

**Rand Water**  
**Quarterly Water Quality Status of the Klip River Catchment**

01 Apr 2011 - 31 Mar 2012



Sample Points	Sample Point Description	Aluminium	Ammonia	Chemical Oxygen Demand	Chloride	Conductivity	Daphnia Toxicity	Dissolved Oxygen	E.coli	Fluoride	Iron	Magnesium	Manganese	Nitrate	pH	Phosphate	Sodium	Sulphate	Suspended Solids
K1	Klip River @ Lido Hotel S26.326 E27.988	<0.01	1.62		38	59		4.9		0.23	0.05	15	0.71	3.02	7.3	0.29	40	121	
		0.01	1.13		44	64		6.7		0.17	0.06	14	5.87	4.32	7.4	0.18	41	118	
		0.04	1.20		42	63		4.8		0.20	0.11	14	1.70	4.40	7.0	0.19	43	130	
		0.02	0.76		34	53		4.8		0.33	0.02	12	0.22	2.90	6.5	0.33	32	95	
K10	Klip River @ Everite S26.421 E28.095	0.01	1.30		39	59		6.1		0.26	0.04	15	0.40	2.86	7.3	0.28	38	113	
		0.01	0.69		43	62		6.4		0.13	0.05	14	0.66	4.37	7.5	0.21	41	109	
		0.05	0.88		46	61		5.9		0.17	0.04	15	0.74	2.70	7.2	0.23	44	130	
K11	Klip River from Rooдеpoort @ R41 Bridge S26.169 E27.833	0.02	0.28		13	27		5.1		0.16	0.13	7	0.33	0.51	6.7	<0.04	14	62	
		0.03	0.41		17	38		8.8		0.12	0.09	11	0.26	0.95	6.8	<0.04	14	123	
		0.05	0.22		14	40		3.9		0.12	0.03	13	0.24	0.50	6.7	<0.05	14	125	
		0.06	0.12		12	28		8.0		0.73	0.07	8	0.08	1.00	6.3	<0.05	9.8	70	
K14	Klip River from Witpoortjie @ R41 Bridge S26.176 E27.818	<0.02	0.29		14	34		4.9		2.01	0.71	8	1.24	0.72	6.7	<0.04	21	77	
		0.01	<0.24		13	16		8.5		0.06	0.06	2	0.13	0.12	6.4	<0.04	10	31	
		0.02	0.17		11	21		6.5		0.06	0.03	4	0.18	<0.10	6.5	<0.05	11	49	
K18	Klip River Weir @ Henley-On-Klip S26.549 E28.064	0.02	0.12		14	17		7.3		0.11	0.05	3	0.06	1.50	6.1	<0.05	11	52	
		<0.01	0.62		49	67		5.6	5,494	0.30	0.02	19	0.30	3.60	7.3	0.25	45	141	
		<0.01	0.86		55	70		6.2	561	0.16	0.04	19	0.46	4.30	7.5	0.33	51	123	
		0.01	1.20		52	66		5.5	3,490	0.24	0.02	17	0.44	3.00	7.3	0.37	50	130	
K19	Klip River Weir @ Redan Train Bridge S26.620 E27.981	0.02	0.44		43	59		5.3	17,530	0.28	0.02	15	0.14	2.40	6.7	0.38	36	125	
		0.01	0.80	27	52	67	100	6.9	4,426	0.27	0.04	19	0.25	3.91	7.5	0.28	45	139	39
		0.02	0.61	30	56	71	100	5.6	1,449	0.17	0.02	19	0.40	4.99	7.5	0.30	45	124	30
		0.01	0.46	29	55	69	100	5.6	1,690	0.25	0.02	16	0.25	4.20	7.4	0.35	51	130	72
K21	Klip River Weir @ Zwartkopjes Farm S26.380 E28.071	0.04	0.24	27	43	59	100	6.8	4,340	0.24	0.02	14	0.05	2.70	6.8	0.41	38	105	76
		0.01	1.22	27	40	59	100	6.1	22,941	0.23	0.04	15	0.47	3.26	7.4	0.22	39	121	27
		<0.01	0.56	26	44	62	100	6.5	1,203	0.14	0.04	15	0.66	4.63	7.4	0.18	40	109	20
