

HAWKESBURY- NEPEAN RIVER COASTAL MANAGEMENT PROGRAM

Factsheet 2: COASTAL & ESTUARINE HAZARDS

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WHAT ARE COASTAL & ESTUARINE HAZARDS?

Coastal hazards, such as inundation, storm surges and erosion, are natural processes that can threaten a diverse set of social, natural and cultural assets, including public and private property and valued recreational and tourist areas, with flow-on social and economic impacts.

Along the Hawkesbury, major estuarine hazard impacts are typically associated with foreshore erosion and catchment flooding, whereas estuaries of Brisbane Water and Pittwater and open waters of Broken Bay are more susceptible to impacts from coastal erosion, tidal inundation and slope instability.

TYPES OF COASTAL AND ESTUARINE HAZARDS

LONG-TERM HAZARDS



Coastal and Tidal inundation (i.e. 'sunny day flooding')



Foreshore erosion and bank instability



Long term coastal shoreline recession



Estuary entrance instability



Cliff and slope instability

EVENT-BASED HAZARDS



Coastal storm impacts – storm surges and wave run-up



Rainfall extremes – catchment flooding



Bushfire



Drought



Tsunami



Dam breach / break

HOW DOES THE COASTAL MANAGEMENT PROGRAM FIT IN?

The CMP process facilitates identification of areas impacted by various coastal and estuarine hazards and enables an assessment of the relative risk of each of these hazards.

This information is then used to inform the development of management actions to address these hazards. Management actions can include planning responses (such as definition and mapping of Coastal Vulnerability Areas) or physical interventions (such as building of seawalls, rock or timber revetments, bank and dune revegetation etc.).

Combined with



Increased temperatures



More heat waves



Harsher fire weather



Extreme dry and wet spells

CLIMATE CHANGE EFFECTS



More intense downpours



Rising sea level



Fewer frosts



Warmer and more acidic oceans

Leads to:



salinisation and altered hydrology affecting primary production



increased frequency and severity of coastal hazards



habitat squeeze and migration



negative impacts on water-connected businesses



more pests and disease outbreaks



water level changes affecting private properties

To report known coastal and estuarine hazards within the Hawkesbury-Nepean River System visit hawkesburynepeancmp.org and have your say.

