STILL CREEK CATCHMENT LANDCARE WATER TEST RESULTS 2009/2012: FLOW STUDIES

Sample Site	Date Sampled	Rain Time	Rain Volume	Phos (mg/L (PO4))	E.coli (cfu/100 mL)	Electical Conductivity (C)	dity (NTU)	Temp. (C)	pH (pH units)	Disolved Oxygen (mg/L)	Disolved Oxygen Percent	Site Visit Comment
Results when there was no flow in the creek at Charltons Ck	08/03/2011	4 - 7 days	light	0	0	1120	10	16.5	7	5.6	57	NO FLOW. Sample taken from pool 5m upstream. Sunny
	03/02/2010	within 24 hours	medium	0.68	0	290	10	21.5	7	4.4	50	NO FLOW: rain had been absorbed by soil, cloudy
	21/01/2010	> 7 days		0.09	0	390	10	19	7	2.5	27	NO FLOW: no rain
	NO. of tests (no flow)			3	3	3	3	3	3	3	3	
	Mean			0.26	0	600	10	19.0	7.0	4.2	45	
	Maximum			0.68	0	1120	10	21.5	7.0	5.6	57	
	SD			0.37	0	453	0	2.5	0.0	1.6	16	
	ANZECC	Min							6.5	6	60	
	ANZECC	Max		0.062	<150	<300	<50	NA	9		120	
	ANZECC	No. compliant		1	3	1	3		3	0	0	
	ANZECC	% compliant		33%	100%	33%	100%		100%	0%	0%	
Time series of results from no-flow dry to rain and then heavy rain at Charltons Ck	21/01/2010	> 7 days	nil	0.09	0	390	10	19	7	2.5	27	No flow
	03/02/2010	within 24 hours	medium	0.68	0	290	10	21.5	7	4.4	50	No flow: rain had been absorbed by soil, cloudy
	07/02/2010	within 24 hours	heavy	0.32	0	260	20	20.5	7.5	7.1	79	Very strong flow, both waterfall levels full width white water
	10/02/2010	1 - 7 days	heavy	0.06	0	330	10	20.5	7	8.7	97	Moderate flow following no rain in the last 2 days
Conclusions												
Salts as measured by electrical conductivity did not change much (25%) as the rain came and went												
Turbidity got worse with the violent flow as there was full width white water across the waterfall and cleared afterwards												
Phosphorus was much worse (x 8) when the rain first came although there was no flow, this decreased as the flow grew large but was still high (x 4) and came back to normal												
Dissolved oxygen was low after the dry spell but came up with rain (x 2) and flow (x 3) and up further later (x 4)												
Note	E coli primary contact ANZECC max is <150 and secondary contact max is <1000											