



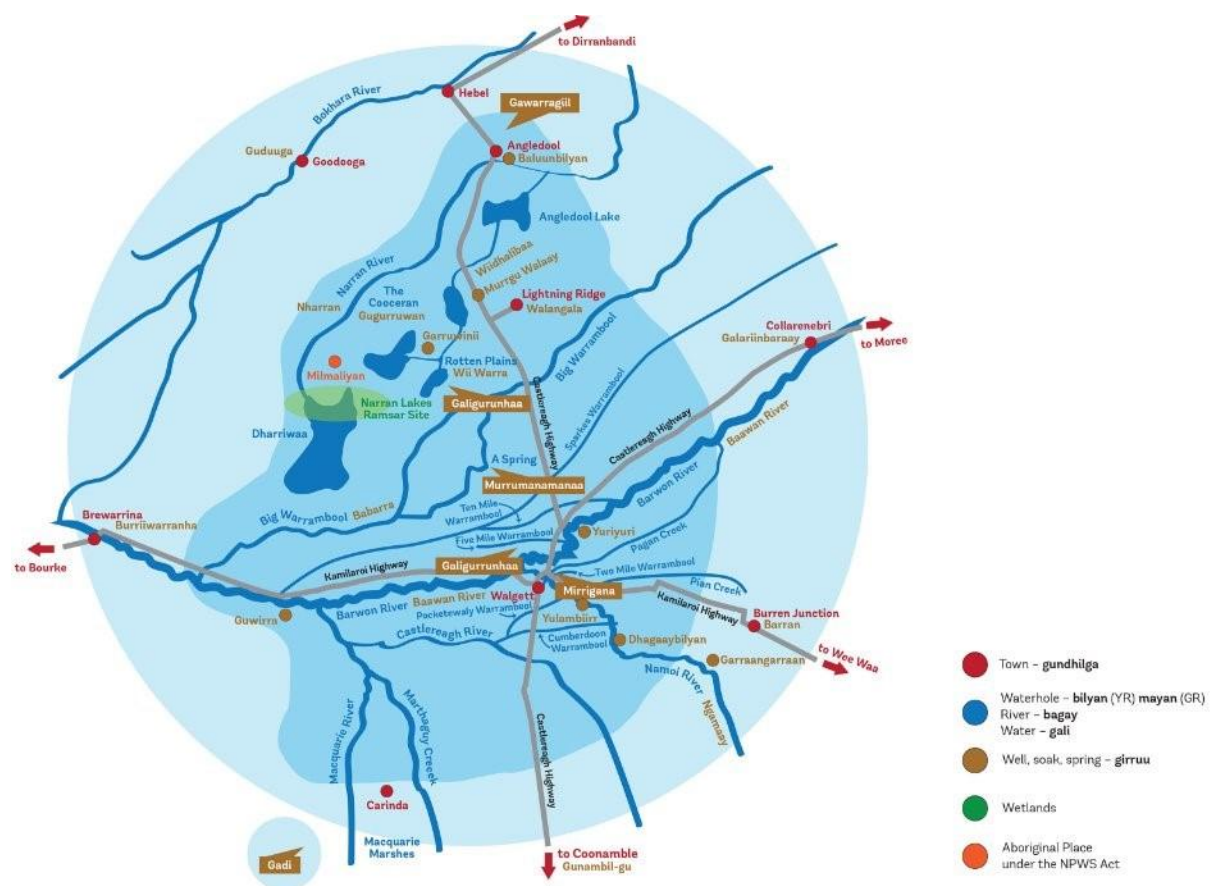
Weekly River Monitoring Report

19th November 2024

Introduction

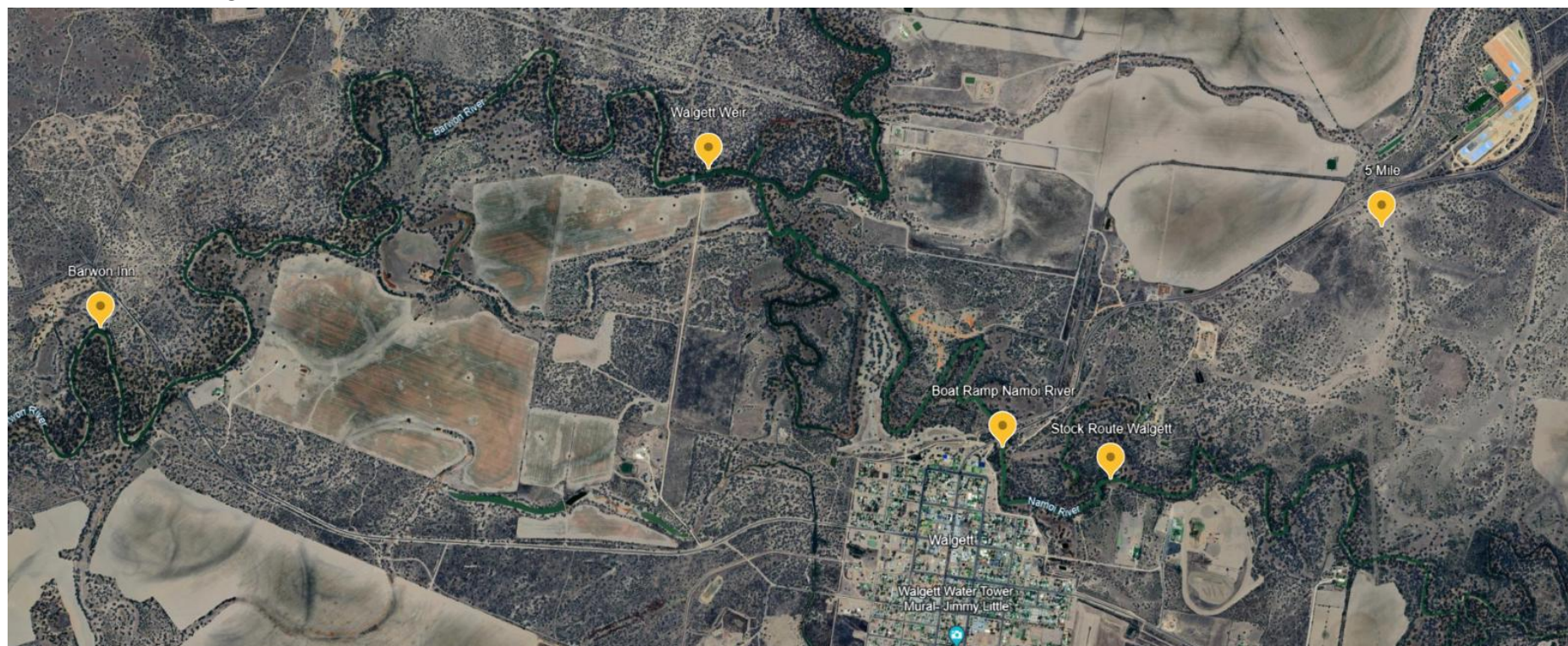
This data was collected on Tuesday 19th November between 10am and 1pm on the Ngamaay (Namoi) and Baawan (Barwon) River.

The Dharriwaa Elders Group River Rangers are conducting weekly water quality testing, measuring a range of factors that affect the quality of the river water. Different results affect the health of native animals and plants, and the health of the people that rely on the river for food and water.

