

**BABELEGI  
WASTE WATER TREATMENT WORKS**

**2. INFLOW**

	DESIGN CAPACITY	JAN '09	FEB '09	MAR '09	APR '09	MAY '09	JUN '09
<b>FLOW: Total for the Month (Mℓ)</b>		46.871	64.526	106.210	50.625	44.522	52.489
<b>Daily Average (Mℓ / day)</b>	4.7 MI / day	1.512	2.305	3.426	1.688	1.436	1.750

**3. EFFLUENT DISCHARGE MONITORING**

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)**

Compliance Point

	PERMIT LIMITS	JAN 2009	FEB 2009			MARCH 2009		APRIL 2009		MAY 2009		JUNE 2009	
Date		2009/01/28	2009/02/10	2009/02/23	2009/03/12	2009/03/25	2009/04/07	2009/04/20	2009/05/04	2009/05/21	2009/06/10	2009/06/23	
Sample Number		1	2	3	4	5	6	7	8	9	10	11	
pH	≥ 6,5 ≤ 8,5	7.92	7.96	7.99	7.61	8.39	8.25	8.6	8.15	7.64	7.93	7.7	
Electrical Conductivity (mS/m)	≤ 80mS/m	148.5	164.1	154.3	168.5	151.5	187.3	197.2	193.8	220.4	221.8	189.9	
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	3.26	0.22	2.12	0.27	1.07	0.71	2.53	3.12	4.01	3.14	2.33	
Nitrate (as N) mg/l	≤ 6 mg/l	0.09	0.11	0.28	0.87	0.07	0.05	0.3	0.07	6.99	0.55	0.14	
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	5.2	2.92	2.2	1.64	1.23	1.76	1.93	2.12	4.52	3.96	2.53	
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	80.4	73.4	25	180	83	86	60	53	84	62	61	
Suspended solids mg/l	≤ 10 mg/l	21.2	23	22.4	66.4	34.4	28.2	23.6	14	10.4	14.6	12	

(Grab Sample)	PERMIT LIMITS	JAN 2009	FEB 2009	MAR 2009	APR 2009	MAY 2009	JUNE 2009
<b>Faecal Coliforms Average</b>	≤ 1000 CFU/100 ml	39190.5	1473641	953564	8045.5	29767.5	88912

**BAVIAANSPOORT  
WASTE WATER TREATMENT WORKS**

**2. INFLOW**

	DESIGN CAPACITY	JAN '09	FEB '09	MAR '09	APR '09	MAY '09	JUN '09
<b>FLOW: Total for the Month (Mℓ)</b>		2165.290	2371.800	2189.518	1367.14	1407.453	1457.213
<b>Daily Average (Mℓ / day)</b>	58 MI / day	69.848	84.707	70.630	45.571	45.402	48.574

**3. EFFLUENT DISCHARGE MONITORING**

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)**  
Compliance Point

	PERMIT LIMITS	JANUARY 2009		FEB 2009		MARCH 2009		APRIL 2009		MAY 2009		JUNE 2009	
Date		2009/01/08	2009/01/22	2009/02/03	2009/02/16	2009/03/01	2009/03/19	2009/04/08	2009/04/23	2009/05/11	2009/05/24	2009/06/11	2009/06/24
Sample Nr		1	2	3	4	5	6	7	8	9	10	11	12
pH	≥ 6,5 ≤ 8,5	8.24	7.7	7.55	7.72	7.99	7.29	7.96	7.84	7.91	7.84	7.37	7.91
Electrical Conductivity (mS/m)	≤ 80 mS/m	53.2	54.4	53.5	53.3	34.1	132.3	55.9	47.7	55.3	54.8	45.2	51.1
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	3.15	5.89	3.05	3.67	0.13	2.67	6.5	2.3	0.27	0.57	0.34	2.74
Nitrate (as N) mg/l	≤ 6 mg/l	3.72	3.61	2.87	2.13	2.96	4.63	2.02	3.75	4.48	3.13	2.13	3.34
Orthophosphate (as P) mg/l	≤ 0,9 mg/l	0.52	0.5	0.42	0.5	0.42	2.91	3.39	0.29	2.98	1.1	4.24	0.43
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	33	68.6	41	30	15	217	18	55.9	29	18	386	38
Suspended solids mg/l	≤ 10 mg/l	11.2	2.2	49.8	225.6	11.6	152.4	37	12.4	14.2	9.6	230.4	9.8

