Christchurch City Council

Receiving environment sampling results

The table below shows results of sampling in the area receiving the discharge from the Governors Bay wastewater treatment plant. Surface water samples are taken from five sites: 50m north, south, east and west of the outfall and a control site, SQ35187, east of Quail Island. These samples are then analysed for the factors stated in the table. The consent specifies limits for total nitrogen and ammoniacal nitrogen. When these limits are exceeded, further samples will be taken and an investigation into the operation of the plant is undertaken.

					Sampled once in January, February, March, May, June, September, November & December									
Sample date / Low water	Site	Sample time	Within 1hr of low water?	Sample no.	Faecal coliforms (CFU/100ml)	Enterococci (MPN/100ml)	Suspended solids (g/m3)	Ammoniacal nitrogen (g/m3)	< 0.91mgN/l	Total oxidised nitrogen (g/m3)	Total nitrogen (g/m3)	< 1.0 mgN/l	Chlorophyll-a (µg/L)	Dissolved reactive phosphorus (g/m3)
20/09/2017	50m North	9:33	YES	1711826	84	10	47	0.039	YES	0.043	0.24	YES	4.3	0.015
LW: 10:18	50m South	9:38	YES	1711827	69	10	58	0.027	YES	0.037	0.26	YES	5	0.012
	50m East	9:36	YES	1711825	110	10	74	0.029	YES	0.041	0.28	YES	4.9	0.013
	50m West	9:40	YES	1711828	48	10	50	0.025	YES	0.035	0.24	YES	4.3	0.012
	SQ35187	9:45	YES	1711831	68	20	62	0.041	YES	0.05	0.23	YES	5.6	0.013
14/11/2017	50m North	8:45	YES	1714119	3	10	31	0.005	YES	0.01	0.083	YES	1.7	0.015
LW: 08:00	50m South	8:40	YES	1714120	10	10	41	0.005	YES	0.01	0.086	YES	1.9	0.017
	50m East	8:35	YES	1714118	1	10	33	0.005	YES	0.01	0.13	YES	1.4	0.016
	50m West	8:30	YES	1714121	2	10	31	0.005	YES	0.12	0.093	YES	1.5	0.038
	SQ35187	8:50	YES	1714124	32	30	32	0.005	YES	0.026	0.084	YES	2.1	0.04
13/12/2017	50m North	8:30	YES	1715374	1	10	26	0.005	YES	0.01	0.24	YES	3.5	0.018
LW: 7:40	50m South	8:35	YES	1715375	1	10	22	0.005	YES	0.01	0.23	YES	3.6	0.019
	50m East	8:40	YES	1715373	2	10	32	0.006	YES	0.01	0.23	YES	3.7	0.018
	50m West	8:45	NO	1715376	2	10	27	0.005	YES	0.01	0.22	YES	3.9	0.019
	SQ35187	8:50	NO	1715378	4	10	21	0.007	YES	0.01	0.25	YES	3.4	0.018
10/01/2018	50m North	8:00	NO	1716692	9	10	64	0.005	YES	0.01	0.27	YES	7.3	0.019
LW: 06:17	50m South	8:05	NO	1716693	4	10	71	0.005	YES	0.01	0.3	YES	6	0.019
	50m East	8:10	NO	1716691	1	10	61	0.005	YES	0.01	0.28	YES	6.1	0.018
	50m West	8:15	NO	1716694	2	10	64	0.005	YES	0.013	0.35	YES	6.4	0.02
	SQ35187	8:20	NO	1716696	1	10	52	0.005	YES	0.01	0.23	YES	7.4	0.019
14/02/2018	50m North	9:30	NO	1716861	1	10	24	0.005	YES	0.01	0.22	YES	6.7	0.012
LW: 10:45	50m South	9:35	NO	1716862	1	10	23	0.005	YES	0.01	0.19	YES	6.7	0.011
	50m East	9:40	NO	1716860	3	10	21	0.005	YES	0.01	0.26	YES	7.2	0.012
	50m West	9:45	YES	1716863	1	10	22	0.005	YES	0.01	0.21	YES	7.4	0.014
	SQ35187	9:50	YES	1716866	1	10	24	0.005	YES	0.01	0.16	YES	6.6	0.012
13/03/2018	50m North	9:00	YES	1801215	1	10	16	0.007	YES	0.057	0.23	YES	0.22	0.023
LW: 08:39	50m South	9:05	YES	1801216	1	10	17	0.005	YES	0.012	0.14	YES	0.25	0.013
	50m East	9:10	YES	1801214	1	10	18	0.005	YES	0.01	0.22	YES	0.21	0.012
	50m West	9:15	YES	1801217	2	10	18	0.005	YES	0.081	0.24	YES	0.22	0.027
	SQ35187	9:20	YES	1801219	1	10	16	0.005	YES	0.01	0.18	YES	0.31	0.014
15/05/2018	50m North	9:00	YES	1805113	1	10	31	0.005	YES	0.01	0.2	YES	4.7	0.017
