



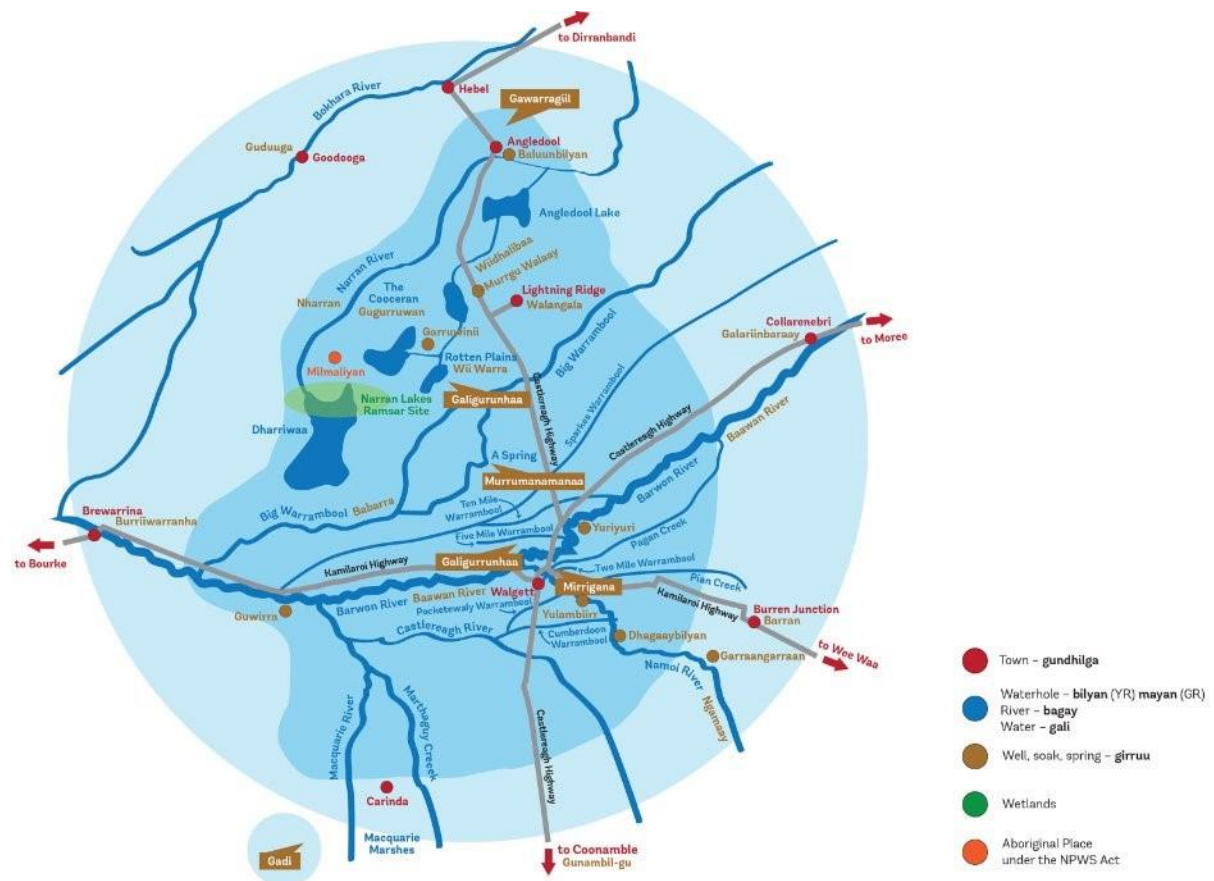
Weekly River Monitoring Report

16th April 2024

Introduction

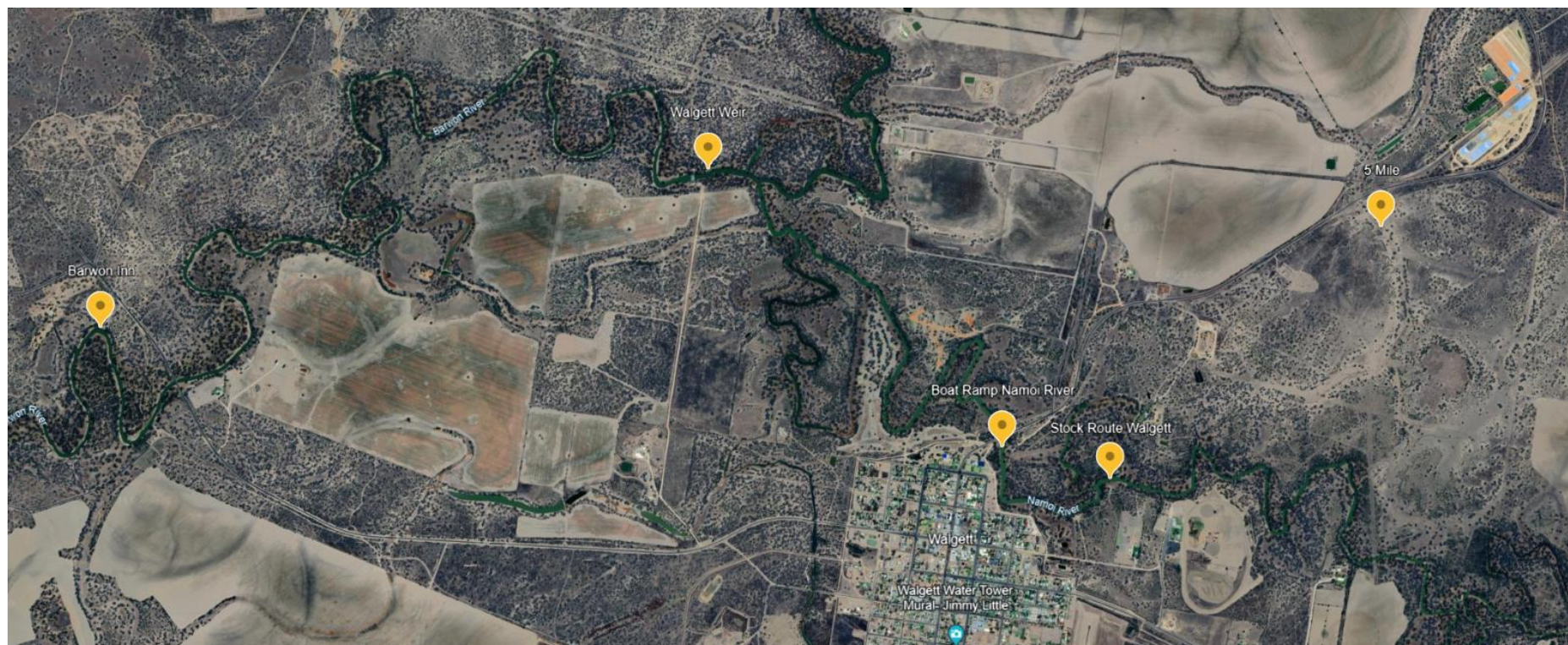
This data was collected on Tuesday 16th between 10am and 1pm on the Ngamaay (Namoi) and Baawan (Barwon) River.

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.



