

healthy Waterways Waterwatch Program

May-December 2023 Waterwatch Water Quality Site Summary Report ME_YED074

ME_YED074 - P1 Merrilands Drain into Edgars Creek, east of Edgars wetlands, next to McFadzean Ave, Reservoir
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Complied by: Jasmine Saparamadu

Monthly parameters

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

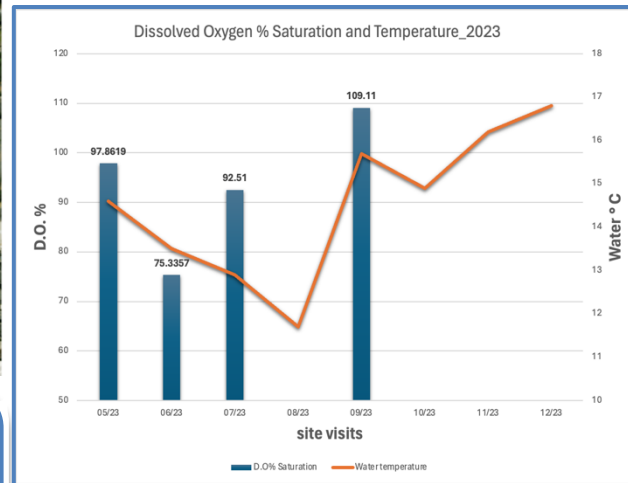
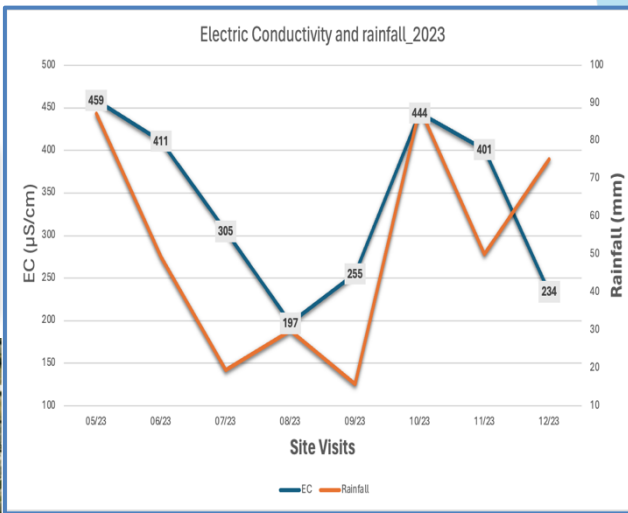


Objectives

- 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 seen 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_YED074.

Summary

Salinity in the creek, measured as electric conductivity (EC), ranged from 197-459 µS/cm. This data was plotted alongside monthly rainfall data from [Melbourne Water](#) to identify trends, indicating at times high rainfall corresponded with increased salinity. The salinity was then assessed using the Environment Quality Index (EQI) (p63) for Victoria, which provides threshold values of water quality. In this area, the threshold for indicating a water quality issue is established below 500 µS/cm. During all eight site visits, the measurements were below the threshold values, indicating healthy EC levels.

While data on dissolved oxygen % (DO) is limited, readings were available for four out of the eight visits, with values ranging from 75.3% to 109.1%. According to the Environmental Quality Index, the 25th percentile threshold for DO is greater than or equal to 70%. All site visits indicated good water quality in this regard. Maintaining DO levels within safe levels is crucial for water bodies like this, as it supports healthy aquatic populations and ecosystems, aids in decomposition of organic matter and supporting important biogeochemical cycles.

Water temperatures ranged from 11.7°C to 16.8°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 consistent from May to December, generally around pH 7, with the highest pH observed in September at 8.26, which exceeds the quality indicator values. Overall, pH levels are well within range of the EQI.

Site photo taken on 09/06/2024

