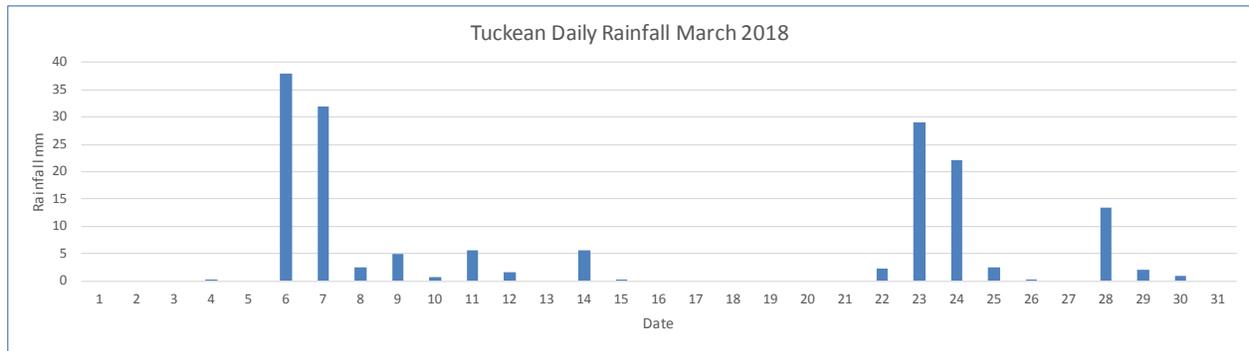


## Tuckean site 4 water quality – March 2018

Data logger located in Tuckean Swamp, Northern NSW



### Interpretation

\*Note – The logger ceased recording in February 2017 and due to lack of suitable logger for replacement and difficulty of access this site remained inactive. As of 28 March 2018 with resumed maintenance, the logger requires minor repair. Rainfall data has been supplied by a nearby station.

**Electrical conductivity (EC)** during March EC did not record. EC measures the ability of the water to conduct an electric current, which is the inverse of electrical resistance (R expressed in ohms) and is affected by rain and runoff, acid water, tidal brackish water and temperature.

**pH** was not recorded in March. Peaks of pH normally occur in late afternoon as plants draw CO<sup>2</sup> from the water, while troughs occur in early mornings as plants respire CO<sup>2</sup> forming carbonic acid. pH is measured on a logarithmic scale, therefore each consecutive whole number below neutral represents 10 times the acidity that the previous number.

**Water temperature.** Water temperature was not recorded by the data logger in March. Temperature variations are caused by cloud cover affecting solar radiation and air temperature, while rain, degree of shading, and season also affect water temperature.

**Water level** was not recorded in March. Rainfall, tidal fluctuations, river level, sluice gate opening, in stream vegetation, sediment build up and drain blocks and to a lesser extent temperature, wind and barometric pressure can all affect the water level.

**Rainfall** during March at the site 4 data logger failed to record, however a nearby station recorded 163.6 mm over 18 days, which compares to the February reading of 210.4 mm over 17 days. Peak daily rainfall of 38 mm was recorded between 9:00 am on 5<sup>th</sup> and 9:00 am on the 6<sup>th</sup> March. During March, the Rocky Mouth Creek data logger located 19 km to the SSW recorded 178.8 mm over 29 days, while Ballina AWS located 19 km to the NE recorded 119.2 mm over 16 days.