard Assessment undertaken in 2016.
- understand the changes in the State Planning Policy No. 2.6 (SPP 2.6) sea level rise figure and how this relates to coastal hazard planning.
- understand the scope of works proposed to undertake the Coastal Hazard Assessment in 2026-27.
- understand the role of a Coastal Hazard Assessment in the CHRMAP process.

Outcomes

Items 1 and 2 – Welcome and overview of the session

Claire Paddison asked community members whether there were any concerns with recording the session so that it could be viewed by members that were unable to attend. No concerns were raised.

Presiding Member, Cr Adrian Hill, provided an Acknowledgement of Country, welcome to the meeting and thanked members for their continued input and commitment to the group.

Cr Hill thanked all members for participating, acknowledging the community members, Elected Members and City Officers.

City Officers provided the meeting apologies and a round table introduction of staff.

Cr Hill asked for any conflict of interest items to be raised, of which there was none.

Cr Hill provided a summary of outstanding actions from the last meeting:

1. The City will provide asbestos related communications website links to the CRG so the members are aware of Asbestos Containing Material (ACM) related City communications. *Update: links to the asbestos-related communications were posted on the Teams site on 14 April 2026.*
2. The City will provide information to the group regarding the purpose of the sand removal at Whitfords Nodes beach dunes. *Update: the City posted information on the Teams site on 14 April 2026.*

Cr Hill asked if the group was aware of the Teams site and to contact City officers if not.

Claire Paddison provided an overview of the agenda, background, purpose and objectives of the meeting and summarised the rules of engagement.

Item 3 – Update from members regarding community engagement

Claire Paddison asked community members whether they had received any feedback or questions from the community about coastal projects or the CHRMAP since the last meeting.

Member response: People have concerns about the contractors collecting asbestos at Hillarys Dog Beach. People are wearing HAZMAT (Hazardous materials) suits and are walking along the beach collecting asbestos and the area is not fenced off, so community members are accessing the beach at the same time.

Member response: the surfing community are disappointed that the City has disconnected from the artificial surf reef project.

Item 4 – Project updates – Presentation by City Officers

City officers presented updates regarding progress on relevant City of Joondalup coastal projects. The project updates and related member questions and statements include:

- CHRMAT Technical Steering Group (TSG): the City sought feedback via email from the TSG regarding the Request for Quotation (RFQ) for a Coastal Hazard Assessment and TSG feedback was included in the draft scope.
- Asbestos removal at Hillarys Dog Beach: Remediation Action Plan and other documents have been lodged with the Department of Water and Environmental Regulation for approvals. Remediation works are likely to commence in 2027 following approvals.
- Partnership projects with Perth NRM:
 - Project 1: installed a CoastSnap cradle at Iluka Foreshore in July 2026 and held a planting day with corporate volunteers on 5 July 2026 at Pinnaroo Point.
 - Project 2: installed sand trap fencing and matting in May 2026 at Iluka Foreshore. Planting day with Friends Group scheduled for 1 August 2026 at Iluka Foreshore.
- Coastal maintenance works: moving sand off paths and carparks are completed over summer months when the sand is dry and windblown. No works have been completed over winter.
- The City held a community planting day at the Ocean Reef Foreshore on 7 June 2026. A total of 55 community members planted 600 plants.
- Artificial surf reef pre-feasibility study: the pre-feasibility study report to investigate an artificial surf reef was presented to Council on 24 March 2026. Council resolved to refer the report to the State Government in collaboration with Surfing WA and Mullaloo Boardriders Club and allocate no further City resources to the delivery of an artificial surf reef at this time.
- Sand bypassing project: sand bypassing is completed annually in October-November and moves approximately 10,000m³ of sand from Sorrento Beach to Hillarys Beach.

Member statement: The sand bypassing deposited sand does not get placed at Pinnaroo Point where erosion is greatest, it gets placed at Hillarys Beach further south. The sand eventually ends up at Mullaloo Beach. There have been pieces of asbestos containing materials (ACM) found at Mullaloo Beach.

City response – Erosion this year has been severe near the Whitfords Nodes park. This area needs sand and currently is the area in most need of deposited sand. The sand will travel north with longshore drift. Currently the City can only bypass around 10,000m³ of sand annually due to budget constraints. The City places the sand along the sector north of the Hillarys Boat Harbour for best beach amenity outcomes using the available sand volume.

