



Sample Point	Sample ID	PERIOD	E.COLI_1	PO <sub>4</sub>	NO <sub>2</sub>	NO <sub>3</sub>	NH <sub>4</sub>	COND	PH	COD	TURBIDITY	CL	SO <sub>4</sub>	(Bacteriological)	(Chemical)	
BBS3	Bloubos S	Aug-Oct	133	0.50	0.1	1.3	0.50	37.0	8.2	22.7	2.5	33.3	44.3	Ideal	Acceptable	
		Nov-Jan	1003	0.50	0.1	1.4	0.50	29.0	7.7	14.3	5.1	25.3	32.7	Good	Good	
		Feb-Apr	2733	0.50	0.1	2.3	0.50	30.7	7.9	127.3	5.7	29.3	46.3	Unacceptable	Acceptable	
		May-July	900	0.50	0.2	2.7	0.50	32.0	7.8	15.0	1.6	38.0	55.0	Good	Good	
		Aug-Oct	144	0.50	0.1	0.9	0.50	31.3	8.2	54.3	4.6	27.3	34.3	Good	Acceptable	
		Nov-Jan	5377	0.50	0.1	1.3	0.50	25.3	7.9	13.3	7.0	20.0	30.7	Unacceptable	Good	
		Feb-Apr	610	0.50	0.1	2.4	0.50	41.0	7.8	27.0	7.0	40.5	60.0	Good	Acceptable	
BBS4	Bloubos S	May-July	8183	0.50	0.3	2.0	0.50	36.3	8.5	14.3		35.3	47.7	Interim Target	Management Target	
		Aug-Oct	83033	0.50	0.1	2.3	0.80	33.7	7.6	16.3	3.3	30.0	41.7	Bad	Acceptable	
		Nov-Jan	5067	0.50	0.1	1.7	0.50	29.3	7.4	17.7	4.3	26.7	34.0	Unacceptable	Good	
		Feb-Apr	2700	0.50	0.1	2.6	0.50	30.3	7.7	17.7	26.7	29.0	48.0	Unacceptable	Acceptable	
		May-July	2100	0.50	0.1	2.6	0.64	31.0	7.6	44.0	1.8	39.0	55.0	Unacceptable	Acceptable	
		Aug-Oct	762	0.50	0.1	1.2	0.50	29.7	7.7	17.3	3.6	26.0	34.0	Good	Good	
		Nov-Jan	10813	0.50	0.2	1.4	0.50	26.7	7.6	13.3	25.3	21.3	30.7	Unacceptable	Acceptable	
BBS5	Bloubos S	Feb-Apr	9050	0.50	0.1	2.6	0.50	39.5	7.7	24.5	8.6	40.0	57.5	Unacceptable	Acceptable	
		May-July	24100	0.50	0.1	2.4	0.50	35.3	7.9	15.0		34.7	47.0	Unacceptable	Management Target	
		Aug-Oct	4073	0.50	0.1	12.0	0.50	44.0	7.5	22.7	5.4	38.7	47.0	Acceptable	Acceptable	
		Nov-Jan	1917	0.50	0.1	1.2	0.50	29.7	7.4	22.7	10.3	26.3	31.3	Acceptable	Acceptable	
		Feb-Apr	16327	0.50	0.3	1.4	2.27	32.7	7.7	28.0	14.2	28.7	37.3	Unacceptable	Acceptable	
		May-July	860	0.50	0.2	2.7	0.50	33.0	7.8	39.0	2.1	41.0	59.0	Good	Acceptable	
		Aug-Oct	164	0.50	0.1	0.7	0.50	32.3	7.7	20.7	9.9	27.3	34.3	Good	Acceptable	
BDIN	Blue Dam	Nov-Jan	2527	0.50	0.1	0.6	0.50	24.3	7.5	16.0	18.3	19.3	23.3	Unacceptable	Acceptable	
		Feb-Apr	6390	0.50	0.1	2.4	0.50	43.0	7.8	22.0	11.6	43.0	75.0	Unacceptable	Acceptable	
		May-July	7200	0.50	0.1	1.8	0.50	36.7	7.9	14.3		34.7	45.3	Interim Target	Management Target	
		Aug-Oct	80094	2.10	0.1	0.9	5.33	52.0	7.4	146.3	28.2	34.3	83.3	Bad	Good	
		Nov-Jan	2400000	4.10	0.2	0.5	11.30	55.3	7.1	256.7	41.7	36.3	74.0	Bad	Unacceptable	
		Feb-Apr	2266667	3.23	0.1	0.5	9.40	66.0	7.0	203.3	34.5	45.7	145.0	Bad	Unacceptable	
		May-July	250	0.50	0.2	9.8	2.50	40.0	7.7	29.0	1.1	44.0	42.0	Good	Acceptable	
BDOUT	Blue Dam	Aug-Oct	2767	0.50	2.6	10.5	1.60	48.7	7.5	13.7	1.8	40.3	41.0	Unacceptable	Acceptable	
		Nov-Jan	13633	1.07	1.4	4.5	2.97	54.7	6.8	235.0	10.1	49.0	59.7	Unacceptable	Unacceptable	
		Feb-Apr	24550	0.50	4.8	16.0	0.50	101.5	7.6	18.0	4.0	59.0	365.0	Unacceptable	Acceptable	
		May-July	1500	0.50	1.0	5.9	1.27	66.7	7.5	22.7		39.3	176.7	Management	Management Target	
		Aug-Oct	157	0.50	0.2	1.4	0.52	51.3	7.4	78.0	6.1	33.7	113.3	Ideal	Acceptable	
		Nov-Jan	9587	0.50	0.2	0.5	1.73	35.7	6.7	32.7	4.8	20.0	82.7	Unacceptable	Acceptable	
		Feb-Apr	4633	0.50	0.5	1.3	2.57	48.3	6.8	41.7	9.5	18.0	123.3	Unacceptable	Acceptable	
FD15	Russel st	May-July	330	0.50	0.1	0.5	0.50	21.0	7.0	10.0	1.8	15.0	77.0	Good	Good	
		Aug-Oct	273	0.50	0.6	1.1	0.97	57.3	7.6	40.7	4.6	34.0	150.0	Good	Acceptable	
