



Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

Waterwatch Report 29 October 2023

Scope

- Aquatic invertebrate sampling at sites 2 and 3 (downstream sites).
- Basic chemistry and ammonium tests at all sites.
- Dissolved Oxygen tests at sites 2 and 3 (downstream sites).
- Flow measurement and/or observations at all sites.

Weather Conditions

Previous week: 5 mm rain.

Previous 24 hours: Sunny, no rain.

During testing: Sunny.

Water Quality Results

	YSC010 Site 1A Fiander arm	YSC012 Site 1B Crosby arm	YSC020 Site 2 Regent St	YVA100 Site 3 Valley Creek
Air Temp °C	15.5	15.5	15.5	15.5
Water Temp °C	16.5	18	14	14.5
pH	7.3 G	7.1 G	6.8 E	6.9 E
Oxygen Conc. mg/l			5.2 F	6.4 G
Conductivity E.C.	770 D	410 F	530 P	570 P
Turbidity F.T.U	9 E	13 E	26 P	22 P
Phosphorus, soluble ppm			0.095 P	0.013 G
Ammonium NH ₄ ⁺ ppm	0.00 E	0.00 E	0.35 P	0.04 E
Stream Flow estimate l/s	7.1	4.1	7.2	close to zero (unmeasurable)

(E = Excellent, G = Good, F = Fair, P = Poor, D = Degraded)

Macro Invertebrates Results

		YSC020 Site 2 Regent St	YVA100 Site 3 Valley Creek
	Bug score	Number found	Number found
Sensitive			
<i>Damselfly larvae</i>	6	6	0
<i>Freshwater mussel</i>	5	20	4
Tolerant			
<i>Leeches</i>	3	3	0
<i>Snails (freshwater)</i>	3	50	50
<i>Flatworms</i>	3	2	10
Very Tolerant			
<i>Freshwater segmented worms</i>	1	4	10
<i>Blood worms</i>	1	50	10
Total Number Found		135	84
Total Bug Score		22	13
Stream Condition		Poor	Poor

Comments:

- Oxygen level was Fair for Site 2 and Good for Site 3.
- Turbidity results were Excellent for Sites 1a & 1b, Poor for Sites 2 & 3.
- Conductivity reading was Fair to Degraded for all sites.
- Ammonium results were Excellent for Sites 1a, 1b & 3, Poor for Site 2.
- The invertebrate survey ratings ('Waterwatch' method) were Poor for both the downstream sites.
- Some of the in-stream vegetation at Site 2 was exposed. Water looks turbid / muddy.
- There was a slight odour of rotten egg gas at Site 2.
- The water at Site 3 looks clear and there was duckweed growing.

ML 29/10/23.