Friends of Scotchmans Creek and Valley Reserve Inc

Inc No A0037872K

Waterwatch Report 21 January 2024

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: 44 mm rain.
Previous 24 hours: Sunny, no rain.
During testing: Overcast, 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	18	18	18	18
Water Temp C	17.5	17	17	16.5
pH	7.6 G	7.3 G	6.9 E	7.0 E
Oxygen Conc. mg/l			7.0 G	5.2 F
Conductivity E.C.	600 P	470 F	560 P	560 P
Turbidity F.T.U	9 E	12 E	20 P	33 D
Phosphorus, soluble ppm			0.088 P	0.036 F
Ammonium NH4+ ppm	0.00 E	0.00 E	0.01 E	0.00 E
Stream Flow estimate l/s	3.5	1.1	8.4	0.8

(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			
Damselfly larvae	6	4	2
Freshwater mussel	5	10	5
Tolerant			
Leeches	3	4	2
Snails (freshwater)	3	3	50
Flatworms	3	5	1
Very Tolerant			
Fly larvae	2	0	2
Freshwater segmented worms	1	0	5
Blood worms	1	10	10
Total Number Found		**36**	**77**
Total Bug Score		**21**	**24**
Stream Condition		**Poor**	**Poor**

Comments:

- There was a localised storm cell in the early morning hours of 16th January, which brought heavy downpour and caused some erosion of the creek banks.
- Oxygen concentration at Site 2 was Good, Fair for Site 3.
- Conductivity reading was Poor for Sites 2 & 3, Poor to Fair for Sites 1a & 1b.
- Turbidity was Poor to Degraded for Sites 2 & 3, Excellent for Sites 1a & 1b.
- Phosphorus results were Poor for Site 2 and Fair for Site 3.
- Ammonium results were Excellent for all sites.
- The invertebrate survey ratings ('Waterwatch' method) were Poor for both downstream sites.

ML / FJB 21/01/24.