		Nov-Jan	1667	0.50	0.2	0.7	2.17	55.7	6.5	26.0	9.1	27.0	181.0	Acceptable	Acceptable	
		Feb-Apr	355	0.50	0.3	1.0	0.59	43.0	7.0	16.5	4.5	22.0	120.0	Good	Acceptable	
		May-July	4503	0.50	0.5	5.0	2.27	61.0	7.3	14.3		36.3	156.7	Management	Management Target	
		Aug-Oct	1600333	2.33	0.1	1.7	4.27	35.0	7.2	257.7	20.7	22.0	32.0	Bad	Good	
		Nov-Jan	2400000	1.43	0.1	0.5	14.20	51.0	7.2	144.7	28.7	30.0	61.0	Bad	Unacceptable	
FLOUT	Florida La	Feb-Apr	1846667	1.34	0.2	0.7	7.93	38.0	7.1	1957.3	26.0	29.0	43.7	Bad	Unacceptable	
		May-July	2800000	0.59	0.1	0.5	11.00	45.0	6.9	220.0	22.0	35.0	140.0	Bad	Acceptable	
		Aug-Oct	2233333	0.61	0.2	0.9	13.67	79.7	5.7	253.3	16.5	36.3	271.6	Bad	Unacceptable	
		Nov-Jan	1903333	0.87	0.1	0.5	4.29	32.0	7.0	84.7	11.9	18.7	39.0	Bad	Unacceptable	
		Feb-Apr	324	1.07	0.3	1.5	4.24	72.3	7.5	55.1		69.3	86.9	Good	Unacceptable	
		May-July	1500000	1.20	0.1	0.8	11.30	81.0	6.4	539.3		37.0	208.3	Unacceptable	Interim Target	
		Aug-Oct	121	0.50	0.5	3.5	1.34	49.0	7.4	30.7	3.1	35.0	58.0	Ideal	Acceptable	
GV1	Glenvista	Nov-Jan	26767	1.53	0.1	0.5	3.53	26.0	7.7	86.0	16.9	21.0	23.7	Unacceptable	Unacceptable	
		Feb-Apr	737	0.50	0.1	0.5	0.50	13.3	7.3	31.3	6.0	13.3	10.3	Good	Acceptable	
		May-July	1100	0.50	0.1	0.5	0.50	5.6	7.7	39.0	1.5	12.0	18.0	Good	Acceptable	
		Aug-Oct	390	0.50	0.1	0.6	0.50	18.7	7.4	29.0	10.1	15.0	13.7	Good	Acceptable	
		Nov-Jan	560	0.50	0.1	0.5	0.50	15.0	8.3	31.0	5.3	12.0	9.4	Good	Acceptable	
		Feb-Apr	807	0.50	0.1	0.5	0.50	25.7	7.7	22.0	12.7	20.3	24.7	Good	Acceptable	
		May-July	2377	0.50	0.1	0.9	2.67	52.0	6.6	22.7		20.0	177.0	Management	Management Target	
GV2	Glenvista	Aug-Oct	13660	0.52	0.5	1.2	0.77	38.0	7.6	26.0	4.6	32.0	47.7	Bad	Acceptable	
		Nov-Jan	5300	0.50	0.1	2.9	0.50	41.7	7.7	13.0	2.4	38.0	55.3	Unacceptable	Good	
		Feb-Apr	4567	0.50	0.1	3.9	0.50	43.7	7.7	19.7	4.2	42.7	67.3	Unacceptable	Good	
		May-July	65000	0.50	0.2	3.1	3.20	40.0	7.7	15.0	1.6	42.0	75.0	Bad	Acceptable	
		Aug-Oct	3283	0.50	0.1	2.0	0.50	36.0	7.8	23.3	2.8	30.3	48.3	Unacceptable	Good	
		Nov-Jan	3033	0.50	0.2	2.3	0.50	37.0	7.9	10.0	4.6	29.0	49.3	Unacceptable	Good	
		Feb-Apr	547	0.50	0.3	3.2	0.50	39.7	7.5	16.0	10.5	29.7	50.0	Good	Acceptable	
H1	Harrington	May-July	32367	0.50	0.2	3.4	0.60	39.0	7.6	22.7		34.7	56.0	Unacceptable	Management Target	
		Aug-Oct	410	0.50	0.1	1.7	0.50	45.3	7.9	75.0	5.5	36.7	57.7	Ideal	Acceptable	
		Nov-Jan	1373	0.50	0.1	1.0	0.50	35.3	7.6	22.7	10.0	27.0	39.7	Acceptable	Acceptable	
		Feb-Apr	14873	0.50	0.1	1.8	0.50	39.0	7.8	21.7	15.2	52.7	54.0	Unacceptable	Acceptable	
		May-July	87000	0.50	0.1	2.2	0.50	41.0	8.0	15.0	4.6	43.0	79.0	Bad	Acceptable	
		Aug-Oct	4100	0.50	0.1	0.9	0.50	38.0	8.0	25.7	6.5	29.0	50.0	Unacceptable	Acceptable	
		Nov-Jan	7133	0.50	0.1	1.3	0.50	33.7	7.8	14.3	16.2	24.3	41.0	Unacceptable	Acceptable	
H1	Harrington	Feb-Apr	78	0.40	0.1	5.2	0.23	55.8	7.3	32.2		74.8	41.9	Ideal	Good	
		May-July	374	0.50	0.1	1.6	0.50	40.7	7.7	11.7		32.0	53.3	Ideal	Management Target	
		Aug-Oct														
		Nov-Jan	11000												Unacceptable	
		Feb-Apr	9075	7.38	2.5	5.4	2.58	101.3	7.5	78.3	13.0	129.5	57.8	Unacceptable	Unacceptable	
May-July	3633	5.27	0.2	1.9	5.00	85.0	7.6	54.3	9.1	91.3	71.7	Unacceptable	Unacceptable			
Aug-Oct																
Nov-Jan																
Feb-Apr	209667	0.50	1.0	5.2	0.67	85.7	7.8	35.0	6.3	70.7	136.7	Bad	Acceptable			

