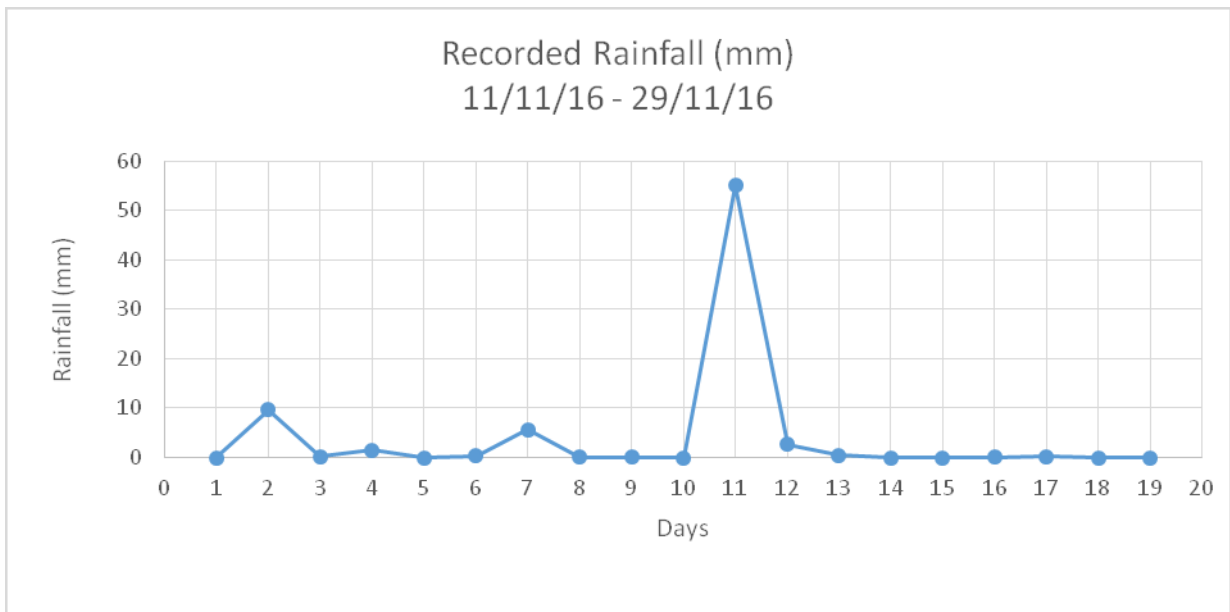
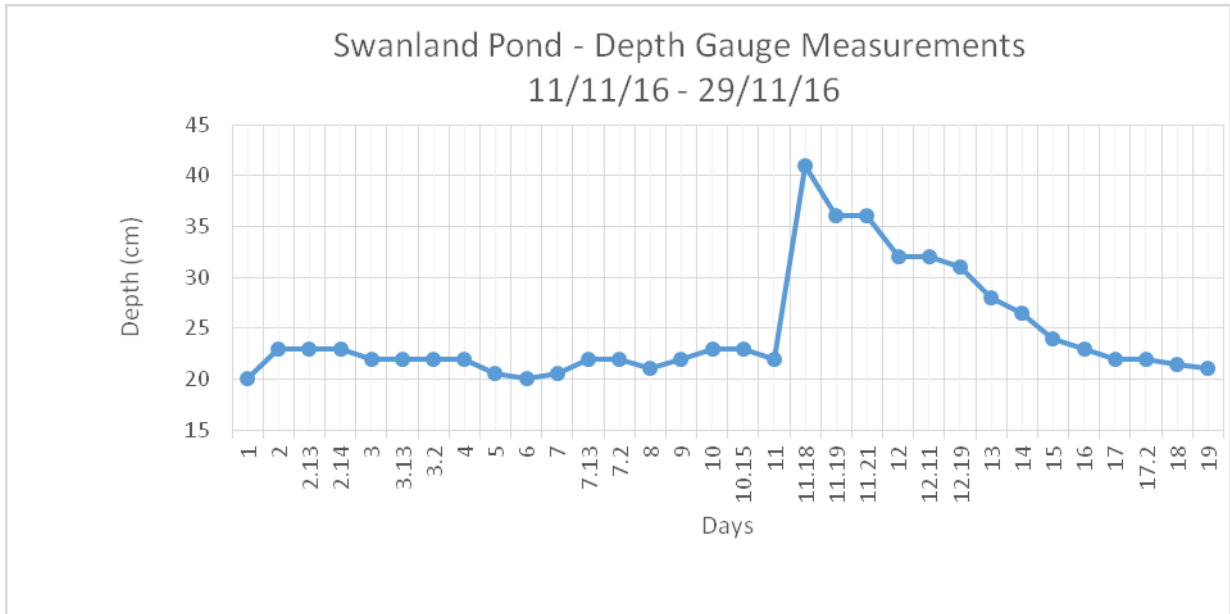


## SWANLAND POND – WATER LEVEL CHANGES

The graph below provides a summary of the raw data to date. Rainfall data has also been included below to show rainfall events. (The rainfall information is from two sources; G Latter (Swanland) and a weather website which includes historical information for North Ferriby). The depth gauge data includes 4 rainfall events; Days 2,3,7, and the storm on 21<sup>st</sup> November (Day 11). On days when rainfall occurred, a number of readings were taken hence the 11.18/11.19..... etc.



**Results:** The rapid changes in water level after the storm on the 21<sup>st</sup> confirm that we have a very significant leak, or more likely, leaks from the pond wall infrastructure. The results confirm visual observations that leak(s) must be occurring somewhere above the 20/21cm mark. On a positive note, these results seem to confirm that we do not have a significant leak from the pond bed.

The rate and pattern of leakage leads us to believe that the South Wall at the back of the pond could be the main problem. Large drops in the ponds water level have been observed for several years after heavy rain, **but historical observations suggest that the problem is getting worse**. If the pond walls are the problem this would fit with leakage increasing as the wall(s) deteriorate year by year. The fact that NO flooding or subsidence has been observed despite the large volumes being lost suggests that the water is flowing freely somewhere.