		0.02	0.68	28	41	61	100	5.9	6,920	0.21	0.02	14	0.76	3.60	7.3	0.20	43	115	56
K25	Klip River downstream of Rietspruit Confluence S26.456 E28.085	0.05	0.45	27	37	51	100	5.8	14,140	0.28	0.02	12	0.10	2.70	6.7	0.25	31	87	57
		<0.01	1.31		49	67		5.9	52,680	0.27	0.02	18	0.36	2.98	7.4	0.29	46	135	
		<0.01	1.11		55	71		6.5	1,727	0.15	0.03	18	0.51	4.00	7.5	0.25	49	128	
		0.03	1.40		43	67		5.4	16,370	0.21	0.02	17	0.45	2.60	7.2	0.29	52	120	
K3	Harringtonspruit @ Nancefield Industrial Area S26.310 E27.912	0.01	0.41		44	59		5.1	15,380	0.27	0.02	14	0.15	3.70	6.8	0.41	37	120	
		0.05	0.33		45	53		4.7		0.16	0.02	9	0.11	3.60	7.5	0.45	45	58	
		0.01	0.65		45	56		7.1		0.13	0.02	9	0.05	4.03	7.6	0.33	43	57	
		0.02	0.35		48	54		5.5		0.15	0.02	9	0.04	2.10	7.4	0.31	53	51	
K4	Klip River @ Olifantsvlei Sewage Works S26.337 E27.903	0.01	0.21		44	49		4.8		0.18	0.02	8	0.01	2.20	6.7	0.40	42	53	
		0.06	1.46		28	56		5.6	11,678	0.30	0.02	14	1.21	2.84	7.2	0.11	30	154	
		0.01	2.27		36	60		8.1	4,608	0.13	0.03	14	1.43	3.40	7.6	0.16	35	120	
		0.02	2.80		32	62		5.5	900	0.16	0.03	14	2.30	1.60	7.5	0.09	49	140	
K5	Klipspruit @ Kliptown S26.290 E27.886	0.01	0.52		26	48		5.0	550	0.35	0.02	12	0.88	2.50	6.6	0.18	25	99	
		0.02	5.69		29	71		5.5		0.34	0.02	19	2.35	2.96	7.2	0.06	30	255	
		<0.01	10.12		35	81		7.9		0.16	0.08	18	2.75	0.62	7.6	0.05	34	238	
		0.02	8.50		29	74		4.5		0.22	0.77	17	2.60	0.45	6.9	0.15	33	250	
K6	Klip River @ Soweto N12 Highway S26.295 E27.837	0.01	7.60		28	59		4.6		0.38	0.04	14	1.40	0.78	6.7	0.17	27	135	
		0.03	0.32		19	50		3.8		0.27	0.03	17	0.28	1.92	7.4	0.11	21	120	
		<0.01	1.89		25	60		6.5		0.18	0.03	21	0.58	1.52	7.5	0.31	25	147	
		0.01	5.00		22	62		3.1		0.17	0.10	21	1.80	0.48	7.3	0.65	30	135	
E17	Elsburgspruit @ Heidelberg Road S26.250 E28.204	0.01	0.99		20	48		4.5		0.27	0.02	15	0.46	0.98	6.7	0.30	21	85	
		<0.01	6.13		89	101		2.2	191,066	0.80	0.51	27	2.42	0.62	7.2	0.07	66	275	
		0.01	3.67		105	104		3.2	84,912	0.30	0.05	22	1.11	2.41	7.1	0.13	59	202	
		0.01	6.30		135	105		1.6	79,970	0.48	0.24	16	1.40	0.65	7.3	0.92	82	160	
E2	Stream @ Witwatersrand Gold Mine S26.262 E28.222	0.02	2.80		83	85		1.8	55,140	0.74	0.11	18	1.40	0.81	6.6	0.17	49	200	
		0.12	1.48		22	77		6.0		0.26	0.05	7	0.22	1.03	7.1	0.11	24	463	
		0.02	0.69		22	50		6.3		0.16	0.06	9	0.48	1.32	7.1	<0.04	19	111	
		0.06	1.00		18	51		7.7		0.23	0.06	7	0.29	0.21	6.8	0.05	20	150	
			0.05	3.20		22	68		3.3		0.46	0.29	8	0.20	0.38	6.6	0.57	23	120