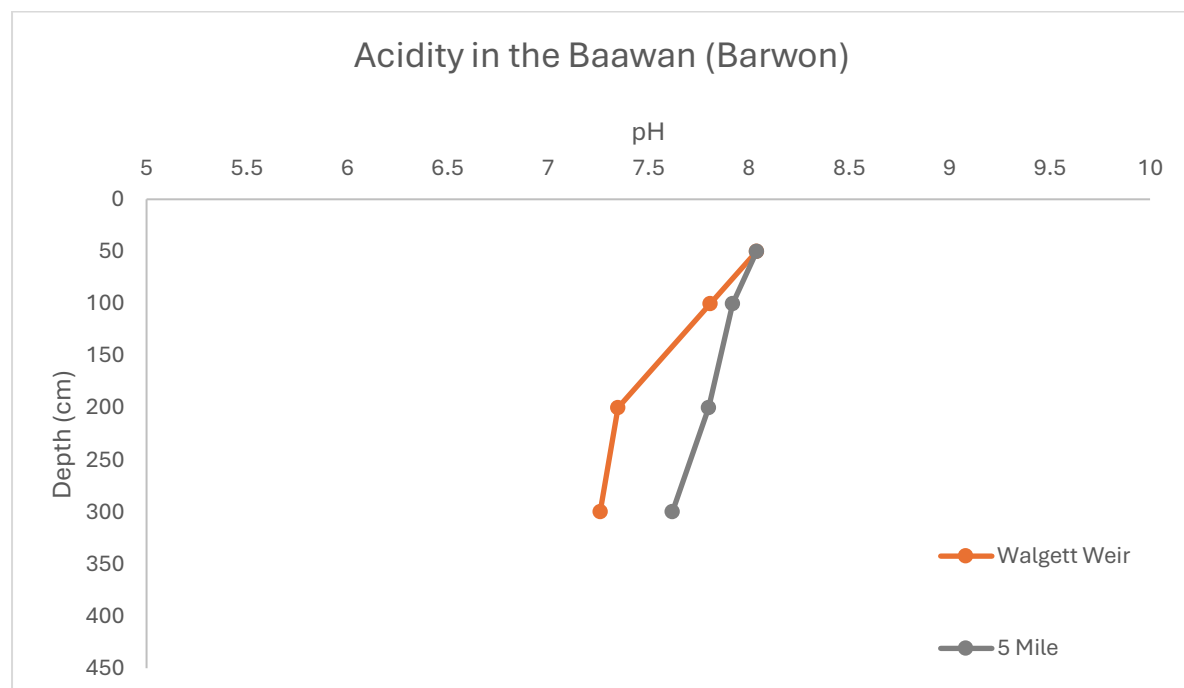
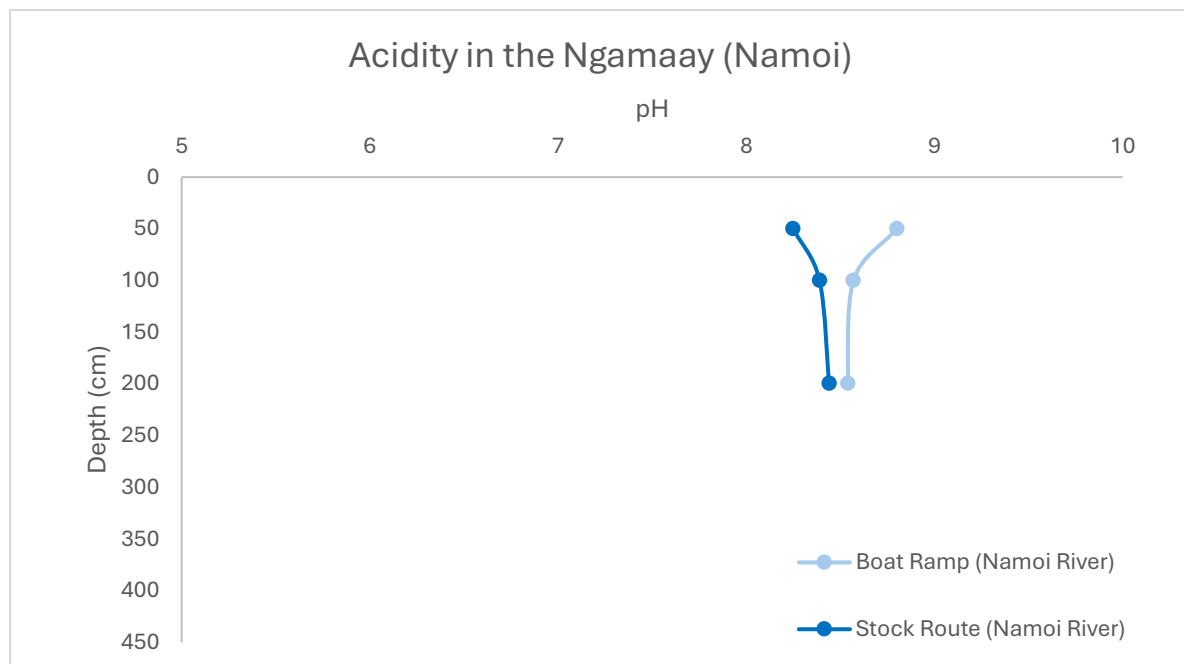


(Picture: Dharriwaa Elders Group area of interest)

Picture: Map of the Baawan (Barwon) River and Ngamaay (Namoi) River where the DEG River Rangers do their water quality monitoring.