Key		Water Quality Guidelines				Water Quality Index			
Hot spot area	Ideal	Ideal	Good	Acceptable	Ideal	Good	Acceptable	Unacceptable	Bad
Aug-Oct 2008	Acceptable	Acceptable	Unacceptable	Bad	Acceptable	Unacceptable	Bad		
Nov08-Jan2009	Tolerable								
Feb-Apr 2009	Unacceptable								
May-July 2009									
Aug-Oct 2009									
Nov09-Jan2010									



Sample Point	Sample ID	PERIOD	E.COLI_1	PO <sub>4</sub>	NO <sub>2</sub>	NO <sub>3</sub>	NH <sub>4</sub>	COND	PH	COD	TURBIDITY	CL	SO <sub>4</sub>	(Bacteriological)	(Chemical)
		May-July		0.16			0.10	100.0		11.0					Ideal

H2	Harrington	Aug-Oct	72897	0.56	0.3	4.1	0.70	56.0	7.8	52.8	6.8	67.6	49.0	Bad	Acceptable
		Nov-Jan	181592	1.41	0.3	5.5	1.88	55.0	7.6	43.8	10.2	66.3	52.5	Bad	Acceptable
		Feb-Apr	129230	0.62	0.1	6.0	0.65	51.4	7.6	38.9	4.5	62.9	52.4	Bad	Acceptable
		May-July	20033	0.56	0.3	3.7	0.64	50.7	7.8	42.7	2.5	54.7	60.7	Unacceptable	Acceptable
		Aug-Oct	24205	0.62	0.8	3.2	0.96	55.2	7.7	33.9	4.3	69.7	52.2	Unacceptable	Acceptable
		Nov-Jan	967	0.81	0.2	3.6	0.98	54.1	7.7	36.1	4.1	63.3	56.8	Good	Acceptable
		Feb-Apr	1100	0.50	2.2	31.0	1.40	110.0	7.8	35.0	8.1	110.0	170.0	Good	Acceptable
		May-July	2734	0.59	0.5	4.9	0.89	56.3	8.5	27.0	2.9	64.3	60.0	Management	Management Target
		Aug-Oct	31383	1.04	0.3	0.8	0.70	57.9	7.8	53.3	10.2	65.8	49.2	Bad	Good
		Nov-Jan	73000	0.89	0.4	5.4	0.99	52.9	7.6	38.2	25.8	60.9	54.7	Bad	Acceptable
H4	Harrington	Feb-Apr	114111	0.65	0.3	6.6	0.40	54.2	7.7	36.5	9.3	64.1	52.8	Bad	Acceptable
		May-July	11333	0.56	0.3	4.2	0.53	51.0	7.9	36.0	6.7	54.0	60.3	Unacceptable	Acceptable
		Aug-Oct	20142	0.57	0.7	3.3	0.30	56.3	7.8	32.9	9.3	68.7	51.0	Unacceptable	Good
		Nov-Jan	15275	0.81	0.4	26.4	0.55	53.9	7.8	37.2	13.7	63.3	53.1	Unacceptable	Acceptable
		Feb-Apr	463333	0.65	0.3	1.9	3.00	38.3	7.2	33.3	7.1	34.0	30.0	Bad	Acceptable
		May-July	24750	0.50	0.3	5.4	0.45	55.4	7.8	28.3	7.0	64.5	61.6	Management	Management Target
		Aug-Oct	80000	1.13	0.5	1.7	2.47	52.3	5.8	141.0	14.4	49.0	51.3	Bad	Good
		Nov-Jan	906667	1.30	0.2	0.7	4.67	52.0	6.9	746.0	70.3	51.0	71.0	Bad	Unacceptable
		Feb-Apr	3366667	1.49	0.1	0.5	4.99	52.7	6.4	526.7	57.8	59.0	31.0	Bad	Unacceptable
		May-July	160000	0.50	1.7	1.7	1.60	43.0	7.2	250.0	23.0	62.0	38.0	Bad	Acceptable
IN3	Klip Sprui	Aug-Oct	220057	0.83	0.1	0.5	4.47	49.0	7.1	173.3	63.0	41.0	33.7	Bad	Unacceptable
		Nov-Jan	390667	0.70	0.3	4.4	2.02	50.3	7.2	200.0	43.4	49.3	61.7	Bad	Acceptable
		Feb-Apr	165667	0.50	0.5	2.9	0.73	46.0	7.6	19.7	16.0	34.0	66.7	Bad	Acceptable
		May-July	829333	0.64	0.6	3.7	5.10	61.3	7.0	265.7	19.0	50.3	93.0	Unacceptable	Interim Target
		Aug-Oct	230333	0.50	0.1	2.6	15.30	98.7	7.1	91.3	19.0	46.7	230.0	Bad	Good
		Nov-Jan	2340	0.50	0.1	0.5	0.50	20.3	7.7	16.0	2.8	14.3	15.0	Unacceptable	Good
		Feb-Apr	26333	0.50	0.7	2.5	3.19	42.0	7.1	39.7	4.7	23.0	81.3	Unacceptable	Acceptable
		May-July	9800	0.50	0.1	1.2	11.00	93.0	6.7	15.0	4.8	43.0	510.0	Unacceptable	Acceptable
		Aug-Oct	116877	0.50	0.1	1.1	3.73	40.3	7.3	42.7	17.1	20.7	74.7	Bad	Acceptable
		Nov-Jan	324667	0.50	0.3	0.6	3.30	44.3	7.2	29.3	12.9	19.3	95.3	Bad	Acceptable
KR1	Klip Sprui	Feb-Apr	1076667	0.50	2.0	3.6	1.47	47.7	7.5	30.0	14.7	38.0	71.3	Bad	Acceptable