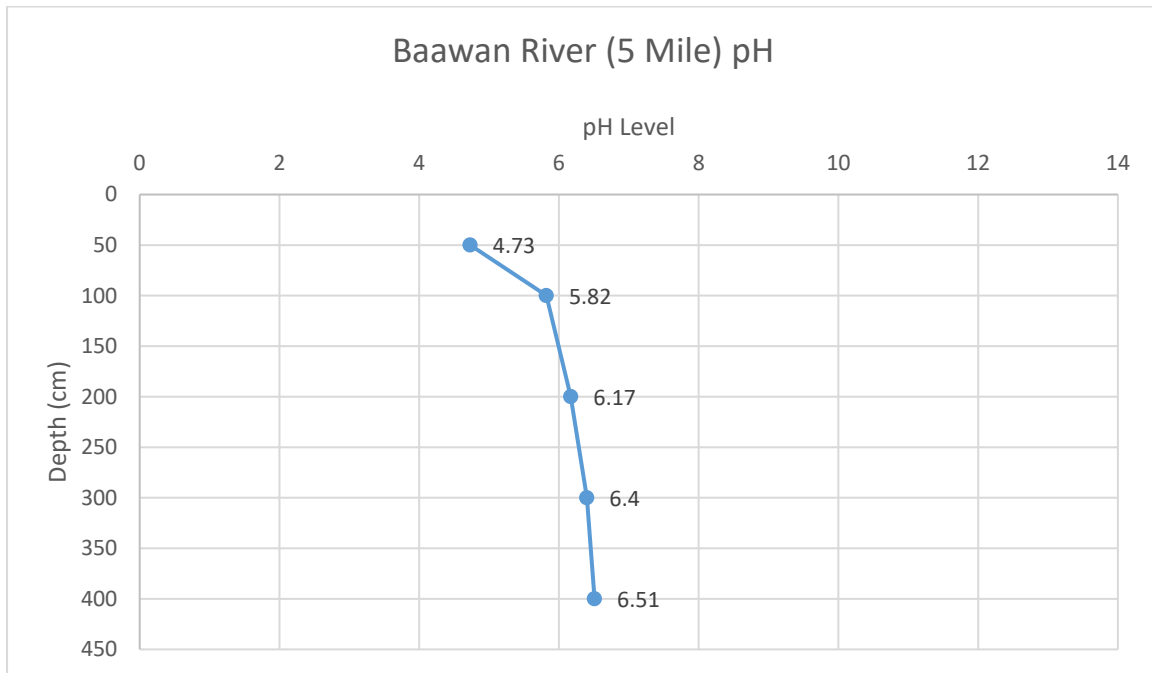
(Picture: Dharriwaa Elders Group area of interest)

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



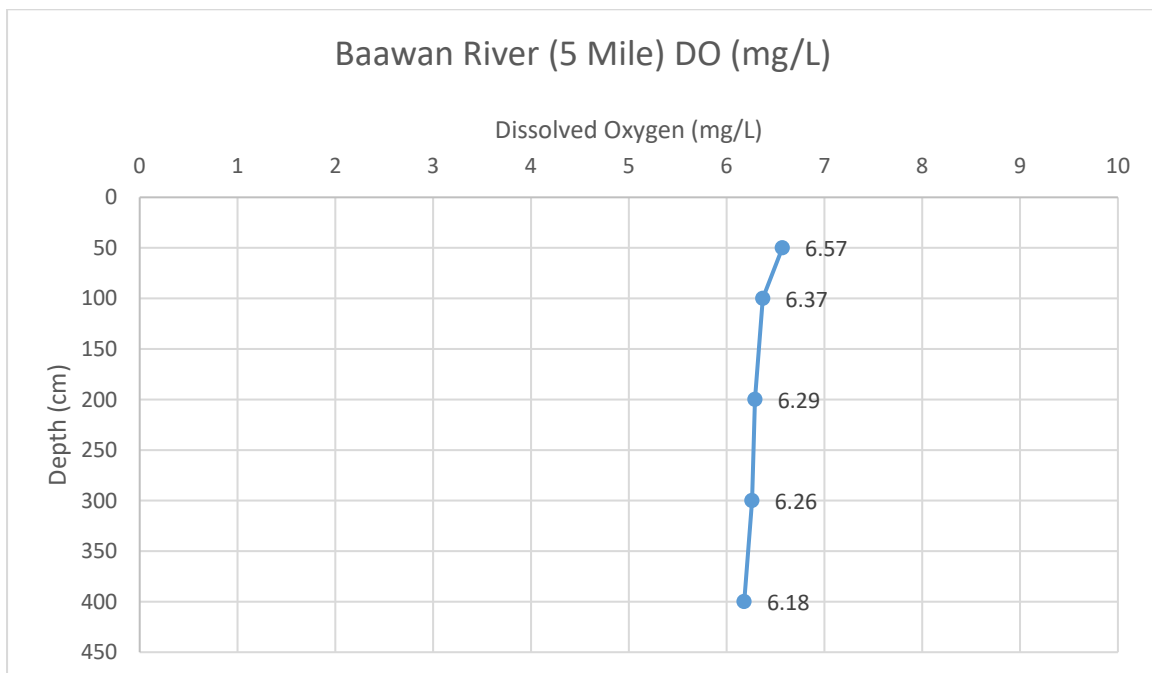
Site one: Baawan River (5 Mile)

pH level



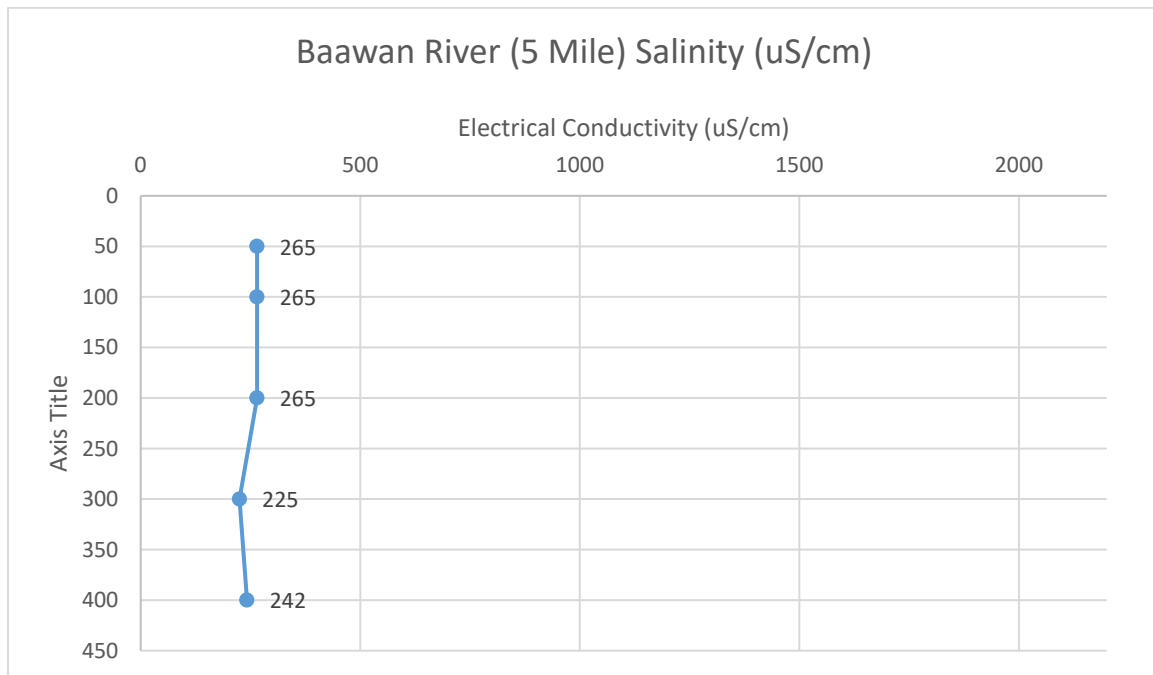
Three of the pH readings at 5 Mile are outside the healthy range, on the acidic side of the scale. The readings are within a bad range. The last two readings, at 300 and 400cm, are within a healthy range.