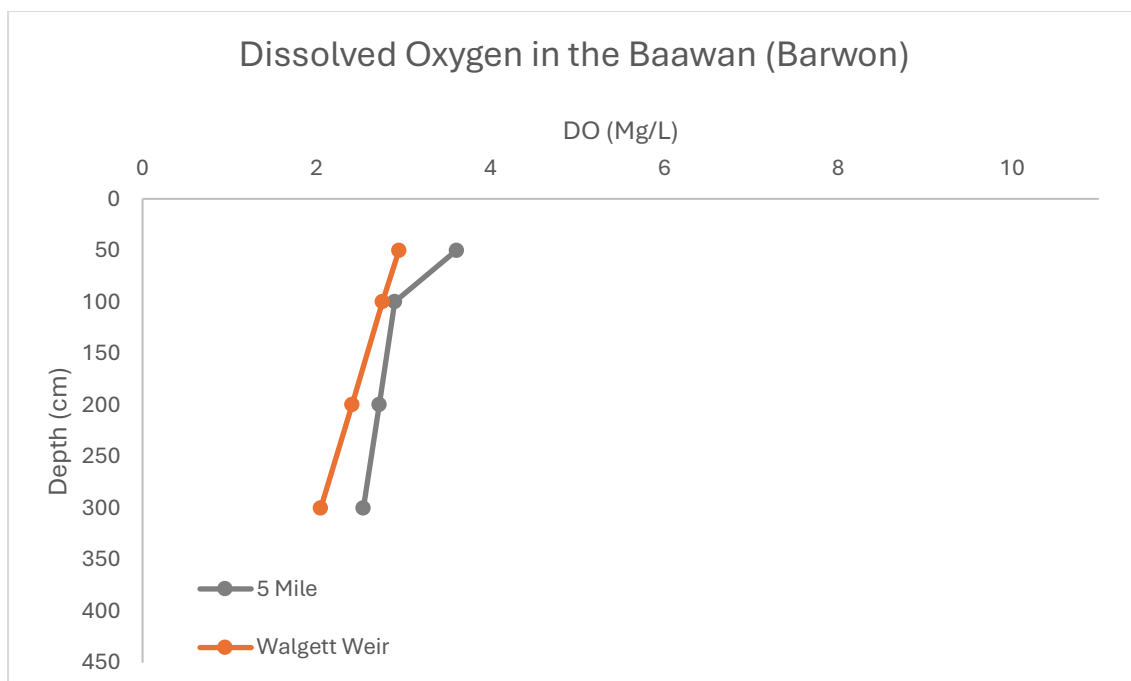
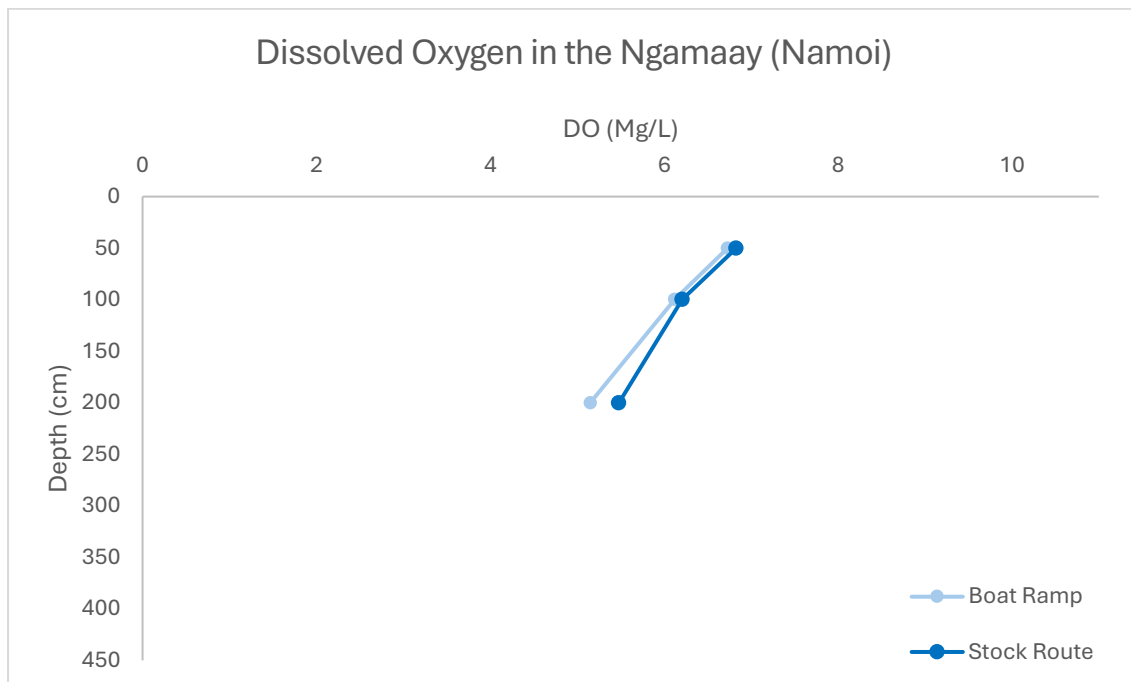
Acidity in the Ngamaay and Baawan River