Member question: If budget wasn't an issue, how much sand would be needed for nourishment or bypassing to maintain beach width at Pinnaroo Point?

City response – Estimate around 20,000m³ of sand is required annually. There is a deficit of sand north of the Hillarys Boat Harbour due to the sand bypassing project not being completed for many years after the harbour was constructed. Currently, more sand is required to stabilise the beach, however the City is restricted by budget. The Hillarys-Kallaroo Detailed Adaptation Options Assessment work will likely provide ideas to improve sand management at this site.

Member question: Does excess sand at Sorrento Beach still get sold back to City of Stirling and how much do we charge so that we can increase sand nourishment to the north?

City response – City of Stirling requested sand from the City of Joondalup on one occasion only for renourishment at Mettams Beach. The City can provide further information on this topic if required, including the unit rate for the sand supply at that time.

- Maintenance works for existing groynes and walls: maintenance works are complete at two existing groynes in Sorrento (central and southern groynes) and two existing walls (Mullaloo Surf Life Saving Club and Sorrento Surf Life Saving Club). Repair works on a structurally unsound limestone retaining wall at the Mullaloo Surf Life Saving Club will progress shortly.

Member question: It is important to use the correct terminology. The wall at the Mullaloo Surf Life Saving Club is a retaining wall rather than a seawall.

City response – Noted. The section of wall where the repairs are due to be carried out is a retaining wall while the other sections of wall at Mullaloo Beach Surf Life Saving Club are non-retaining and are screen walls.

- Coastal monitoring project: the City has partnered with the Cities of Stirling and Wanneroo, as part of the Northern Beaches Alliance (NBA) group, to investigate offshore sources of sand (via dredging) that can be used for sand nourishment programs. This project continues throughout 2026. Additionally, as part of the NBA, twice yearly aerial imagery is captured and used to map shoreline movements. The City's Coastal Monitoring Program continues to measure the shoreline and vegetation changes each year and provide management recommendations.

Member question: Will the sand study report be available to the public?

City response – It may become publicly available once it is complete, dependent on Council decisions. The City will take this question on notice. If the report becomes an attachment to a future Council agenda item, then the report will become publicly available.

Member question: How do you interpret the vegetation line movement figure (slide 11), and could we have clarification on what the figure is showing? For example, does no bar indicate the vegetation moved back to the reference point?

City response – The graph is showing the changes to the vegetation line each year. The blue bar under the axis shows the vegetation line receding. In some years, no data was collected. The City can provide more detailed analysis of these figures if required. Note that these images on the slides are examples of outputs and are not intended for a detailed discussion of a particular location.

Member question: Does the City use satellite data for imaging?

City response – Yes, and future studies may include next generation drones for monitoring and bathymetry studies with laser technology that penetrates water.

- Hillarys-Kallaroo Foreshore Reserve Detailed Adaptation Options Assessment: A detailed adaptation options assessment will be completed for this site, which will look at all the feasible adaptation options that might work specific to this location. The City intends to release a Request for Quotation for this work in 2026-27. UWA are also developing a local shoreline model.

Member question: Is erosion shown on the map (slide 12) currently experienced at Pinnaroo Point with the sand bypassing project in operation, or is this an estimate of the erosion that would happen if the sand bypassing project wasn't operating?

City response – The map shows the current erosion rates, with the sand bypassing operation in effect.

Member response – the map is taken from the Digital Earth Australia coastlines website. This site uses 40 years of data and shows the average erosion per year over this time. The City's sand bypassing started in 2018. The website can show erosion rates in metres per year, or total erosion over 40 years. The website is available: [Digital Earth Australia Coastlines Explorer](https://data.digitalearth.gov.au/Data/Coastlines/Explorer)

Member question: What is the likely timing on the RFQ for the Hillarys-Kallaroo detailed adaptation options assessment?

City response – The Alternative Coastal Adaptations Options research paper will be presented to Council on the 28 July 2026 and the RFQ will be released after this date. The RFQ will likely be released in August 2026, with a consultant appointed in September 2026. The project is likely to take a few months with a preliminary report likely for end of December 2026.

Member question: How many companies are likely to apply or are qualified to apply for the RFQ for the Hillarys-Kallaroo Detailed Adaptation Options Assessment?

City response – There are around 7 or 8 qualified consultants on the WALGA preferred panel that could be invited to quote. Although it is difficult to know how many of these will apply for the works.

