



Department of Planning,
Lands and Heritage

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Western Australia.*

OFFICIAL

Coastal Hazards - Planning & Management in WA

SA Coastal Councils Alliance
2023 Forum

7 December 2023

Vivienne Panizza, Planning Policy Manager, DPLH



Fremantle coastline. Photo: Tourism WA

Overview

- WA Coastal Policy Suite
 - Coastal Zone Strategy
 - State Planning Policy 2.6 (SPP2.6) and Guidelines
- Key Policy Measures
 - Foreshore Reserve
 - Coastal Hazard Risk Management and Adaptation Planning (CHRMAP)
- Coastal Erosion Hotspots > CoastWA
- Coastal Hazards Working Group





WA Coastal Zone Strategy

- High-level framework for collective action by stakeholders
- State Government's response to key issues facing coastal planning and management
- Establishes the vision, goals & objectives for coastal planning and management
- A statement on managing coastal erosion & inundation
- Identifies roles & responsibilities of government, private organisations, NRM groups and the community

Environment: Conserve the State's natural coastal values and assets through sustainable use.
Key Objective: *Protect, conserve, enhance and maintain natural coastal values.*

Community: **Ensure safe public access to the coast and involve the community in coastal planning and management activities.**
Key Objective: *Ensure public ownership of coastal and estuarine foreshore reserves for management, safe public access, recreation and conservation.*

Economy: Provide for the sustainable use of natural coastal resources.
Key Objective: *Ensure natural coastal resources are used in an equitable and sustainable manner.*

Infrastructure: **Ensure the location of facilities and infrastructure in the coastal zone is sustainable and suitable.**
Key Objective: *Locate and design coastal development, infrastructure and facilities taking into account coastal processes, landform stability, water quality, environmental flows, hydrological cycles, coastal hazards and climate change.*

Governance: Build community confidence in coastal planning and management.
Key Objective: *Align policy, planning and development in the coastal zone with the public interest.*



- Introduction
- Intent
- Vision
- Goals and objectives
- Key issues
- Managing coastal erosion and inundation
- Roles and responsibilities
- Further information
- Appendix 1: Definitions
- Appendix 2: Stakeholder roles
- Appendix 3: Summary of WA State legislation relevant to the coastal zone
- Appendix 4: Key government strategies, policies and relevant documents
- Appendix 5: Funding opportunities

A sustainable coast for the long-term benefit of the community and visitors to the State



SPP2.6 State Coastal Planning Policy

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PLANNING AND DEVELOPMENT ACT 2005

STATE PLANNING POLICY No. 2.6

STATE COASTAL PLANNING POLICY

PREPARED UNDER PART 3 OF THE PLANNING AND DEVELOPMENT ACT 2005 BY THE WESTERN AUSTRALIAN PLANNING COMMISSION

REPLACES STATE PLANNING POLICY 2.6 AS PUBLISHED IN THE GOVERNMENT GAZETTE ON 10 JUNE 2003 AND AMENDED ON 19 DECEMBER 2006

Department of Planning,
Lands and Heritage Western Australian Planning Commission

State Coastal Planning Policy Guidelines

November 2020

interpretation & practical application of SPP2.6

Department of Planning,
Lands and Heritage Western Australian Planning Commission We're working for Western Australia.

Coastal hazard risk management and adaptation planning guidelines

July 2019

Coastal zones are vulnerable to adverse impacts from inundation and erosion. The risk to the environment from climate change is influenced by the level of preparedness and response of the community and its recovery capacity.

Step by step technical guide

SPP2.6 Policy purpose

Guidance for decision-making within the coastal zone

- manage development and **land use change**;
- establish **foreshore reserves**; and
- protect, conserve & enhance **coastal values**.

In doing so:

- recognise & respond to regional diversity in coastal types;
- require **coastal hazard risk management and adaptation** appropriately planned;
- encourage **innovative approaches to managing coastal hazard risk**; and
- provide **public** ownership of and access to coastal foreshore reserves.

Policy Objectives

1. Take coastal processes into account
2. Identify appropriate areas for sustainable use
3. Provide public coastal foreshore reserves
4. Protect coastal values particularly in areas of landscape, nature conservation, indigenous and cultural significance

SPP2.6 Content

Policy Measures

- Development & Settlement
- Water Resources & Management
- Building Height Limits
- Coastal Hazard Risk Management & Adaptation Planning
- Infill Development
- Coastal Protection Works
- Public Interest
- Coastal Foreshore Reserves
- Coastal Plan Requirements
- Precautionary Principle

