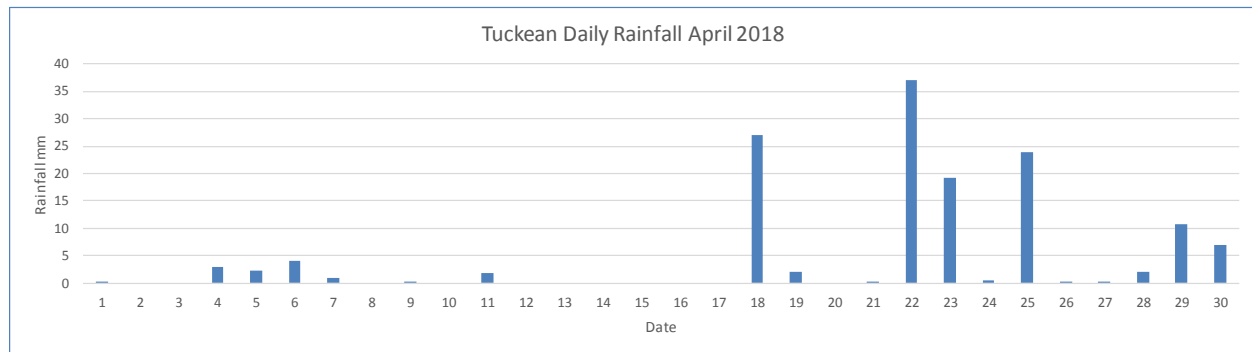


Tuckean Site 2 water quality – April 2018

Data logger located upstream of Bagotville Barrage, Tuckean Swamp, NSW



Interpretation

Solar panels and enclosures need to be replaced at Site 2 and the site is in the process of being rebuilt.

- **Electrical conductivity (EC)** at site 2 was not recorded in April. EC is directly related to salinity and is the inverse of electrical resistance in ohms. Water is considered fresh if below 1.8 ms/cm, brackish from 1.8 – 4.8 and saline above 4.8 with seawater approximately 60 ms/cm.
- **pH** in April was not recorded. On the pH scale neutral is at pH 7 and for every consecutive whole number below 7 acidity increases by ten times on a logarithmic scale. pH in an acid sulfate soil environment is affected by surface and groundwater level, drainage, rainfall, runoff and tidal exchange.
- **Water temperature** for April was not recorded. Water temperature normally peaks in the late afternoon as air temperature and solar radiation decreases. Temperature variations can be caused by a combination of factors including solar radiation, air temperature, tidal exchange, day /night, riparian shade, turbidity and rainfall.
- **Water level** was not recorded during April. Water height at site 2 fluctuates with tides, degree of sluice gate opening, river height, rainfall in the catchment and to a lesser extent temperature, wind and barometric pressure.
- **Rainfall** at the site 4 data logger situated 4 km to the north failed to record after 11th February 2017, however during April 2018 a nearby station recorded 142.4 mm over 19 days, which compares to the March 2018 reading of 163.6 mm over 18 days. Peak daily rainfall of 37 mm was recorded between 9am on 21st and 9am on the 22nd April. During April, the Rocky Mouth Creek data logger located 19 km to the SSW recorded 114.6 mm over 23 days, while the Ballina AWS located 19 km to the NE recorded 248.4 mm over 20 days.