- Additional questions:

Member question: Can works on the Coastal Shared Path be included in these project updates?

City response – Noted. However, the coastal shared path project is not related to coastal hazards or CHRMAP development. The City can provide an update.

Member question: the Sorrento Surf Life Saving Club redevelopment project should have been included in the City's project updates.

City response – the Sorrento Surf Life Saving Club project will be assessed as a part of the Coastal Hazard Assessment. The surf club redevelopment is a major project in its own right and isn't relevant at this point in time to the CHRMAP.

The slides from the presentation can be found at Appendix 1.

Actions:

- **The City will clarify the definition of a seawall and whether a seawall or retaining wall are located at the Sorrento and Mullaloo Surf Life Saving Clubs.**
- **The City will provide advice on whether the sand source study report will become publicly available.**
- **The City will provide information relating to the shoreline movement graphs presented.**
- **The City will provide an update on the Coastal Shared Path upgrade project.**
- **The City will provide information regarding the City of Stirling historically accessing sand from the City of Joondalup.**

Item 5 – Coastal Hazard Assessment

A City Officer provided an overview of the Coastal Hazard Assessment including:

- The purpose, objectives, methods and outcomes of the Coastal Hazard Assessment undertaken in 2016.
- How SPP 2.6 and erosion and inundation allowances are calculated and applied.
- The Department of Planning, Lands and Heritage (DPLH) proposed changes to SPP 2.6 sea level rise figure and how this relates to the Coastal Hazard Assessment.
- The scope of works proposed for the 2026 Coastal Hazard Assessment.
- The role of the Coastal Hazard Assessment in the CHRMAP process.

Questions:

Member question: The S1, S2, S3 and S4 allowances – are these predicted to change between the 2016 and the 2026 Coastal Hazard Assessment?

City response – S3 allowance is likely to change. The SPP 2.6 review has indicated the sea level rise figure used for the S3 calculation is likely to change from 0.9 m to 1.3 m for the 100 year period based on the latest Intergovernmental Panel on Climate Change (IPCC) information. The finalised review of SPP 2.6 is still several years away.

Member question: Some properties have inundation risks on their property titles. Is this likely to change with the new Coastal Hazard Assessment and mapping?

City response – The 2026 assessment will require the City to update the information on titles for all impacted properties.

Member question: Will there be another assessment of the value of assets? When deciding the value of the assets, can the beach be considered an asset in itself?

City response – Asset valuations will be updated regularly as a part of the City's asset inspection and schedule and is conducted every 3-5 years. The City may recommend retreat for low value assets, if needed. The beach itself has value, and this will be considered as a part of the CHRMAP. The values will be assessed based on social, environmental, economic and technical criteria.

Member statement: Sea level rise estimates are improving globally over the past 10 years. DPLH are using local measurements instead of a global average, which is a good approach. This will lead to a better outcome for WA projects and calculations. All datasets, regardless of their source, show that sea level is rising.

Member question: What are the timeframes used in the Coastal Hazard Assessment scope of works, are there four different timeframes?

City response – The Coastal Hazard Assessment will develop maps showing inundation and erosion extents for four timeframes – present day, 25 years, 50 years and 100 years. The 2016 Coastal Hazard Assessment included three timeframes – present day, 50 years and 100 years. The state government guidelines recommended to also include 25 years.

Member question: How many qualified consultants may apply or be interested in this work?

City response – There are around 7 or 8 qualified consultants on the WALGA preferred panel that could be invited to provide a quote. Although it is difficult to know how many of these will apply for the works.

Member question: The CRG would be interested in commenting on the Multi Criteria Analysis works, including the weightings and the criteria used. Will this work come to the CRG for comment?

City response – The MCA work will likely come to the CRG for discussion. The City will provide more details at a later date.

Member question: What are the timeframes for the completed CHRMAP?

City response – The Coastal Hazard Assessment is likely to be completed by the end of this year. The next steps in the CHRMAP work is likely to be completed in 2027/28, with a draft CHRMAP likely in mid-2028. There is a large body of work to be completed over this time.

Facilitator: The process presented here (slide 28) will be used to identify the milestones when the CRG can be involved and where the community can be engaged. The City will identify opportunities for how the CRG will be involved throughout the remainder of the CHRMAP works.

