



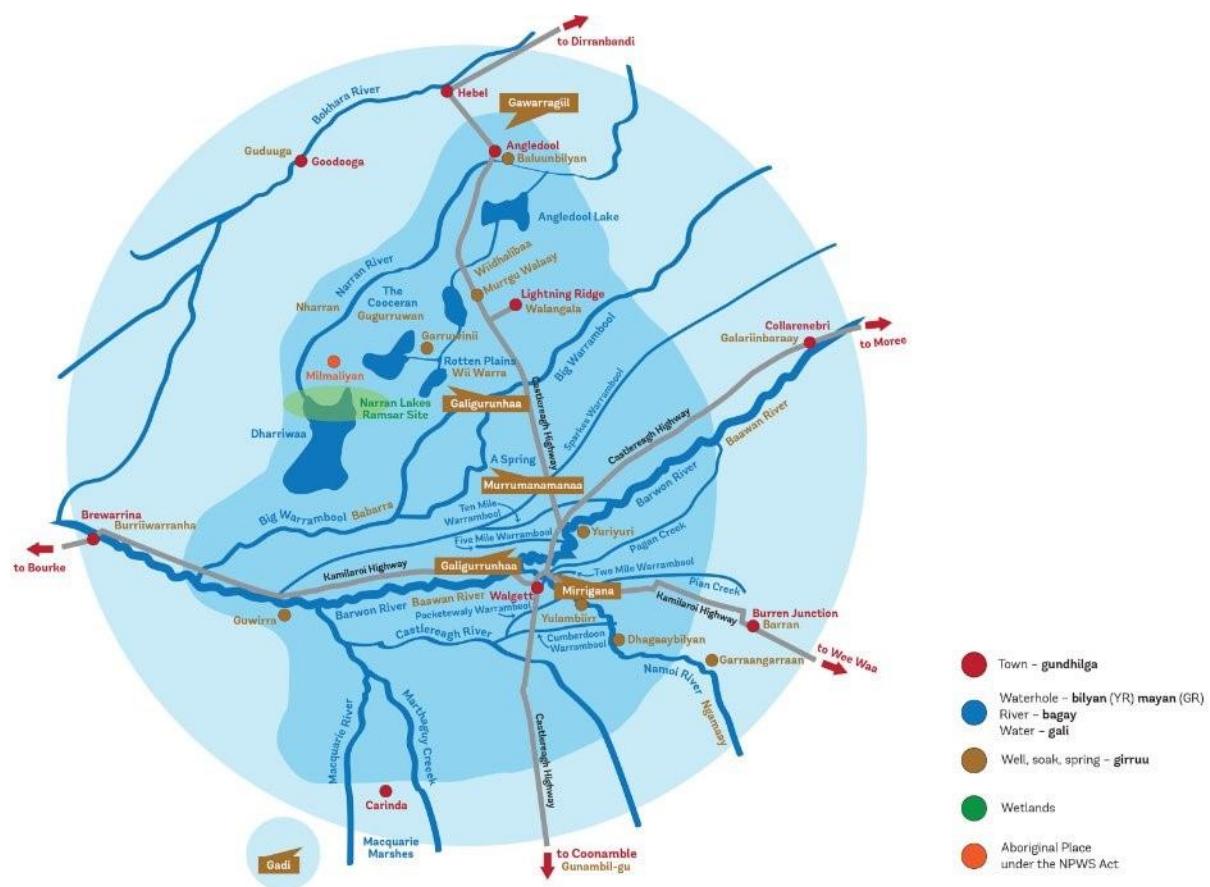
Weekly Water Monitoring Report

5th November 2024

Introduction

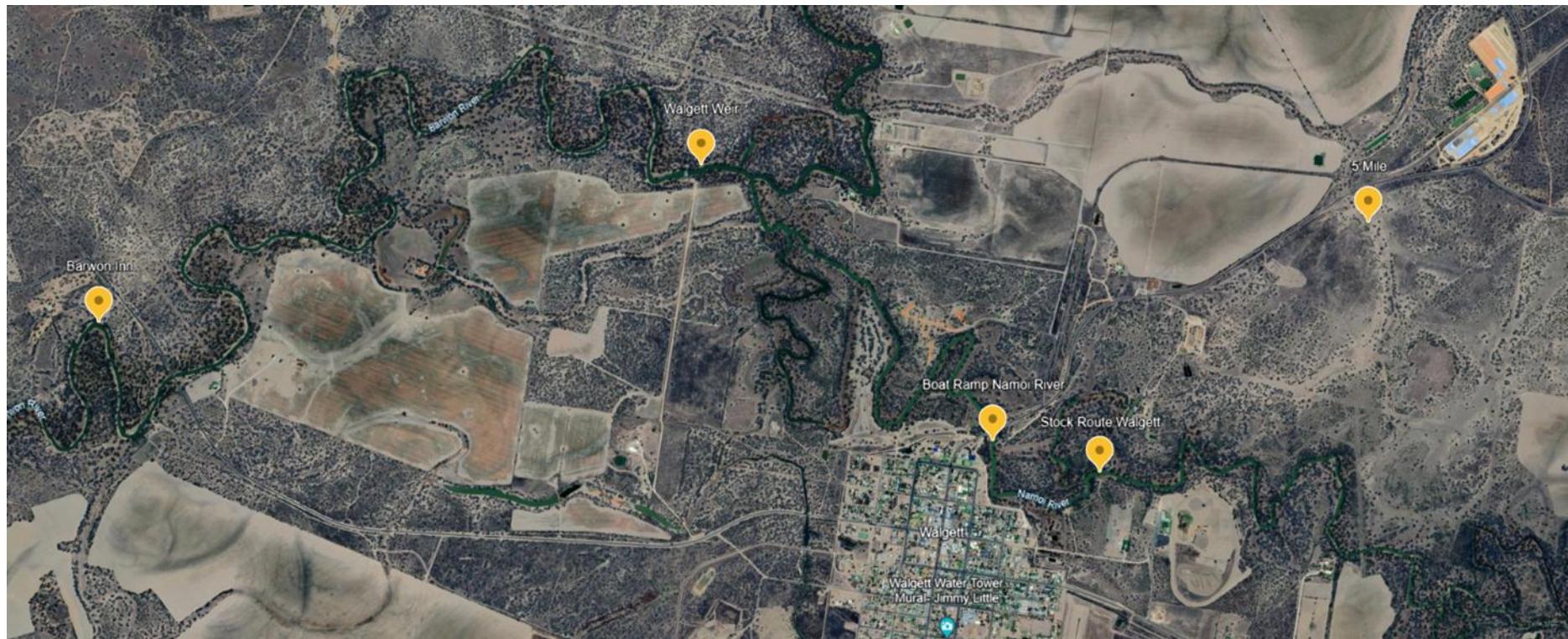
This data was collected on Tuesday 5th November between 10am and 1pm on the Ngamaay (Namoi) and Baawan (Barwon) River.

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.

