



## Friends of Scotchmans Creek and Valley Reserve Inc



Inc No A0037872K

### Waterwatch Report 24 Jan 2021

#### Scope

- Aquatic invertebrate sampling at sites 2 and 3 (our downstream sites).
- Basic chemistry tests at all sites.
- Dissolved Oxygen tests at sites 2 and 3 (our downstream sites).
- Ammonium tests at all sites.
- Flow measurement and/or observations at all sites.

#### Weather Conditions

Previous week: Becoming warmer, no rain.

Previous 24 hours: Warm and sunny.

During testing: Warm to hot and sunny.

#### 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	25	25	25	25
Water Temp C	22.5	25	19.5	18.5
pH	7.1 G	6.5 E	6.8 E	6.7 E
Oxygen Conc. mg/l			2.4 D	2.4 D
Conductivity E.C.	520 P	230 G	490 F	400 F
Turbidity F.T.U	9 E	12 E	20 P	19 F
Phosphorus, soluble ppm				
Ammonium NH <sub>4</sub> <sup>+</sup> ppm	0.02 E	0.00 E	0.00 E	0.00 E
Stream Flow (volume) l/s	6.4	15.1	23.7	0.0

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

## Macro Invertebrates Results

		YSC020 Site 2 Regent St	YVA100 Site 3 Valley Creek
	Bug score	Number found	Number found
Very Sensitive			
<i>Caddisfly larvae</i>	7	3	0
Sensitive			
<i>Damselfly larvae</i>	6	25	0
<i>Dragonfly larvae</i>	6	10	0
Tolerant			
<i>True Bugs (Backswimmers, Water Scorpions, Water Boatmen, Lesser Water Striders, Water Striders/Treaders)</i>	4	0	2
<i>Leeches</i>	3	20	20
<i>Snails (freshwater)</i>	3	5	50
<i>Flatworms</i>	3	10	50
Very Tolerant			
<i>Midge larvae</i>	2	20	0
<i>Freshwater segmented worms</i>	1	10	20
<i>Blood worms</i>	1	10	20
<b>Total Number Found</b>		<b>113</b>	<b>162</b>
<b>Total Bug Score</b>		<b>32</b>	<b>15</b>
<b>Stream Condition</b>		<b>Poor</b>	<b>Poor</b>

### Comments:

This is our first report since the covid lockdown in 2020 forced the cancellation of site visits, the annual QA/QC checks, and the annual replacement of the chemical test reagents.

- The pH indicator solutions do not carry expiry dates.
- The oxygen reagents may be beyond their expiry dates, which are illegible.
- The conductivity calibration solution is in date.
- The phosphate tests were not done because the "acid reagent" had been completely used.
- The ammonium kit reagents are expired (date 08 2020) but gave Excellent readings, which are common in these creeks.
- The creeks were flowing well, except Valley Ck (site 3) which was a trickle we could not measure, however its pools were clear and unusually well vegetated.
- The dissolved oxygen levels were low, as usual for these creeks in summer.

- The invertebrates sample from Sothmans Ck (site 2) included some creatures rated as Very Sensitive and Sensitive despite the low oxygen level, however Valley Ck (site 3) yielded nothing above the Tolerant classification. Both creeks rated Poor for the invertebrates.

FGB 25/1/2021