

# St Georges Basin

## Estuary Ecosystem Health Report Card 2022-23

### Estuary Health

Monthly water quality monitoring was undertaken by Council at three sites between September 2022 and January 2023. The overall estuary health grade for St Georges Basin was very good, based on microscopic algae and water clarity as key indicators. Microscopic algae and water clarity levels were consistently very good across the period.

These estuary health grades provide an insight into the water quality of St Georges Basin for the year 2022-23. Council will continue water quality monitoring to assess estuarine ecosystem health and public health.

#### Algae

**Chlorophyll a** indicates the amount of microscopic algae, called phytoplankton, growing in the waterway. Algae can grow quickly when high levels of nutrients are present. Nutrients can enter an estuary through urban stormwater, agricultural runoff, sewage and sediment runoff from the land. An increase in chlorophyll a can lead to algal blooms and detrimental impacts on aquatic plants and animals.

#### Water clarity

Water clarity is determined by **turbidity**, a measure of how much material, such as sediment or organic matter, is suspended in water. Turbidity can increase from sediments in catchment runoff, shoreline erosion, increased microscopic algae, and resuspension driven by wind (in shallow systems). High levels of turbidity may indicate poor water quality, which can have negative impacts on aquatic ecosystems.

**A** Overall Grade

Grades:

**A**

Very Good

**B**

Good

**C**

Fair

**D**

Poor

**E**

Very Poor

### Estuary Information

Catchment area (km<sup>2</sup>): 315.8

Estuary area (km<sup>2</sup>): 40.9

Estuary volume (ML): 215078.9

Entrance: Permanently open

Major tributaries: Wandandian Creek & Tomerong Creek

Avg Yearly Rainfall: 1207.3mm

(Stn No:068088) 2022: 2588mm (total)