		May-July	34707	0.50	1.4	2.2	3.44	36.0	7.3	26.0	21.7	43.0	Unacceptable	Management Target	
		Aug-Oct	2368	0.26	0.4	2.1	0.38	59.2	7.5	17.4	2.2	30.3	157.5	Unacceptable	Ideal
		Nov-Jan	4526	0.24	9.8	1.8	0.30	63.9	7.4	14.9	2.1	30.5	166.0	Unacceptable	Ideal
		Feb-Apr	12076	0.21	0.2	3.4	0.37	61.1	7.5	24.0	2.7	29.0	157.5	Unacceptable	Ideal
		May-July	360	0.50	0.1	2.1	0.50	75.0	8.0	19.7	1.5	37.7	223.3	Good	Acceptable
		Nov-Jan	5417	0.27	0.2	2.6	0.48	59.5	7.2	32.8	2.3	24.6	149.2	Unacceptable	Good
		Feb-Apr	85000	0.50	0.9	3.6	0.50	51.3	7.6	30.3	13.8	33.3	69.3	Bad	Acceptable
		May-July	2033	0.19	0.2	4.0	0.46	75.4	7.5	19.0	19.0	36.7	273.0	Management	Ideal
		Aug-Oct	7809	0.51	0.1	4.7	0.72	65.9	8.0	27.0	2.2	36.0	153.6	Good	Acceptable
KR11	Klip River	Nov-Jan	3867	0.44	0.1	1.3	0.33	63.4	7.4	14.8	2.4	29.3	154.0	Unacceptable	Good
		Feb-Apr	3262	0.27	0.1	2.6	0.21	60.2	7.5	20.7	2.4	28.6	157.5	Unacceptable	Ideal
		May-July	282	0.50	0.1	2.5	0.50	69.0	8.4	21.3	1.5	39.3	190.0	Good	Acceptable
		Aug-Oct	1254	0.33	0.4	1.9	0.38	59.2	7.6	24.0	2.3	31.7	145.0	Acceptable	Ideal
		Nov-Jan	2248	0.32	0.1	2.1	0.37	58.7	7.1	32.9	2.2	24.3	143.8	Unacceptable	Ideal
		Feb-Apr	323333	0.50	0.8	2.1	0.61	50.7	7.7	24.3	7.4	46.3	82.0	Bad	Acceptable
		May-July	3409	0.20	9.3	4.5	0.30	73.2	7.5	18.4	4.0	40.3	238.0	Management	Ideal
		Aug-Oct	21667	0.50	1.3	0.7	3.97	71.3	7.4	24.7	3.4	39.0	190.0	Bad	Acceptable
		Nov-Jan	22367	0.50	1.1	1.6	3.91	65.3	7.2	19.3	4.2	30.0	173.3	Unacceptable	Acceptable
		Feb-Apr	35000	0.50	0.5	3.3	2.63	58.0	7.0	34.7	4.5	28.3	180.0	Unacceptable	Acceptable
KR12	Klip Sprui	May-July	2800	0.50	0.7	2.5	5.40	61.0	7.2	10.0	1.1	37.0	200.0	Unacceptable	Acceptable
		Aug-Oct	19703	0.55	1.0	3.2	2.13	62.0	7.5	34.7	4.2	33.3	116.7	Unacceptable	Acceptable
		Nov-Jan	9267	0.50	0.2	1.4	2.30	53.3	6.9	27.7	7.4	21.0	132.3	Unacceptable	Acceptable
		Feb-Apr	1500	0.50	1.1	3.9	0.50	64.3	7.3	25.3	4.8	32.0	198.7	Acceptable	Good
		May-July	2017	0.50	0.2	3.6	0.83	73.0	7.7	19.3	19.3	52.3	130.0	Management	Management Target
		Aug-Oct	303	0.50	0.1	1.0	0.43	24.7	7.6	69.7	1.3	16.7	27.7	Ideal	Acceptable
		Nov-Jan	700	0.50	0.1	1.4	0.50	29.0	7.4	35.7	1.2	17.3	71.0	Good	Acceptable
		Feb-Apr	502	0.50	0.1	0.9	0.50	30.3	7.2	24.7	2.6	19.3	80.0	Good	Good
		May-July	580	0.50	0.1	0.7	0.50	28.0	7.4	10.0	1.2	21.0	110.0	Good	Good
		Aug-Oct	617	0.50	0.1	0.8	0.50	28.7	7.7	12.7	1.4	21.7	75.3	Good	Good
KR13	Klip River	Nov-Jan	4573	0.50	0.1	0.7	1.81	28.3	7.1	27.7	5.6	16.3	65.0	Unacceptable	Acceptable
		Feb-Apr	250	0.50	0.1	1.8	0.50	31.3	7.5	15.3	3.0	19.0	86.0	Good	Good
		May-July	513	0.50	0.1	1.6	0.50	37.0	7.6	14.3	14.3	23.0	107.0	Ideal	Management Target
		Aug-Oct	31383	1.04	0.3	0.8	0.70	57.9	7.8	53.3	10.2	65.8	49.2	Bad	Good
		Nov-Jan	73000	0.89	0.4	5.4	0.99	52.9	7.6	38.2	25.8	60.9	54.7	Bad	Acceptable
		Feb-Apr	114111	0.65	0.3	6.6	0.40	54.2	7.7	36.5	9.3	64.1	52.8	Bad	Acceptable
		May-July	11333	0.56	0.3	4.2	0.53	51.0	7.9	36.0	6.7	54.0	60.3	Unacceptable	Acceptable
		Aug-Oct	20142	0.57	0.7	3.3	0.30	56.3	7.8	32.9	9.3	68.7	51.0	Unacceptable	Good
		Nov-Jan	15275	0.81	0.4	26.4	0.55	53.9	7.8	37.2	13.7	63.3	53.1	Unacceptable	Acceptable
		Feb-Apr	463333	0.65	0.3	1.9	3.00	38.3	7.2	33.3	7.1	34.0	30.0	Bad	Acceptable