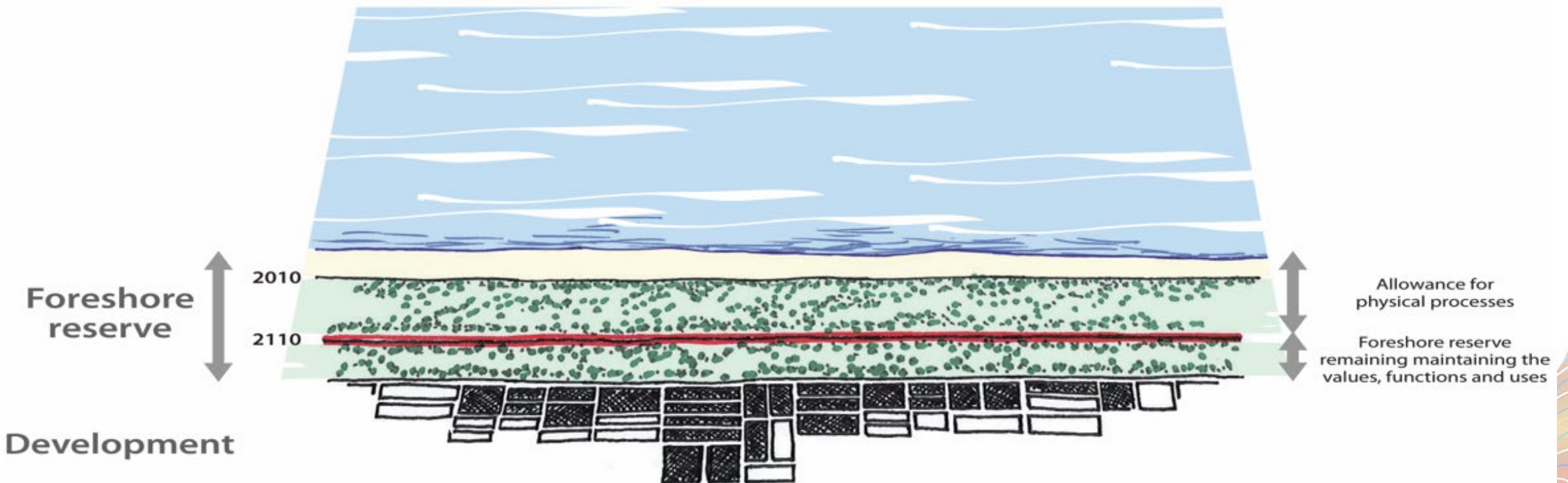
Schedule One: Coastal processes

- Planning Timeframe
- Coastal Types
- Climate Change - Sea Level Rise
- Horizontal Shoreline Datum
- Erosion / Accretion
- Storm Surge Inundation
- Definition of Storm Event
- Variations

SPP2.6 Coastal foreshore reserves

For green field development

- Case by case determination
- Foreshore reserve width to accommodate allowance for physical coastal processes & accommodate a **range of functions and values**, demonstrating a foreshore reserve will be **available at the end** of the planning timeframe

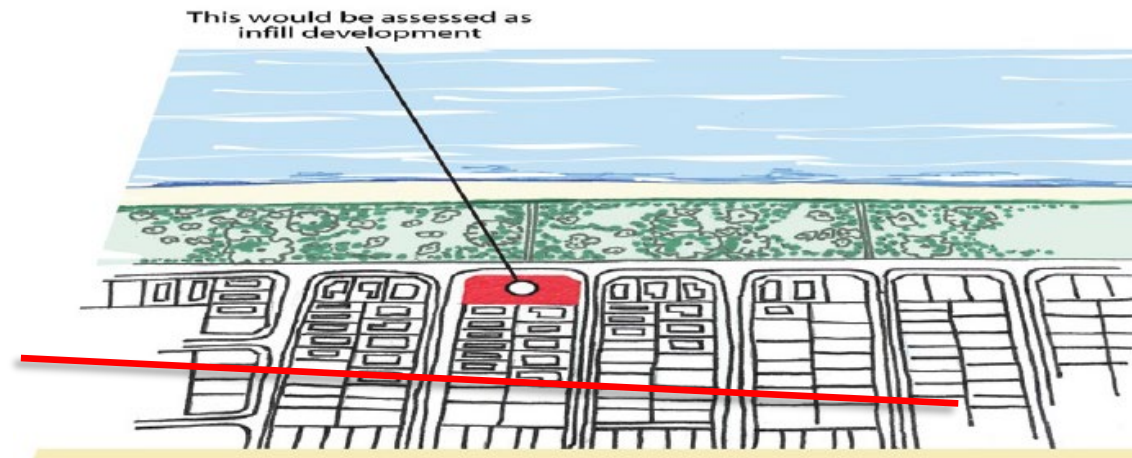


SPP2.6 Infill development

for brown field development

- Coastal hazard risk management and adaptation planning
- Disclosure and a solution from retreat through, accommodate, to protect – depending on the desired values and uses for that coastal reserve.
- New development should be located on the least vulnerable portion of site
- Evacuation plan (eg for resort developments)

- Notification on the certificate of title:
“VULNERABLE COASTAL AREA – This lot is located in an area likely to be subject to coastal erosion &/or inundation over the next 100 years.”