Dissolved Oxygen



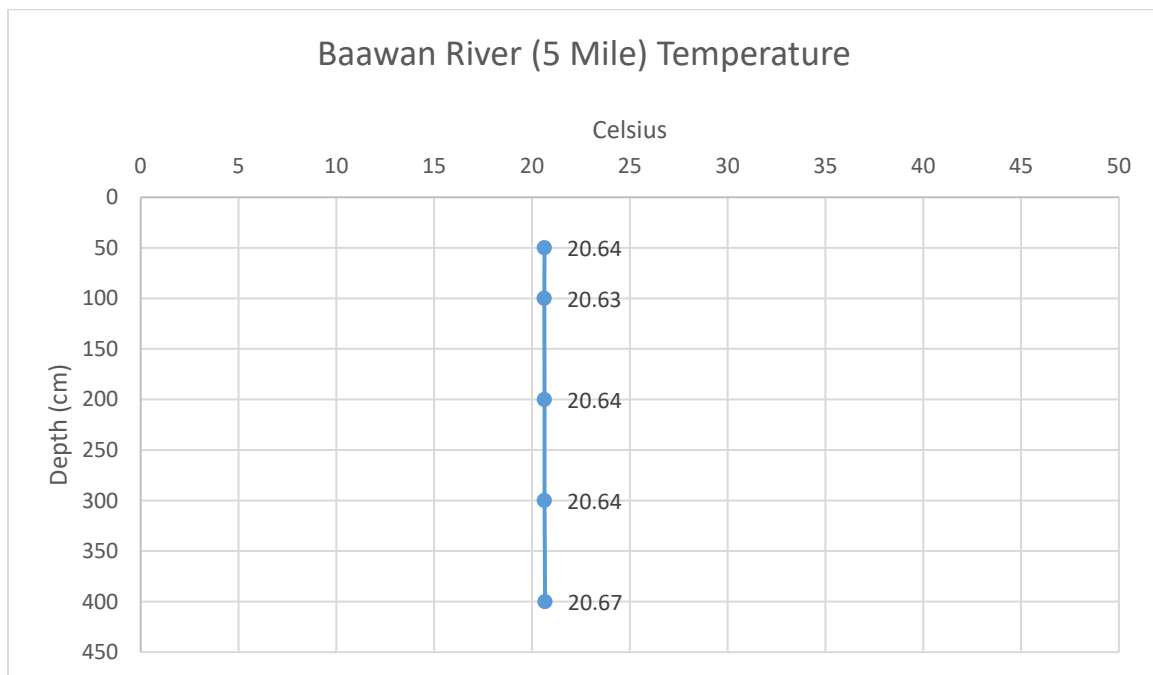
The dissolved oxygen at 5 Mile is within a healthy range. This is great for the fish.

Electrical Conductivity



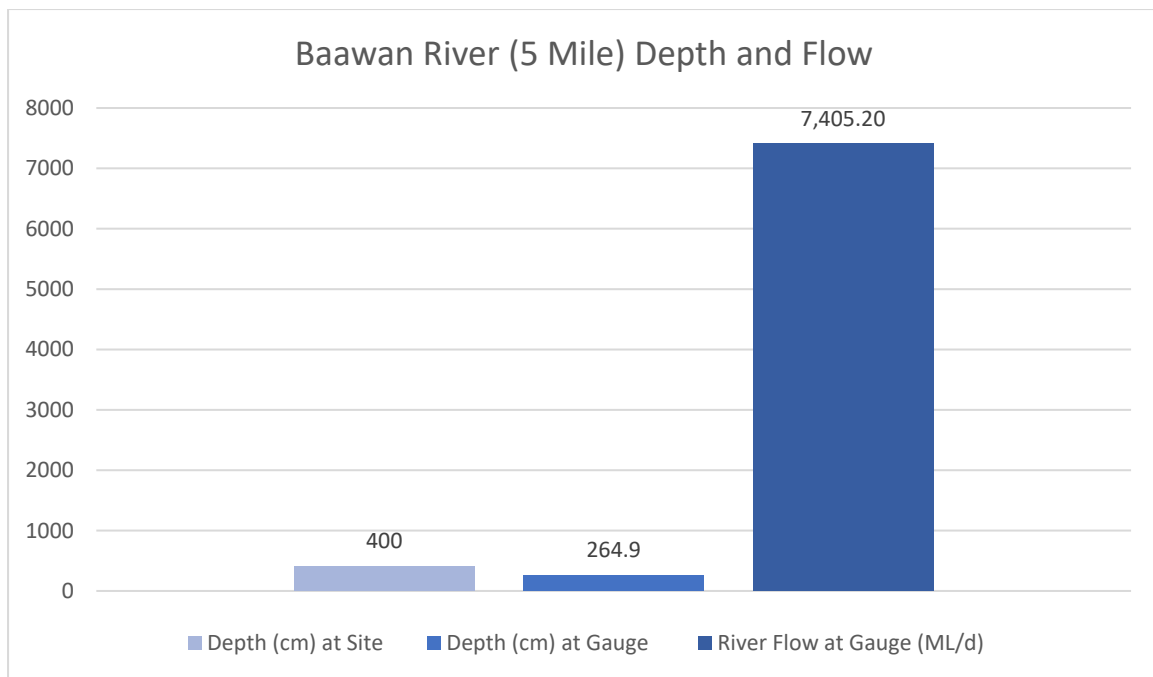
The salinity measured at 5 Mile is within a good range. This is good for freshwater fish.

Temperature



The temperature at 5 Mile is within a good range. There are no extreme changes to the temperature which means there is no danger to the fish.

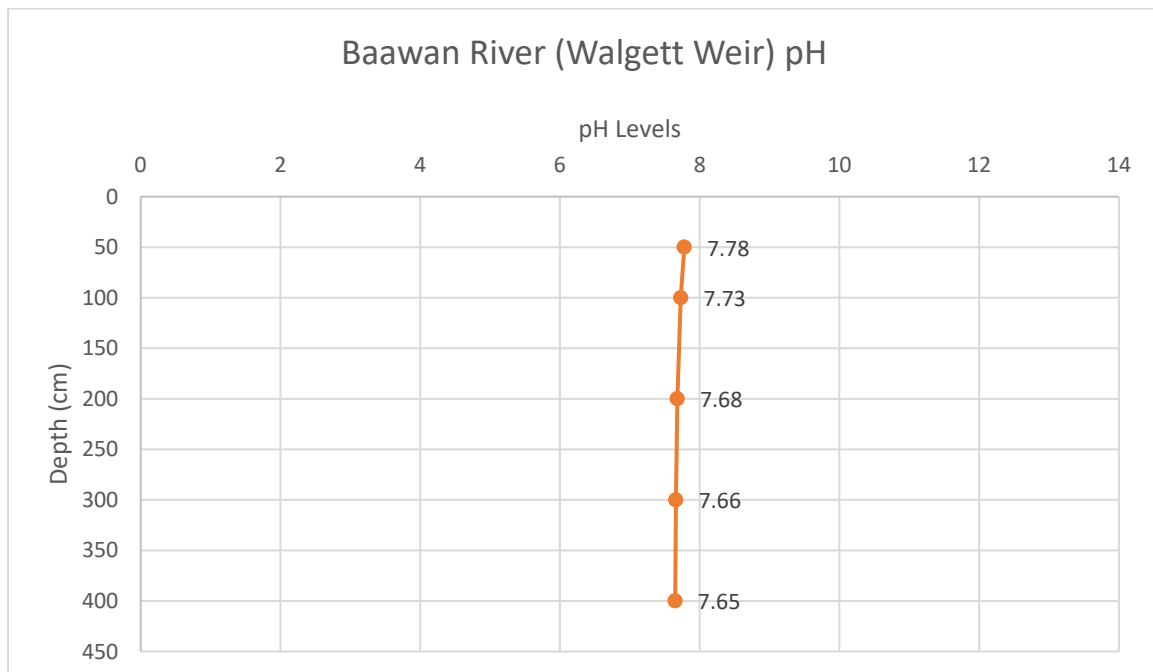
River depth and flow



The depth measured at both the site and the gauge are good levels for large, medium and small fish. There is a good flow measured at the nearest gauge (Barwon@Collarenebri 422003). This is good for the health of the fish.