Key	Water Quality Guidelines	Water Quality Index
Hot spot area	Ideal	Ideal
Aug-Oct 2008	Acceptable	Good
Nov08-Jan2009	Tolerable	Acceptable
Feb-Apr 2009	Unacceptable	Unacceptable
May-July 2009	Unacceptable	Bad
Aug-Oct 2009	Unacceptable	Management Target

City Of Johannesburg  
Quarterly Water Quality Status of the Klip River Catchment

August 08-July 2010



Sample Point	Sample ID	PERIOD	E. COLI <sub>L1</sub>	PO <sub>4</sub>	NO <sub>2</sub>	NO <sub>3</sub>	NH <sub>4</sub>	COND	PH	COD	TURBIDITY	CL	SO <sub>4</sub>	(Bacteriologi)	(Chemical)
HS1	Hamburg	May-July	24750	0.50	0.3	5.4	0.45	55.4	7.8	28.3	7.0	64.5	61.6	Unacceptable	Management Target
		Aug-Oct	92	0.50	0.6	4.3	1.33	49.0	7.4	29.0	27.0	34.3	59.7	Ideal	Acceptable
		Nov-Jan	83333	1.47	0.1	0.5	3.50	27.0	7.1	65.0	21.2	21.7	28.0	Bad	Unacceptable
		Feb-Apr	3233	0.66	0.2	0.7	0.56	19.7	7.4	33.0	17.0	19.7	14.9	Unacceptable	Acceptable
		May-July	1200	0.50	0.1	0.7	0.50	20.0	7.6	28.0	2.7	21.0	29.0	Acceptable	Good
		Aug-Oct	580	0.50	0.1	0.6	0.50	21.0	7.4	12.3	5.7	17.0	12.9	Good	Good
		Nov-Jan	3267	0.50	0.1	0.5	0.57	15.7	7.1	16.0	9.7	11.7	8.0	Unacceptable	Acceptable
		Feb-Apr	390000	0.50	0.4	2.5	0.77	43.7	7.6	21.7	17.0	34.3	66.3	Bad	Acceptable
		May-July	470	0.50	0.1	1.0	0.50	24.0	7.8	16.7	5.1	20.3	22.3	Ideal	Management Target
		Aug-Oct	230333	0.50	0.1	2.6	15.30	98.7	7.1	91.3	19.0	46.7	230.0	Bad	Good
KR1	Klip Sprui	Nov-Jan	2340	0.50	0.1	0.5	0.50	20.3	7.7	16.0	2.8	14.3	15.0	Unacceptable	Good
		Feb-Apr	26333	0.50	0.7	2.5	3.19	42.0	7.1	39.7	4.7	23.0	81.3	Unacceptable	Acceptable
		May-July	9800	0.50	0.1	1.2	11.00	93.0	6.7	15.0	4.8	43.0	510.0	Unacceptable	Acceptable
		Aug-Oct	116877	0.50	0.1	1.1	3.73	40.3	7.3	42.7	17.1	20.7	74.7	Bad	Acceptable
		Nov-Jan	324667	0.50	0.3	0.6	3.30	44.3	7.2	29.3	12.9	19.3	95.3	Bad	Acceptable
		Feb-Apr	1076667	0.50	2.0	3.6	1.47	47.7	7.5	30.0	14.7	38.0	71.3	Bad	Acceptable
		May-July	34707	0.50	1.4	2.2	3.44	36.0	7.3	26.0	21.7	43.0	Unacceptable	Management Target	
		Aug-Oct	2368	0.26	0.4	2.1	0.38	59.2	7.5	17.4	2.2	30.3	157.5	Unacceptable	Ideal
		Nov-Jan	4526	0.24	9.8	1.8	0.30	63.9	7.4	14.9	2.1	30.5	166.0	Unacceptable	Ideal
		Feb-Apr	12076	0.21	0.2	3.4	0.37	61.1	7.5	24.0	2.7	29.0	157.5	Unacceptable	Ideal
KR10	Klip River	May-July	360	0.50	0.1	2.1	0.50	75.0	8.0	19.7	1.5	37.7	223.3	Good	Acceptable

