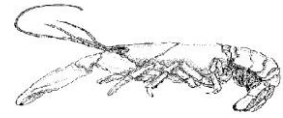




## Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

### Waterwatch Report 18 September 2022

#### Scope

- Aquatic invertebrate sampling at sites 1a, 1b (the upstream sites).
- Basic chemistry tests at all sites.
- Dissolved Oxygen and Phosphate tests at sites 1a, 1b (the upstream sites)
- Ammonium tests at all sites.
- Flow measurement and/or observations at all sites.

#### Weather Conditions

Previous week: 19 mm rain

Previous 24 hours: Cloudy, rain overnight 9 mm.

During testing: Cloudy, then light showers

#### 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	10	10	10	10
Water Temp C	11.5	11.5	11.5	11
pH	7.5 G	7.3 G	7.2 G	7.1 G
Oxygen Conc. mg/l	9.6 E	9.8 E		
Conductivity E.C.	420 F	310 F	250 F	250 F
Turbidity F.T.U	38 D	26 P	40 D	26 P
Phosphorus, soluble ppm	0.036 F	0.075 P		
Ammonium NH <sub>4</sub> <sup>+</sup> ppm	0.08 G	0.00 E	0.00 E	0.00 E
Stream Flow estimate l/s	73.5	28.0	94.5	3.5

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

## Macro Invertebrates Results

“Waterwatch” method		YSC010 Site 1A Fiander arm	YSC012 Site 1B Crosby arm
	Bug score	Number found	Number found
Sensitive			
<i>Damselfly larvae</i>	6	0	4
<i>Freshwater mussel</i>	5	0	1
Tolerant			
<i>Snails (freshwater)</i>	3	30	30
<i>Flatworms</i>	3	5	0
<i>Freshwater Slaters</i>	5	1	0
Very Tolerant			
<i>Freshwater segmented worms</i>	1	50	10
<i>Blood worms</i>	1	1	5
<b>Total Number Found</b>		<b>87</b>	<b>50</b>
<b>Total Bug Score</b>		<b>13</b>	<b>16</b>
<b>Stream Condition</b>		<b>Poor</b>	<b>Poor</b>

### Comments:

- All new chemical reagents received. The ammonium results are good to excellent.
- Turbidity was Poor to Degraded; both upstream branches were muddied by a water mains burst in Crosby Drive 2 weekends ago, and some diesel was lingering in the Crosby arm (think it came from the upstream piped areas). Even so, the oxygen concentration was excellent.
- There was a mystery bug which cannot be identified successfully from the quick sheets and the Waterbug Book, If it was a very sensitive caddisfly larva, that gives a bug score of 7, but if it was a very tolerant fly larva the score is 2. Either way the site's total bug score is well below the break point of 35, and the total count below the break of 200, so it's rated Poor. We should be careful about finding very sensitive creatures in one of our creeks, especially a fortnight after a few days of low flow and diesel smell.
- The invertebrate survey ratings ('Waterwatch' method) were Poor for both the upstream sites.