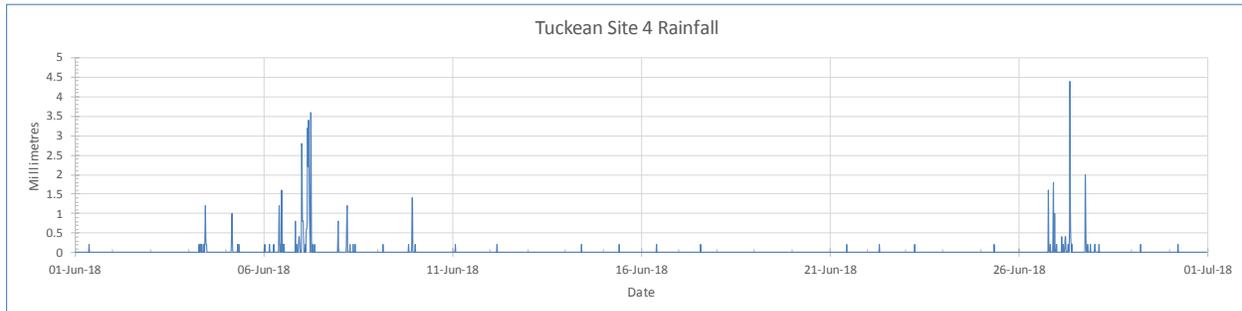


Tuckean site 2 water quality – June 2018

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



Interpretation

The logger failed on 5th November 2017 for EC, pH and water temperature but continued to transmit water level data. Regular maintenance recommenced on March 28th 2018 however the solar panel and enclosure needs to be replaced and components have been used to get other sites up and running. The site is in the process of being rebuilt and should be re-established in July.

- **Electrical conductivity (EC)** at site 2 was not recorded in June. 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 June 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 June 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 June. 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** recorded at the site 4 data logger situated 4 km to the north during June 2018 was 78.0 mm over 23 days, which compares to the May 2018 reading at a nearby station of 73.4 mm over 13 days. Peak 15-minute rainfall of 4.4 mm was recorded between 8:30 am and 8:45 am on the 27th June. During June the Rocky Mouth Creek data logger located 19 km to the SSW recorded 72.4 mm over 25 days, while the Ballina AWS located 19 km to the NE recorded 99.0 mm over 13 days.