

EstuaryWatch Report

April 2019

Bruce Ferres

EstuaryWatch observations of Sunday 28 April were carried out in windy and sometimes wet weather by Bruce Ferres, Jan Jones, Barrie Wilson and Franc Amendola.

The estuary mouth has been closed since February and an extensive berm has now been established. The berm was breached on the odd occasion in April when a few waves were large enough to wash over but this was relatively rare. Even at high tide the distance between estuary waters and those of the bay is now over 30 metres. This will prove to be quite a challenge for the short-finned eels who, at this time of the year, move out of the estuary, into the bay and begin their long northwards migration along the east coast of Australia. The EstuaryWatch team is keen to hear about any sightings!



The high salinity and oxygen levels recorded last month subsided during April and were much closer to falling within the acceptable range for these important indicators of estuarine health.

The team thought that the estuary water looked much clearer than it has been for some time and this was confirmed by the readings taken at all test sites. An interesting question is: Does the colour of the estuary water tell us anything about its quality? Well, as it turns out, not really. It is not so much the colour but the clarity that matters. The brownish colour of water in many waterways is the result of tannins leached from leaves and lignin residues from bark and wood. Swamp paperbarks and tea trees are high in tannins and lignin and so brown coloured water is to be naturally expected in the Balcombe Estuary.



Measuring the clarity of a water sample at the Oval Jetty site April 28, 2019

The clarity, or put the opposite way, the turbidity of the water does matter because it is an indicator of suspended solids of various kinds that can have a negative impact on light penetration and the solids themselves may be natural or introduced contaminants. The standard for healthy estuaries is a reading of <10 units measured in a turbidity cylinder. This month all the surface water testing and most of the bottom water testing of Balcombe Estuary met the expected standard.

The windy and occasionally wet weather experienced by the team was not an issue for a flock of twenty or so crested terns gathered on the berm. Not sure if they were sheltering from the elements or hoping to be the first to spot eels on the move!

As usual we are ever grateful for the efforts of Helen Carroll (data and image uploading) and George Murley (drone images).