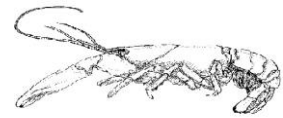




Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

Waterwatch Report 23 February 2020

Scope

- Aquatic invertebrate sampling at the upstream sites 1a, 1b.
- Basic chemistry tests at all sites.
- Dissolved Oxygen and Phosphate tests at the upstream sites 1a, 1b.
- Ammonium tests at all sites.
- Flow measurement and/or observations at all sites.

Weather Conditions

Previous week: Cool, a 44 mm rainstorm occurred early in the week.

Previous 24 hours: Sunny

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	17	17	17	17
Water Temp C	16	16.5	17	16
pH	7.3 G	7.0 E	7.1 G	6.9 E
Oxygen Conc. mg/l	6.7 G	7.0 G		
Conductivity E.C.	420 F	400 F	340 F	300 F
Turbidity F.T.U	17 G	10 E	20 P	28 P
Phosphorus, soluble ppm	0.046 F	0.104 D		
Ammonium NH ₄ ⁺ ppm	0.07 G	0.10 F	0.70 D	0.02 E
Stream Flow (volume) l/s	7.1	16.0	17.0	0.6

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

Macro Invertebrates Results

		YSC010 Site 1A Fiander arm	YSC012 Site 1B Crosby arm
	Bug score	Number found	Number found
Sensitive			
<i>Damselfly larvae</i>	6	0	3
<i>Dragonfly larvae</i>	6	0	1
<i>Freshwater Yabbies/Crayfish</i>	5	0	1
Tolerant			
<i>True Bugs (Backswimmers, Water Scorpions, Water Boatmen, Lesser Water Striders, Water Striders/Treaders)</i>	4	1	0
<i>Leeches</i>	3	15	6
<i>Snails (freshwater)</i>	3	50	50
<i>Flatworms</i>	3	25	12
Very Tolerant			
<i>Mosquito larvae</i>	2	10	0
<i>Fly larvae</i>	2	5	2
<i>Freshwater segmented worms</i>	1	100	4
<i>Blood worms</i>	1	100	20
Total Number Found		306	99
Total Bug Score		19	30
Stream Condition		Fair	Poor

Comments:

- The chemical test results are considerably better than last month, probably benefitting from the rainstorm early in the week.
 - Most of the results are Fair to Excellent.
 - Turbidity at both downstream sites was Poor, phosphorus in the Crosby arm was Degraded, ammonium in Scotchmans Ck downstream (below the wetlands) was Degraded.
- Invertebrate results were not as good as expected (the best results usually occur at this time of the year).
 - The Fiander arm now has some overhanging vegetation in the water, this yielded an abundance of tolerant and very tolerant creatures but no sensitive creatures. Although the variety was low, the abundance achieved a Fair rating.
 - The Crosby arm has patches of in-stream vegetation despite the sandy bottom of its deep pools having shifted since our last visit. We found a few sensitive creatures

including a small yabby (1 cm pincers to tail) which is shown below. However both the abundance and variety scores were below thresholds and the site rating was Poor.



FGB 24/Feb/'20