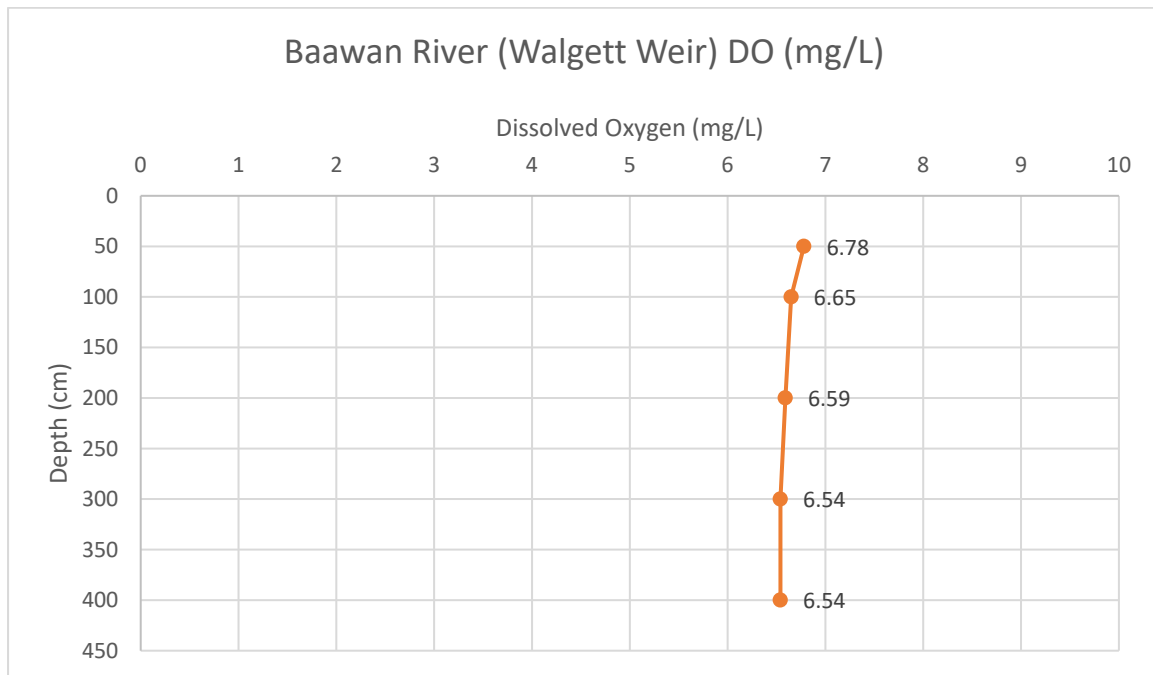
Site two: Baawan River (Walgett Weir)

pH Levels



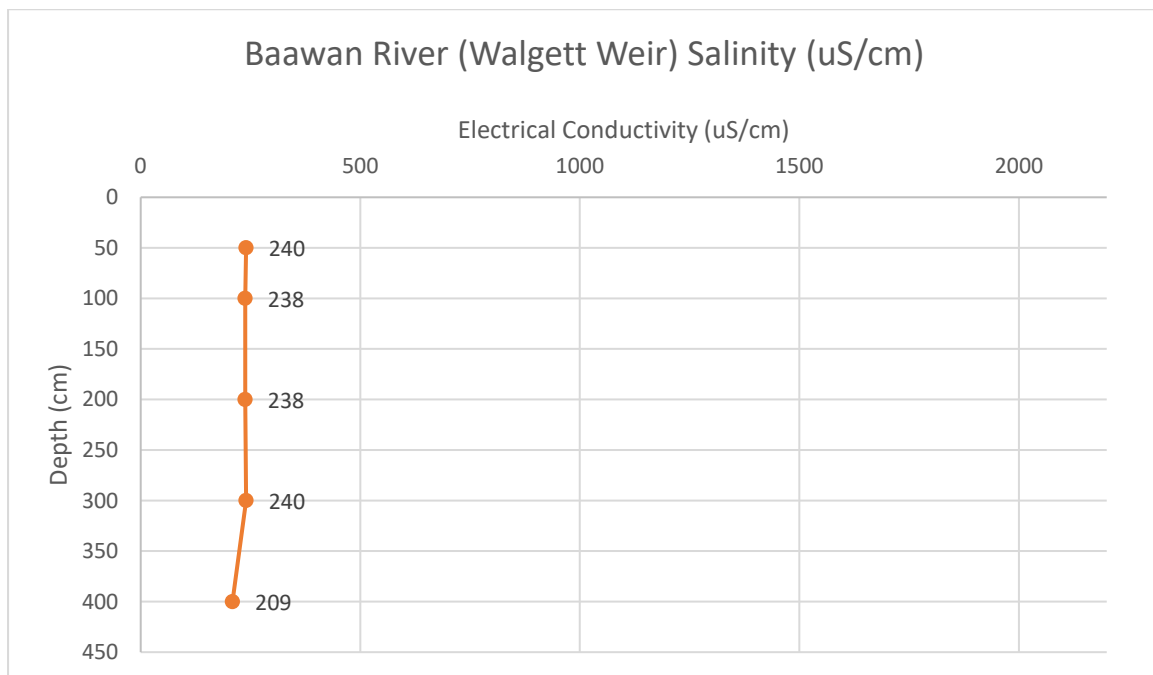
The pH measured at Walgett Weir are all within a healthy range.

Dissolved Oxygen



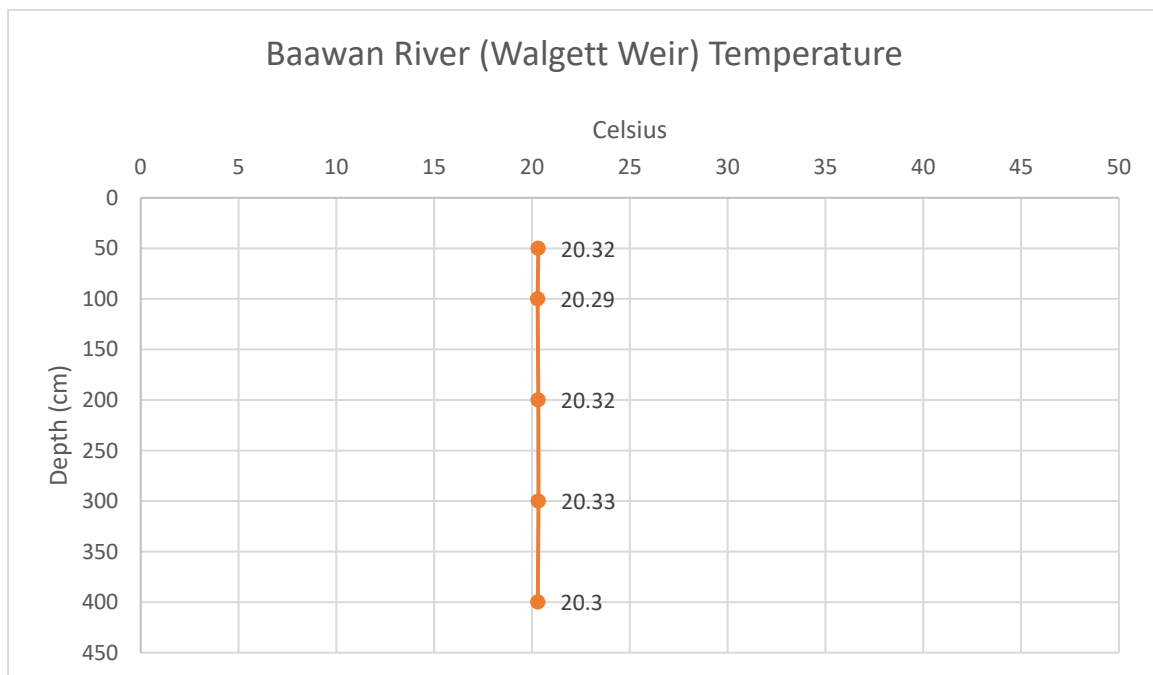
The dissolved oxygen at Walgett Weir are within a healthy range. This is great for the fish.