The pH measured at all sites on the Baawan and almost all sites on the Ngamaay is within a healthy range. The pH at 50cm on the Boat Ramp site on the Ngamaay is slightly outside the healthy range, but it is not high enough to be of concern. The lowest reading is 7.26 and the highest reading is 8.8.

Healthy range: 6.5 - 8.5 pH

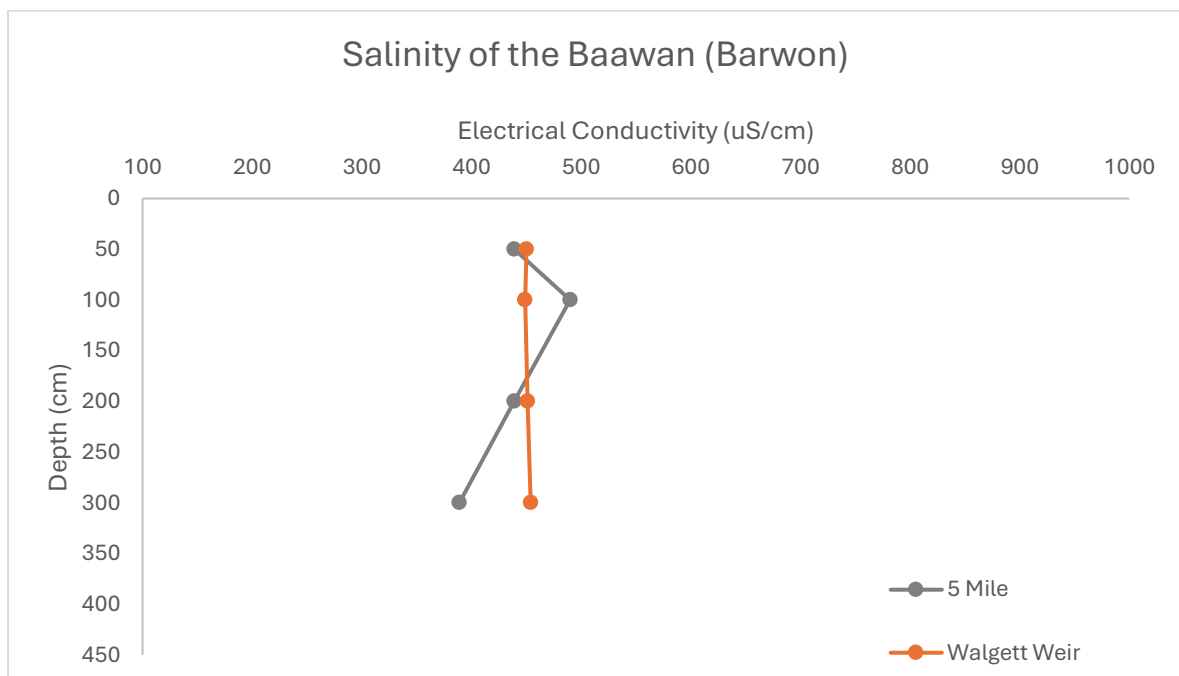
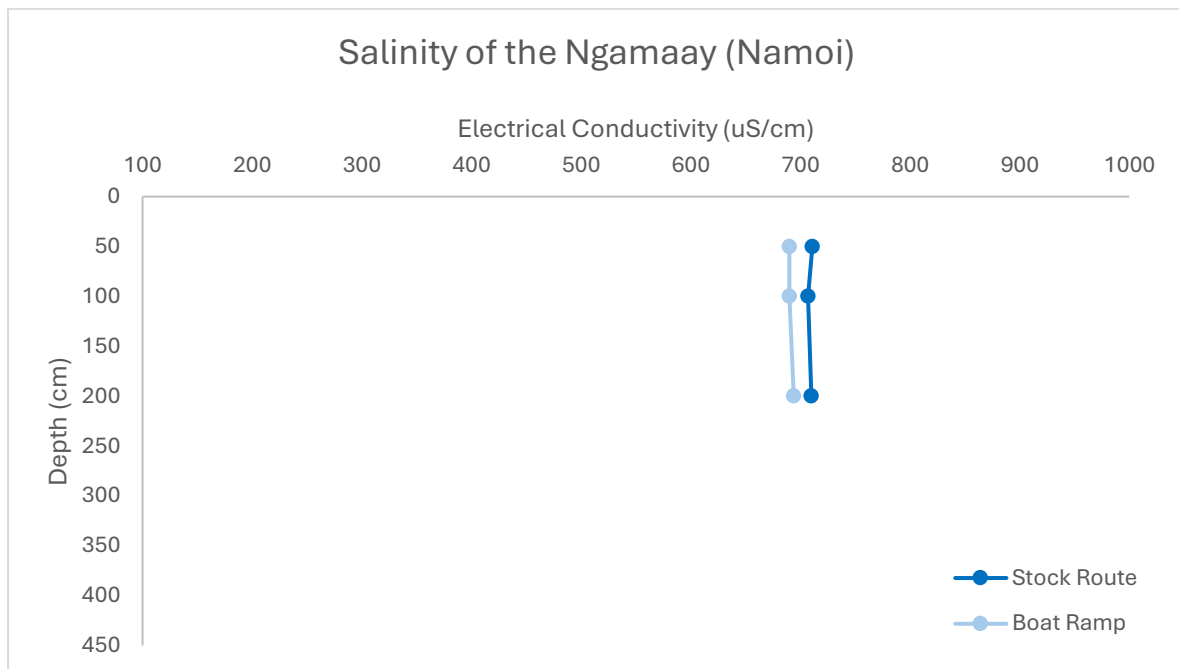
Dissolved Oxygen in the Ngamaay and Baawan River



