



## Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

### Waterwatch Report 19 March 2023

#### Scope

- Aquatic invertebrate sampling at site 2 (Scotchmans Ck, Regent St)
- Basic chemistry tests at all sites.
- Dissolved Oxygen and Phosphate tests at sites 1a, 1b (our upstream sites)
- Ammonium tests at all sites.
- Flow measurement and/or observations at all sites.

#### Weather Conditions

Previous week: Warm, 1 mm rain

Previous 24 hours: Hot, partly cloudy, windy.

During testing: Overcast, cool.

#### Water Quality Results

	<b>YSC010 Site 1A Fiander arm</b>	<b>YSC012 Site 1B Crosby arm</b>	<b>YSC020 Site 2 Regent St</b>	<b>YVA100 Site 3 Valley Creek</b>
Air Temp C	16.5	16.5	16.5	16.5
Water Temp C	16.5	16	17	16.5
pH				
Oxygen Conc. mg/l			6.9 G	2.7 D
Conductivity E.C.	420 F	90 E	210 G	380 F
Turbidity F.T.U	6 E	5 E	10 E	51 D
Phosphorus, soluble ppm			0.016 G	0.068 P
Ammonium NH <sub>4</sub> <sup>+</sup> ppm	0.00 E	0.00 E	0.01 E	0.00 E
Stream Flow estimate l/s	5.6	16.4	17.2	0.1

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

## Macro Invertebrates Results

		YSC020 Site 2 Regent St
	Bug score	Number found
Sensitive		
<i>Damselfly larvae</i>	6	50
<i>Dragonfly larvae</i>	6	15
Tolerant		
<i>Beetle larvae</i>	4	6
<i>True Bugs (Backswimmers, Water Scorpions, Water Boatmen, Lesser Water Striders, Water Striders/Treaders)</i>	4	2
<i>Leeches</i>	3	50
<i>Snails (freshwater)</i>	3	5
<i>Flatworms</i>	3	10
Very Tolerant		
<i>Fly larvae</i>	2	10
<i>Freshwater segmented worms</i>	1	5
<i>Blood worms</i>	1	5
<b>Total Number Found</b>		<b>158</b>
<b>Total Bug Score</b>		<b>33</b>
<b>Stream Condition</b>		<b>Poor</b>

### Comments:

- No pH measurements were taken as there was no pH indicator available.
- Valley Creek was reduced to a trickle, with several poor or degraded phys/chem results, and the pools were too small for our invertebrates sampling method.
- The other 3 sites had better flows and all phys/chem results were Fair to Excellent (high conductivity at site 1a (Scotchmans Creek, upstream) was rated Fair, all the other results were rated Good to Excellent).
- Damselfly larvae and aquatic leeches were plentiful at site 2 (Scotchmans Ck, Regent St), however the overall invertebrates rating was Poor. The sample also caught some large tadpoles, one maturing with striped marsh frog patterning.
- We did not do the scheduled invertebrates sampling at Valley Creek, as noted above.