

healthy Waterways Waterwatch Program

May – December 2023 Waterwatch Water Quality Site Summary Report ME_YED068

ME_YED068 - P3 Edwardes Lake Northern section, Reservoir - downstream of pedestrian crossing & YED070
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Monthly parameters

- Temperature
- pH
- dissolved oxygen %
- Reactive Phosphate
- Electrical conductivity (salinity)
- Turbidity (water clarity)



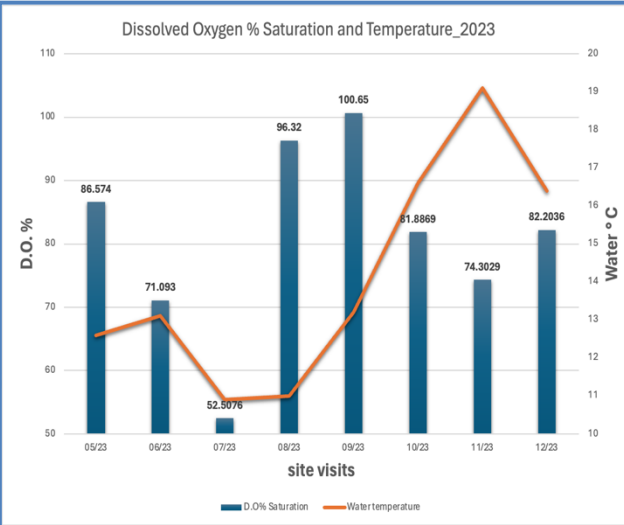
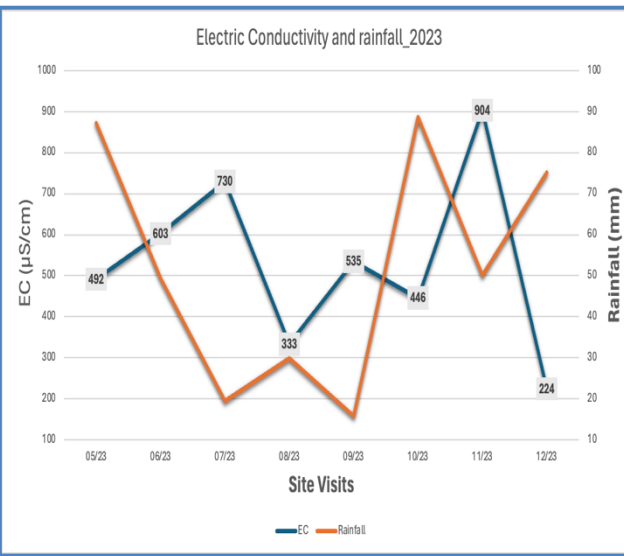
Site photo taken on 09/07/2023

Objectives

- Track water quality status
- Track stormwater impacts
- Identify industrial waste discharges from upstream

Site Introduction

Edgars Creek flows along a 17 km course from its headwaters in Wollert through the highly urbanised suburbs of Epping, Thomastown and Reservoir, and then joins Merri Creek in North Coburg. It is a seasonal creek, susceptible to drying out in some sections during the hot seasons and flooding during periods of high rainfall. The Edgars Creek in this area is very susceptible to stormwater pollution due to much of the catchment being highly urbanised. Major pollutants include litter, high sediment (turbidity) and detergents which are all detrimental to aquatic plants and animals.



To look at further water quality data for this site visit the [Waterwatch online database](#) for and use the site code ME_YED068.

Summary

Salinity in the creek, measured as electrical conductivity (EC), ranged from 224 to 904 µS/cm. This data was analyzed alongside monthly rainfall data from [Melbourne Water](#) to identify trends, revealing that high rainfall often corresponded with increased salinity. Salinity levels were assessed using the Environmental Quality Index (EQI) (p. 63) for Victoria, which sets a threshold for water quality concerns at greater than 500 µS/cm. Four out of eight site visits recorded EC levels below this threshold, indicating healthy salinity levels.

Readings for dissolved oxygen % (DO) from May 2023 to June 2024 ranged from 52.5% to 100.7%. According to the EQI, the 25th percentile threshold for DO should be greater than or equal to 70%. Seven out of eight visits demonstrated good water quality. Maintaining DO levels within safe thresholds is essential for water bodies like this, as it supports healthy aquatic populations and ecosystems, aids in the decomposition of organic matter, and underpins vital biogeochemical cycles.

Water temperatures ranged from 10.9°C to 19.1°C from May to December 2023 during monthly visits. This variation is likely due to seasonal changes from winter to summer. Maintaining water temperature within suitable range is essential to the proper functioning of water bodies, including supporting healthy aquatic life, ensuring safe oxygen levels and sustaining balanced algae populations.

pH levels remained somewhat consistent from May to December, with the average being 7.8 (pH). The highest pH was observed in May at 8.15, exceeding the quality indicator values of ≤ 7.9. Overall, pH levels exceeded the EQI range during five of the eight visits.