

healthy Waterways Waterwatch Program

May 2023 – June 2024 Waterwatch Water Quality Site Summary Report ME_YED066

ME_YED066 - Edwarde Lake, near outlet for Low-flow wetland, downstream of ME_YED068

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Monthly parameters

- Temperature
- pH
- Dissolved oxygen %
- Electrical conductivity (salinity)

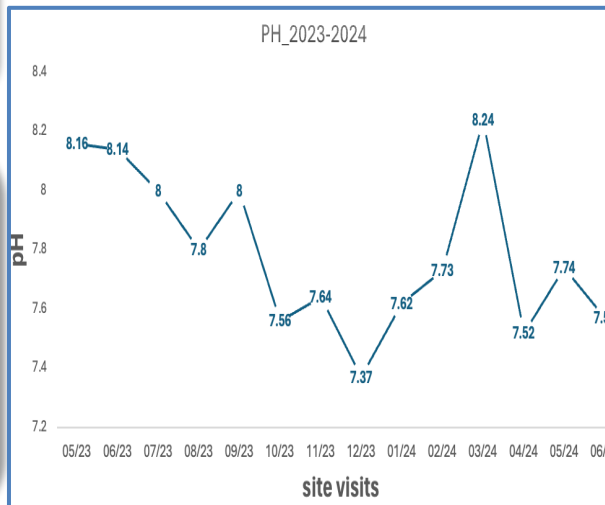
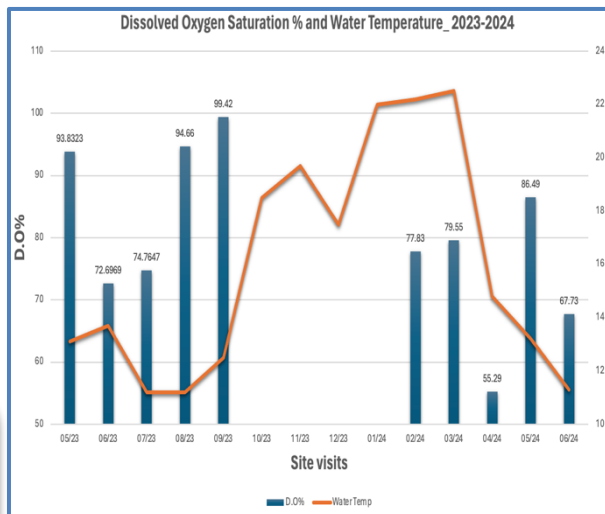
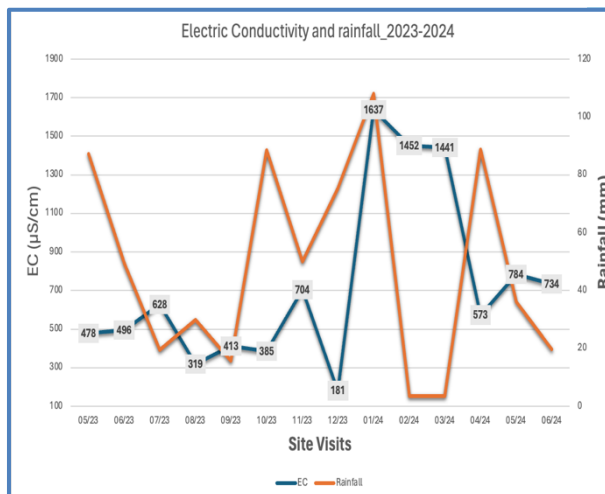


Objectives

- 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_YED066.

Summary

Salinity in the creek, measured as electrical conductivity (EC), ranged from 181 to 1637 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. Six of the fourteen sites visits recorded EC levels below this threshold, indicating healthy salinity levels.

Readings for oxygen % saturation from May 2023 to June 2024 ranged from 55.29% to 99.42%. According to the EQI, the 25th percentile threshold for dissolved oxygen % (DO) should be greater than or equal to 70%. While DO data was not collected during all site visits, three of the ten 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 11.2°C to 22.5°C from May 2023 to June 2024 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 March 2024 at 8.24, exceeding the quality indicator values of ≤ 7.9. Overall, pH levels exceeded the EQI range during five of the fourteen site visits.

Site photo taken on 10/03/2024

