

## January – December 2023 Waterwatch Water Quality Site Summary Report ME\_YED070

ME\_YED070 - Edgars Creek, upstream of Edwardes Lake, next to Reservoir Scout Hall, Leamington Street, Reservoir  
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### Monthly parameters

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

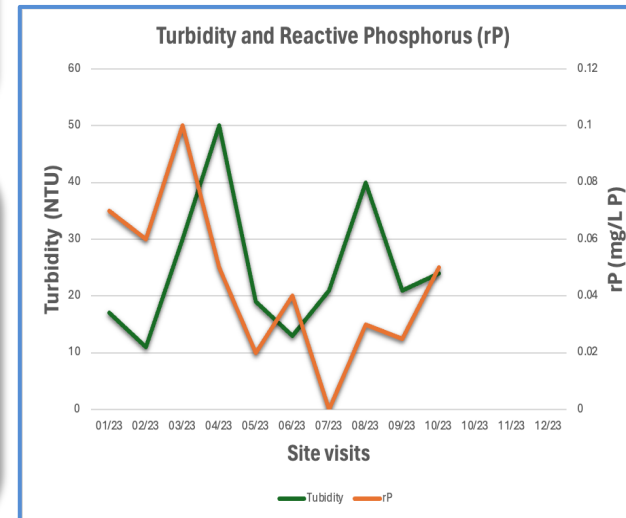
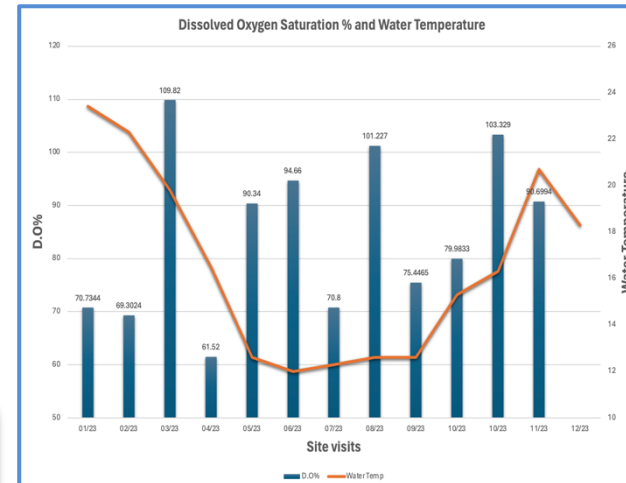
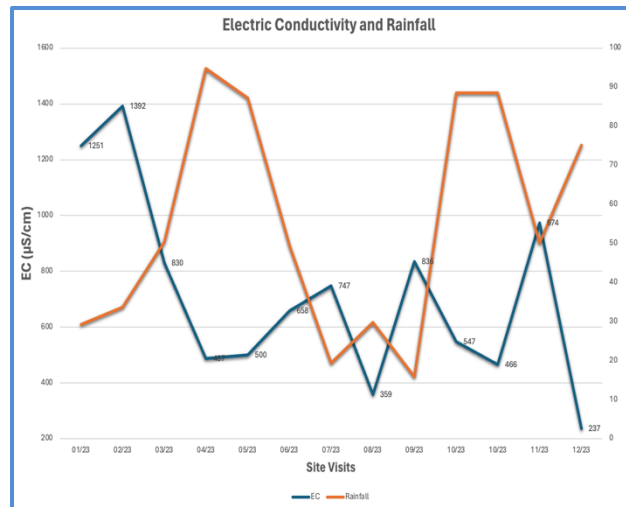


### Objectives

- 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\_YED070.

### Summary

Salinity measured as electrical conductivity (EC) in the creek, ranged from 237-1251 µS/cm. This data was plotted alongside monthly rainfall data from [Melbourne Water](#) to identify trends, suggesting that higher the rainfall generally corresponded with lower salinity. In urban areas like this, runoff generally contains high concentrations of dissolved ions from road salts, fertilizers and other sources resulting in high EC. 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 9 out of the 13 visits, the measurements were above the threshold values.

Dissolved oxygen % (DO) and water temperature from 13 visits of the site were plotted, with DO ranging from 61.5% to 109.8% and water temperature between 12°C and 23.4°C. According to the EQI, DO levels should be at least 70% saturation in the lowest 25% of measurements. Site visits from February and April indicated poor water quality based on this index. Maintaining adequate DO levels is crucial for water bodies like this, as it supports healthy aquatic life, aids in organic matter decomposition, and supports important biogeochemical cycles. The variation for water temperature is likely due to seasonal changes from winter to summer.

Across the 13 visits of the site, turbidity ranged from 11-50 NTU, exceeding EQI threshold of 15 NTU, while reactive phosphorus levels ranged from 0-0.1 mg/L. These results indicate poor water quality during the majority of visits. The high turbidity suggests nutrient pollution, often associated with increased reactive phosphorus, which can lead to poor water quality and harmful algal blooms.



Site photo taken on 02/04/2023