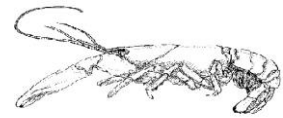




Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

Waterwatch Report 24 March 2019

Scope

- Aquatic invertebrate sampling at the downstream sites 2, 3.
- Basic chemistry tests at all sites.
- Dissolved Oxygen and Phosphate tests at the downstream sites 2, 3.
- Ammonium tests at all sites.
- Flow measurement and/or observations at all sites.

Weather Conditions

Previous week: Sunny.

Previous 24 hours: Partly cloudy, 2 mm rainfall.

During testing: Sunny and warm.

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	25	25	19.5	20
Water Temp C	20	21	18	18
pH	7.2 G	6.7 E	6.8 E	6.7 E
Oxygen Conc. mg/l			2.7 D	3.9 D
Conductivity E.C.	1080 D	210 G	270 F	320 F
Turbidity F.T.U	90 D	29 P	24 P	37 D
Phosphorus, soluble ppm			0.049 F	0.020 G
Ammonium NH ₄ ⁺ ppm	0.07 G	0.40 D	0.40 D	0.00 E
Stream Flow (volume) l/s	0.9	6.1	19.0	0.03

(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	6	0
<i>Dragonfly larvae</i>	6	1	0
<i>Freshwater Yabbies/Crayfish</i>	5	1	0
Tolerant			
<i>True Bugs (Backswimmers, Water Scorpions, Water Boatmen, Lesser Water Striders, Water Striders/Treaders)</i>	4	20	1
<i>Leeches</i>	3	7	20
<i>Snails (freshwater)</i>	3	3	50
<i>Flatworms</i>	3	2	10
Very Tolerant			
<i>Midge larvae</i>	2	3	1
<i>Fly larvae</i>	2	3	0
<i>Freshwater segmented worms</i>	1	20	20
<i>Blood worms</i>	1	5	1
Total Number Found (abundance)		71	103
Total Bug Score (variety)		36	17
Stream Condition		Good	Poor

Comments:

There has been very little rain for the last month, causing unusually low creek flows. A 2 mm rain event the day before this site visit improved the flows slightly.

There have also been 2 occurrences of a fluorescent green contamination from the Glen Waverley Drain to Regent St, seen by us on 23rd Feb and 9th March. The colouration persisted for some days because of low creek flows. The incidents may be pranks performed with excessive quantities of a tracer dye.

Despite these possibly adverse circumstances, the creeks yielded the usual summer test results:-

- Scotchmans Ck, upstream at site 1a, was flowing very slowly and was very cloudy (presumably from a pipe burst, or site runoff), and also tested with a very high conductivity.
- Glen Waverley Drain (site 1b) was clear, with normal summer flow, but had a high ammonium level.
- Downstream, Scotchmans Ck at site 2 was far less cloudy than upstream, but also had a high ammonium level, and a very low oxygen level.

- Valley Ck (site 3) was just a trickle between its pools, showing Fair to Excellent chemistry except for Degraded oxygen level and turbidity.
- The invertebrates survey at site 2 had a good variety including some sensitive species. The good variety achieved a Good rating, despite low abundances.
- The Valley Creek sample had only Tolerant and Very Tolerant species, in some abundance, but the sample was rated Poor.

FGB 24 March 2019