Electrical Conductivity



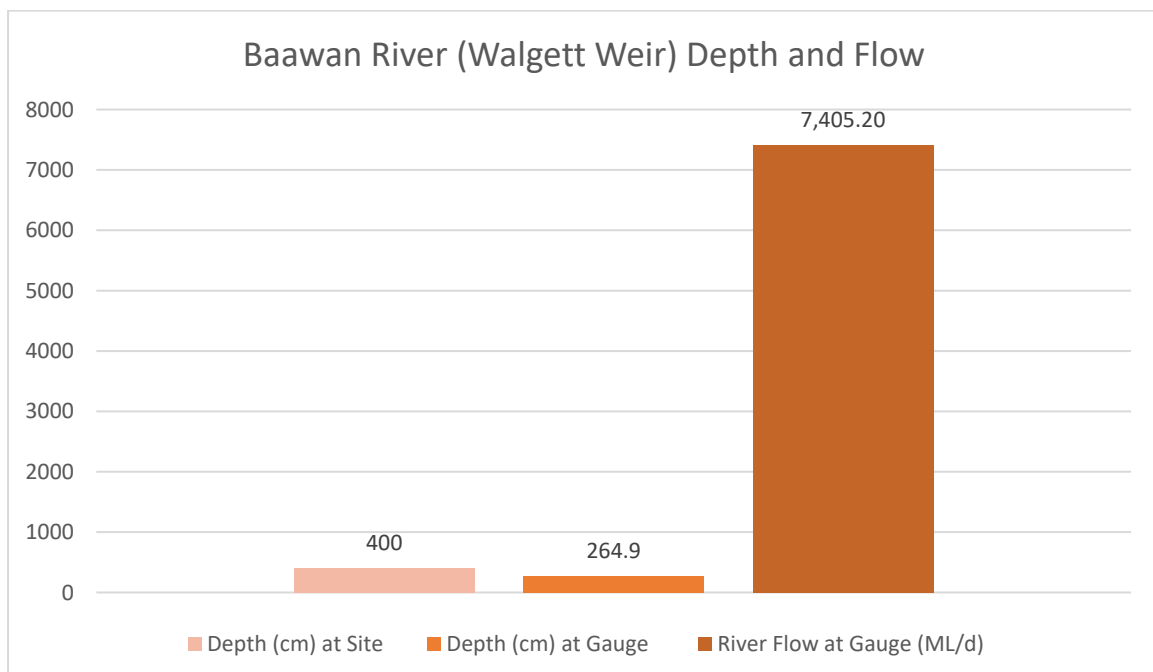
The salinity at Walgett Weir is within a good range. This is good for freshwater fish.

Temperature



The temperature at Walgett Weir is within a good range. There are no extreme changes to the temperature which means there is no danger to the fish.

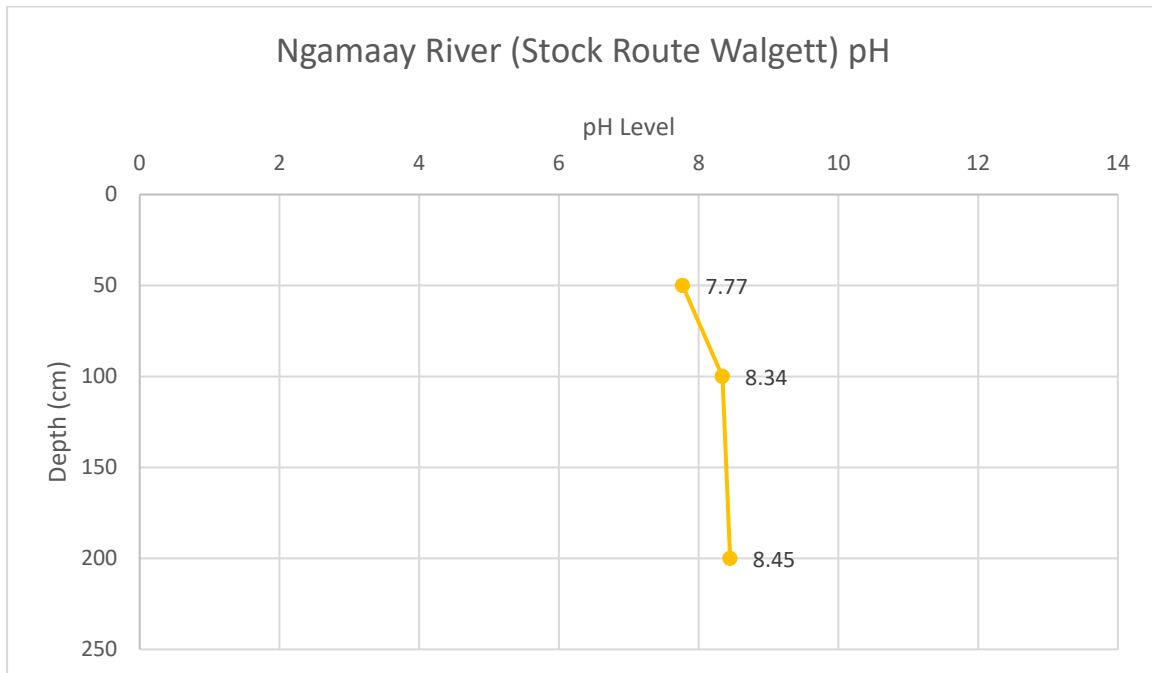
River depth and flow



The depth measured at both the site and the gauge are good levels for large, medium and small fish. There is a good flow measured at the nearest gauge (Barwon@Collarenebri 422003). This is good for the health of the fish.

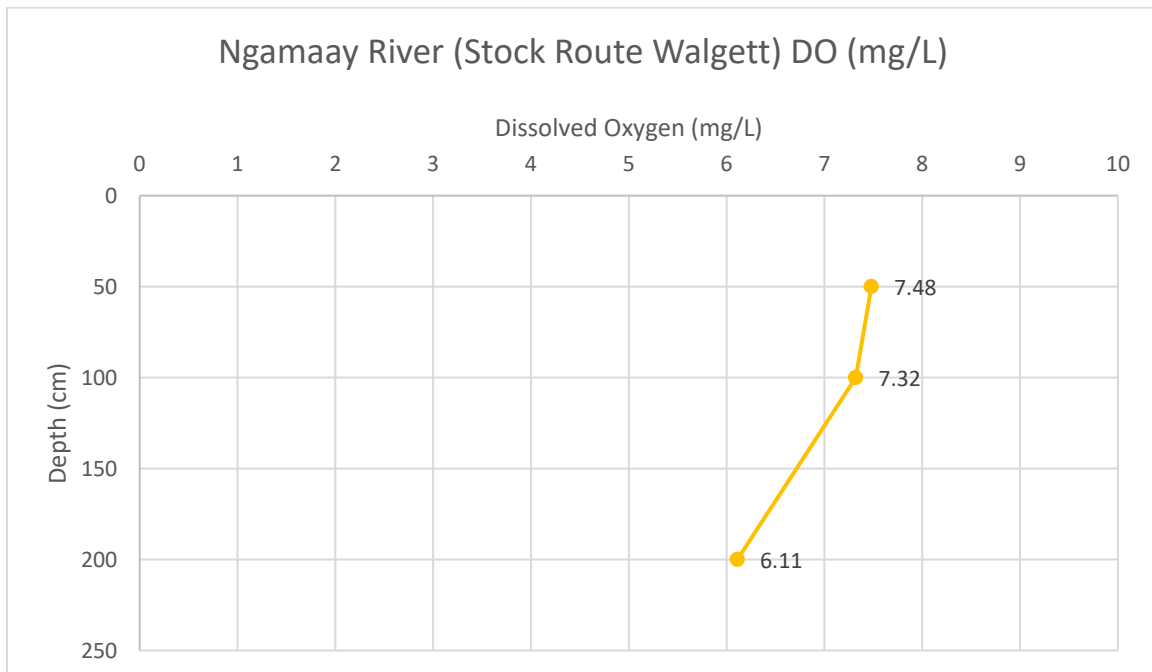
Site three: Ngamaay River (Stock Route Walgett)