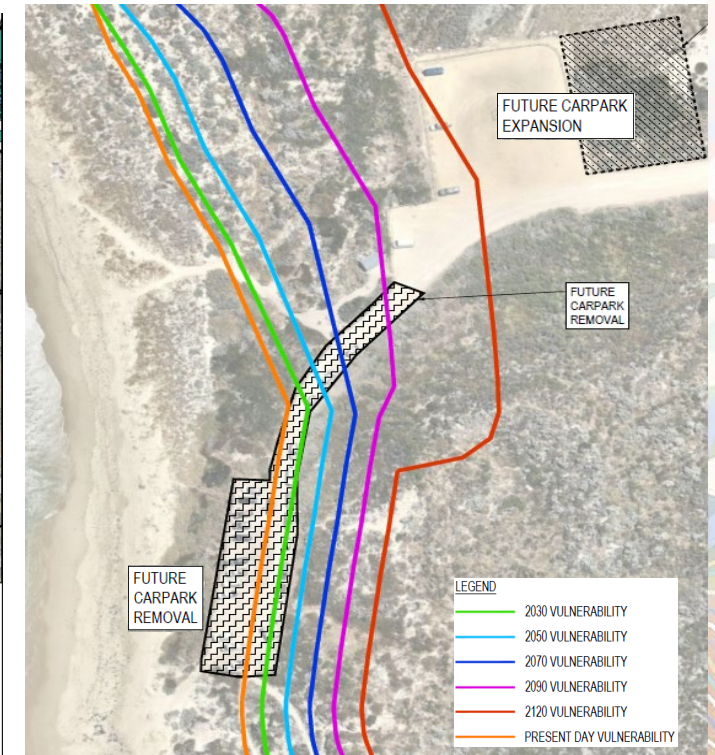
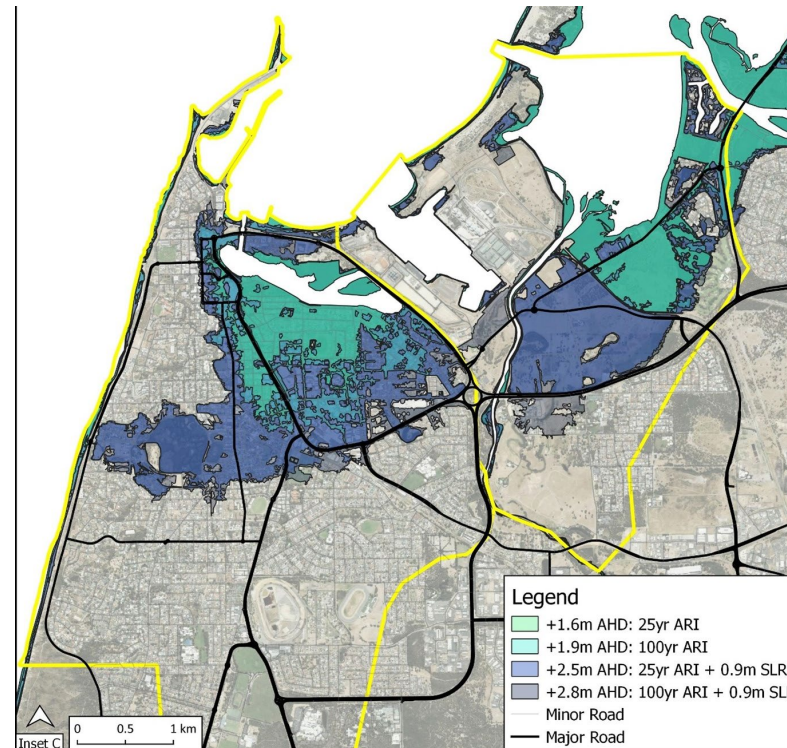


