

Receiving environment sampling results

The table below provides results of sampling in the area receiving the discharge from the Diamond Harbour wastewater treatment plant. Surface water samples are taken from six sites: 50m north, south, east and west of the outfall, a control site: SQ35187, east of Quail Island and at Church Bay. These samples are then analysed for the parameters 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, March, May, June, September, November & December												
Sample date	Site	Sample time	Within 1hr of low water?	Lab sample no.	Faecal coliforms (CFU/100mL)	Enterococci (MPN/100ml)	Suspended solids (g/m ³)	Ammoniacal nitrogen (g/m ³)	< 0.91mgN/l	Total oxidised nitrogen (g/m ³)	Total nitrogen (g/m ³)	< 1.0mgN/l	Chlorophyll-a (µg/L)	Dissolved reactive phosphorus (g/m ³)
14/11/2017	50m North	9:15	NO	1714139	1	10	15	0.005	YES	0.01	0.074	YES	1.6	0.012
LW: 8:00	50m South	9:10	NO	1714140	1	10	15	0.005	YES	0.01	0.081	YES	1.5	0.012
	50m West	9:00	YES	1714141	1	10	11	0.005	YES	0.01	0.076	YES	1.5	0.013
	50m East	9:05	NO	1714138	2	10	14	0.005	YES	0.01	0.074	YES	1.6	0.012
	SQ35187	8:50	YES	1714143	32	30	32	0.005	YES	0.026	0.084	YES	2.1	0.04
	Church Bay	8:55	YES	1714142	2	10	25	0.008	YES	0.01	0.079	YES	1	0.016
13/12/2017	50m North	9:00	NO	1715385	1	10	13	0.007	YES	0.01	0.24	YES	4	0.015
LW: 7:40	50m South	9:05	NO	1715386	1	10	14	0.006	YES	0.015	0.23	YES	3.8	0.015
	50m West	9:15	NO	1715387	3	10	15	0.011	YES	0.01	0.25	YES	3.8	0.015
	50m East	9:10	NO	1715384	1	10	13	0.008	YES	0.01	0.25	YES	3.6	0.014
	SQ35187	8:50	NO	1715389	4	10	21	0.007	YES	0.01	0.25	YES	3.4	0.018
	Church Bay	8:55	NO	1715388	1	10	19	0.006	YES	0.01	0.26	YES	3.4	0.017
10/01/2018	50m North	8:35	NO	1716700	1	10	34	0.005	YES	0.01	0.19	YES	4.3	0.014
LW: 6:17	50m South	8:40	NO	1716701	1	10	23	0.005	YES	0.01	0.18	YES	3.5	0.012
	50m West	8:50	NO	1716702	3	10	26	0.015	YES	0.01	0.19	YES	4.3	0.013
	50m East	8:45	NO	1716699	1	10	24	0.005	YES	0.01	0.18	YES	3.9	0.013
	SQ35187	8:20	NO	1716704	1	10	52	0.005	YES	0.01	0.23	YES	7.4	0.019
	Church Bay	8:30	NO	1716703	1	10	85	0.005	YES	0.01	0.2	YES	5.3	0.017
13/03/2018	50m North	9:45	NO	1801228	1	10	15	0.006	YES	0.01	0.16	YES	0.31	0.012
LW: 8:39	50m South	9:40	NO	1801229	1	10	18	0.007	YES	0.01	0.13	YES	0.24	0.012
	50m West	9:30	YES	1801230	1	10	17	0.006	YES	0.01	0.18	YES	0.39	0.011
