



Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

Waterwatch Report 22 November 2015

Scope

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

Weather Conditions

During testing: Overcast, cool, becoming sunny.

Previous 24 hours: Overcast, cool, no rain.

Previous week: Warm at first, later cool with 6 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	16.5	17	17	17
Water Temp C	15	15.5	17	15.5
pH	6.5 E	6.3 E	6.1 E	6.2 E
Oxygen Conc. mg/l	4.1 P	6.1 G		
Conductivity E.C.	370 F	390 F	250 F	210 G
Turbidity F.T.U	14 E	7 E	21 P	27 P
Phosphorus, soluble ppm				
Ammonium NH ₄ ⁺ ppm	0.07 G	0.08 G	0.12 F	0.00 E
Stream Flow (volume) l/s	7.0	8.4	17.9	0.02

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

Macro Invertebrates Results

	YSC010 Site 1A Fiander arm	YSC012 Site 1B Crosby arm
Very Sensitive		
<i>Caddisfly larvae</i>	3	1
Sensitive		
<i>Damselfly larvae</i>	1	1
<i>Freshwater mussel</i>	2	0
Tolerant		
<i>Beetle larvae</i>	5	5
<i>Leeches</i>	2	3
<i>Snails (freshwater)</i>	30	30
<i>Flatworms</i>	30	1
Very Tolerant		
<i>Mosquito larvae</i>	20	0
<i>Midge larvae</i>	1	0
<i>Freshwater segmented worms</i>	20	10
<i>Blood worms</i>	30	30
Abundance Category	3	2
Total Bug Score	37	28
Stream Condition	Good	Poor

Comments:

- The chemical tests returned typical results for these creeks at the present low flows.
- The Fiander Arm (site 1a) has backed up behind the litter trap, forming a pool deep enough to submerge some of the overhanging weeds. Our bug sample taken from those weeds achieved a "Good" rating, a change from the usual "Poor" bug ratings for these creeks, largely as a result of greater variety of creatures we found in the sorting trays (the "Bug Score" in the table). This included some very small caddisfly larvae and some mosquito larvae.
- The Crosby arm (site 1b) has less vegetation, largely floating in the water body, and it yielded both less variety and less abundance of bugs, resulting in a "Poor" bug rating.