SPP2.6 CHRMAP

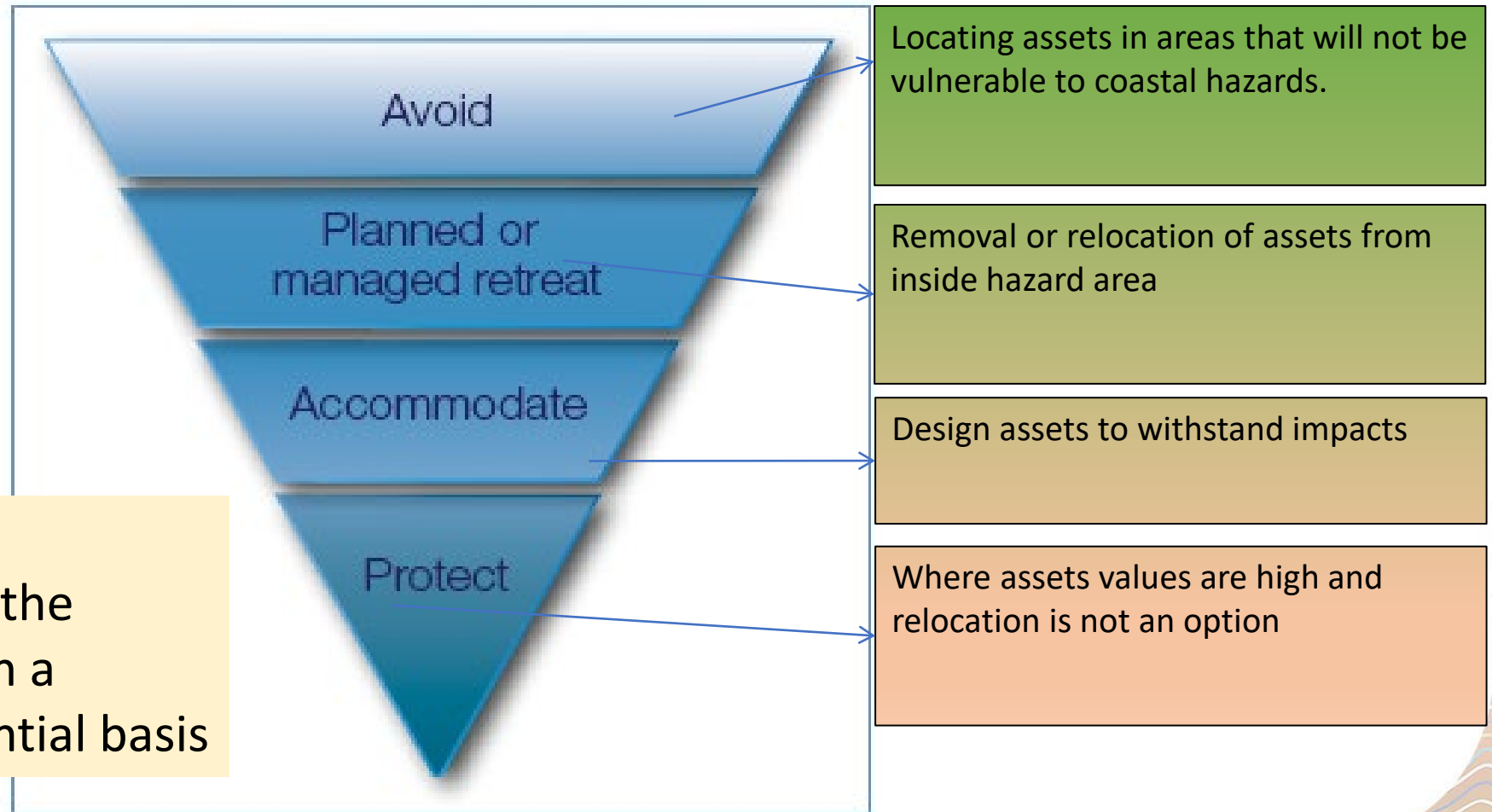
Coastal hazard risk management and adaptation planning should be undertaken by the responsible management authority and/or proponent where existing or proposed development or landholders are in an area at risk of being affected by coastal hazards over the planning timeframe

CHRMAP Guidelines

1. Establish the context
2. Risk identification
3. Vulnerability assessment
4. Risk evaluation
5. Risk treatment
6. Implementation
7. Monitor & review



Identification of adaptation options



Adaptation measures should be sought from the adaptation hierarchy on a sequential and preferential basis

Identification of Adaptation Options – coastal protection

PROTECTION

- Coastal protection works are a last resort option
- Primary purpose is for public benefit
- Coastal protection should only be considered once a number of issues have been addressed e.g:
 - Consistent with CHRMAP
 - Appropriate funding arrangements in place
 - Limiting impacts on adjacent environment
 - Ownership and ongoing responsibility for management is accepted