	PERMIT LIMITS	JAN 2009	FEB 2009	MAR 2009	APR 2009	MAY 2009	JUNE 2009
(Grab Sample)							
<b>Faecal Coliforms</b>							
Average	≤ 1000 CFU/100 ml	14602.5	10309	275292.5	413	2935.5	18964

**DASPOORT  
WASTE WATER TREATMENT WORKS**

**2. INFLOW**

	DESIGN CAPACITY	JAN '09	FEB '09	MAR '09	APR '09	MAY '09	JUN '09
<b>FLOW: Total for the Month (Mℓ)</b>	Mℓ	1314.005	1217.908	1340.882	1122.157	1122.761	1153.899
<b>Daily Average (Mℓ / day)</b>	60 Mℓ / day	42.387	43.497	43.254	37.405	36.218	38.463

**3. EFFLUENT DISCHARGE MONITORING**

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLES)**  
Compliance Point

	PERMIT LIMITS	JAN 2009		FEB 2009		MARCH 2009		APRIL 2009		MAY 2009		JUNE 2009	
		2009/01/18 1	2009/01/29 2	2009/02/09 3	2009/02/25 4	2009/03/10 5	2009/03/30 6	2009/04/16 7	2009/04/29 8	2009/05/10 9	2009/05/26 10	2009/06/04 11	2009/06/17 12
pH	≥ 6,5 ≤ 8,5	8	8.11	8.08	8.07	8.06	7.96	7.62	7.77	7.82	7.91	7.88	7.71
Electrical Conductivity (mS/m)	≤ 80 mS/m	49.8	45.4	48.9	47.4	47.5	48.6	50.2	48.7	50.1	49.1	49	47.2
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	0.08	0.17	0.2	0.5	0.56	0.59	0.32	1.12	1.66	1.3	0.53	0.49
Nitrate (as N) mg/l	≤ 6 mg/l	4.92	4.7	6.21	5.6	4.18	4.76	5.81	7.12	7.73	6.95	7	5.82
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	1.32	0.21	0.4	0.52	0.42	0.29	0.15	0.17	0.12	0.11	0.58	0.3
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	36.4	32.9	11	15	58	15	25	34	21	51	35	37
Suspended solids mg/l	≤ 10 mg/l	6.8	54.4	7.2	5.2	2	136.2	5.6	3.2	16.4	12.2	12.8	9.2

(Grab Sample)	PERMIT LIMITS	JAN 2009	FEB 2009	MAR 2009	APR 2009	MAY 2009	JUNE 2009
<b>Faecal Coliforms</b> Average	≤ 1000 CFU/100 mℓ	108	188	1989	3394	33.5	47.5



**RIETGAT  
WASTE WATER TREATMENT**

**1. INFLOW**

	DESIGN CAPACITY	JAN '09	FEB '09	MAR '09	APR '09	MAY '09	JUN '09
<b>FLOW:</b> Total for the Month (Mℓ)		742.5	1045.748	764.096	559.51	507.381	470.841
Daily Average (Mℓ / day)	27 Mℓ / day	23.952	37.348	24.648	18.650	16.367	15.695

**2. EFFLUENT DISCHARGE MONITORING**

**2.1 LABORATORY RESULTS (COMPOSITE SAMPLE)**  
Compliance Point

	PERMIT LIMITS	JANUARY 2009		FEB 2009		MARCH 2009	APRIL 2009		MAY 2009		JUNE 2009	
Date		2009/01/13	2009/01/26	2009/02/05	2009/02/18	2009/03/18	2009/04/02	2009/04/15	2009/05/06	2009/05/16	2009/06/02	2009/06/18
Sample Number		1	2	3	4	5	6	7	8	9	10	11
pH	≥ 5,5 ≤ 8,5	7.22	7.72	7.81	7.62	8.15	7.39	7.67	6.94	7.26	7.79	7.78
Electrical Conductivity (mS/m)	≤ 80 mS/m	43.2	63.7	61.9	48.4	43.9	48.5	48.7	52.3	49.4	47.2	47
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	1	18.8	20.4	0.75	4.55	1.01	1	1.04	1.53	0.67	0.87
Nitrate (as N) mg/l	≤ 15 mg/l	4.93	2.52	0.33	8.85	4.81	7.93	8.36	11.4	10.4	7.35	6.98
Orthophosphate (as P) mg/l	≤ 0,9 mg/l	0.43	0.69	0.54	0.58	1.13	0.61	0.59	0.69	0.71	0.52	0.27
Chemical Oxygen demand (as O) mg/l	≤ 65 mg/l	30.3	83.3	32	17	39	14	17	26	35	31	41
Suspended solids mg/l	≤ 15 mg/l	3.2	9.8	16.6	4.6	4	8.4	4.6	1.6	10.6	7.4	10