KR11	Klip River	Nov-Jan	5417	0.27	0.2	2.6	0.48	59.5	7.2	32.8	2.3	24.6	149.2	Unacceptable	Good
		Feb-Apr	8500	0.50	0.9	3.6	0.50	51.3	7.6	30.3	13.8	33.3	69.3	Bad	Acceptable
		Aug-Oct	2033	0.19	0.2	4.0	0.46	75.4	7.5	19.0		36.7	273.0	Management	Ideal
KR11	Klip River	Nov-Jan	3867	0.44	0.1	1.3	0.33	63.4	7.4	14.8	2.4	29.3	154.0	Unacceptable	Good
		Feb-Apr	3262	0.27	0.1	2.6	0.21	80.2	7.5	20.7	2.4	28.6	157.5	Unacceptable	Ideal
		May-July	282	0.50	0.1	2.5	0.50	69.0	8.4	21.3	1.5	39.3	190.0	Good	Acceptable
KR12	Klip Spruit	Aug-Oct	1254	0.33	0.4	1.9	0.38	59.2	7.6	24.0	2.3	31.7	145.0	Acceptable	Ideal
		Nov-Jan	2248	0.32	0.1	2.1	0.37	58.7	7.1	32.9	2.2	24.3	143.8	Unacceptable	Ideal
		Feb-Apr	323333	0.50	0.8	2.1	0.61	50.7	7.7	24.3	7.4	46.3	62.0	Bad	Acceptable
KR12	Klip Spruit	May-July	3409	0.20	9.3	4.5	0.30	73.2	7.5	18.4		40.3	238.0	Management	Ideal
		Aug-Oct	21667	0.50	1.3	0.7	3.97	71.3	7.4	24.7	3.4	39.0	190.0	Bad	Acceptable
		Nov-Jan	22367	0.50	1.1	1.6	3.91	65.3	7.2	19.3	4.2	30.0	173.3	Unacceptable	Acceptable
KR12	Klip Spruit	Feb-Apr	35000	0.50	0.5	3.3	2.63	58.0	7.0	34.7	4.5	28.3	180.0	Unacceptable	Acceptable
		May-July	2800	0.50	0.7	2.5	5.40	61.0	7.2	10.0	1.1	37.0	200.0	Unacceptable	Acceptable
		Aug-Oct	19703	0.55	1.0	3.2	2.13	62.0	7.5	34.7	4.2	33.3	116.7	Unacceptable	Acceptable
KR12	Klip Spruit	Nov-Jan	9267	0.50	0.2	1.4	2.30	53.3	6.9	27.7	7.4	21.0	132.3	Unacceptable	Acceptable
		Feb-Apr	1500	0.50	1.1	3.9	0.50	64.3	7.3	25.3	4.8	32.7	198.7	Acceptable	Good
		May-July	2017	0.50	0.2	3.6	0.83	73.0	7.7	19.3		52.3	130.0	Management	Management Target
KR13	Klip River	Aug-Oct	303	0.50	0.1	1.0	0.43	24.7	7.6	69.7	1.3	16.7	27.7	Ideal	Acceptable
		Nov-Jan	700	0.50	0.1	1.4	0.50	29.0	7.4	35.7	1.2	17.3	71.0	Good	Acceptable
		Feb-Apr	502	0.50	0.1	0.9	0.50	30.3	7.2	24.7	2.6	19.3	80.0	Good	Good
KR13	Klip River	May-July	580	0.50	0.1	0.7	0.50	28.0	7.4	10.0	1.2	21.0	110.0	Good	Good
		Aug-Oct	617	0.50	0.1	0.8	0.50	28.7	7.7	12.7	1.4	21.7	75.3	Good	Good
		Nov-Jan	4573	0.50	0.1	0.7	1.81	28.3	7.1	27.7	5.6	16.3	85.0	Unacceptable	Acceptable
KR13	Klip River	Feb-Apr	250	0.50	0.1	18.5	0.50	31.3	7.5	15.3	3.0	19.0	86.0	Good	Good
		May-July	513	0.50	0.1	1.6	0.50	37.0	7.6	14.3		23.0	107.0	Ideal	Management Target
		Aug-Oct	10	0.50	0.1	0.6	0.50	190.0	6.3	12.0	195.2	38.0	950.0	Ideal	Acceptable
KR14	Klip River	Nov-Jan	302	0.50	0.2	2.8	0.75	150.0	5.1	30.7	1.2	46.0	2906.7	Good	Acceptable
		Feb-Apr	92	0.50	0.1	1.5	2.55	176.7	4.2	31.3	2.3	31.0	880.0	Ideal	Acceptable
		May-July	31	0.50	0.1	0.7	5.20	140.0	4.3	15.0	0.5	32.0	1000.0	Ideal	Acceptable
KR14	Klip River	Aug-Oct	65	0.50	0.1	6.0	1.80	116.7	6.0	18.3	1.2	35.3	586.7	Ideal	Acceptable
		Nov-Jan	910	0.50	0.2	5.4	0.50	113.3	6.2	11.7	0.8	31.3	476.7	Good	Acceptable
		Feb-Apr	42	0.50	0.1	1.1	3.90	150.0	4.5	20.5	1.3	32.0	650.0	Ideal	Unacceptable
KR14	Klip River	May-July	97	0.50	0.1	0.8	5.75	69.0	7.2	25.5		25.0	424.0	Ideal	Management Target
		Aug-Oct	111	0.50	0.1		0.51	100.3	7.4	119.7	76.4	109.3	45.0	Ideal	Acceptable
		Nov-Jan	253	0.50	0.1	0.5	0.50	37.7	7.5	17.7	33.7	19.7	12.5	Ideal	Acceptable
KR15	Klip River	Feb-Apr	499	0.50	0.1	0.6	1.71	40.0	7.0	79.0	100.8	23.7	13.7	Good	Acceptable
		May-July	130	0.50	0.1	0.5	0.50	15.0	7.2	10.0	6.2	17.0	27.0	Good	Good
		Aug-Oct	99	0.50	0.1	0.5	0.50	30.0	7.6	21.0	5.3	16.3	23.8	Ideal	Acceptable
KR2	Klip Spruit	Nov-Jan	363	0.50	0.1	0.5	0.50	26.3	7.6	16.0	4.6	12.0	10.3	Good	Good
		Feb-Apr	191	0.50	0.1	0.5	0.50	20.3	7.4	12.0	3.5	16.0	19.7	Good	Good
		May-July	157	0.50	0.1	0.5	2.35	51.7	6.9	273.3		22.7	25.0	Ideal	Management Target
KR2	Klip Spruit	Aug-Oct	19133	0.50	1.2	2.6	7.83	75.3	7.4	35.7	6.1	42.3	140.0	Bad	Acceptable
		Nov-Jan	51333	0.50	0.4	2.3	2.27	62.0	7.1	16.0	2.9	27.3	143.3	Bad	Acceptable
		Feb-Apr	45000	0.77	0.7	3.8	1.33	57.0	7.0	26.3	3.3	30.0	236.7	Unacceptable	Acceptable
KR2	Klip Spruit	May-July	87000	0.50	0.3	3.1	1.40	58.0	7.2	15.0	1.1	37.0	200.0	Bad	Good
		Aug-Oct	32933	0.50	1.7	4.2	0.70	57.7	7.4	25.7	5.6	33.3	153.3	Unacceptable	Acceptable
		Nov-Jan	19867	0.50	0.6	2.0	2.46	51.0	6.9	29.3	15.9	19.5	122.3	Unacceptable	Acceptable
KR2	Klip Spruit	Feb-Apr	21433	0.50	0.3	4.2	0.50	68.7	7.2	10.3	3.4	38.3	253.3	Unacceptable	Good