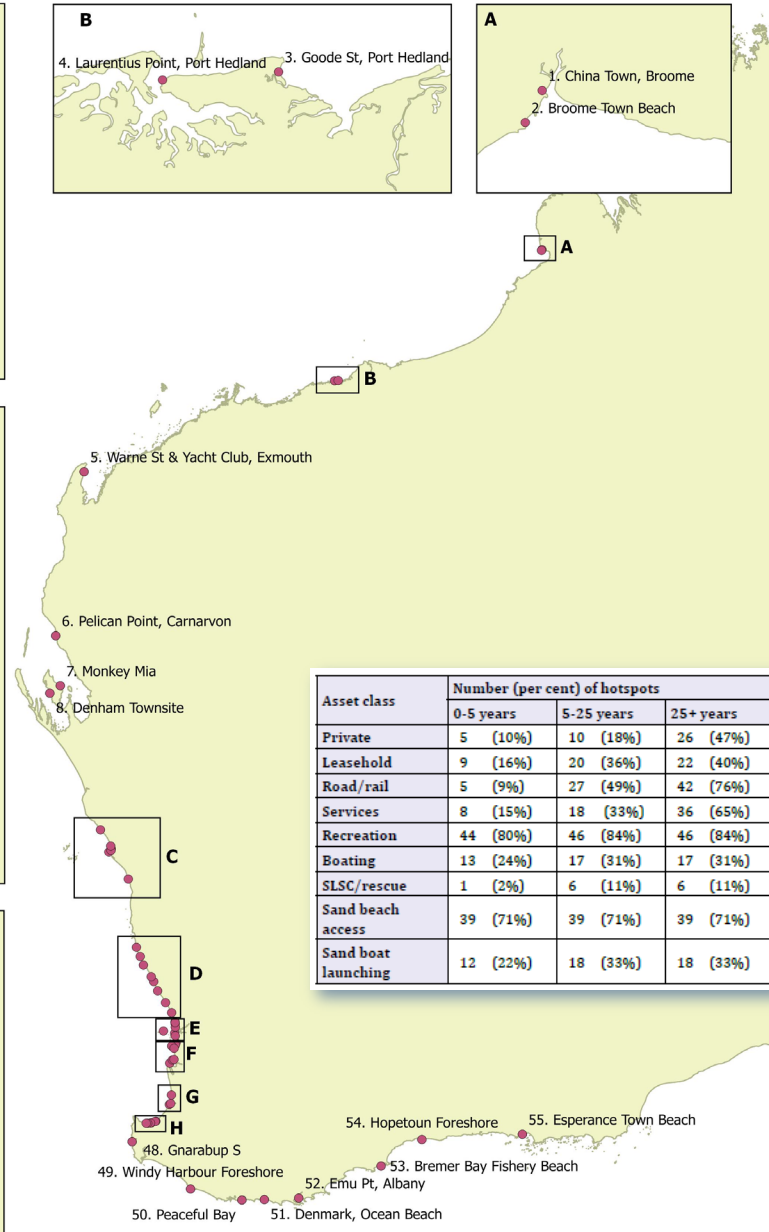
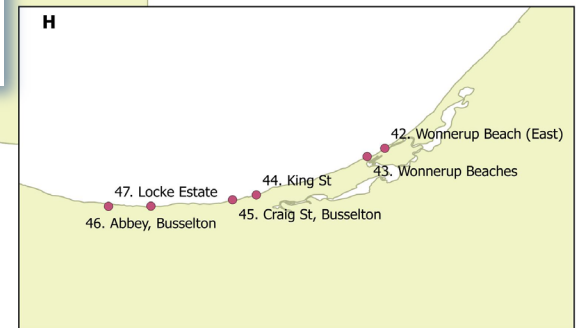
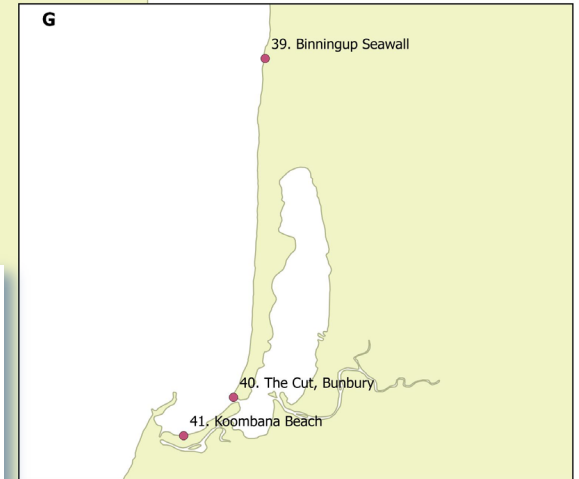
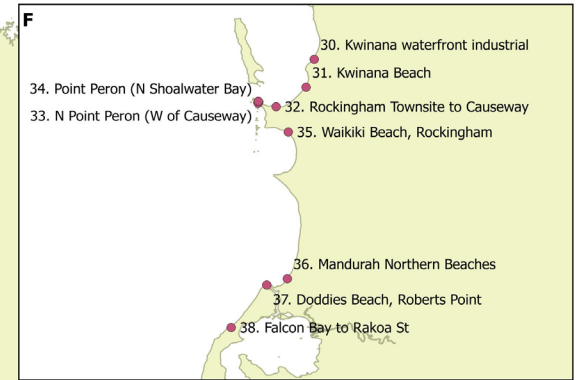
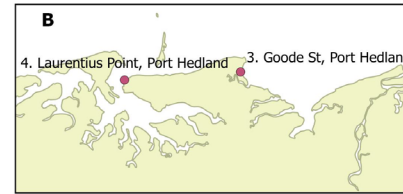
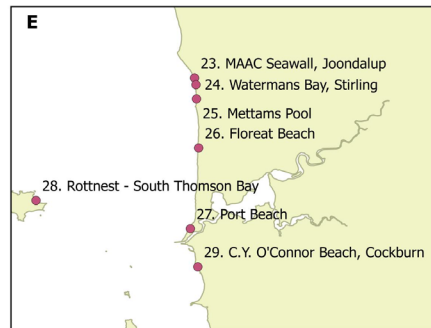
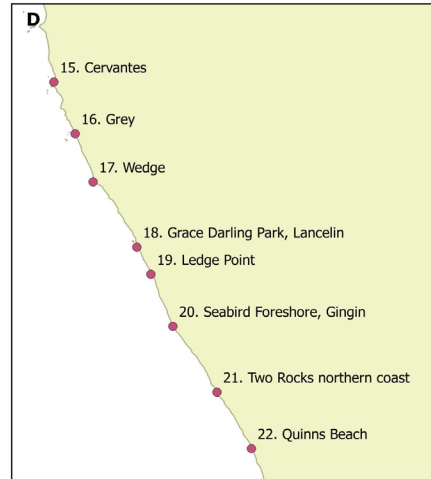
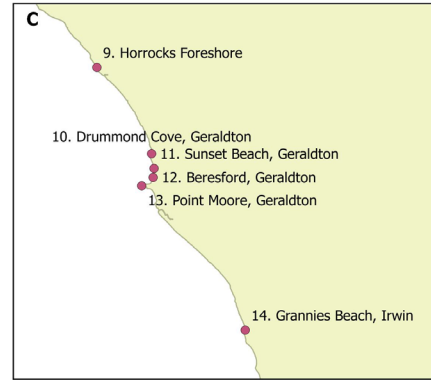
**Protection continuum –
soft to hard**
**Nature – Based protection
is evolving**

