



Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

Waterwatch Report 25 October 2015

Scope

- Aquatic invertebrate sampling at sites 2 and 3.
- Basic chemistry tests at sites 1a, 1b, 2, 3.
- Dissolved Oxygen at sites 2 and 3.
- Ammonium tests at sites 1a, 1b, 2, 3.
- Flow measurement and/or observations at sites 1a, 1b, 2, 3.

Weather Conditions

During testing: Sunny, warm

Previous 24 hours: Sunny, warm

Previous week: Mild, 5 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	21	21	21	21
Water Temp C	17.5	16	15	13
pH	6.9 E	6.7 E	6.1 E	6.4 E
Oxygen Conc. mg/l			4.4 P	3.6 D
Conductivity E.C.	690 P	210 G	450 F	500 P
Turbidity F.T.U	20 P	13 E	17 G	25 P
Phosphorus, soluble ppm				
Ammonium NH ₄ ⁺ ppm	0.06 G	0.00 E	0.40 D	0.04 E
Stream Flow (volume) l/s	0.7	4.2	11.7	Trickle

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

Macro Invertebrates Results

	YSC020 Site 2 Regent St	YVA100 Site 3 Valley Creek
Very Sensitive		
<i>Caddisfly larvae</i>	5	2
Sensitive		
<i>Damselfly larvae</i>	2	1
<i>Dragonfly larvae</i>	0	1
<i>Freshwater mussel</i>	3	10
Tolerant		
<i>True Bugs (Backswimmers, Water Scorpions, Water Boatmen, Lesser Water Striders, Water Striders/Treaders)</i>	2	1
<i>Leeches</i>	4	0
<i>Snails (freshwater)</i>	30	30
<i>Flatworms</i>	30	15
Very Tolerant		
<i>Fly larvae</i>	0	10
<i>Freshwater segmented worms</i>	2	30
<i>Blood worms</i>	30	30
Abundance Category	3	3
Total Bug Score	33	38
Stream Condition	Poor	Good

Comments:

- Summer conditions are arriving; two of the streams were flowing very slowly (Scotchmans Ck upstream at site 1a) or at a trickle (Valley Ck at site 3). As expected, oxygen levels are low, and conductivity is high.
- However
 - The flow in the Glen Waverley Drain (Crosby arm, site 1b) was several times that in the adjacent Scotchmans Ck (site 1a), and all the measured indicators were Good or Excellent.
 - The flow in Scotchmans Ck at the downstream site at Regent St (site 2) was noticeably higher than at the upstream site, with Degraded ammonium level.
- Although Valley Ck was only a trickle connection the pools, we found sufficient variety of invertebrates to raise the bug score to Good. (We are getting better at spotting some of the smaller creatures, such as small caddisfly larvae and freshwater mussels).