Report compiled: 12/4/23

MERRI CREEK MANAGEMENT COMMITTEE

Incorporated Association
No A0018144A

2 Lee Street
East Brunswick Vic 3057
Ph: (03) 9380 8199
www.mcmc.org.au
admin@mcmc.org.au

ABN 13025599242

Waterbug Census sampling results for Edgars Creek, near Edwardes Lake, Reservoir

Waterwatch Site code and name:

ME_YED070 Edgars Creek, upstream of Edwardes Lake, next to Reservoir Scout Hall, Leamington Street, Reservoir.

https://www.vic.waterwatch.org.au/site_visit/2333825
Date sampled: 01/04/23 at 10.00am
Surveyors: Trevor Hausler with 8 community volunteers

Description
The weather was cloudy and the water appeared slightly turbid with a medium to high flow as there had been approx. 20mm of rain over the preceding 5 days We carried out a habitat survey first to determine the variety of habitats to sample. The site was mainly edge vegetation with a small area of instream plants and a riffle 100m upstream of the main sampling site.

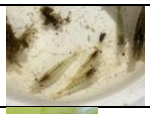
The sampling revealed a moderate range of 14 taxa, though these tended to be dominated by pollution tolerant species. The weighted ALT SIGNAL score was 2.05. This indicates at this site that Edgars Creek is negatively impacted by stormwater pollution. This unfortunately, is usual in the Edgars Creek. This result can be explained by the following:

1) This site is downstream of an industrial area with sections of the creek concrete lined. This signifies very low instream habitat for waterbugs to live and breed in.

2) The waterbug sample collected contained high levels of sediment which made finding and sorting the waterbugs difficult. This site has an average moderate level of turbidity (in 2022 average was 26 NTUs which translates as poor) which makes life difficult for waterbugs, usually only more tolerant species can survive.

Table 1. List of Taxa and SIGNAL scores for ME_YED070 on 01/04/2023.

Name	Common Name	Quantity	SIGNAL 2 Score	Photo
Phylum Mollusca				

Family Lymnaeidae	Freshwater snail	2	1	
Physa acuta	European Pond Snail	2	2	
Class Crustacea				
Family Atyidae	Glass Shrimps	2	3	
Family Parastacidae	Yabbies	3	1	
Class Insecta	**Insects**			
Order Diptera	**True Flies**			
Family Chironomidae	Bloodworms	12	4	
Family Chironomidae	Other chironomids	2	4	
Order Hemiptera	**True Bugs**			
Family Notonectidae Genus *Enithares*	Robust Backswimmer	1	3	
Family Corixidae	Waterboatmen			
Genus *Sigara*	Striped boatman	1	4	Image not available
Genus *Agraptocorixa*	Static boatmen	1	1	
Order Odonata	**Dragonflies and Damselflies**			
Family Coenagrionidae	Damselflies	20	1	
Suborder Epiproctophora (various families)	Spider Mudeye	2	4	
Order Trichoptera	**Caddies Flies**			
Family Hydropsychidae	Net-spinning Caddis	1	6	
Family Leptoceridae				

Genus *Triplectides*	Stick Caddis	1	4	
Unidentified Leptoceridae (various genera)		1	6	
	TOTALS	51		
			Weighted/ALT SIGNAL2 score	2.05*
			Meaning	Severe Pollution

***Explanatory notes on SIGNAL Score (from the Waterwatch Victoria website)**

Each aquatic macro invertebrate is given an ALT (Agreed Level Taxonomy) SIGNAL2 score depending on their sensitivity to pollutants. SIGNAL stands for Stream Invertebrate Grade Number - Average Level. In 1994, a new version of this method, known as SIGNAL2, was developed and is available on the Federal Government website. By knowing the SIGNAL2 grade for every family, the SIGNAL2 score of a site, and therefore its health, can be assessed. For example a site that has abundant diversity and many sensitive aquatic invertebrates will have a high ALT SIGNAL2 score.

To calculate an ALT SIGNAL2 score for a site:

Step 1. Collect, sort and identify the creatures found at the site

Step 2. Calculate the sum of the individual ALT SIGNAL2 grades

Step 3. Divide the sum of the individual ALT SIGNAL2 grades by the number of different invertebrates collected to calculate the ALT SIGNAL2 score.

A guide for interpreting water health according to the SIGNAL score of a site is given in this table

SIGNAL score ratings

Higher than 6	Healthy habitat
Between 5 and 6	Mild pollution
Between 4 and 5	Moderate pollution
Less than 4	Severe pollution

These ratings were originally developed for very “normal” freshwater streams and rivers, and do not work as well for wetlands or lakes.

This report has been added to the Waterwatch database.

Yours sincerely,

Trevor Hausler
Waterwatch Officer
Julia Cirillo
Coordinator | Waterwatch Program & Rapid Response to Litter Project
Merri Creek Management Committee
juliacirillo@mcmc.org.au
0493 591 724