	50m East	9:35	YES	1801227	1	10	18	0.005	YES	0.01	0.14	YES	0.37	0.01
	SQ35187	9:20	YES	1801231	1	10	16	0.005	YES	0.01	0.18	YES	0.31	0.014
	Church Bay	9:25	YES	1801233	1	10	18	0.007	YES	0.015	0.16	YES	0.33	0.015
15/05/2018	50m North	9:30	YES	1805129	1	10	33	0.007	YES	0.01	0.17	YES	6.1	0.017
LW: 10:00	50m South	9:35	YES	1805130	2	10	20	0.006	YES	0.01	0.15	YES	5	0.017
	50m West	9:45	YES	1805131	1	10	25	0.006	YES	0.01	0.18	YES	6.5	0.016
	50m East	9:40	YES	1805128	1	10	20	0.007	YES	0.01	0.15	YES	5.3	0.016
	SQ35187	9:20	YES	1805127	2	10	28	0.005	YES	0.01	0.24	YES	6	0.015
	Church Bay	9:25	YES	1805126	1	10	19	0.007	YES	0.01	0.2	YES	6.8	0.017
13/07/2018	50m North	10:45	YES	1809468	1	10	14	0.012	YES	0.11	0.29	YES		0.021
LW: 10:12	50m South	10:40	YES	1809469	1	10	8	0.014	YES	0.11	0.35	YES	0.97	0.022
	50m West	10:30	YES	1809470	1	10	33	0.016	YES	0.1	0.32	YES	0.9	0.021
	50m East	10:35	YES	1809467	1	10	14	0.016	YES	0.11	0.28	YES	0.8	0.024
	SQ35187	10:25	YES	1809476	1	10	10	0.02	YES	0.091	0.31	YES	1.1	0.019
	Church Bay								YES			YES		
7/09/2018	50m North	9:45	NO	1810053	2	10	96	0.049	YES	0.052	0.46	YES	2.7	0.014
LW: 7:46	50m South	9:40	NO	1810054	4	10	94	0.04	YES	0.042	0.47	YES	2.8	0.016
	50m West	9:30	NO	1810055	6	10	92	0.035	YES	0.039	0.46	YES	2.7	0.015
	50m East	9:35	NO	1810052	4	10	98	0.044	YES	0.043	0.45	YES	3	0.015
	SQ35187	9:25	NO	1810057	8	10	36	0.02	YES	0.045	0.39	YES	3	0.015
	Church Bay	9:20	NO	1810056	10	10	160	0.019	YES	0.042	0.54	YES	3.1	0.015
5/11/2018	50m North	9:21	YES	1812531	1	10	27	0.005	YES	0.01	0.21	YES	5.6	0.008
LW: 9:42	50m South	9:23	YES	1812532	1	10	13	0.005	YES	0.01	0.18	YES	4.8	0.007
	50m West	9:27	YES	1812533	1	12	12	0.005	YES	0.01	0.19	YES	3.6	0.006
	50m East	9:25	YES	1812530	1	10	27	0.005	YES	0.01	0.19	YES	5.6	0.008
	SQ35187	9:46	YES	1812535	1	10	11	0.005	YES	0.01	0.19	YES	4.2	0.006
	Church Bay	9:52	YES	1812534	1	10	16	0.005	YES	0.01	0.16	YES	3.1	0.008
6/12/2018	50m North	11:06	YES	1814478	1	10	14	0.049	YES	0.052	0.46	YES	2.7	0.014
LW: 10:41	50m South	10:56	YES	1814479	1	10	70	0.04	YES	0.042	0.47	YES	2.8	0.016
	50m West	11:01	YES	1814480	2	10	34	0.035	YES	0.039	0.46	YES	2.7	0.015
	50m East	10:58	YES	1814477	1	10	56	0.044	YES	0.043	0.45	YES	3	0.015
	SQ35187	10:37	YES	1814482	8	10	19	0.02	YES	0.045	0.39	YES	3	0.015
	Church Bay	10:51	YES	1814481	1	10	48	0.019	YES	0.042	0.54	YES	3.1	0.015