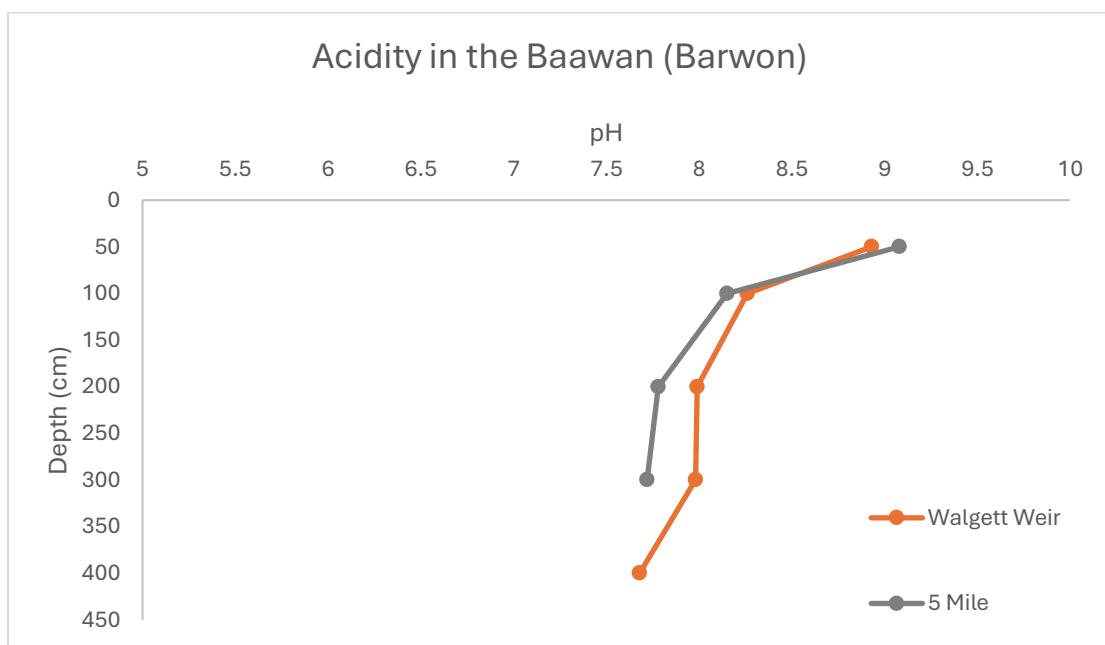
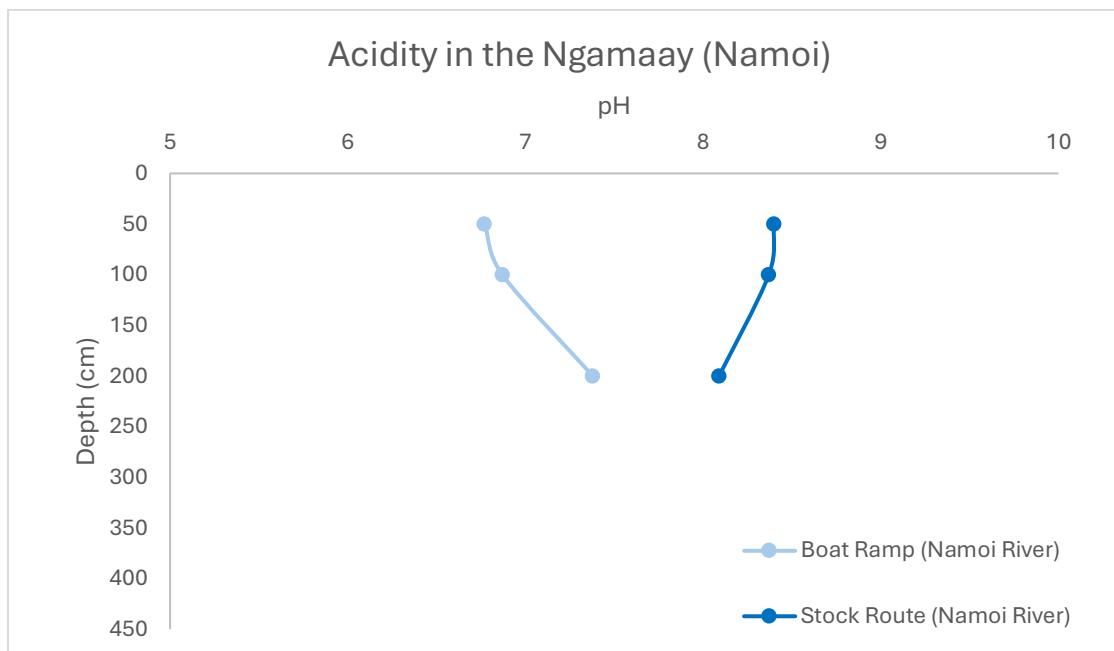


(Picture: Dharriwaa Elders Group area of interest)