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E7	Elsburgspruit @ Elsburg Town S26.250 E28.204	0.01	6.30		47	92		4.5		0.38	0.05	25	3.30	1.45	7.0	0.04	38	336	
		0.01	7.87		52	104		5.9		0.67	0.15	24	2.50	1.18	7.0	0.17	42	374	
		0.01	12.00		50	100		3.0		0.30	0.08	23	2.20	0.18	7.3	0.36	45	260	
E8	Stream @ Elspark S26.262 E28.222	0.03	6.10		42	85		3.8		1.50	0.72	19	2.50	0.78	6.5	0.11	33	320	
		0.01	0.24		91	193		7.0		0.33	0.01	121	0.63	1.02	7.3	<0.04	104	1083	
		<0.01	0.75		124	229		9.5		0.13	0.01	105	0.68	0.87	7.1	0.04	127	1470	
N4	Natalspruit from Simmer and Jack Mine S26.240 E28.124	0.01	0.42		105	225		6.2		0.23	<0.01	120	1.50	0.68	7.0	<0.05	120	69	
		0.03	0.12		64	120		6.6		0.73	0.02	56	1.20	0.84	6.6	0.09	63	190	
		5.35	1.83		144	143		5.4		0.67	18.00	59	17.50	1.52	3.7	<0.04	34	739	
N7	Natalspruit @ Alrode S26.298 E28.144	6.08	3.39		170	126		6.2		0.76	23.80	50	18.60	1.39	4.8	<0.04	27	643	
		4.60	0.74		130	135		3.7		0.65	28.00	50	22.00	0.59	4.4	<0.05	24	345	
		3.20	0.51		91	105		5.2		1.00	8.20	34	10.00	0.94	4.3	0.13	20	265	
N8	Natalspruit @ Heidelberg Road S26.426 E28.165	0.02	1.75		41	82		5.7	4,543	0.34	0.09	28	4.68	1.77	6.5	<0.04	29	305	
		0.02	3.76		49	67		6.6	11,077	0.35	0.05	21	4.45	1.38	6.8	<0.04	21	346	
		0.00	2.20		50	72		5.4	6,090	0.38	0.04	21	4.40	0.68	6.7	<0.05	21	285	
R1	Rietspruit from Sallies S26.305 E28.336	0.04	3.30		33	60		5.2	7,420	0.43	0.11	16	3.10	0.62	6.2	0.10	21	335	
		0.01	3.32	24	69	75	100	5.7	15,211	0.34	0.03	21	0.37	2.73	7.4	0.26	49	156	13
		0.02	5.35	31	76	82	100	6.3	24,665	0.21	0.04	21	0.45	2.94	7.5	0.43	49	153	17
R2	Withokspruit Tributary S26.324 E28.338	0.01	5.90	27	72	80	100	4.6	22,620	0.36	0.03	19	0.48	2.40	7.5	0.65	57	145	16
		0.02	1.90	21	55	66	100	5.1	73,750	0.34	0.02	16	0.37	1.70	6.7	0.39	39	120	13
		<0.01	1.48		86	149		6.1		0.38	0.02	50	0.31	0.39	7.0	0.20	99	685	
R3	Tributary @ Van Dyk Consolidated S26.259 E28.321	<0.01	1.94		136	278		9.7		0.41	0.02	69	0.22	2.70	7.1	<0.04	291	1286	
		0.01	0.12		120	270		3.0		0.10	0.02	70	0.50	0.26	7.0	<0.05	200	35	
