



## Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

### Waterwatch Report 24 January 2016

#### Scope

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

#### Weather Conditions

During testing: Overcast.

Previous 24 hours: Becoming sunny.

Previous week: Mild, 13 mm rainfall.

#### 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	19	17.5	17.5
Water Temp C	19	18.5	19	18
pH	7.2 G	7.0 E	6.8 E	6.7 E
Oxygen Conc. mg/l			3.7 D	4.4 P
Conductivity E.C.	750 D	150 G	300 F	170 G
Turbidity F.T.U	17 G	46 D	27 P	32 D
Phosphorus, soluble ppm			0.082 P	0.010 G
Ammonium NH <sub>4</sub> <sup>+</sup> ppm	0.02 E	0.02 E	0.20 P	0.01 E
Stream Flow (volume) l/s	4.7	1.4	84.0	1.1

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

## Macro Invertebrates Results

	<b>YSC020 Site 2 Regent St</b>	<b>YVA100 Site 3 Valley Creek</b>
Sensitive		
<i>Damselfly larvae</i>	1	13
<i>Freshwater mussel</i>	7	0
Tolerant		
<i>True Bugs (Backswimmers, Water Scorpions, Water Boatmen, Lesser Water Striders, Water Striders/Treaders)</i>	1	25
<i>Leeches</i>	13	3
<i>Snails (freshwater)</i>	6	25
<i>Flatworms</i>	4	15
Very Tolerant		
<i>Freshwater segmented worms</i>	6	5
<i>Blood worms</i>	8	7
<b>Abundance Category</b>	<b>2</b>	<b>2</b>
<b>Total Bug Score</b>	<b>26</b>	<b>21</b>
<b>Stream Condition</b>	<b>Poor</b>	<b>Poor</b>

### Comments:

Each site displayed a range of degradations, some of which may have been due to factors other than the usual summer season low flows.

- Site 1a (our upstream site on Scotchmans Ck) was flowing slowly and looked clear. However it had a Degraded conductivity result.
- Site 1b (our other upstream site, on Glen Waverley Drain) was also flowing slowly but was rather milky (a Degraded turbidity result).
- Site 2 (our downstream site on Scotchmans Ck) was flowing much more strongly than at the upstream sites. Possibly the additional flow was from the wetlands ponds draining after 8 mm rainfall about 30 hours previously. The water looked relatively clear, however the chemical tests revealed high phosphorus and ammonium levels (both rated Poor), Degraded oxygen level and Poor turbidity level.
- Valley Ck (site 3) was flowing quite slowly and the tests revealed Poor oxygen level (expected in summer) and Degraded turbidity.
- The waterbug results were also rather disappointing.
  - Site 2 had better vegetation than usual, but we found few sensitive bugs, and more aquatic leeches than usual.
  - Site 3 yielded more damselfly larvae than usual, and a surprising number of backswimmers (we usually see none).
  - The overall rating at both sites was Poor.