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



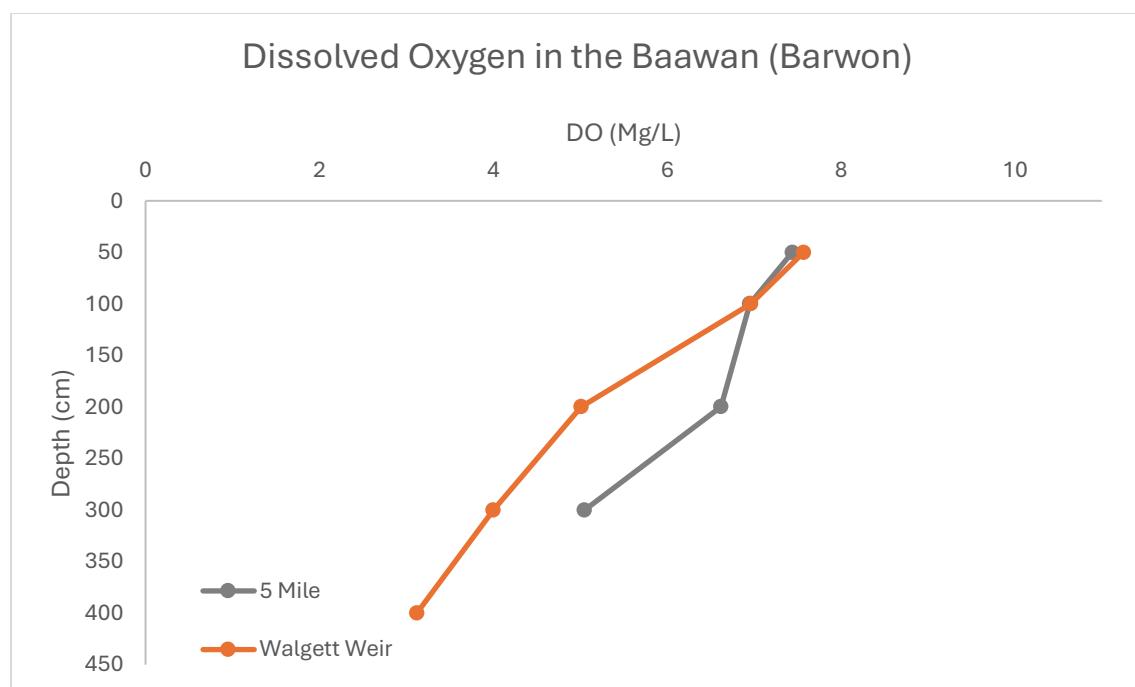
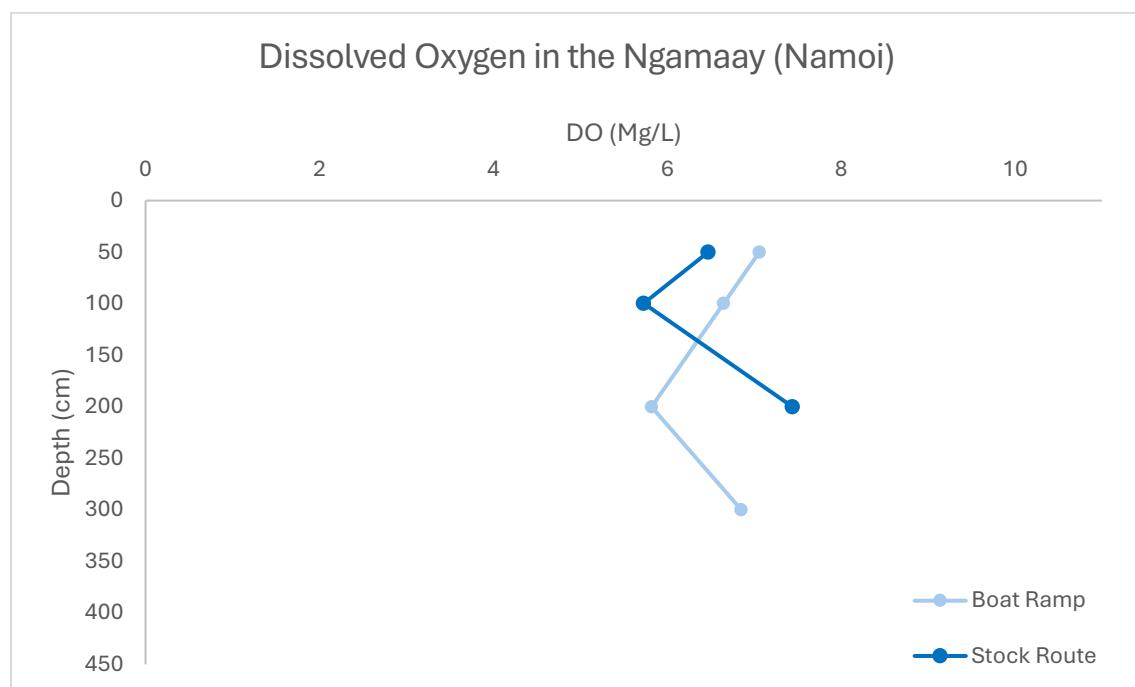
Acidity in the Ngamaay and Baawan River