Member question: There was a Council briefing last week and a Council meeting due next week regarding the Alternative Coastal Adaptation Options Research Report. Council may be asked to vote on deciding which adaptation options provided in the report should be considered for future works. What is the administration staff's view on this alternate motion?

City response – The research report is a high-level report that presents all the potential options that could be considered for each specific site. It is too early to be removing adaptation options from the list. We need site specific investigations to select and rule out options, and this will come later. The report is a research paper only and the intent is not to select suitable options at this point. City staff have not received an alternate motion but will provide this advice if received.

Facilitator: The City will need clear communications around this research report to the community after it goes to Council, highlighting that it is a research paper and the City and the CRG are revisiting all options, but there is a lot of work that still needs to be done to determine appropriate pathways.

Member question: The S3 allowance will be updated using 1.3 m instead of 0.9 m for sea level rise. How accurate is this figure, based on other data that has been reviewed for recent times? Does sea level rise happen incrementally or does it accelerate in the future?

City response – The sea level rise figure comes from the IPCC 6th Assessment Report. The sea level rise projections are similar to a logarithmic scale rather than a straight line and sea level rise accelerates in the future. The City can provide more information on this topic. The key point to note is that no matter which dataset is used, the trend is always an increase in sea level rise into the future, and the rate of increase is different in different parts of the world.

Member question: It would be useful to get a good understanding now of community values. Communications around the values survey may have been a bit cryptic before but now people are more engaged and will understand how it is related to the CHRMAP and what it means for them. Short form communications are very effective.

City response – The City is progressing with implementation of the CHRMAP Stakeholder and Community Engagement Strategy as we progress through the CHRMAP phases. The CRG will be pre-informed of any communications.

Action: the City will provide more information on the IPCC Shared Socio-economic pathways and climate projections, and the relationship to the sea level rise calculations.

Item 6 – Next steps

Claire Paddison sought feedback on the meeting being delivered online for information purposes.

Member response: Positive feedback was provided regarding the accessibility of the online meeting.

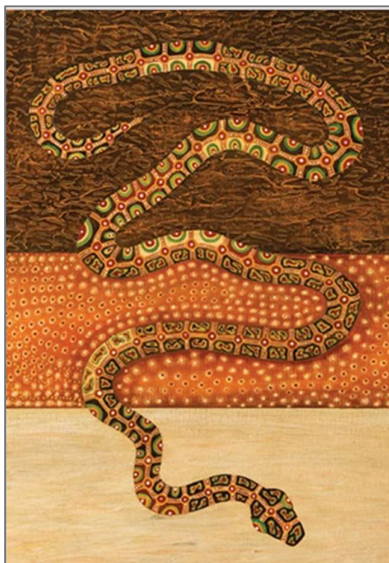
Member response: It was mentioned that people can have a wariness about speaking freely when online meetings are transcribed.

Facilitator: The City facilitates engagement and records minutes of in person meetings which is a similar process.

Claire Paddison mentioned that the next CHRMAP CRG meeting is scheduled for 4 November 2026 with the topic to be confirmed depending on progress made with the Coastal Hazard Assessment and the Hillarys-Kallaroo Detailed Adaptation Options Assessment.

Presiding Member, Cr Adrian Hill, thanked everyone for attending and for their contributions.

Appendix 1 — Presentation slides



The City of Joondalup acknowledges the Traditional Custodians of this land, the Whadjuk people of the Noongar nation. We recognise the culture of the Noongar people and the unique contribution they make to the Joondalup region and Australia. We pay our respects to Elders past and present and all Aboriginal and Torres Strait Islander peoples.

Image: Sandra Hill, *Wutt Paadaininy* (Moving Camp Together), 2008 (detail)

CHRMAP Community Reference Group Meeting 5 Coastal Hazard Assessment – 22 July 2026



Agenda item 4 – Project updates

Project updates – CHRMAP TSG



CHRMAP Technical Steering Group (TSG):

- No meeting held since March 2026.
- The City sought feedback via email from the TSG in June 2026 on the Request for Quotation (RFQ) for the new Coastal Hazard Assessment.
- TSG feedback has been included in the draft RFQ.



