



Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

Waterwatch Report 19 Nov 2017

Scope

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

Weather Conditions

During testing: Sunny.

Previous 24 hours: Sunny, then a late thunderstorm with 8 mm rain.

Previous week: Hot and dry at first, thunderstorms and heavy rain events in the last 2 days, total 40 mm 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	22	22	22	22
Water Temp C	18	18	21	19
pH	7.2 G	6.7 E	6.6 E	6.8 E
Oxygen Conc. mg/l	8.5 E	8.9 E		
Conductivity E.C.	320 F	190 G	130 G	180 G
Turbidity F.T.U	38 D	13 E	29 P	40 D
Phosphorus, soluble ppm	0.039 F	0.062 P		
Ammonium NH ₄ ⁺ ppm	0.04 E	0.06 G	0.02 E	0.02 E
Stream Flow (volume) l/s	12.6	23.4	95.6	2.5

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

Macro Invertebrates Results

	YSC010 Site 1A Fiander arm	YSC012 Site 1B Crosby arm
Sensitive		
<i>Damselfly larvae</i>	0	1
Tolerant		
<i>Freshwater Sandhoppers (Amphiopods)</i>	0	2
<i>Leeches</i>	3	1
<i>Snails (freshwater)</i>	30	15
<i>Flatworms</i>	10	7
Very Tolerant		
<i>Mosquito larvae</i>	1	0
<i>Freshwater segmented worms</i>	10	8
<i>Blood worms</i>	50	20
Abundance Category	3	2
Total Bug Score	13	21
Stream Condition	Poor	Poor

Comments:

- Recent thunderstorms brought the creeks up on the previous 2 afternoons, and left a lot of litter on the banks at site 1b (Crosby Arm, Glen Waverley Main Drain).
- The physical / chemical indicators were typical of these creeks,
 - Somewhat muddy except at site 1b,
 - Poor phosphate rating at site 1b.
- The unusually high ammonium results at sites 1a and 1b, measured in the previous 2 months, were not repeated. The ammonium levels were Good or Excellent at all the sites.
- The invertebrate samples were small and lacking variety, especially lacking the usual catch of varieties sensitive to water quality. There is very little mid-stream vegetation at site 1a, but we caught more waterbugs there than from the better vegetation at site 1b.