The pH is at a healthy range at all sites except at 50 centimetres at both sites on the Baawan River, where it is slightly too high. The minimum reading is 7.72 and the maximum is 9.08.

Healthy range: 6.5 - 8.

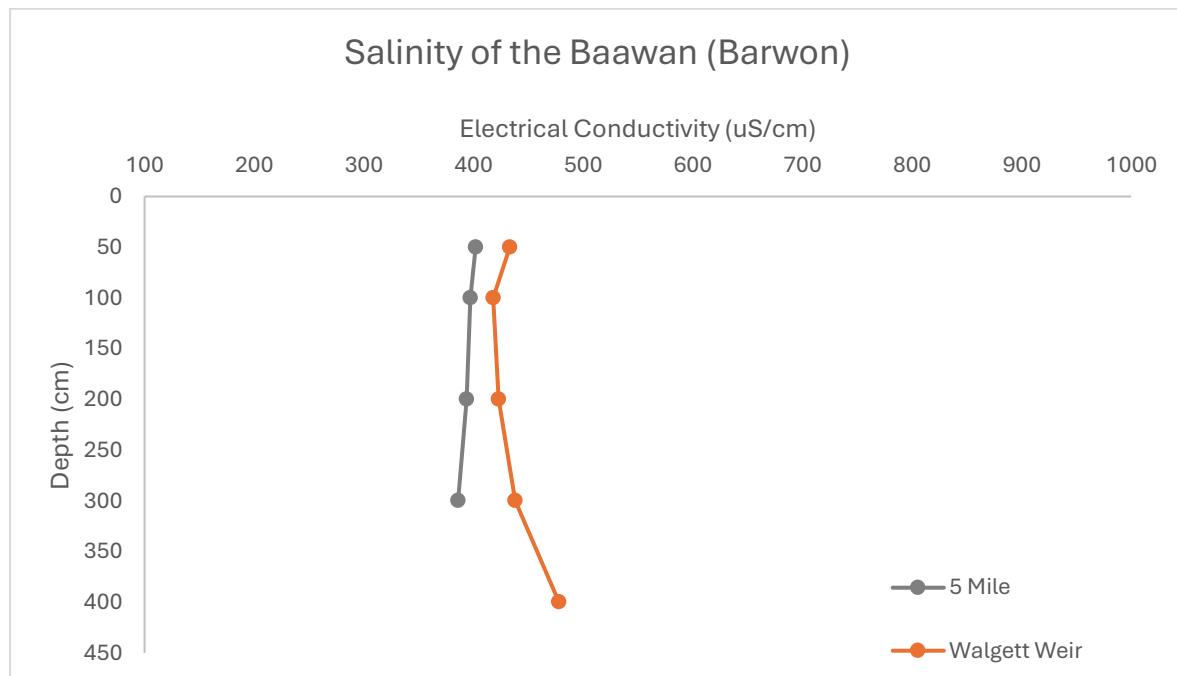
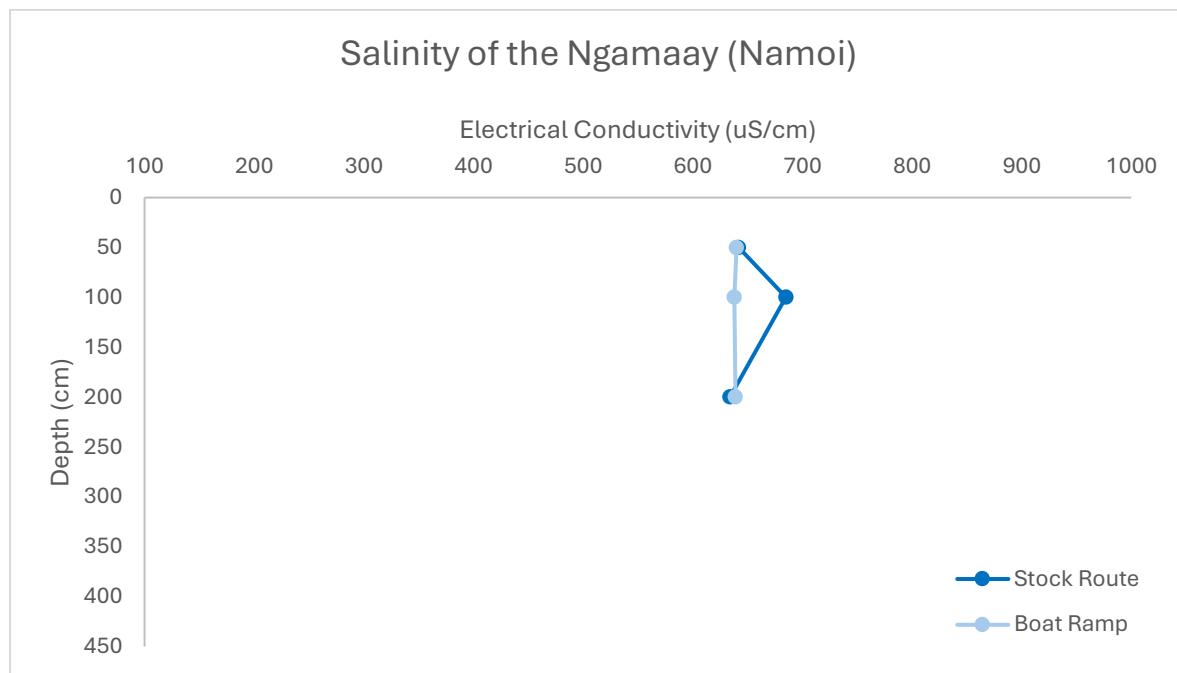
Dissolved Oxygen in the Ngamaay and Baawan River



