



Environmental Monitoring and Reporting Swan River Estuary ~ Weekly profile

by

Water Science Branch, Department of Water and Environmental Regulation

Date: Monday 12th February 2018

Weather & tide conditions: Conditions were fine with 0% cloud cover and a predominantly south easterly breeze of up to 7 knots. The predicted tides at Guildford were 0.55 m (low tide) at 07:45 and 1.05 m (high tide) at 21:41. Perth recorded 0 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was operational the week prior to sampling, while the Caversham oxygenation plant was operational from 12:06 5/2/18.

Lower Swan/Canning Estuary (BLA to NAR): The Lower Swan Estuary was hypersaline to saline throughout. Water was mostly well oxygenated to oxygenated throughout with the exception of bottom water that was low in oxygen at HEA. Water temperature ranged from 23.6 to 25.1 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was mostly brackish throughout with the exception of saline bottom water at NIL. Surface water was well oxygenated at all sites while bottom water was oxygenated at NIL and STJ and low in oxygen at MAY and RON. Water temperature ranged from 25.6 to 28.1 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish throughout. Surface water was well oxygenated from BWR10 to CAV while bottom water was hypoxic at BWR10, low in oxygen at KIN and well oxygenated to oxygenated from KMO to CAV. Water was low in oxygen on the surface at REG and JBC and throughout POL while water was hypoxic on the bottom at REG and JBC and throughout MSB. Water temperature ranged from 25.5 to 28.5 °C.

Definitions:

Salinity – fresh <5ppt, brackish 5-25ppt, saline 25-35ppt, hypersaline >35ppt

Dissolved oxygen – well oxygenated >6 mg/L
oxygenated >4 to 6 mg/L, low oxygen >2 to 4 mg/L,
hypoxic >0.5 to 2.0 mg/L, near anoxic <0.5 mg/L

Swan River Estuary - Physical-chemical Profile - 12th February 2018

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