



## Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

### Waterwatch Report 23 September 2018

#### 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: Overcast.

Previous 24 hours: Sunny.

Previous week: Variable, some sunny days, 2.5 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	11	11	11	11
Water Temp C	11	11	11	10
pH	7.4 G	6.8 E	7.1 G	6.9 E
Oxygen Conc. mg/l	6.2 G	7.7 G		
Conductivity E.C.	500 P	230 G	350 F	540 P
Turbidity F.T.U	13 E	9 E	17 G	20 P
Phosphorus, soluble ppm	0.026 F	0.215 D		
Ammonium NH <sub>4</sub> <sup>+</sup> ppm	0.10 F	0.07 G	0.08 G	0.00 E
Stream Flow (volume) l/s	1.3	27.0	15.3	0.03

(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
Very Sensitive			
<i>Caddisfly larvae</i>	7	1	1
Sensitive			
<i>Damselfly larvae</i>	6	0	3
Tolerant			
<i>Snails (freshwater)</i>	3	20	15
<i>Flatworms</i>	3	10	1
Very Tolerant			
<i>Fly larvae</i>	2	2	0
<i>Freshwater segmented worms</i>	1	20	1
<i>Blood worms</i>	1	10	0
<b>Total Number Found</b>		<b>63</b>	<b>21</b>
<b>Total Bug Score</b>		<b>17</b>	<b>20</b>
<b>Stream Condition</b>		<b>Poor</b>	<b>Poor</b>

### Comments:

The two upstream branches (sites 1a, 1b) had unusually different results.

- Scotchmans Ck (the Fiander arm) was flowing slowly and had high conductivity (rated Poor) and higher ammonium than usual (rated Fair).
- The Glen Waverley Drain (the Crosby arm) was flowing well, but a black 'slime' had streaked the rocks and the in-stream vegetation was very dirty. The phosphorus result was very high (rated Degraded).
- The waterbug samples were both sparse, but distinctly different.
  - The Fiander arm had very little in-stream vegetation, and the sample had good numbers of snails, flatworms, segmented worms and blood worms. But as these are 'tolerant' and 'very tolerant' creatures, the stream rated Poor.
  - The Crosby arm had dirty vegetation, and the sample was not abundant but did contain 3 Damselfly larvae ('sensitive' creatures). The stream rated Poor.

At the downstream sites,

- Scotchmans Ck had Fair to Good chemistry (but note that we did not measure the phosphorus level).
- Valley Ck was only a trickle, with Excellent pH and ammonium, but Poor conductivity and turbidity results.