pH Levels



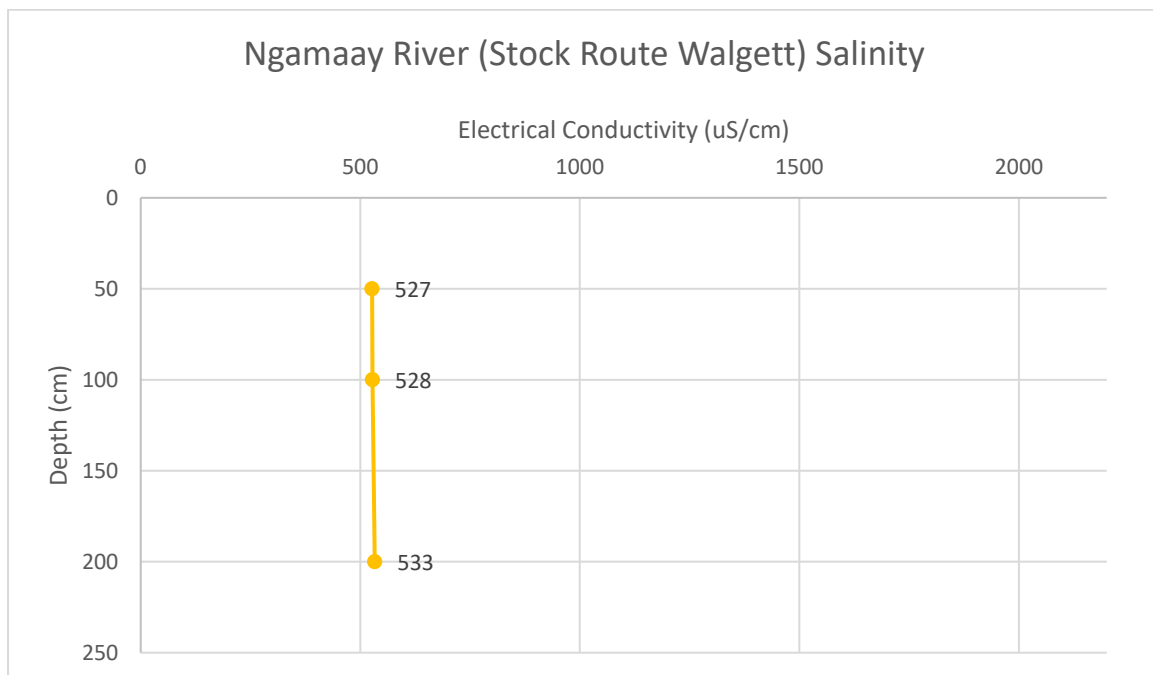
The pH readings at Stock Route Walgett are all within a healthy range.

Dissolved Oxygen



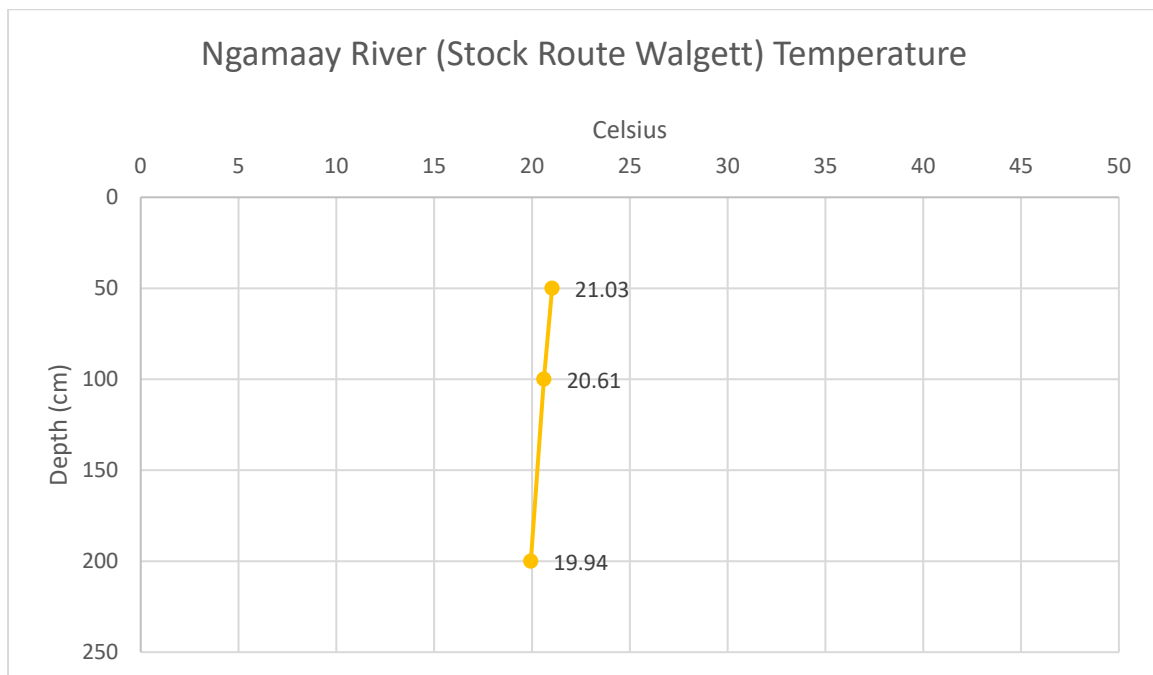
The dissolved oxygen at Stock Route Walgett are within a healthy range. This is great for the fish.

Electrical Conductivity



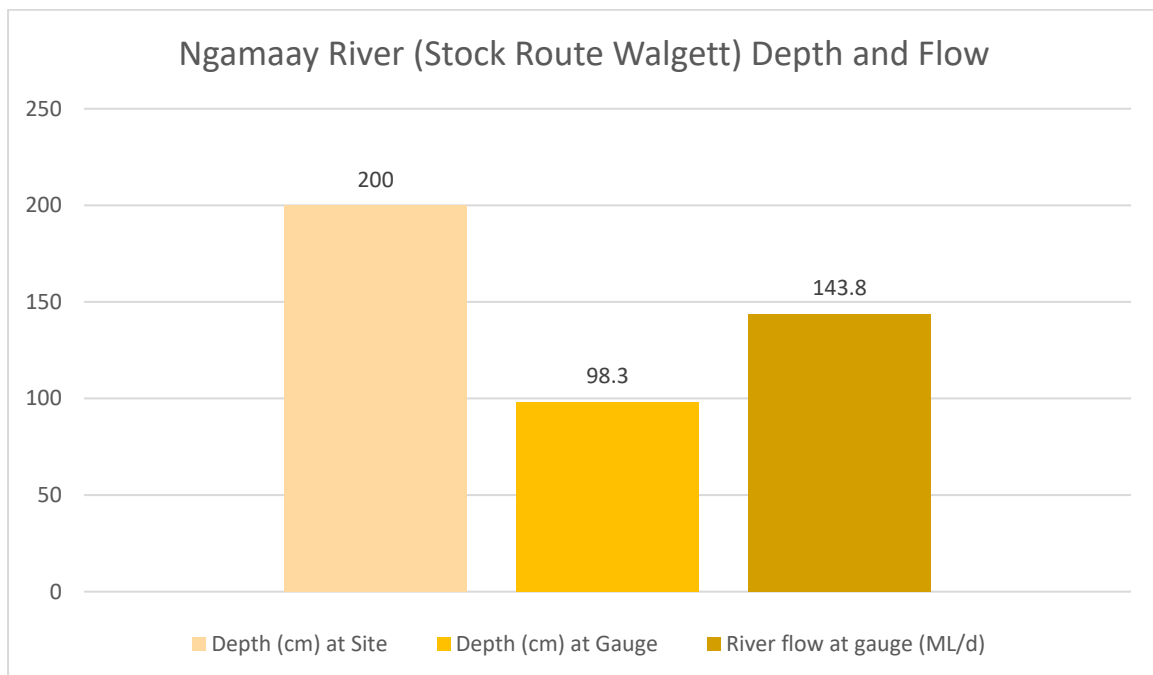
The salinity measured at Stock Route Walgett are within a good range. This is good for freshwater fish.

