



Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

Waterwatch Report 22 March 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, no rain.

Previous 24 hours: Sunny, no rain.

Previous week: Mostly sunny, 4.5 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	15	15	13	13
Water Temp C	16	16	15	15
pH	6.8 E	6.5 E	6.3 E	6.1 E
Oxygen Conc. mg/l			4.8 P	1.3 D
Conductivity E.C.	440 F	230 G	300 F	220 G
Turbidity F.T.U	17 G	9 E	15 G	25 P
Phosphorus, soluble ppm			0.062 P	0.039 F
Ammonium NH ₄ ⁺ ppm	0.02 E	0.06 G	0.08 G	0.00 E
Stream Flow (volume) l/s	4.9	2.5	8.6	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>	0	2
Sensitive		
<i>Damselfly larvae</i>	1	5
<i>Dragonfly larvae</i>	0	7
Tolerant		
<i>True Bugs (Backswimmers, Water Scorpions, Water Boatmen, Lesser Water Striders, Water Striders/Treaders)</i>	0	3
<i>Leeches</i>	5	7
<i>Snails (freshwater)</i>	15	25
<i>Flatworms</i>	25	50
Very Tolerant		
<i>Freshwater segmented worms</i>	2	50
<i>Blood worms</i>	0	50
Abundance Category	2	3
Total Bug Score	16	34
Stream Condition	Poor	Poor

Comments:

- Scotchmans Ck (at Regent St) and Valley Ck, although joining next to the sampling sites, yielded markedly different aquatic invertebrate samples. The contrast is shown in the following table.

	Scotchmans Ck	Valley Ck
Flow	slow and very clear	trickle, pools almost stagnant and stained slightly brown
Dissolved oxygen concentration	50% (normal for this site)	13% (much lower than normal for this site)
Number of sensitive and very sensitive invertebrates sampled	1	14
Number of tolerant and very tolerant invertebrates sampled	47	185
Number of mosquito fish (gambusia) – a notorious introduced pest	20	none

Both sites rated Poor for the invertebrate survey because of the limited number of invertebrates found (Valley Ck missed the Fair rating by 2 invertebrates!)

- Other phys/chem results and general observations were normal for these sites.

FGB
24/March/2015