CZS Managing coastal erosion & inundation



Coastal erosion hotspots

- Where coastal erosion is expected to impact on assets and require management and adaptation action within 25 years
- 55 coastal erosion hotspots, spanning 29 local government areas
- 31 watchlist sites



Asset class	Number (per cent) of hotspots		
	0-5 years	5-25 years	25+ years
Private	5 (10%)	10 (18%)	26 (47%)
Leasehold	9 (16%)	20 (36%)	22 (40%)
Road/rail	5 (9%)	27 (49%)	42 (76%)
Services	8 (15%)	18 (33%)	36 (65%)
Recreation	44 (80%)	46 (84%)	46 (84%)
Boating	13 (24%)	17 (31%)	17 (31%)
SLSC/rescue	1 (2%)	6 (11%)	6 (11%)
Sand beach access	39 (71%)	39 (71%)	39 (71%)
Sand boat launching	12 (22%)	18 (33%)	18 (33%)



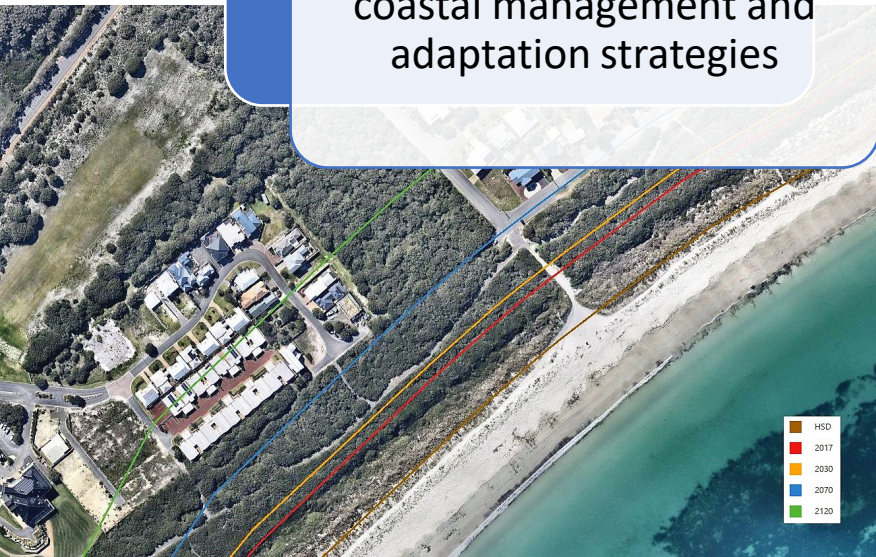
Aim: *CoastWA supports planning, managing and adapting to the impacts of coastal hazards to ensure sustainable land use and development on the coast for the long-term*