Project updates – asbestos removal



Asbestos containing material (ACM) contamination at Hillarys Dog Beach:

- Remediation Action Plan has been completed
- All documents have been submitted to DWER for review
- Currently investigating clearing permit requirements with DWER and DPLH if vegetation needs to be cleared in the ACM removal process
- Remediation works likely to commence in early 2027 – following DWER approval



Project updates – Perth NRM projects



Partnership projects with Perth NRM:

Project 1:

- CoastSnap cradle at Iluka Foreshore – installed July 2026
- Planting day at Pinnaroo Point on 5 July 2026
- City will continue weed control and watering

Project 2:

- Iluka foreshore fencing and matting installed in May 2026
- Planting day at Iluka Foreshore with Friends Group on 1 August 2026



Project updates – coastal maintenance



Coastal maintenance works:

- Sand management on beach paths. Undertaken when sand is dry and wind-blown. No works completed over winter.

Community:

- Planting day for World Environment Day on 7 June 2026 with 600 plants planted by 55 volunteers at Ocean Reef Foreshore.



Project updates – artificial surf reef



Artificial surf reef pre-feasibility study:

- Pre-feasibility assessment report was presented to Council on 24 March 2026.
- Council resolved to:
 - Request the CEO to refer the Mullaloo Beach Artificial Surf Reef Pre-Feasibility Study to State Government for progression, in collaboration with Surfing WA and the Mullaloo Boardriders Club
 - Allocate no further City resources to the delivery of an artificial surf reef at this time.

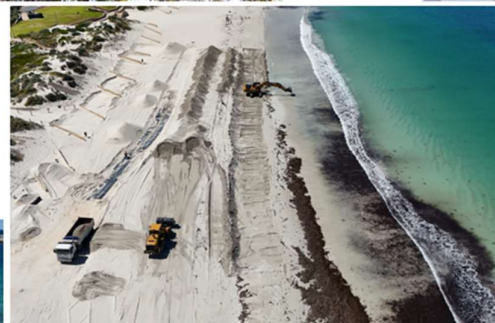


Project updates – sand bypassing project



Sand bypassing project:

- Undertaken annually in Oct/Nov
- Move ~10,000m³ sand north from Sorrento to Hillarys Beach
- 10,000m³ planned for Spring 2026



Project updates – storm impacts

May-June 2026 storm impacts:

- Iluka Foreshore:
 - Stairs and shelters damaged. Dunes and beach accessways eroded.
 - Heavy rains caused erosion of the batter adjacent to the dual path.
- Hillarys dog beach - erosion
- Hillarys Foreshore and Pinnaroo Point revegetation sites - matting and fencing damaged



Questions

Agenda item 5 – Coastal Hazard Assessment

Coastal Hazard Assessment

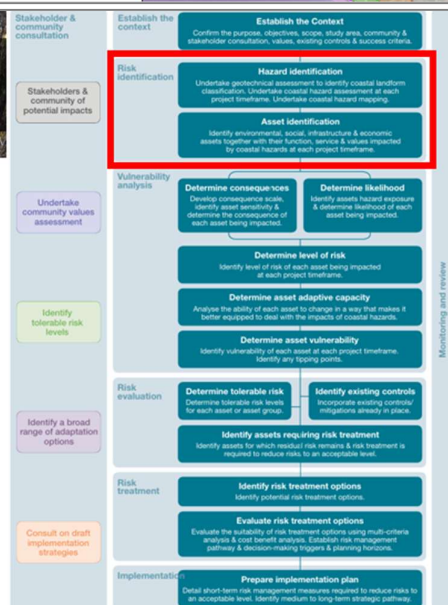
- Coastal Hazard Assessments:
 - identify potential coastal hazards
 - highlight areas at risk of coastal hazards at a range of timeframes, up to 100 years into the future
 - identify vulnerable assets and infrastructure
- Schedule One of SPP 2.6 provides the methods to use to calculate coastal hazard areas
- Coastal Hazard Assessments should be updated every 10 years or after significant change
- The City's current Coastal Hazard Assessment was completed in 2016.



Coastal Hazard Assessment

Coastal Hazard Assessments and CHRMAP:

- A Coastal Hazard Assessment is required for the CHRMAP to identify hazards
- The Coastal Hazard Assessment identifies the predicted hazard areas and assets/infrastructure at risk
- CHRMAP builds on this and determines asset vulnerability, treatments and implementation plans.