Temperature



The temperature at Stock Route Walgett is within a good range. There are no extreme changes to the temperature which means that there is no danger to the fish.

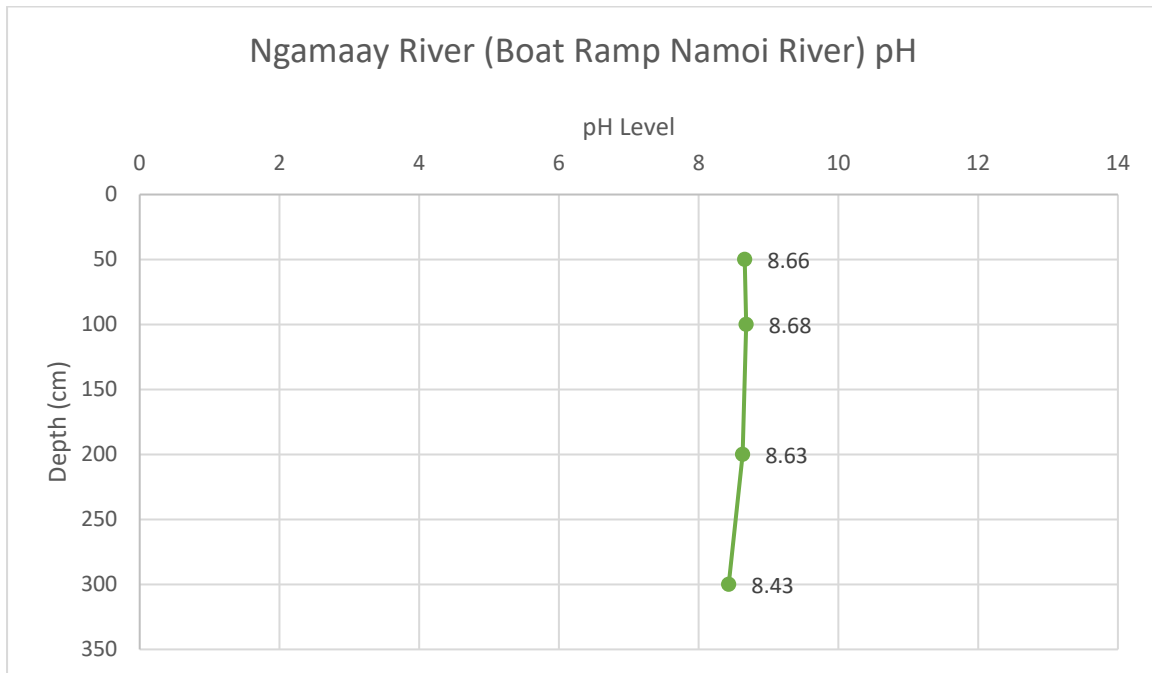
River depth and flow



The depth measured at the site and the nearest working gauge (Namoi@Goangra 419026) are good levels for small, medium and large fish. Although the depth at the nearest gauge is quite low it is still acceptable. The flow measured at the nearest working gauge is outside the healthy range. The flow needs to be between 280 – 42,000 ML/d. This is not good for the health of the fish.

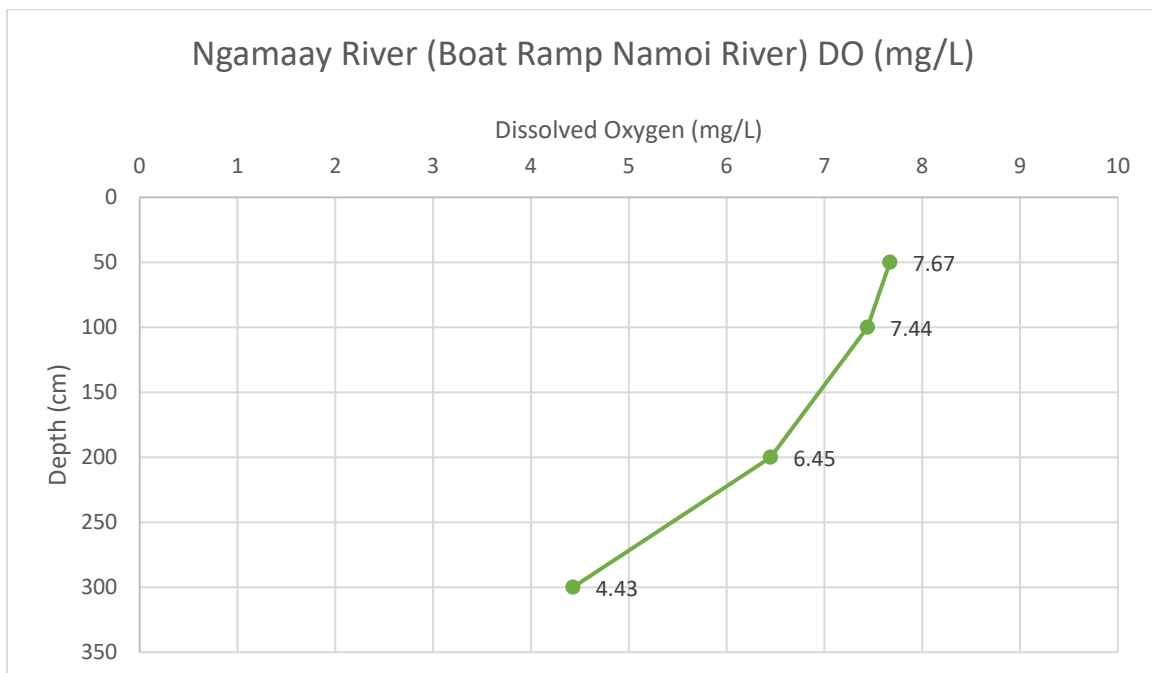
Site four: Ngamaay River (Boat Ramp Namoi River)

pH Levels



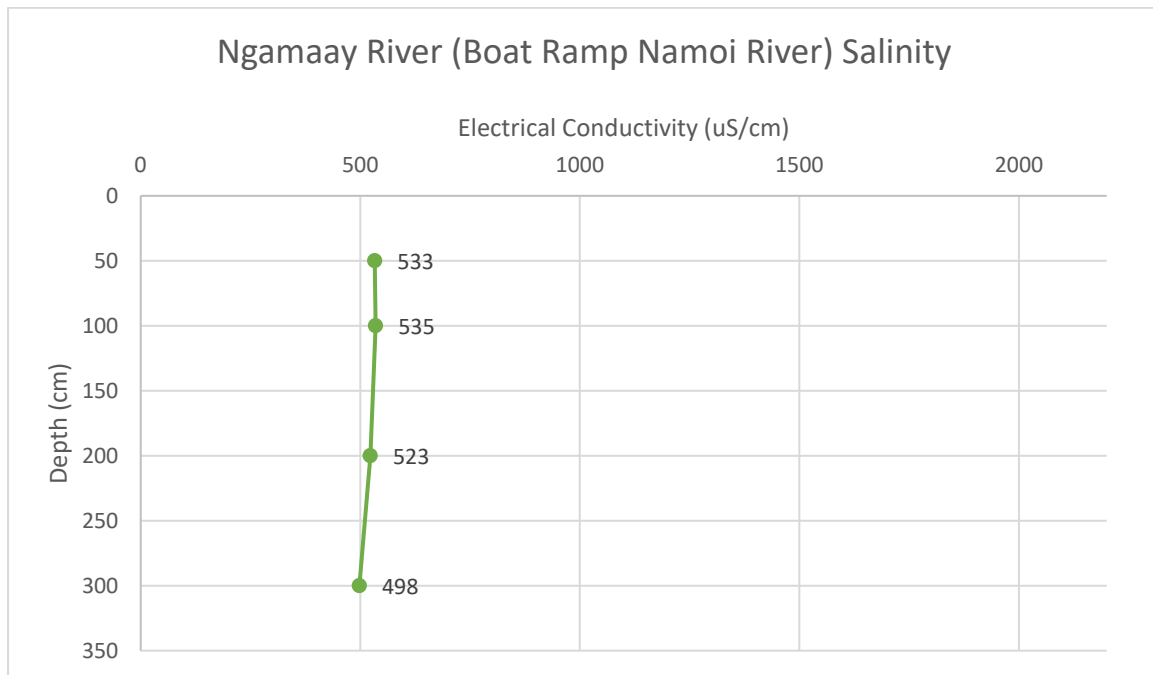
The first three readings on the Ngamaay River at Boat Ramp are just outside the healthy range. It is slightly more to the alkaline side of the scale. The last pH reading at Boat Ramp is within a healthy range.

