



Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

Waterwatch Report 24 Oct '21

Scope

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

Weather Conditions

Previous week: 2 warm days, 17 mm rain.

Previous 24 hours: Cool, 1 mm rain.

During testing: Cool, rain cleared 1 hour beforehand.

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	13	13	13	13
Water Temp C	14.5	14	13	13
pH	7.5 G	7.4 G	6.9 E	7.1 G
Oxygen Conc. mg/l			8.4 E	9.0 E
Conductivity E.C.	240 G	330 F	220 G	450 F
Turbidity F.T.U	31 D	17 G	48 D	25 P
Phosphorus, soluble ppm				
Ammonium NH ₄ ⁺ ppm				
Stream Flow estimate l/s	56.0	88.0	147.0	13.1

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

Macro Invertebrates Results

		YSC010 Site 1A Fiander arm	YSC012 Site 1B Crosby arm	YSC020 Site 2 Regent St	YVA100 Site 3 Valley Creek
	Bug score	Number found	Number found	Number found	Number found
Very Sensitive					
<i>Caddisfly larvae</i>	7	0	0	2	1
Sensitive					
<i>Freshwater mussel</i>	5	0	0	0	2
<i>Freshwater Yabbies/Crayfish</i>	5	0	0	1	0
<i>Freshwater Slaters</i>	5	0	0	0	1
Tolerant					
<i>True Bugs (Backswimmers, Water Scorpions, Water Boatmen, Lesser Water Striders, Water Striders/Treaders)</i>	4	0	0	0	1
<i>Beetles/Dytiscid beetles, Whirligig beetles</i>	3	0	0	0	1
<i>Leeches</i>	3	0	0	2	0
<i>Snails (freshwater)</i>	3	0	0	10	50
<i>Flatworms</i>	3	0	0	1	3
Very Tolerant					
<i>Fly larvae</i>	2	0	0	10	0
<i>Freshwater segmented worms</i>	1	0	0	3	10
<i>Blood worms</i>	1	0	0	20	10
Total Number Found		0	0	49	79
Total Bug Score		0	0	25	32
Stream Condition				Poor	Poor

Comments:

The 1 mm overnight rain had fallen at about dawn, resulting in fast flows, and very muddy water from the Fiander Arm (Scotchmans Ck at our upstream site). This cleared significantly by the afternoon, which helps explain why our morning test result for the Fiander branch was better than the test result downstream.

- pH and oxygen concentrations were Good or Excellent.
- Conductivity results were Fair or Good.
- Turbidity was very high, rated from Good to Degraded.
- The muddy water made waterbug sampling difficult, as the in-stream vegetation was hidden. The samples were clean but with not enough variety or abundance to rate better than Poor.