Coastal Hazard Assessment 2016

Coastal Hazard Assessment (2016):

Used methods provided in SPP 2.6 and CHRMAP guidelines:

- Classify coastline – sandy vs rocky
- Determine study area and extent
- Calculate allowances (includes sea level rise estimate):
 - Coastal erosion allowance – S1, S2, S3
 - Coastal inundation allowance – S4
- Produce maps and highlight assets at risk

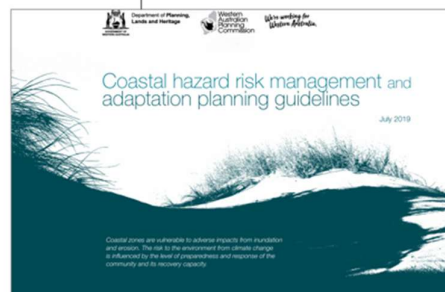
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GAZETTED DATE: TUESDAY 30 JULY 2013

PLANNING AND DEVELOPMENT ACT 2005

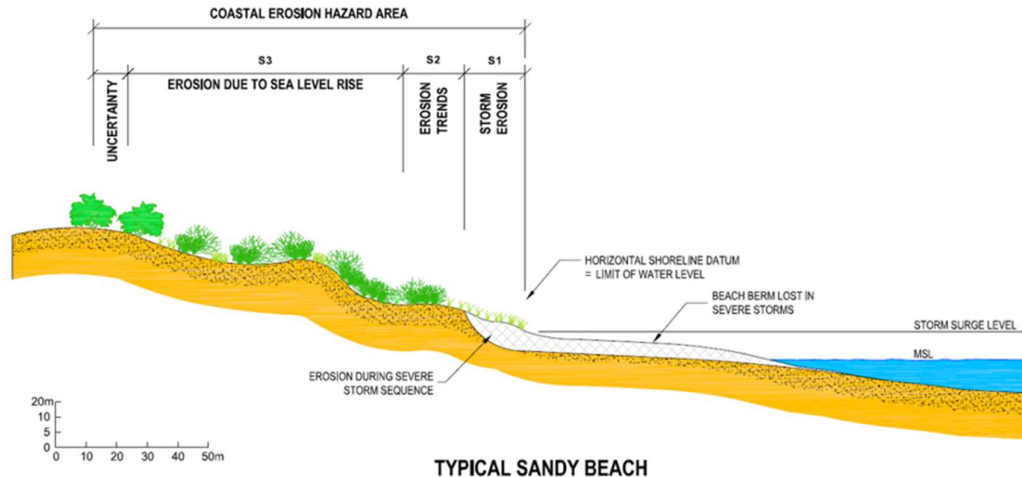
STATE PLANNING POLICY No. 2.6
STATE COASTAL PLANNING POLICY

PREPARED UNDER PART 2 OF THE PLANNING AND DEVELOPMENT
ACT 2005 BY THE WESTERN AUSTRALIAN PLANNING COMMISSION

REPLACES STATE PLANNING POLICY 1A AS PUBLISHED IN THE
GOVERNMENT GAZETTE ON 18 JUNE 2001 AND AMENDED ON 18
DECEMBER 2006



Coastal Erosion Allowances



Coastal Hazard Assessment 2016

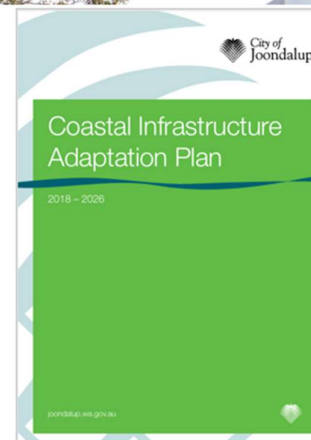
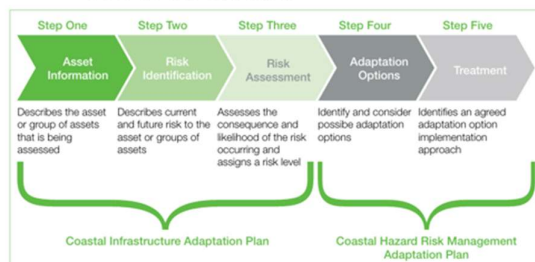
2016 Coastal Hazard Assessment outcomes



Coastal Hazard Assessment 2016

Coastal Hazard Assessment 2016 outcomes:

- Used for a coastal vulnerability engagement campaign
- Informs the Coastal Infrastructure Adaptation Plan 2018-2026
- Informs the CHRMAP



Questions

Coastal Hazard Assessment – SPP 2.6

SPP 2.6 and sea level rise calculations:

- SPP 2.6 is currently under review.
- SPP 2.6 provides sea level rise estimates to calculate hazard allowances.
- Sea level rise predictions are based on global climate projections.
- Current sea level rise value in SPP 2.6 for calculations is 0.9 m for 100 years.
- As a part of the SPP 2.6 review, the sea level rise figure will change. DPLH have advised an interim sea level rise of 1.3 m for 100 years, based on global climate scenarios.