At the 5 Mile the dissolved oxygen is within a healthy range except for at 3m. At the Walgett Weir the dissolved oxygen is in the healthy range at shallower depths but is too low at 2 metres and deeper. The dissolved oxygen should be monitored at low levels at Walgett Weir. In the Ngamaay River the dissolved oxygen is within a healthy range.

Healthy Range: 6 - 8 (Mg/L)

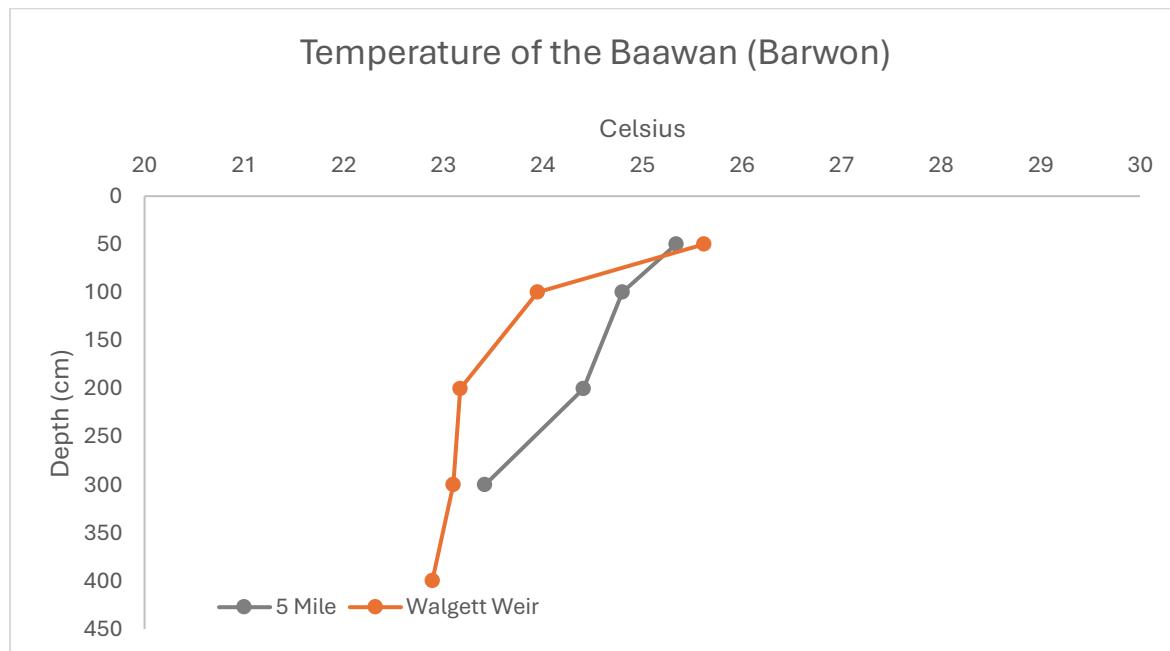
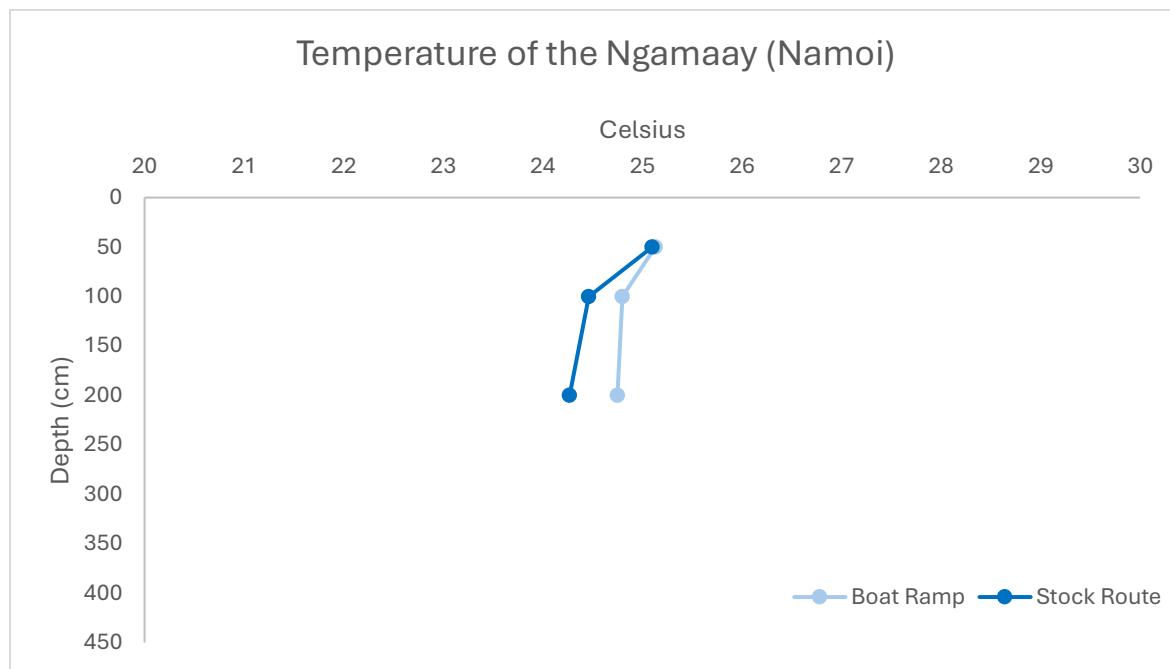
Salinity in the Ngamaay and Baawan River



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 is good for freshwater fish. The minimum reading is 386 and the maximum reading is 685.

Healthy Range: 125 - 2,200 $\mu\text{S}/\text{cm}$

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 22.89 and the maximum reading is 25.62. 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 except for the shallowest depth at both sites on the Ngamaay. They are not high enough to pose a risk to freshwater fish.

The dissolved oxygen is in the healthy range at shallower levels in both rivers but is outside the healthy range at lower depths. The dissolved oxygen levels should be monitored at the Walgett Weir.

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.