<b>Key</b>  Hot spot area  Aug-Oct 2008  Nov08-Jan2009  Feb-Apr 2009  May-July 2009	<b>Water Quality Guidelines</b>  Ideal  Acceptable  Tolerable  Unacceptable	<b>Water Quality Index</b>  Ideal  Good  Acceptable  Unacceptable  Bad  Management Target
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City Of Johannesburg  
 Quarterly Water Quality Status of the Klip River Catchment August 08-July 2010



Sample Point	Sample ID	PERIOD	E_COLI_1	PO <sub>4</sub>	NO <sub>2</sub>	NO <sub>3</sub>	NH <sub>4</sub>	COND	PH	COD	TURBIDITY	CL	SO <sub>4</sub>	(Bacteriology)	(Chemical)	
KR5	Harrington	Aug-Oct	2644	0.86	0.2	3.2	0.64	68.7	7.8	59.2	6.7	75.5	83.6	Acceptable	Acceptable	
		Nov-Jan	3700	1.21	0.5	4.9	1.18	65.0	7.5	54.6	22.3	67.2	95.2	Good	Acceptable	
		Feb-Apr	10573	1.11	0.3	5.5	0.86	62.1	7.7	40.2	8.0	67.7	77.6	Unacceptable	Acceptable	
		May-July	5150	0.50	0.1	4.7	0.50	52.0	8.1	34.5	6.7	54.0	80.5	Unacceptable	Acceptable	
		Aug-Oct														
		Nov-Jan														
KR6	Klip River	Aug-Oct	6100	0.71	1.5	3.4	0.50	58.0	7.3	34.5	9.3	49.5	124.5	Unacceptable	Acceptable	
		Nov-Jan														
		Feb-Apr														
		May-July														
		Aug-Oct														
		Nov-Jan														
KR7	Klip River	Aug-Oct	577	0.51	0.1	2.9	0.50	63.0	7.7	45.7	4.8	63.0	84.0	Ideal	Acceptable	
		Nov-Jan	1153	0.67	0.1	3.2	0.50	57.3	7.4	34.3	11.7	49.0	116.7	Good	Acceptable	
		Feb-Apr	1467	0.61	0.1	4.0	0.50	56.3	7.5	39.7	8.1	53.3	100.7	Acceptable	Acceptable	
		May-July	580	0.50	0.1	3.7	0.50	52.0	7.9	29.0	3.1	49.0	140.0	Good	Good	
		Aug-Oct	410	0.76	0.1	4.0	0.50	59.3	7.6	54.3	7.1	58.3	85.0	Good	Acceptable	
		Nov-Jan	8567	0.50	0.2	2.0	0.50	39.3	7.6	19.3	21.5	36.7	18.3	Unacceptable	Acceptable	
KR8	Klip River	Feb-Apr	8250	0.69	0.6	3.6	0.50	58.5	7.3	32.0	12.2	49.5	109.5	Unacceptable	Acceptable	
		May-July	18900	0.93	0.4	4.2	1.43	61.3	7.3	45.7		54.3	115.3	Unacceptable	Management Target	
		Aug-Oct	11655	0.50	0.4	1.2	1.80	74.0	7.7	28.0	3.0	44.0	150.0	Bad	Acceptable	
		Nov-Jan	860	0.50	0.1	1.1	0.50	59.0	7.7	41.5	3.4	28.0	110.0	Ideal	Acceptable	
		Feb-Apr	13570	0.50	0.1	1.2	0.50	58.3	7.6	25.0	21.2	28.3	115.3	Unacceptable	Acceptable	
		May-July	530	0.50	0.1	0.8	0.50	89.0	7.8	15.0	1.0	37.0	410.0	Good	Acceptable	
KR8	Klip River	Aug-Oct	390	0.50	0.1	2.4	0.50	67.5	7.6	21.5	4.4	32.0	155.0	Good	Good	
		Nov-Jan	9533	0.50	0.2	1.7	0.50	46.0	7.5	16.0	12.8	22.0	79.7	Unacceptable	Acceptable	
		Feb-Apr	2210	0.50	0.1	2.2	0.50	45.3	7.6	20.3	5.8	24.7	102.3	Unacceptable	Acceptable	
		May-July	693	0.50	0.1	1.9	0.50	58.3	7.9	15.0		28.7	126.7	Ideal	Management Target	