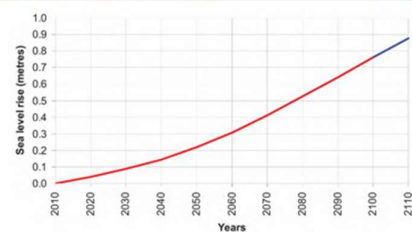


Figure 5.2 Recommended Sea Level Rise Allowances (DoT 2010)



Questions

Coastal Hazard Assessment 2026



Coastal Hazard Assessment 2026:

- The City will release a Request for Quote (RFQ) for a consultant to complete an updated Coastal Hazard Assessment.
- Objectives of the 2026 Coastal Hazard Assessment:
 - Identify coastal hazard extents
 - Produce coastal hazard maps showing the areas likely to be impacted by coastal hazards over 100 years
 - Identify vulnerable infrastructure and assets.

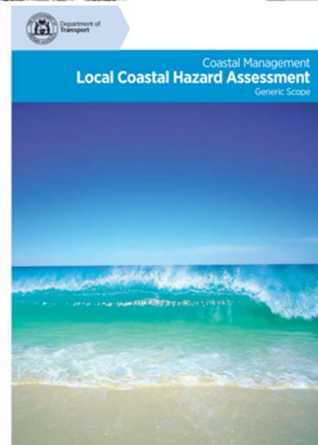


Coastal Hazard Assessment 2026



Coastal Hazard Assessment 2026:

- Proposed scope of works:
 - Literature review and data collection
 - Re-calculate the S1, S2, S3 and S4 allowances, using the new sea level rise estimate
 - Create maps of coastal hazard extents at different timeframes, up to 100 years
 - Identify vulnerable assets and infrastructure

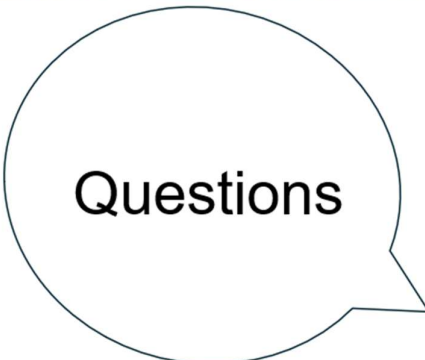


Questions

CHRMAP process

Next steps

Item	Detail
Coastal Hazard Assessment	Identifies potential coastal erosion hazards which may impact assets in the coastal zone, including tangible and intangible hazards, for present day, 25, 50 and 100 year timeframes.
Risk and vulnerability assessment	Establishes understanding of potential impacts of erosion and storm surge inundation on assets and their values and identifies how the effects of coastal hazards are likely to impact on assets and recommends appropriate adaptation options.
Multi-Criteria Analysis	Assesses each of the proposed adaptation options against a range of criteria including effectiveness, constructability, legal requirements, adaptability, community values environmental impact, capital cost and operating / maintenance cost. Considers the outcomes from the Alternative Coastal Adaptation Options Research Report.
Cost Benefit Analysis	Assesses the viability of the proposed adaptation options from the outcomes of the Multi-Criteria Analysis based on the likely ratio of social, economic and environmental costs and benefits for each option resulting in a list of prioritised adaptation options for each coastal management zone.
Proposed Adaptation Pathways	Identifies proposed adaptation pathways based on the outcomes of the Multi-Criteria Analysis and Cost Benefit Analysis for each coastal management zone.
Benefit Distribution Analysis	Identifies models to fund investment into adaptation pathways.
Drafting of CHRMAP document	A draft plan will be developed which is informed by the assessments and studies undertaken in previous stages.

 City of
Joondalup


Questions

Agenda item 6 - Next meeting

CHRMAP CRG Meeting 6
4 November 2026

Topic - to be confirmed