



Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

Waterwatch Report 23 Jan 2022

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: Sunny, no rain.

Previous 24 hours: Sunny, no rain.

During testing: Sunny, no rain.

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	24	21.5	23.5	23.5
Water Temp C	21.5	23	19.5	20
pH	7.1 G	6.7 E	6.8 E	7.2 G
Oxygen Conc. mg/l			1.8 D	3.4 D
Conductivity E.C.	510 P	350 F	620 P	1200 D
Turbidity F.T.U	9 E	20 P	18 F	49 D
Phosphorus, soluble ppm			0.098 P	0.121 D
Ammonium NH ₄ ⁺ ppm	0.04 E	0.25 P	1.40 D	0.80 D
Stream Flow estimate l/s	10.0	5.0	10.0	0.0

(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	0	3
<i>Water Mites</i>	5	5	0
Tolerant			
<i>True Bugs (Backswimmers, Water Scorpions, Water Boatmen, Lesser Water Striders, Water Striders/Treaders)</i>	4	0	2
<i>Leeches</i>	3	10	2
<i>Snails (freshwater)</i>	3	8	50
<i>Flatworms</i>	3	1	30
Very Tolerant			
<i>Mosquito larvae</i>	2	0	30
<i>Fly larvae</i>	2	0	3
<i>Freshwater segmented worms</i>	1	5	20
<i>Blood worms</i>	1	15	50
Total Number Found			
		44	190
Total Bug Score			
		16	25
Stream Condition			
		Poor	Poor

Comments:

As expected after 2 weeks with only 3 mm rainfall, most of the water quality results were poor. The exception was good pH values at all sites.

- Scotchmans Creek, upstream (site 1a, the Fiander Arm) looked clear but had a Poor result for conductivity.
- The Glen Waverley Drain (site 1b) had Poor results for turbidity and ammonium.
- Scotchmans Ck, downstream (site 2, at Regent St) was generally degraded.
 - Oxygen was very low, conductivity and ammonium were high.
 - The waterbug sample was disappointingly poor. However there were many adult dragonflies about, indicating better long term conditions, but there were no dragonfly larvae in the waterbug sample.
- Valley Ck was not flowing, and smelling a bit of decaying vegetation.
 - All the water quality results (except pH) were Degraded.
 - The waterbug sample was better than expected (although rated Poor), with larger numbers of tolerant and very tolerant waterbugs, including some mosquito larvae. There were also many tadpoles.