(Grab Sample)	PERMIT LIMITS	JAN 2009	FEB 2009	MAR 2009	APR 2009	MAY 2009	JUNE 2009
<b>Faecal Coliforms</b> Average	≤ 1000 CFU/100 mℓ	76780.5	47142	25802	330.5	2466.5	1348

**ROOIWAL  
WASTE WATER TREATMENT WORKS**

**2. INFLOW**

	DESIGN CAPACITY	JAN '09	FEB '09	MAR '09	APR '09	MAY '09	JUN '09
<b>FLOW: Total for the Month (Mℓ)</b>		7793.444	8012.405	8294.257	6204.853	5937.835	6292.292
<b>Daily Average (Mℓ / day)</b>	245 Mℓ / day	251.401	286.157	267.557	206.828	191.543	209.743

**3. EFFLUENT DISCHARGE MONITORING**

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLES)**

Compliance Point

	PERMIT LIMITS	JANUARY 2009		FEBRUARY 2009		MARCH 2009		APRIL 2009		MAY 2009		JUNE 2009	
Date		2009/01/12	2009/01/25	2009/02/11	2009/02/24	2009/03/15	2009/03/26	2009/04/13	2009/04/28	2009/05/13	2009/05/28	2009/06/08	2009/06/21
Sample Number		1	2	3	4	5	6	7	8	9	10	11	12
pH	≥ 6,5 ≤ 8,5	7.96	8	7.94	7.8	7.7	7.75	7.65	7.71	7.56	8.08	7.93	7.8
Electrical Conductivity (mS/m)	≤ 80mS/m	54.6	60	59.6	57.6	66.5	65.8	57.4	61.4	63.5	60.5	59.6	59.3
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	1.21	0.91	2.26	1.92	3.24	1.83	0.17	0.35	0.31	0.52	0.33	0.34
Nitrate (as N) mg/l	≤ 6 mg/l	4.06	4.48	4	3.26	5.45	4.97	4.39	5.43	2.94	4.68	4.05	5.39
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	1.73	2.53	2.03	1.64	1.84	1.59	5.26	6.04	4.53	5.97	2.88	5.76
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	26	131	19	67	61	53	76	56	42	31	38	214
Suspended solids mg/l	≤ 10 mg/l	35.6	8.4	9.6	9	43.2	26.6	41	11	101	19.2	5.2	39.8

(Grab Sample)	PERMIT LIMITS	JAN 2009	FEB 2009	MAR 2009	APR 2009	MAY 2009	JUNE 2009
<b>Faecal Coliforms</b>	≤ 1000 CFU/100 ml	4265	24727.5	201483	12027.5	14446	14993.5
Average							

**SANDSPRUIT  
WASTE WATER TREATMENT WORKS**

**2. INFLOW**

	DESIGN CAPACITY	JAN '09	FEB '09	MAR '09	APR '09	MAY '09	JUN '09
<b>FLOW: Total for the Month (Mℓ)</b>		419.02	387.939	447.26	316.289	276.591	257.171
<b>Daily Average (Mℓ / day)</b>	20 Mℓ / day	13.517	13.855	14.428	10.543	8.922	8.572