Objectives:

supports coastal managers to evaluate the options for coastal management and adaptation strategies

provides the means to plan, budget and manage the impacts of coastal hazards

strengthens the State – Local Government partnership and ensures expertise is available – especially for smaller less-resourced local governments



Program elements

1. Grants

- To support local coastal managers to prepare plans such as coastal hazard risk management and adaptation plans and undertake projects that deliver priority implementation actions

2. Hotspot assessment

- Individual erosion hotspot ground truthing
- Monitoring
- Identification of inundation hotspots

3. Data collection

- Wave data collection, studies and reviews
- Basic raw materials study
- Hazard mapping
- Bathymetric sea-bed mapping

4. Community engagement

- Community engagement strategy
- Coastal values survey
- Training and education

5. Technical expertise

- Program and project management
- Technical expertise to support local coastal managers
- CoastWA Local Government Facilitator hosted at WALGA



[Coastwa 2021-22 Achievements \(www.wa.gov.au\)](http://www.wa.gov.au)



Coastal Hazards Working Group Objectives

1

Collate existing
information on
coastal hazards

- Scale and extent?
- Impacts?
- Current management?
- Future management?

2

Explore
opportunities for
collaboration

3

Provide
recommendations
to EMM

2020-21 Context

- Coastal hazards threaten natural & built assets
- Exacerbated by climate change e.g. sea level rise (SLR)
- By 2100, global SLR = 0.28 – 1.01m, up to 2m possible
- State & Local government primarily responsible for coastal planning & management
- Traditional Owners & Aboriginal communities play a key role

CHWG Report Findings

State & Territory snapshot

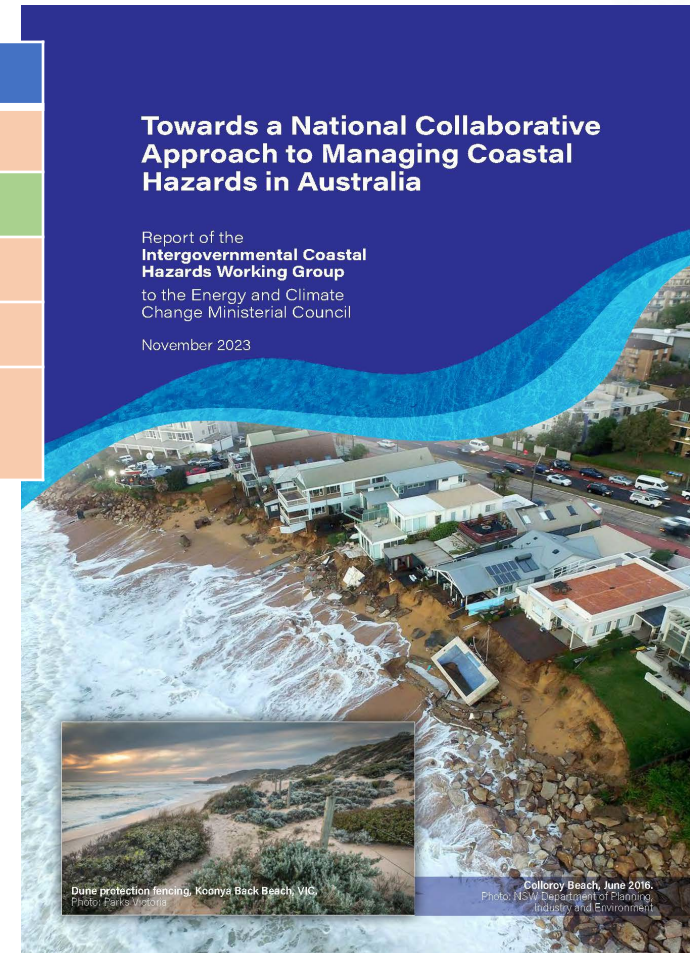
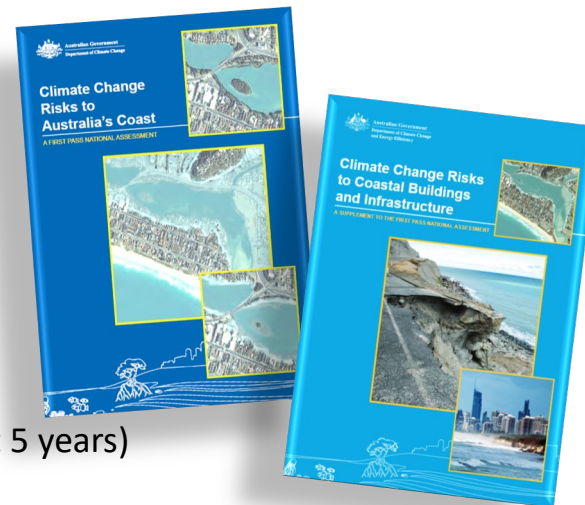
	WA	SA	TAS	VIC	NSW	QLD	NT
Statewide erosion assessment?	Y	N	Y	Y	Y	Y	N
Statewide inundation assessment?	Underway	N	Y	Y	Y	Y	Y
Assets at risk identified?	Y	N	Y	Y	Y	N	N
Value of assets at risk estimated?	N	N	Y	Y	Y	N	N
Cost of response/action estimated?	Y	Y	N	N	N	N	N