LW: 10:00	50m South	9:05	YES	1805114	1	10	37	0.005	YES	0.01	0.24	YES	4.6	0.016
	50m East	9:10	YES	1805112	1	10	31	0.005	YES	0.01	0.17	YES	4.3	0.016
	50m West	9:15	YES	1805115	1	10	29	0.005	YES	0.01	0.24	YES	4.3	0.018
	SQ35187	9:20	YES	1805118	1	10	28	0.005	YES	0.01	0.24	YES	6	0.015
19/06/2018	50m North	13:45	NO	1806228	3	10	42	0.034	YES	0.12	0.34	YES	1.8	0.024
LW: 15:00	50m South	13:40	NO	1806229	6	10	56	0.037	YES	0.12	0.31	YES	1.9	0.024
	50m East	13:45	NO	1806227	6	10	47	0.034	YES	0.12	0.31	YES	2	0.024
	50m West	13:50	NO	1806230	5	10	38	0.035	YES	0.12	0.33	YES	1.6	0.025
	SQ35187	13:55	NO	1806233	1	10	42	0.036	YES	0.12	0.38	YES	2.6	0.024
7/09/2018	50m North	9:00	NO	1810039	4	10	68	0.019	YES	0.048	0.42	YES	2.1	0.017
LW: 7:46	50m South	9:05	NO	1810040	3	10	66	0.016	YES	0.058	1.4	NO	2.1	0.017
	50m East	9:10	NO	1810038	7	10	87	0.03	YES	0.061	0.42	YES	4.3	0.016
	50m West	9:15	NO	1810041	7	10	66	0.015	YES	0.053	0.41	YES	2.2	0.015
	SQ35187	9:20	NO	1810044	8	10	36	0.019	YES	0.049	0.3	YES	3	0.014
5/11/2018	50m North	10:13	YES	1812517	1	10	29	0.005	YES	0.039	0.22	YES	1.7	0.042
LW: 9:42	50m South	10:01	YES	1812518	1	10	21	0.005	YES	0.01	0.19	YES	0.99	0.024
	50m East	10:05	YES	1812516	1	10	18	0.005	YES	0.01	0.19	YES	1.1	0.024
	50m West	10:11	YES	1812519	4	10	22	0.005	YES	0.01	0.26	YES	1.2	0.023
	SQ35187	9:46	YES	1812522	1	10	11	0.005	YES	0.01	0.19	YES	5.2	0.006
6/12/2018	50m North	10:14	YES	1814469	4	10	42	0.005	YES	0.01	0.2	YES	5.6	0.0072
LW: 10:41	50m South	10:20	YES	1814470	2	10	33	0.005	YES	0.01	0.27	YES	4.6	0.0065
	50m East	10:24	YES	1814468	2	10	35	0.005	YES	0.01	0.21	YES	4.9	0.0064
	50m West	10:17	YES	1814471	5	10	36	0.005	YES	0.01	0.23	YES	5.7	0.0076
	SQ35187	10:37	YES	1814474	8	10	19	0.015	YES	0.01	0.16	YES	3	0.0079
8/01/2019	50m North	10:30	NO	1815721	1	10	27	0.01	YES	0.01	0.26	YES	3.4	0.014
LW: 10:40	50m South	10:35	NO	1815722	1	10	26	0.0087	YES	0.01	0.33	YES	3.3	0.016
	50m East	10:40	NO	1815720	1	10	36	0.0083	YES	0.01	0.26	YES	3.5	0.014
	50m West	10:45	NO	1815723	1	10	34	0.011	YES	0.01	0.36	YES	3.5	0.015
	SQ35187	10:20	NO	1815726	1	10	16	0.0077	YES	0.011	0.31	YES	3.3	0.0077
7/02/2019	50m North	10:20	YES	1817044	1	10	19	0.017	YES	0.01	0.21	YES	3.6	0.0092
LW: 10:41	50m South	10:25	YES	1817045	1	10	20	0.016	YES	0.01	0.29	YES	4.6	0.012
	50m East	10:30	YES	1817043	1	10	20	0.018	YES	0.01	0.2	YES	3.9	0.011
	50m West	10:35	YES	1817046	1	10	19	0.023	YES	0.01	0.19	YES	3.5	0.011
	SQ35187	10:40	YES	1817047	1	10	11	0.021	YES	0.01	0.19	YES	2.8	0.0087
6/03/2019	50m North	10:10	NO	1902373	1	10	19	0.016	YES	0.01	0.16	YES	1.3	0.0087
LW: 11:40	50m South	10:15	NO	1902374	1	10	15	0.014	YES	0.01	0.18	YES	1.6	0.011
	50m East	10:20	NO	1902372	1	10	22	0.005	YES	0.01	0.11	YES	1.6	0.0053
	50m West	10:25	NO	1902375	1	10	20	0.013	YES	0.01	0.14	YES	1.1	0.0079
	SQ35187	10:30	NO	1902822	1	10	13	0.019	YES	0.01	0.094	YES	1.7	0.003

Legend

BLUE	<Value	CFU	Colony forming unit
RED	>Value	LW	Low water
g/m3	Grams per cubic metre	MPN	Most probable number
mgN/l	Milligrams of nitrogen per litre		

Compiled by Three Waters and Waste, Christchurch City Council. For further information about Governors Bay wastewater treatment plant please visit:
http://www.ccc.govt.nz/services/wastewater/treatment-plants/governors-bay-wastewater-treatment-plant/