**3. EFFLUENT DISCHARGE MONITORING**

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)**

Compliance Point

Date Sample Number	PERMIT LIMITS	JANUARY 2009		FEBRUARY 2009		MARCH 2009		APRIL 2009		MAY 2009		JUNE 2009	
		2009/01/13 1	2009/01/26 2	2009/02/05 3	2009/02/18 4	2009/03/02 5	2009/03/18 6	2009/04/02 7	2009/04/15 8	2009/05/05 9	2009/05/18 10	2009/06/02 11	2009/06/18 12
pH	≥ 5,5 ≤ 8,0	7.71	7.47	7.8	7.52	7.87	8.58	7.69	7.68	7.55	7.61	7.65	7.95
Electrical Conductivity (mS/m)	< 80 mS/m	25.2	33.3	64.3	50.8	59.3	48.2	53.9	61.5	58.2	61.9	70.3	55.2
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	1.41	2.15	3.21	0.71	11.4	1.14	0.74	13.6	4.77	13.8	22.6	0.56
Nitrate (as N) mg/l	≤ 15 mg/l	4.27	4.22	11.1	3.14	4.71	5.51	10.5	0.1	0.97	1.21	0.28	3.9
Orthophosphate (as P) mg/l	≤ 0,9 mg/l	1.76	2.24	4.62	1.88	3.63	3.57	4.41	2.39	0.67	4.1	3.04	0.39
Chemical Oxygen demand (as O) mg/l	≤ 65 mg/l	50.3	14.03	15	36	60	22	23	33	38	26	34	29
Suspended solids mg/l	≤ 15 mg/l	4.4	7	41.4	5	27.2	9.2	3.4	6	6.2	23.8	4.6	2.6

(Grab Sample)	PERMIT LIMITS	JAN 2009	FEB 2009	MAR 2009	APR 2009	MAY 2009	JUNE 2009
<b>Faecal Coliforms</b> Average	≤ 1000 CFU/100 ml	17237	24727.5	74303.5	37265.5	27113	31540

**SUNDERLAND RIDGE  
WASTE WATER TREATMENT WORKS**

**2. INFLOW**

	DESIGN CAPACITY	JAN '09	FEB '09	MAR '09	APR '09	MAY '09	JUN '09
<b>FLOW: Total for the Month (Mℓ)</b>	Mℓ	1962.09	1774.34	1984.58	1627.15	1746.92	1731.46
<b>Daily Average (Mℓ / day)</b>	45 Mℓ / day	63.293	63.369	64.019	54.238	56.352	57.715

**3. EFFLUENT DISCHARGE MONITORING**

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)**

Compliance Point

	PERMIT LIMITS	JAN 2009	FEB 09	MARCH 2009		APRIL 2009		MAY 2009	JUNE 2009	
Date		2009/01/19	2009/02/12	2009/03/11	2009/03/24	2009/04/07	2009/04/23	2009/05/20	2009/06/01	2009/06/16
Sample Number		1	2	3	4	5	6	7	8	9
pH	6.5 ≤ 8.5	7.64	7.64	7.63	7.59	7.83	7.77	7.64	7.95	7.77
Electrical Conductivity (mS/m)	≤ 80 mS/m	63.4	65.5	67.6	66.4	70.2	67.8	69.6	69.5	70.9
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	16.5	14.9	19.2	18.1	22.1	20.3	22.3	24.45	22.9
Nitrate (as N) mg/l	≤ 6 mg/l	7.21	5.99	6.57	5.5	8.59	11.1	9.01	8.32	9.87
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	1.19	2.9	1.27	1.67	0.61	1.17	5.18	2.1	2.63
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	59	45	30	65	60	61	332	89	128
Suspended solids mg/l	≤ 15 mg/l	59.6	97.6	22.4	17.8	20	14	58.4	49	58.4

(Grab Sample)	PERMIT LIMITS	JAN 2009	FEB 2009	MAR 2009	APR 2009	MAY 2009	JUNE 2009
<b>Faecal Coliforms</b> Average	≤ 1000 CFU/100 ml	30174	406691	256486.5	3933.5	15287.5	20377.5



**TEMBA  
WASTE WATER TREATMENT WORKS**

**2. INFLOW**

	DESIGN CAPACITY	JAN '09	FEB '09	MAR '09	APR '09	MAY '09	JUN '09
<b>FLOW: Total for the Month (Mℓ)</b>		332.359	378.737	374.355	265.492	230.041	188.648
<b>Daily Average (Mℓ / day)</b>	12.5 Mℓ / day	10.721	13.526	12.076	8.850	7.421	6.288

