Waterwatch

2018 Water Quality Site Summary

Objectives

- Create a longitudinal data set of water quality
- Monitor water quality at both the inlet and outlet of the wetland to measure if it is removing pollutants and sediment from stormwater runoff as expected
- Engage the community
- Monitor water quality to ensure that the water is fit for irrigation purposes

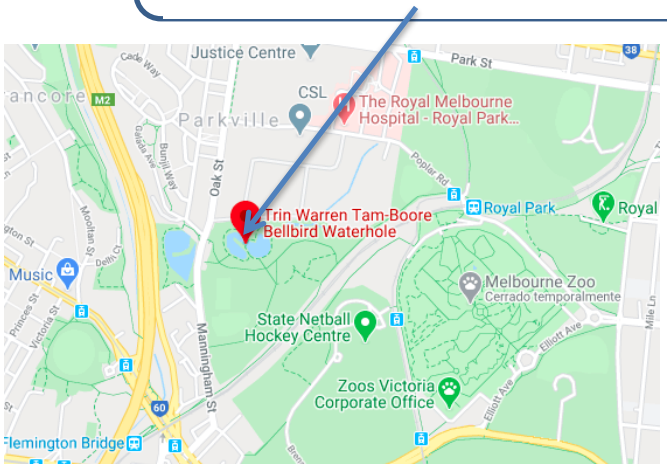
Monthly Parameters

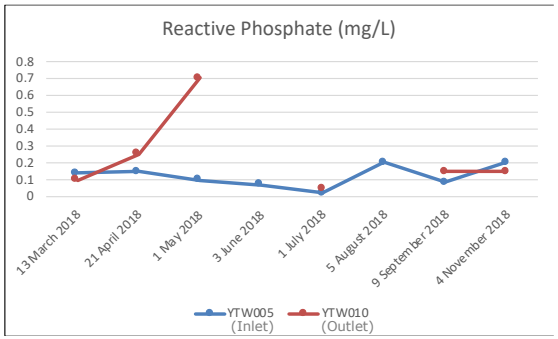
- Temperature
- Dissolved Oxygen
- pH
- Electrical conductivity
- Turbidity
- Reactive Phosphate
- Ammonium

To look at further water quality data, visit the Waterwatch online database using the site code YTW010. For the inlet site, use code YTW005.

Site Name and Description

YTW010 – Trin Warren Tamboore Wetlands, Outlet, Royal Park, Parkville
Monitors: Friends of Royal Park Waterwatch Group led by Maria Krelle





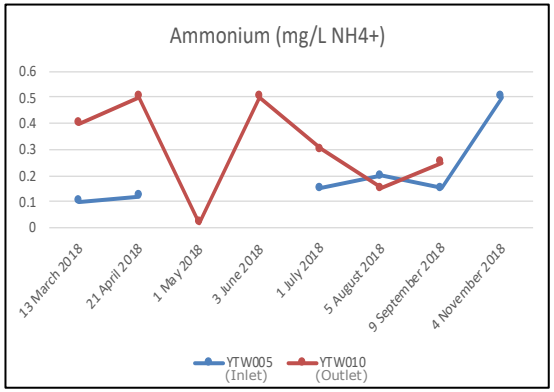


Image: City of Melbourne 2020

Site Induction

Located in the northwest corner of Royal Park, Trin Warren Tamboore (Bellbird Waterhole), is part of the Moonee Ponds Creek Catchment.

The wetlands have been designed to treat water from the surrounding area through natural biological processes. It provides water to irrigation systems for the golf course and other sporting grounds in Royal Park.

The wetland is home to a wide variety of water plants that in turn provide food and shelter for many different animals.

More information about the wetland, including its design and management, can be found on the City of Melbourne website.

Summary

The wetlands have an expected pollution reduction of

- Total suspended solids: 77%
- Total phosphorous: 60%
- Total nitrogen: 45%

Turbidity, which measures muddiness or opaqueness of the water, was higher at the outlet site on all visits except in March. The wetland is supposed to reduce suspended solids so this was an unexpected result.

Reactive Phosphate, phosphorus that can be measured without heating the sample or adding acid, was difficult to measure at the outlet site on several occasions owing to turbidity. On two occasions reactive phosphate was actually higher at the outlet site compared to the inlet.

Ammonium, representing nitrogen, measured was generally higher at the inlet compared to the outlet site. This could indicate that the wetland was effective in its function of lowering pollutants.

For further water quality comparisons between measurements taken at the inlet vs the outlet, please see the 2018 report for the inlet site YTW005 here.