

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)
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
25/11/2019	50m North	NA	YES	1913731	1	10	17	0.005	YES	0.01	0.13	YES	1.9	0.011
LW: 9:59	50m South	10:10	YES	1913732	1	10	16	0.005	YES	0.01	0.13	YES	2.1	0.012
	50m West	10:30	YES	1913733	1	10	16	0.005	YES	0.01	0.14	YES	2	0.012
	50m East	10:20	YES	1913730	1	10	16	0.005	YES	0.01	0.13	YES	1.9	0.016
	SQ35187	10:40	YES	1913735	1	10	21	0.005	YES	0.01	0.16	YES	3.1	0.0098
	Church Bay	10:50	YES	1913734	1	10	22	0.005	YES	0.01	0.13	YES	1.6	0.011
5/12/2019	50m North	17:35	YES	1915539	1	10	15	0.005	YES	0.01	0.13	YES	2.7	0.0083
LW: 18:30	50m South	17:30	YES	1915540	1	10	13	0.005	YES	0.01	0.14	YES	2.8	0.0093
	50m West	17:45	YES	1915541	1	10	16	0.005	YES	0.01	0.14	YES	3.3	0.0086
	50m East	17:40	YES	1915538	1	10	18	0.005	YES	0.01	0.18	YES	2.2	0.0088
	SQ35187	17:55	YES	1915543	1	10	10	0.005	YES	0.01	0.17	YES	2.1	0.0073
	Church Bay	17:50	YES	1915542	1	10	18	0.005	YES	0.01	0.17	YES	2.3	0.0093
20/01/2020	50m North	8:35	YES	1915608	1	10	9.6	0.005	YES	0.012	0.13	YES	2	0.0064
LW: 7:35	50m South	8:30	YES	1915609	2	10	11	0.005	YES	0.016	0.13	YES	1	0.0073
	50m West	8:20	YES	1915610	2	10	11	0.005	YES	0.016	0.2	YES	2	0.0084
	50m East	8:25	YES	1915607	1	10	11	0.005	YES	0.01	0.17	YES	2	0.0063
	SQ35187	8:10	YES	1915612	11	10	14	0.005	YES	0.016	0.19	YES	3	0.0099
	Church Bay	8:15	YES	1915611	1	10	27	0.005	YES	0.014	0.18	YES	3	0.011
19/03/2020	50m North	8:55	NO	2001561	1	10	15	0.0088	YES	0.01	0.13	YES	1.3	0.003
LW: 14:04	50m South	8:50	NO	2001562	1	10	13	0.01	YES	0.01	0.16	YES	1.3	0.003
	50m West	8:40	NO	2001563	1	10	17	0.0051	YES	0.01	0.099	YES	1.4	0.003
	50m East	8:45	NO	2001560	1	10	20	0.011	YES	0.01	0.15	YES	3.5	0.003
	SQ35187	8:30	NO	2001565	3	10	10	0.005	YES	0.01	0.21	YES	2.2	0.0056
	Church Bay	8:35	NO	2001564	1	10	19	0.0083	YES	0.01	0.13	YES	1.8	0.003
20/05/2020	50m North	9:35	YES	2003875	1	10	20	0.013	YES	0.01	0.17	YES	3.1	0.017
LW: 08:54	50m South	9:30	YES	2003876	1	10	19	0.016	YES	0.11	0.19	YES	2.7	0.02
	50m West	9:20	YES	2003877	1	10	25	0.012	YES	0.011	0.34	YES	2.6	0.015
	50m East	9:25	YES	2003874	1	10	18	0.0084	YES	0.01	0.15	YES	2.8	0.01
	SQ35187	9:10	YES	2003879	1	10	21	0.0063	YES	0.01	0.22	YES	3	0.013
	Church Bay	9:15	YES	2003878	1	10	32	0.01	YES	0.01	0.23	YES	3.8	0.013
26/06/2020	50m North	12:00	NO	2007480	1	10	11	0.006	YES	0.01	0.13	YES	1.4	0.012