**3. EFFLUENT DISCHARGE MONITORING**

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)**

Compliance Point

	PERMIT LIMITS	JANUARY 2009		FEBRUARY 2009		MARCH 2009		APRIL 2009		MAY 2009		JUNE 2009	
Date		2009/01/16	2009/01/29	2009/02/10	2009/02/23	2009/03/12	2009/03/25	2009/04/07	2009/04/20	2009/05/04	2009/05/21	2009/06/11	2009/06/24
Sample Number		1	2	3	4	5	6	7	8	9	10	11	12
pH	≥ 6,5 ≤ 8,5	7.46	8.23	7.94	7.92	7.89	7.88	7.72	7.96	7.8	7.78	8.12	8.16
Electrical Conductivity (mS/m)	≤ 80mS/m	39.7	56.4	70.7	63	72.4	72.8	80.6	80	89.8	60.5	59.6	62
Free & saline ammonia (as N) mg/ℓ	≤ 1 mg/ℓ	0.12	0.25	1	0.74	0.52	0.42	1.81	0.56	0.18	1.75	0.66	0.37
Nitrate (as N) mg/ℓ	≤ 6 mg/ℓ	1.53	3.39	2.91	8.88	4.99	8.16	3.82	5.52	10.9	5.35	3.56	3.96
Orthophosphate (as P) mg/ℓ	≤ 0.9 mg/ℓ	0.87	2.49	4.22	2.23	3.25	3.65	3.56	4.13	7.52	5.91	2.14	3.1
Chemical Oxygen demand (as O) mg/ℓ	≤ 50 mg/ℓ	34.7	27.6	39	20	10	30	33	23	102	32	51	33
Suspended solids mg/ℓ	≤ 10 mg/ℓ	30.2	42.4	10	10	2.8	68	9.8	6.2	9.6	5.8	71.4	37

(Grab Sample)	PERMIT LIMITS	JAN 2009	FEB 2009	MAR 2009	APR 2009	MAY 2009	JUNE 2009
<b>Faecal Coliforms</b>							
Average	≤ 1000 CFU/100 ml	2939.5	11931.5	4201.5	179.5	155.5	312.5

**ZEEKOEGAT  
WASTE WATER TREATMENT WORKS**

**1. INFLOW**

	DESIGN CAPACITY	JAN '09	FEB '09	MAR '09	APR '09	MAY '09	JUN '09
<b>FLOW: Total for the Month (Mℓ)</b>		1671.39	1702.86	1742.968	1449.025	1464.069	1393.678
<b>Daily Average (Mℓ / day)</b>	30 MI / day	53.916	60.816	56.225	48.301	47.228	46.456

**2. EFFLUENT DISCHARGE MONITORING**

**2.1 LABORATORY RESULTS (COMPOSITE SAMPLE)**  
Compliance Point

	PERMIT LIMITS	JANUARY 2009		FEB 2009		MARCH 2009		APRIL 2009		MAY 2009		JUNE 2009	
Date		2009/01/08	2009/01/21	2009/02/03	2009/02/16	2009/03/01	2009/03/19	2009/04/08	2009/04/23	2009/05/11	2009/05/24	2009/06/11	2009/06/24
Sample Number		1	2	3	4	5	6	7	8	9	10	11	12
pH	≥ 6,5 ≤ 8,5	7.77	7.41	7.63	7.56	7.35	7.63	7.36	7.36	7.45	7.63	6.95	7.43
Electrical Conductivity (mS/m)	≤ 80mS/m	49.5	49.2	51.2	53	49.5	50.2	50	49.7	49.3	49.3	49.3	49.1
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	0	0.41	0	0	0.3	2.58	0.07	0.73	0.6	0.51	0.29	0.21
Nitrate (as N) mg/l	≤ 6 mg/l	5.55	5.88	4.86	4.42	3.04	4.71	6.41	7.6	7.3	7.45	5.62	6.94
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	0.52	0.79	0.64	0.2	0.63	3.41	0.17	0.83	0.3	0.44	0.82	0.4
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	33	76.9	25	4	13	30		86	41	16	27	29
Suspended solids mg/l	≤ 10 mg/l	14	6.2	8.2	34.2	6.8	4.4	2	5.8	9.4	10.4	1.2	3.2

(Grab Sample)	PERMIT LIMITS	JAN 2009	FEB 2009	MAR 2009	APR 2009	MAY 2009	JUNE 2009
<b>Faecal Coliforms</b> Average	≤ 1000 CFU/100 ml	1861.5	3791	15642.5	338.5	248.5	68.5