



Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

Waterwatch Report 28 Oct 2018

Scope

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

Weather Conditions

During testing: Cool, overcast, clearing later.

Previous 24 hours: Cool, sunny.

Previous week: No 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	13	13	13	13
Water Temp C	13	13	13	11
pH	7.5 G	7.1 G	6.9 E	6.9 E
Oxygen Conc. mg/l			7.4 G	6.1 G
Conductivity E.C.	1020 D	240 G	470 F	300 F
Turbidity F.T.U	9 E	8 E	14 E	23 P
Phosphorus, soluble ppm			0.108 D	0.036 F
Ammonium NH ₄ ⁺ ppm	0.00 E	0.00 E	0.15 F	0.02 E
Stream Flow (volume) l/s	0.8	5.0	5.8	0.0

(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
Very Sensitive			
<i>Caddisfly larvae</i>	7	1	0
Sensitive			
<i>Damselfly larvae</i>	6	5	0
<i>Dragonfly larvae</i>	6	1	0
<i>Freshwater Yabbies/Crayfish</i>	5	0	1
Tolerant			
<i>True Bugs (Backswimmers, Water Scorpions, Water Boatmen, Lesser Water Striders, Water Striders/Treaders)</i>	4	0	5
<i>Beetles/Dytiscid beetles, Whirligig beetles</i>	3	1	0
<i>Leeches</i>	3	10	2
<i>Snails (freshwater)</i>	3	15	100
<i>Flatworms</i>	3	20	20
Very Tolerant			
<i>Mosquito larvae</i>	2	3	4
<i>Midge larvae</i>	2	0	10
<i>Fly larvae</i>	2	6	0
<i>Freshwater segmented worms</i>	1	6	20
<i>Blood worms</i>	1	10	10
Total Number Found		78	172
Total Bug Score		37	24
Stream Condition		Good	Poor

Comments:

- Streamflows were low, after dry weather. Valley Ck was not flowing, but has shaded pools and the riffles are quite damp.
- Some water quality degradations were found..
 - Very low flow and high conductivity (rated Degraded) in Scotchmans Ck upstream of Blackburn Rd.
 - High turbidity in Valley Ck (rated Poor).

- High phosphorus (rated Degraded) and noticeable ammonium (rated Fair) in Scotchmans Ck downstream of the wetlands.
- Invertebrate sampling..
 - The vegetation in Scotchmans Ck (sampled downstream of the Valley Ck junction) was very muddy which made it hard to find the invertebrates in the netted sample. However we did find a caddisfly larva (very sensitive to water quality), some sensitive creatures, and fair numbers of tolerant creatures – resulting in a Good stream quality rating.
 - The sample included 3 mosquito larvae, which we don't often find.
 - Valley Ck was so low that the net didn't fit into some of the pools. We found only 1 sensitive creature (a small yabby) and a lot of tolerant creatures - resulting in a Poor stream rating. There were 10 small tadpoles in the sample.
- Litter is increasing in Valley Creek, which has usually been clean. The litter includes polystyrene foam building material.

FGB 28/10/18