The dissolved oxygen (mg/L) measured at the Ngamaay are within the healthy range at 1 metre and above but are below the healthy range at 2 metres. The dissolved oxygen in the Baawan is below the healthy range at all depths. At these levels there is not enough oxygen for native fish. The minimum reading is 2.05 and the maximum reading is 6.83.

Healthy Range: 6 - 8 (Mg/L)

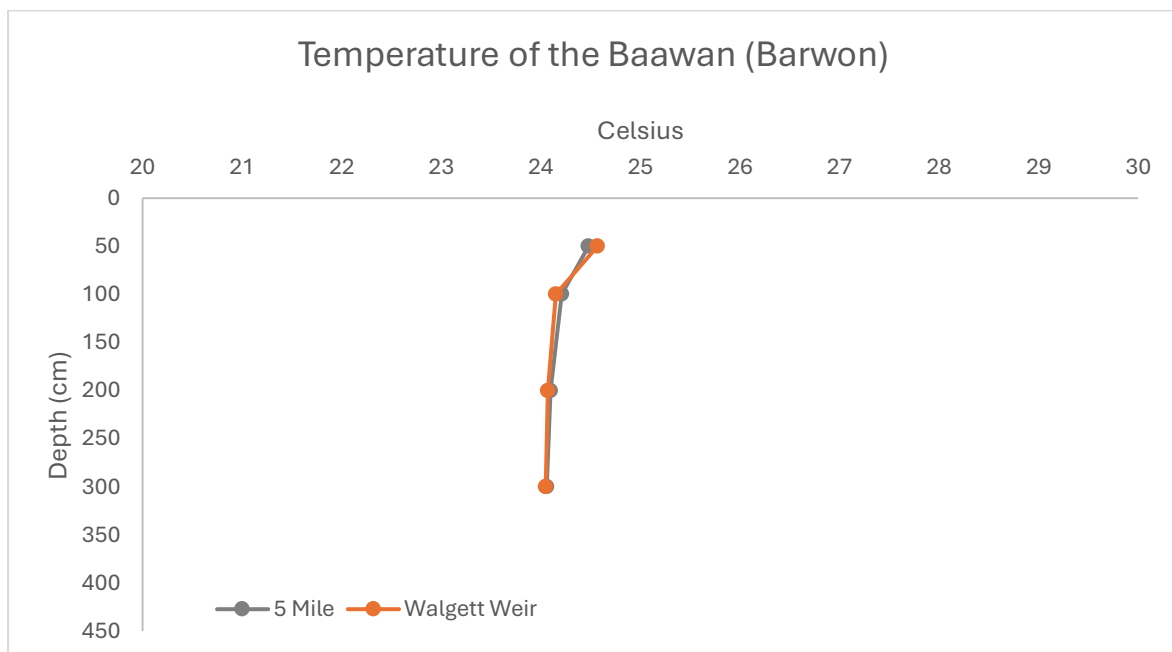
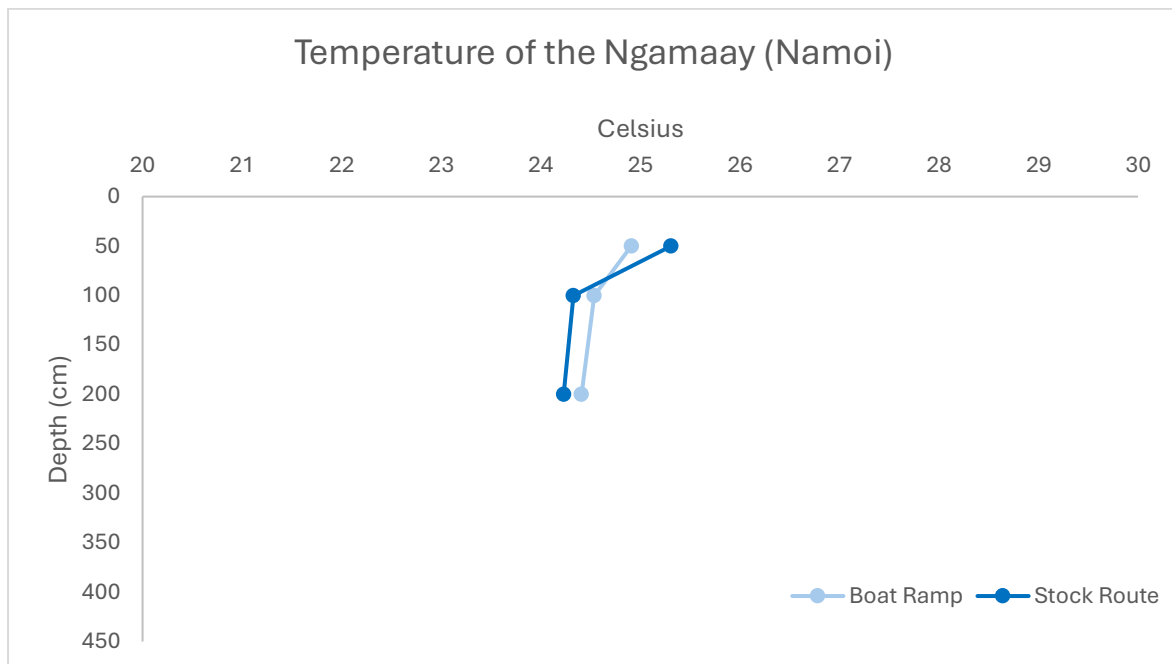
Salinity in the Ngamaay and Baawan River



The electrical conductivity (EC) is the measurement of the salinity (salt) in the water. The EC measured at all sites at all depths are within a healthy range. This good for freshwater fish. The minimum reading is 389 and the maximum reading is 711.

Healthy Range: 125 - 2,200 uS/cm

Temperature in Ngamaay and Baawan River



The temperature measured at all sites is within the healthy range. This is good for freshwater fish. The minimum reading is 24.06 and the maximum reading is 25.31. The temperatures are consistent across testing sites and depths which will not cause stress for fish.

Healthy Range: 18-28 degrees (Celsius)

Conclusion

The pH across both rivers is at a healthy level. Only one site in the Ngamaay is outside the ideal range but it is not high enough to pose a risk to freshwater fish.

The dissolved oxygen is below the healthy level in the Ngamaay at both sites at 2 metres. The levels are at a dangerous level in the Baawan, and these levels should be monitored to ensure that they reach a healthy level.

The salinity is at a healthy range at all sites and depths on the Baawan and Ngamaay.

The temperature is at a healthy range across all sites. This is good for freshwater fish.