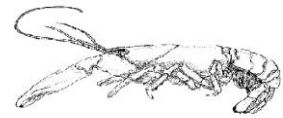




## Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

### Waterwatch Report 17 Feb 2019

#### Scope

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

#### Weather Conditions

During testing: Sunny and warm.

Previous 24 hours: Sunny.

Previous week: Mild, 6 mm rain.

#### 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	19.5	20	23.5	24
Water Temp C	17.5	19	20	18.5
pH	6.9 E	6.8 E	6.6 E	7.0 E
Oxygen Conc. mg/l	4.1 P	2.9 D		
Conductivity E.C.	230 G	180 G	380 F	280 F
Turbidity F.T.U	102 D	14 E	90 D	120 D
Phosphorus, soluble ppm	0.010 G	0.300 D		
Ammonium NH <sub>4</sub> <sup>+</sup> ppm	0.02 E	0.02 E	0.10 F	0.00 E
Stream Flow (volume) l/s	0.5	4.2	8.2	0.1

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

## Macro Invertebrates Results

		YSC010 Site 1A Fiander arm	YSC012 Site 1B Crosby arm
	Bug score	Number found	Number found
Sensitive			
<i>Damselfly larvae</i>	6	1	30
<i>Dragonfly larvae</i>	6	1	30
<i>Freshwater mussel</i>	5	0	15
<i>Water Mites</i>	5	0	5
Tolerant			
<i>Leeches</i>	3	5	5
<i>Snails (freshwater)</i>	3	20	20
<i>Flatworms</i>	3	20	10
Very Tolerant			
<i>Freshwater segmented worms</i>	1	10	5
<i>Blood worms</i>	1	30	10
<b>Total Number Found</b>		<b>87</b>	<b>130</b>
<b>Total Bug Score</b>		<b>23</b>	<b>33</b>
<b>Stream Condition</b>		<b>Poor</b>	<b>Poor</b>

### Comments:

- Scotchmans Ck, upstream (site 1a), was at very low flow and was very muddy.
  - The turbidity rating was Degraded and the oxygen level rated Poor, other pys/chem indicators were Good or Excellent.
  - The aquatic vegetation was sparse and hard to see, so not unexpectedly the waterbug count was disappointing, rated Poor.
- The Glen Waverley Drain (site 1b) was flowing well and was clear, with good aquatic vegetation in the pools.
  - However the oxygen level was very low, rated Degraded, and the phosphorus level was very high, also rated Degraded.
  - The waterbug sample was interesting, with an abundance of damselfly larvae and dragonfly larvae (which are rated Sensitive to water quality). But the total number of waterbugs was low, and the variety a bit low (see the Total Bug Score), resulting in a stream rating of Poor.
- Scotchmans Ck, downstream at Regent St (site 2), was also muddy as expected, but had noticeably higher conductivity and ammonium level than the upstream sites.
- Valley Ck (site 3) was down to a trickle and rather muddy, but apart from that the basic pys/chem results were Fair to Excellent.