

# HAWKESBURY- NEPEAN RIVER COASTAL MANAGEMENT PROGRAM

## Factsheet 2: COASTAL & ESTUARINE HAZARDS

Prepared June 2022

### 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](http://hawkesburynepeancmp.org) and have your say.