8/01/2019	50m North	10:00	NO	1815732	1	10	15	0.0086	YES	0.01	0.3	YES	2.4	0.0077
LW: 12:40	50m South	10:05	NO	1815733	1	10	16	0.011	YES	0.01	0.27	YES	2.3	0.0071
	50m West	10:15	NO	1815734	1	10	14	0.011	YES	0.01	0.35	YES	2	0.0067
	50m East	10:10	NO	1815731	1	10	16	0.0088	YES	0.01	0.32	YES	1.8	0.0066
	SQ35187	10:20	NO	1815730	1	10	16	0.0091	YES	0.01	0.31	YES	3.3	0.0072
	Church Bay	10:25	NO	1815729	1	10	20	0.005	YES	0.017	0.28	YES	3.7	0.0076
6/03/2019	50m North	10:40	YES	1902816	NA	NA	17	0.013	YES	0.01	0.088	YES	1.8	0.003
LW: 11:40	50m South	10:45	YES	1902817	1	10	16	0.023	YES	0.01	0.14	YES	2.1	0.0083
	50m West	10:55	YES	1902818	1	10	17	0.015	YES	0.01	0.14	YES	1.4	0.003
	50m East	10:50	YES	1902815	1	10	17	0.019	YES	0.01	0.1	YES	1.7	0.003
	SQ35187	10:30	NO	1902820	1	10	13	0.019	YES	0.01	0.094	YES	1.7	0.003
	Church Bay	10:35	NO	1902819	1	10	11	0.02	YES	0.01	0.12	YES	1	0.0039
17/05/2019	50m North	10:00	NO	1905173	1	10	24	0.019	YES	0.017	0.27	YES	1.6	0.017
LW: 8:50	50m South	10:05	NO	1905174	2	10	22	0.017	YES	0.01	0.32	YES	1.6	0.016
	50m West	10:15	NO	1905175	1	10	27	0.019	YES	0.012	0.24	YES	1.2	0.015
	50m East	10:10	NO	1905172	1	10	14	0.027	YES	0.023	0.25	YES	2.3	0.017
	SQ35187	10:20	NO	1905177	1	10	20	0.027	YES	0.019	0.26	YES	1.8	0.017
	Church Bay	10:25	NO	1905176	4	10	36	0.014	YES	0.018	0.3	YES	1.7	0.021
26/06/2019	50m North	10:10	NO	1906077	1	10	8	0.0085	YES	0.11	0.38	YES	1.3	0.025
LW: 5:07	50m South	10:15	NO	1906078	1	10	6.5	0.0066	YES	0.1	0.28	YES	2	0.023
	50m West	10:25	NO	1906079	1	10	6.7	0.005	YES	0.1	0.32	YES	1.9	0.028
	50m East	10:20	NO	1906076	1	10	7.6	0.0073	YES	0.098	0.34	YES	2	0.026
	SQ35187	10:30	NO	1906081	1	10	7.5	0.005	YES	0.1	0.29	YES	2.4	0.021
	Church Bay	10:35	NO	1906080	1	10	6.6	0.0051	YES	0.094	0.29	YES	1.4	0.022
10/09/2019	50m North	9:30	NO	1910500	4	10	22	0.0062	YES	0.023	0.13	YES	2.1	0.012
LW: 7:36	50m South	9:35	NO	1910501	5	10	11	0.0077	YES	0.028	0.23	YES	2.7	0.022
	50m West	9:45	NO	1910502	1	10	9.1	0.015	YES	0.02	0.14	YES	2.9	0.01
	50m East	9:40	NO	1910499	2	10	12	0.018	YES	0.019	0.15	YES	2.6	0.028
	SQ35187	9:55	NO	1910504	3	10	17	0.005	YES	0.014	0.25	YES	1.9	0.012
	Church Bay	9:50	NO	1910503	1	10	21	0.0086	YES	0.01	0.18	YES	1.5	0.0096

Legend
 BLUE <Value
 RED >Value
 g/m³ Grams per cubic metre
 mgN/l Milligrams of nitrogen per litre
 CFU Colony forming unit
 LW Low water
 MPN Most probable number
 NR No result