

Cover Sheet:

Clarence Valley Council (CVC) - Erosion and Recession Hazard Zone Mapping

Notes on mapping:

- The attached Erosion and Recession Hazard Zone maps have been prepared for Clarence Valley Council (CVC) and should be viewed in conjunction with the associated report describing the methodology and limitations of mapping
- Total Erosion and Recession Hazard Zones are a combination of components: storm erosion, shoreline recession, associated changes to recession from future wave climate, erosion from sea level rise, and the zone of reduced foundational capacity (ZRFC)
- Coastal hazards are defined in terms of a likelihood or event frequency. Future erosion and recession hazard projections are a combination of short-term and long-term probabilistic components. Therefore maps are provided in terms of likely exceedance probability (EP). That is, for a given planning horizon, maps indicate the probability (e.g. 1% EP) that the hazard extent will be exceeded.
- The mapped Erosion and Recession Hazard Zones exceedances have been limited to: 50% EP, 10% EP, 2% EP, and 1% EP, and as such do not account for the full extent of possible erosion and recession scenarios (i.e. very rare events exceeding 1% EP)
- Future hazard mapping has been conducted for 2x Shared Socio-economic Pathways (SSPs): SSP2 and SSP5, as defined by the Intergovernmental Panel for Climate Change (IPCC). These scenarios consider how a variety of socioeconomic factors may influence sea level rise over the coming century.
- Hazard zones have been mapped from the 2mAHD contour derived from state-wide 2018 LiDAR, in accordance with previous statewide hazard mapping. The exceptions are Brooms Head at Lake Cakora Entrance, and Woody Bay, where the 2mAHD contour has been derived from contemporary survey capturing ongoing erosion at these locations.
- No adjustments have been made to hazard zones to account for existing coastal defence structures. Consequently, the maps should be considered as 'undefended' hazard zones.
- Bed rock layer has been derived from the NSW Seamless Geology maps of the Cenozoic Sedimentary Province. Existing bedrock may limit the extent of erosion and recession, additional geotechnical investigation is required to confirm the extent of protection provided by underlying bedrock
- Erosion and Recession Hazard Zone mapping has been conducted on a regional scale with a uniform methodology used for assessing erosion at the level of coastal compartments. Efforts have been made to ensure adjacent hazard zones agree within a regional context, however mapped zones may be conservative in some locations where the level of detailed geotechnical information exceeded the detail of this study.
- Erosion and Recession Hazard Zones shown on the maps have been limited by the presence of the estuary at Whiting Beach, Sandon and Wooli. Similarly, the limit of landward erosion/recession shown for Woody Bay and Shark Bay is predicted to result from the formation of the equilibrium planform layout (single embayment).

jbpacific.com.au
1300 764 332

477 Boundary Street
Spring Hill
QLD 4004

JBP
scientists
and engineers

PROJECT ID	2021s1471
AUTHOR	JK
LAST MODIFIED	12/09/2023
VERSION	12

JBPACIFIC does not warrant the accuracy or completeness of the information displayed in this map. Any person using it does so at their own risk. JBPACIFIC shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.

Filename: N:\2021\Projects\2021s1471 - Hydrosphere - CVC CMP Stage 2-4\1_WEP\HW\Graphical\GIS\Projects\Map08_EPA_mapping_EM.gxd

Title

Erosion and recession hazard zones

Project

2021s1471 - Hydrosphere -
CVC CMP Stage 2 - 4

Client

Hydrosphere Consulting

Data Sources:
Imagery © ESRI Satellite
Imagery © Nearmap
Bedrock layer - NSW Geology

Date

12/09/2023