Dissolved Oxygen



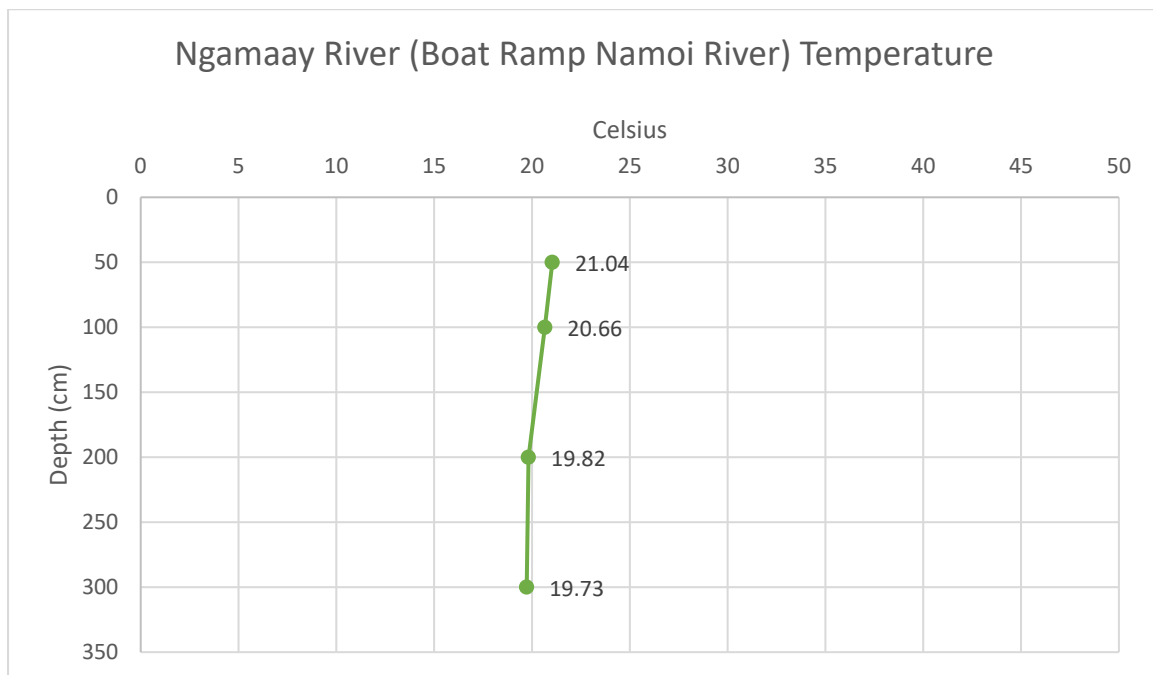
The first three readings at Boat Ramp are within a healthy range. The last reading is outside the healthy range.

Electrical Conductivity



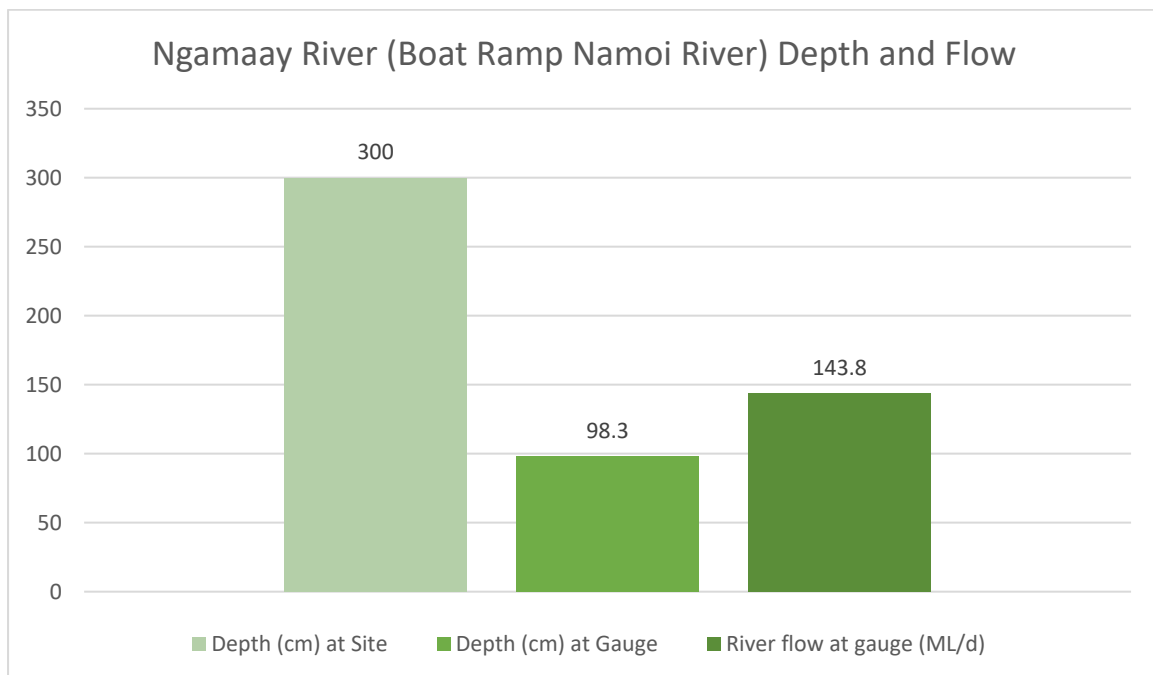
The salinity measured at Boat Ramp is within a good range. This is good for freshwater fish.

Temperature



The temperature measured at Boat Ramp is within a good range. There are no extreme changes to the temperature which means there is no danger to the fish.

River depth and flow



The depth measured at the site and the nearest working gauge (Namoi@Goangra 419026) are good levels for small, medium and large fish. Although the depth at the nearest gauge is quite low it is still acceptable. The flow measured at the nearest working gauge is outside the healthy range. The flow needs to be between 280 – 42,000 ML/d. This is not good for the health of the fish.

Conclusion

The pH levels at the 5 Mile on the Baawan River is outside the healthy range. The pH is more on the acidic side of the scale. At all other sites the pH is within a healthy range.

The dissolved oxygen at all sites is within a healthy range except for the Boat Ramp on the Ngamaay River. The last reading at 300cm is outside the healthy range.

The electrical conductivity measured at all sites are within a healthy range. This is good for the freshwater fish.

The temperature measured at each site is within a good range. There are no extreme changes to the temperature which means there is no danger to the fish.

The depth and flow measured at both the site and the nearest working gauge on the Baawan River are at good levels which is good for the health of the fish. The depth measured at both sites on the Ngamaay River are at good levels for large, medium and small fish. The flow measured at the

nearest working gauge on the Ngamaay River is not at the expected flow rate. This could affect the health of the fish.