LW: 14:29	50m South	12:05	NO	2007481	2	10	14	0.0065	YES	0.01	0.15	YES	1.6	0.012
	50m West	12:15	NO	2007482	1	10	13	0.007	YES	0.01	0.13	YES	1.5	0.012
	50m East	12:10	NO	2007479	1	10	11	0.0065	YES	0.01	0.15	YES	1.5	0.011
	SQ35187	12:20	NO	2007484	7	10	12	0.005	YES	0.01	0.14	YES	2	0.013
	Church Bay	12:30	NO	2007483	1	10	15	0.0052	YES	0.01	0.13	YES	1	0.013
22/09/2020	50m North	13:55	YES	2011105	1	10	8.2	0.005	YES	0.023	0.078	YES	2	0.004
LW: 14:30	50m South	13:50	YES	2011106	1	10	9	0.005	YES	0.021	0.14	YES	2.1	0.003
	50m West	13:40	YES	2011107	1	10	7.8	0.005	YES	0.024	0.17	YES	2	0.003
	50m East	13:45	YES	2011104	1	10	8.6	0.005	YES	0.019	0.16	YES	1.9	0.0049
	SQ35187	13:30	YES	2011109	7	10	6.8	0.005	YES	0.027	0.21	YES	1.6	0.0055
	Church Bay	13:35	YES	2011108	1	10	8.8	0.005	YES	0.046	0.17	YES	2.4	0.0076
12/11/2020	50m North	10:30	NO	2013510	1	10	13	0.005	YES	0.01	0.24	YES	3.1	0.0081
LW: 08:14	50m South	10:25	NO	2013511	1	10	14	0.005	YES	0.01	0.21	YES	3.1	0.0084
	50m West	10:15	NO	2013512	3	10	13	0.005	YES	0.01	0.25	YES	3	0.0083
	50m East	10:20	NO	2013509	1	10	12	0.005	YES	0.01	0.26	YES	2.9	0.0082
	SQ35187	10:00	NO	2013514	2	10	16	0.005	YES	0.01	0.19	YES	2.5	0.0092
	Church Bay	10:10	NO	2013513	1	10	24	0.005	YES	0.01	0.26	YES	2.6	0.0099
2/12/2020	50m North	10:55	NO	2016802	5	10	26	0.015	YES	0.01	0.21	YES	3	0.0082
LW: 13:03	50m South	10:50	NO	2016803	1	10	37	0.014	YES	0.011	0.23	YES	3	0.0088
	50m West	10:40	NO	2016804	1	10	25	0.014	YES	0.01	0.23	YES	3	0.0073
	50m East	10:45	NO	2016801	1	10	26	0.015	YES	0.01	0.24	YES	3.3	0.0086
	SQ35187	10:30	NO	2016806	21	10	23	0.012	YES	0.01	0.26	YES	4	0.0063
	Church Bay	10:35	NO	2016805	1	10	24	0.017	YES	0.01	0.28	YES	3	0.0072
13/01/2021	50m North	12:10	YES	2017885	1	10	13	0.005	YES	0.014	0.32	YES	2.8	0.0093
LW: 11:30	50m South	12:15	YES	2017886	1	41	11	0.005	YES	0.014	0.29	YES	3	0.0091
	50m West	12:20	YES	2017887	1	10	11	0.005	YES	0.019	0.29	YES	2.4	0.0095
	50m East	12:25	YES	2017884	1	10	11	0.005	YES	0.01	0.27	YES	2.8	0.0097
	SQ35187	12:00	YES	2017889	29	20	19	0.005	YES	0.03	0.36	YES	3.9	0.011
	Church Bay	12:05	YES	2017888	1	10	25	0.005	YES	0.021	0.27	YES	2.9	0.0096

Legend

BLUE	<Value	CFU	Colony forming unit
RED	>Value	LW	Low water
g/m ³	Grams per cubic metre	MPN	Most probable number
mgN/l	Milligrams of nitrogen per litre	NR	No result