



Frequently Asked Questions



The Peron Naturaliste Region Coastal Adaptation Decision Pathways Project

Who is the Peron Naturaliste Partnership?

The Peron Naturaliste Partnership (PNP) is a collaboration of nine Local Governments between Cape Peron and Cape Naturaliste in south-west WA being the City of Rockingham, Shire of Murray, City of Mandurah, Shire of Waroona, Shire of Harvey, Shire of Dardanup, City of Bunbury, Shire of Capel and the City of Busselton. The vision of the PNP is to empower a resilient regional community to reduce risks and optimise opportunities presented by climate change.

Why was the Peron Naturaliste Partnership established?

Local Governments within the Peron Naturaliste Region of Western Australia were identified in Climate Change Risks to Australia's Coast: A First Pass National Assessment (2009) as some of the most vulnerable areas which will be subject to coastal climate change impacts. These local governments recognised this vulnerability and formed a regional group in 2011 to further investigate the vulnerability and risk to the region in a changing climate.

What kinds of impacts can climate change have in coastal areas?

Climate change can lead to flooding (inundation), storm surges, raised water tables and increased coastal erosion and recession that potentially impacts dwellings, other buildings, infrastructure and coastal ecosystems.

What is the Peron Naturaliste Partnership doing to address the risks caused by climate change?

The Peron Naturaliste Partnership is undertaking a number of actions including the Coastal Adaptation Decision Pathways Project (CAPS); Developing Flexible Adaptation Pathways for the Peron Naturaliste Coastal Region of WA project. This project that received funding from the State Government and Australian Government assessed potential adaptation strategies to respond to coastal hazards arising from climate change induced sea level rise in the region. A project Fact Sheet is available on the Peron Naturaliste Partnership website and Project Reports are available upon request from your relevant local government or from the Peron Naturaliste Partnership. Please refer to 'further information' to get details.

Will my property be at risk?

The Project does not have the capacity to estimate the level of risk for individual dwellings, however it includes maps that indicate the potential hazard lines for the present day and snapshots in time up to 2110. The maps should be considered as potential future hazard areas only and do not replace the need for detailed local studies. Further studies are proposed to acquire more detailed local information.

A Fact Sheet is available on the Peron Naturaliste Partnership website and Project Reports which include area maps and hazard lines are available upon request from your relevant local government or from the Peron Naturaliste Partnership.

Please refer to the PNP CAPS fact sheet available at www.peronnaturaliste.org.au



How were the regional hazard maps created?

The inundation hazard mapping was developed from evaluation of tide gauge data sets from Fremantle, Bunbury, Busselton and the network of gauges within the Peel-Harvey estuarine system. Extreme water level estimates were added to the sea level rise projection of 0.9m by 2110 to provide coastal inundation hazard levels. Inundation levels were then applied to high-resolution elevation data, which enabled identification of hydraulic connections between the coast and lowlands.

The Erosion hazard mapping has been derived from the downscaling of a regional recession study, through consideration of geology and landforms. The recession study method, which aimed to explore uncertainties of coastal response to sea level rise, constrained the reliability of the hazard assessment. Key locations including Quindalup-Busselton, Bunbury and Mandurah are not well represented by the erosion model. Despite this limitation, the hazard mapping is considered suitable for economic assessment for all sites except the largely enclosed area of Koombana Bay. Further refinement of the erosion threat is required to include higher resolution identification of underlying rock features and inclusion of alongshore controls such as headlands and groynes.

Will there be any 'on-ground' work undertaken as a result of the CAPS Project?

No, this work is innovative and it is the first time that much of the work such as the methodology used for the hazard mapping and economic assessment has been undertaken. As such the detail of the results needs to be carefully considered. This is a crucial step forward and in many ways is just the beginning. The Report does include potential future adaptation actions but further research is required before any works including 'on-ground' work will occur, if it is in fact, deemed necessary.



Does the CAPS Project consider social and environmental factors?

The CAPS Project is primarily an 'economic assessment' and social and environmental variables have not been considered to the extent required to make well-informed comprehensive decisions. These factors will need to be addressed in future work.

What level of government is addressing this matter?

A collaborative approach that involves all levels of government and stakeholders is required to effectively address this complex issue. The PNP will continue to highlight this matter and engage all parties to meet this challenge.

What are the key next steps?

A key priority that will need to be examined further is the erosion hazard mapping. The mapping used was derived from the downscaling of a regional recession study. This method constrained the reliability of the hazard assessment. Furthermore, the erosion modeling needs to be refined to a higher resolution to identify underlying rock features and to include alongshore controls such as groynes. The economic modeling would then be reviewed to include this updated data. The Peron Naturaliste Partnership is, as a priority, actively investigating opportunities to fund this work.



Where can I get further information?

Please visit the Peron Naturaliste Partnership website at www.peronnaturaliste.org.au or contact your relevant local government.

City of Rockingham

Address: Civic Boulevard, Rockingham

Tel: (08) 9528 0333

Shire of Murray

Address: 1915 Pinjarra Road, Pinjarra

Tel: (08) 9531 7777

City of Mandurah

Address: 3 Peel Street, Mandurah

Tel: (08) 9550 3777

Shire of Waroona

Address: 52 Hesse Street, Waroona

Tel: (08) 9733 7800

Shire of Harvey

Address: 102 Uduc Rd, Harvey

Tel: (08) 9729 0300

Shire of Dardanup

Address: 1 Council Dr, Eaton

Tel: (08) 9724 0000

City of Bunbury

Address: 4 Stephen Street, Bunbury

Tel: (08) 9792 7000

Shire of Capel

Address: 31 Forrest Road, Capel

Tel: (08) 9727 0222

City of Busselton

Address: 2 Southern Drive, Busselton

Tel: (08) 9781 0444

