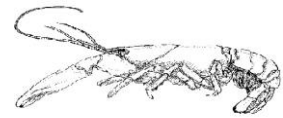




Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

Waterwatch Report 19 Jan 2020

Scope

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

Weather Conditions

Previous week: Hot and smoky start, midweek change and storms with 10 mm local rain, then mild and sunny.

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	23	23	23	23
Water Temp C	21	21	19.5	19.5
pH	7.1 G	7.0 E	6.7 E	6.5 E
Oxygen Conc. mg/l			3.4 D	2.1 D
Conductivity E.C.	550 P	240 G	270 F	270 F
Turbidity F.T.U	12 E	16 G	22 P	20 P
Phosphorus, soluble ppm			0.082 P	0.023 G
Ammonium NH ₄ ⁺ ppm	0.50 D	0.15 F	0.09 G	0.00 E
Stream Flow (volume) l/s	7.1	10.3	57.1	0.1

(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	3	1
<i>Freshwater mussel</i>	5	15	0
Tolerant			
<i>True Bugs (Backswimmers, Water Scorpions, Water Boatmen, Lesser Water Striders, Water Striders/Treaders)</i>	4	2	6
<i>Leeches</i>	3	30	1
<i>Snails (freshwater)</i>	3	0	30
<i>Flatworms</i>	3	5	30
Very Tolerant			
<i>Mosquito larvae</i>	2	30	0
<i>Freshwater segmented worms</i>	1	2	8
<i>Blood worms</i>	1	20	2
Total Number Found		107	78
Total Bug Score		25	21
Stream Condition		Poor	Poor

Comments:

On this occasion one third of the phys/chem ratings were Poor or Degraded, and the waterbug ratings were Poor.

- Upstream, Scotchmans Ck (Site 1a, Fiander arm) had Degraded conductivity and ammonium. The ammonium sample measured 0.5 ppm, which is the limit of the test kit's range, but confirmed by remeasurement with a diluted sample.
- Also upstream, the Glen Waverley drain (site 1b, Crosby arm) was alright.
- Downstream, Scotchmans Ck (Site 2, Regent St) was flowing more strongly than upstream, presumably still draining the wetlands after the locally moderate mid week rain event. Oxygen was low (Degraded), turbidity and phosphorus were Poor, but ammonium was Good.
 - The waterbugs found here included many more mosquito larvae than usual.
- Valley Ck (Site 3) was trickling. Oxygen was very low (Degraded) and turbidity was Poor.
 - About 20 tadpoles were found in the waterbug sample, but the invertebrates were mostly Tolerant and Very Tolerant varieties.