		0.02	0.12		52	170		5.5		0.33	0.01	36	0.19	0.13	6.5	<0.05	97	340	
R4	Rietspruit @ Vosloorus S26.372 E28.245	0.02	0.46		32	52		7.0		0.34	0.02	16	0.64	1.37	7.6	0.04	26	79	
		<0.01	1.34		29	48		8.1		0.21	0.04	18	0.29	0.39	8.1	0.06	25	85	
		0.02	0.17		19	50		6.1		0.34	0.04	18	0.28	0.43	7.1	0.10	22	125	
R5	Rietspruit @ Hardmans Farm S26.429 E28.181	0.02	0.14		24	41		6.6		0.43	0.03	11	0.02	0.92	6.9	<0.05	18	51	
		0.02	0.24		28	64		6.3		0.53	0.02	16	0.19	0.58	7.5	0.04	29	94	
		0.01	0.33		19	38		7.3		0.36	0.13	10	0.28	0.65	7.5	0.14	15	57	
R6	Rietspruit @ Hardmans Farm S26.429 E28.181	0.01	0.17		14	35		7.1		0.38	0.07	9.3	0.12	0.24	7.1	<0.05	16	46	
		0.01	0.12		37	51		5.6		0.54	0.02	15	0.01	0.78	7.0	0.21	30	69	
		<0.01	0.24		76	121		6.5		0.50	0.01	56	1.11	1.58	7.7	0.05	63	398	
R7	Rietspruit @ Vosloorus S26.372 E28.245	<0.01	0.25		110	195		7.6		0.22	0.02	80	0.25	1.57	7.8	0.09	112	646	
		0.01	0.12		125	210		5.1		0.31	0.01	105	0.28	0.12	7.4	<0.05	99	395	
		0.01	0.12		67	165		4.4		0.36	0.01	43	0.07	1.10	6.8	0.06	92	260	
R8	Rietspruit @ Hardmans Farm S26.429 E28.181	<0.01	0.24		77	120		6.6	12,935	0.40	0.01	57	0.11	1.36	8.0	0.06	62	359	
		<0.01	0.94		87	145		7.5	27,959	0.18	0.01	63	0.26	1.92	8.1	0.21	70	433	
		0.01	0.21		62	145		6.7	25,150	0.25	0.01	74	0.39	0.72	7.8	0.09	76	240	
R9	Rietspruit @ Hardmans Farm S26.429 E28.181	0.01	0.16		59	140		6.4	14,380	0.30	<0.01	45	0.09	1.50	7.1	0.31	81	380	
		<0.01	1.80	20	71	83	100	5.2	11,373	0.33	0.02	27	0.28	3.11	7.5	0.21	52	201	14
		0.01	4.05	27	76	90	100	5.8	2,870	0.21	0.02	26	0.40	2.78	7.6	0.32	53	220	14
R10	Rietspruit @ Hardmans Farm S26.429 E28.181	0.01	4.00	26	67	86	100	3.9	4,660	0.28	0.02	23	0.38	2.50	7.4	0.54	61	180	42
		0.02	0.94	20	53	71	100	5.3	20,190	0.31	0.02	18	0.17	2.00	6.8	2.70	40	145	40

**Key**

N4	Natalspruit from Simmer and Jack Mine	5.35	1.83	- 1 Apr to 30 Jun 2011
		6.08	3.39	- 1 Jul to 30 Sep 2011
		4.60	0.74	- 1 Oct to 31 Dec 2011
		3.20	0.51	- 1 Jan to 31 Mar 2012

**Water Quality Guidelines**

- Ideal
- Acceptable
- Tolerable
- Unacceptable