



Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

Waterwatch Report 21 Feb 2021

Scope

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

Weather Conditions

Previous week: Warm, sunny, no rain.

Previous 24 hours: Warm, sunny, no rain.

During testing: Overcast, cool.

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	19.5	19.5	19.5	19.5
Water Temp C	19.5	19	19.5	19
pH	6.8 E	6.7 E	6.8 E	7.0 E
Oxygen Conc. mg/l	5.9 F	4.7 P		
Conductivity E.C.	440 F	200 G	490 F	200 G
Turbidity F.T.U	10 E	10 E	10 E	37 D
Phosphorus, soluble ppm				
Ammonium NH ₄ ⁺ ppm				
Stream Flow (volume) l/s	5.6	8.8	4.2	0.0

(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	1	20
<i>Dragonfly larvae</i>	6	0	10
<i>Freshwater mussel</i>	5	0	3
Tolerant			
<i>Beetle larvae</i>	4	0	1
<i>True Bugs (Backswimmers, Water Scorpions, Water Boatmen, Lesser Water Striders, Water Striders/Treaders)</i>	4	1	0
<i>Leeches</i>	3	5	5
<i>Snails (freshwater)</i>	3	20	50
<i>Flatworms</i>	3	50	50
Very Tolerant			
<i>Freshwater segmented worms</i>	1	50	20
<i>Blood worms</i>	1	50	20
Total Number Found		177	179
Total Bug Score		21	32
Stream Condition		Poor	Poor

Comments:

The chemical test reagents have not been replenished recently, because of the interruption to the 2020 program. Consequently we didn't do phosphate tests because one reagent has run out, and didn't report the ammonium test results (all 0) because the reagents are over-date and suspected of becoming unresponsive.

The chemical test results we did obtain are typical of summer testing at these sites.

The waterbug sample from site 1a was disappointing, with an overabundance of creatures tolerant or very tolerant of poor water quality. This result is probably due to a lack of in-stream vegetation for their habitat.

The waterbug sample from site 1b was better and more interesting, with numerous sensitive creatures, and some which we rarely see (3 freshwater mussels and a beetle larva). However we didn't find enough to rate the site better than Poor.