Towards a National Collaborative Approach to Managing Coastal Hazards in Australia

Report of the
Intergovernmental Coastal
Hazards Working Group
to the Energy and Climate
Change Ministerial Council
November 2023

National snapshot

Geographical scale of risk:	Unknown
Assets at risk identified?	Yes (2009 & 2011)
Value of assets at risk:	> \$226 billion (conservative)
Estimated management cost:	\$183 – \$350 million per year (next 5 years)



Current coastal planning & management

State government	Local government
> \$48m per year (2020/21)	\$90 – \$227m per year
Provided through grants programs	Council funds & external funding
108 employees valued at \$10.8m	238 coastal/estuarine Local governments

Current & future management needs

Estimated management	Up to \$350m per year (next 5 years)
Estimated gap	\$75 to \$212 million per year

CHWG Report Findings

Commonwealth investment

- Significant role in climate research & information
- Funding for disaster risk reduction
- Previously funded coastal planning & management e.g. CFOC
- Funding for update of the online CoastAdapt tool
- Currently no specific funding for coastal hazard adaptation action
- Since 2006, nine Commonwealth reports, initiatives or Parliamentary Inquiries – concluded need for national approach

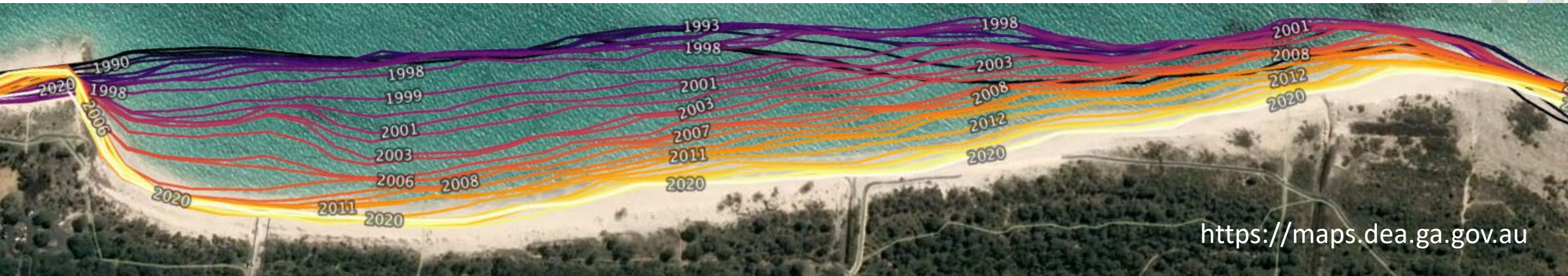


CARING
FOR
OUR
COUNTRY



Opportunities for national collaboration

- Develop a national strategy for coastal hazard management
- Commonwealth investment to bridge funding gap
- Sharing of information & experience
- Building more effective approaches to work with communities
- Updates to national hazard mapping using latest data e.g. DEA Coastlines



CHWG Progress

Outcomes so far

- Infrastructure Australia – National Coastal Hazards Adaptation Strategy
- New Commonwealth funding - CERMP 2022/23 \$50 million; DRF 2023/24 \$200M >
- CHWG Report completed (Dec 2022)
- ECMC 7 July 2023 noted and welcomed the CHWG Report
- ECMC agreed to further developing a national approach and coastal hazards strategy/framework

Where to from here?

- ECMC agreed continuation of CHWG
- CHWG Objectives reviewed & updated
- Continue to engage with Commonwealth – including input to the National Climate Risk Assessment and Adaptation Plan
- IA Stage 2/3 submission for a WA Coastal Hazards Adaptation Program

CHWG current ToR

Role

- Strengthen & further develop a national collaborative approach & framework for managing coastal hazards and climate change
- Ensure that coastal risk management policy is considered & implemented across all levels of government & all portfolios
- Provide an advisory role at the national level

Objectives

1. Identify & explore opportunities for a national collaborative approach across jurisdictions to manage coastal erosion and inundation, and the impacts of natural hazards & climate change on natural, public & private assets along Australia's coast.
2. Recommend actions that will benefit from a national collaborative approach to manage coastal hazards for consideration at the ECCMC & other appropriate Ministers groups.
3. Work collaboratively to progress the implementation of the recommendations in *Towards a National Collaborative Approach to Managing Coastal Hazards in Australia*.



Contact information

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Thank you for listening