MANGROVES

FIVE FAST FACTS

1. Mangroves are coastal ecosystems consisting of flowering trees and shrubs adapted to marine and estuarine conditions.

2. Exposed breathing roots, salt-excreting leaves and live water-dispersed propagules help mangroves to cope with tidal inundation and salt saturated, oxygen poor soils.

3. Mangroves provide valuable habitat for important aquatic species like barramundi, mud crab, and prawns.

4. Coastal mangroves protect seagrass and coral communities by filtering catchment runoff and limiting shoreline erosion.

5. Owing to their environmental importance mangroves are protected in Queensland under the Queensland Fisheries Act 1994.

THE GRADES

2018

C

Grading system

A Very good (0.85 - 1.00)
B Good (0.65 - 0.84)
C Satisfactory (0.50 - 0.64)
D Poor (0.25 - 0.49)
E Very poor (0.00 - 0.24)

HOW ARE MANGROVES MEASURED?

Mangroves occur in tidal wetlands in all 13 GHHP reporting zones. Mangroves and tidal saltmarsh vegetation have changed considerably across the region since the 1940s especially around the central port area where there has been substantial urban and port development. It is impractical to use a 1940's distribution of mangroves as a baseline, both in terms of collecting suitable data and in being able to return to a past distribution. The baseline adopted for two of the three mangrove indicators, extent and canopy condition, is the five-year period from 2013/14 data.
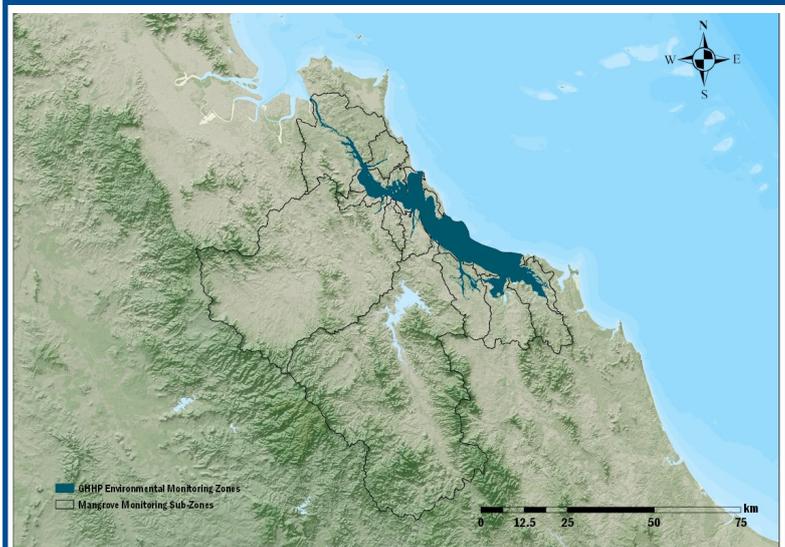
The third indicator, shoreline condition, is based on the current condition. The three indicators are assessed using the following methods:

- *Mangrove extent, which calculates the proportion of mangroves in a tidal wetland, and canopy condition, which measures canopy health, were determined from analysis of satellite imagery.*

- *Shoreline condition, which assesses the proportion of dead mangroves within the shoreline trees, was determined from current (2018) aerial photography.*

WHAT DO THE GRADES MEAN?

In 2018 five zones were considered to be in good condition, six zones were considered satisfactory and two zones Inner Harbour and Boyne Estuary received an overall poor grade. Flood impacts, affecting the shoreline trees, were observed in Boyne Estuary and shoreline dieback was observed at the Inner Harbour. The remaining six zones all had a satisfactory overall condition and the overall grade for the harbour in 2018 was satisfactory.

MANGROVE SITES MONITORED BY GHHP

GHHP Environmental Monitoring Zones
Mangrove Monitoring Sub-Zones

Mangroves are monitored in the sub-tidal wetlands that surround Gladstone Harbour. As mangrove health can be influenced by the surrounding catchment