



Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

Waterwatch Report 25 January 2015

Scope

- Full phys / chem and aquatic invertebrate sampling at sites 2 and 3 (Regent St and Valley Ck).
- No monitoring at sites 4 and 5 (Mt Waverley Wetlands).
- Basic phys / chem at the other sites.

Weather Conditions

During testing: Sunny, cool morning

Previous 24 hours: Sunny, warm to hot

Previous week: Sunny, warm to hot

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	18	18	17	18
Water Temp C	18	17.5	17.5	13.5
pH	6.9 E	6.8 E	6.7 E	6.6 E
Oxygen Conc. mg/l			3.7 D	3.5 D
Conductivity E.C.	820 D	290 F	520 P	320 F
Turbidity F.T.U	16 G	0 E	17 G	37 D
Phosphorus, soluble ppm			0.078 P	0.072 P
Ammonium NH ₄ ⁺ ppm	0.40 D	0.02 E	0.07 G	0.02 E
Stream Flow (volume) l/s	7.6	4.2	7.8	Minimal

(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>	1	0
Sensitive		
<i>Damselfly larvae</i>	50	50
<i>Dragonfly larvae</i>	2	2
<i>Freshwater mussel</i>	4	1
Tolerant		
<i>True Bugs (Backswimmers, Water Scorpions, Water Boatmen, Lesser Water Striders, Water Striders/Treaders)</i>	0	15
<i>Leeches</i>	3	4
<i>Snails (freshwater)</i>	50	50
<i>Flatworms</i>	50	50
Very Tolerant		
<i>Freshwater segmented worms</i>	0	4
<i>Blood worms</i>	15	30
Abundance Category	3	4
Total Bug Score	34	32
Stream Condition	Poor	Fair

Comments:

- The warm dry conditions have reduced Valley Creek to a trickle. The other branches are flowing slowly and looking clear. However there is an occurrence of excessive conductivity and ammonium in the Fiander arm, and signs of those also downstream at Regent St. Phosphate is excessive, which is usual for these creeks. Oxygen levels are low.
- In the invertebrate samples, there were unusually large numbers of damselfly larvae in the samples from both Scotchmans Ck and Valley Ck. There was an unusually large number of backswimmers from Valley Ck (possibly because it is scarcely flowing) and this gave Valley Ck a Fair rating, while Scotchmans Ck was rated Poor.
- There is an unsightly 4 sq metre patch of brown scum upstream of our Regent St site. These occur occasionally, possibly due to stale fatty substances whose sources are untracable, and they usually vanish after rain.
- There is the usual large amount of litter caught in the bank vegetation of the Crosby and Fiander arms. This time it is predominantly sheets of plastic film.

FGB

25/Jan/2015