LR1	Len Rutte	Aug-Oct	109	0.50	0.5	1.3	1.36	46.7	7.4	22.7	2.2	35.0	58.7	Ideal	Acceptable
		Nov-Jan	80800	1.47	0.1	0.9	3.50	24.3	6.9	87.7	20.9	20.7	27.3	Bad	Unacceptable
		Feb-Apr	2973	0.50	0.1	1.4	0.50	14.7	7.0	24.7	8.2	16.3	10.3	Unacceptable	Acceptable
		May-July	410	0.50	0.1	0.9	0.50	16.0	7.1	10.0	1.8	15.0	20.0	Good	Good
		Aug-Oct	5010	0.50	0.1	1.2	0.50	13.0	6.9	19.7	9.4	13.0	7.2	Unacceptable	Acceptable
NS1	Natal Spr	Nov-Jan	5747	0.50	0.1	0.9	0.50	12.0	6.8	13.3	7.2	12.2	8.3	Unacceptable	Good
		Feb-Apr	13867	0.50	0.1	1.1	0.50	17.3	7.2	14.3	8.3	17.3	24.2	Unacceptable	Acceptable
		May-July	307	0.50	0.1	1.3	0.55	16.0	7.3	14.3		16.3	12.0	Ideal	Management Target
		Aug-Oct	6	0.50	0.2	1.6	0.77	50.0	7.7	25.7	13.2	17.3	126.0	Ideal	Acceptable
		Nov-Jan	1767	0.50	0.6	0.5	2.90	106.7	7.3	19.3	2.5	21.3	520.0	Good	Acceptable
NS2	Natal Spr	Feb-Apr	11043	0.50	0.1	2.4	1.63	114.7	6.7	33.0	5.2	36.3	643.3	Unacceptable	Acceptable
		May-July	0	0.50	0.1	0.5	2.00	82.0	7.0	15.0	1.8	26.0	420.0	Ideal	Acceptable
		Aug-Oct	282	0.50	0.3	3.2	0.59	140.0	7.6	33.7	2.9	45.7	1093.3	Good	Acceptable
		Nov-Jan	1553	0.50	0.1	1.4	0.67	78.3	7.1	17.7	18.0	22.3	306.7	Acceptable	Acceptable
		May-July	19	0.50	0.1	1.7	2.77	92.3	7.4	26.0		35.3	406.7	Ideal	Management Target
NS3	Natal Spr	Aug-Oct	3	0.50	0.1	2.1	1.86	89.0	4.6	252.7	40.5	40.0	276.7	Ideal	Acceptable
		Nov-Jan	67	0.50	0.1	1.7	0.70	84.0	4.0	24.3	16.8	24.7	313.3	Ideal	Acceptable
		Feb-Apr	378	0.50	0.2	2.6	2.47	80.3	3.8	41.3	14.4	47.3	406.7	Good	Acceptable
		May-July	310	0.50	0.1	3.2	0.57	74.0	3.3	15.0	4.6	35.0	280.0	Good	Acceptable
		Aug-Oct	1050	0.50	0.1	0.6	8.57	80.7	5.2	70.0	21.0	38.7	303.3	Good	Unacceptable
NS5	Natal Spr	Nov-Jan	150667	0.50	0.2	0.9	4.60	54.7	6.1	29.3	37.0	27.3	234.7	Bad	Acceptable
		Feb-Apr	13867	0.50	0.1	1.1	0.50	17.3	7.2	14.3	8.3	17.3	24.2	Unacceptable	Acceptable
		May-July	20733	0.50	0.4	3.6	2.80	67.3	5.4	30.7		43.7	270.0	Unacceptable	Management Target
		Aug-Oct	0	0.50	0.1	2.3	2.40	81.0	5.3	103.0	13.8	38.0	256.7	Ideal	Acceptable
		Nov-Jan	192	0.50	0.4	0.8	1.80	90.3	5.0	19.3	18.3	24.7	360.0	Ideal	Acceptable
NS3	Natal Spr	Feb-Apr	23	0.50	0.1	1.9	3.23	87.3	4.1	31.3	18.1	37.7	473.3	Ideal	Unacceptable
		May-July	740	0.50	0.1	2.1	1.00	91.0	3.7	10.0	11.0	31.0	340.0	Good	Acceptable
		Aug-Oct	71	0.50	0.2	0.7	7.37	78.7	6.2	45.7	25.0	39.0	296.7	Ideal	Acceptable
		Nov-Jan	1180	0.50	0.1	1.1	2.98	65.0	6.6	16.0	7.7	26.0	230.0	Good	Acceptable
		Feb-Apr	500	0.50	0.2	1.9	1.95	75.5	6.3	24.5	13.7	34.0	325.0	Good	Acceptable
NS5	Natal Spr	May-July	633	0.50	0.1	2.1	3.67	94.0	6.7	26.0		40.3	430.0	Ideal	Management Target
		Aug-Oct	1803	0.50	0.1	2.6	6.33	51.0	6.6	79.7	7.3	39.0	153.3	Acceptable	Acceptable
		Nov-Jan	403	0.50	0.1	3.6	0.50	51.7	6.7	74.3	188.2	32.3	140.0	Ideal	Acceptable
		Feb-Apr	298	0.50	0.1	3.1	0.56	52.7	6.1	38.0	17.8	30.7	183.3	Good	Acceptable
		May-July	15	0.50	0.1	4.8	0.50	70.0	6.0	15.0	9.1	38.0	250.0	Ideal	Acceptable
NS5	Natal Spr	Aug-Oct	44	0.50	0.1	2.3	3.21	50.0	6.8	70.7	13.2	37.7	123.3	Ideal	Acceptable
		Nov-Jan	1169	0.50	0.3	2.7	0.77	61.7	5.8	91.7	15.7	33.3	161.7	Good	Acceptable
		Feb-Apr	78	0.50	0.1	5.5	3.27	103.0	6.0	44.5	41.5	73.5	460.0	Ideal	Acceptable
		May-July	30	0.50	0.1	4.9	0.73	99.3	5.3	100.7		63.0	413.3	Ideal	Interim Target

<b>Key</b>	<b>Water Quality Guidelines</b>	<b>Water Quality Index</b>
Hot spot area	Ideal	Ideal
Aug-Oct 2008	Acceptable	Good
Feb-Apr 2009	Unacceptable	Unacceptable
May-July 2009		Bad
Aug-Oct 2009		Management target
Nov09-Jan2010		

City Of Johannesburg  
 Quarterly Water Quality Status of the Klip River Catchment August 08-July 2010



Sample Point	Sample ID	PERIOD	E_COIL_1	PO4	NO2	NO3	NH4	COND	PH	COD	TURBIDITY	CL	SO4	(Bacteriology)	(Chemical)
OAD	rlando Da	Aug-Oct	16100	0.50	0.1	0.5	5.33	74.0	7.4	55.7	38.2	40.7	180.3	Bad	Acceptable
		Nov-Jan	9490	0.61	0.4	0.6	2.53	39.3	5.9	65.7	18.9	23.3	28.0	Unacceptable	Unacceptable
		Feb-Apr	31267	0.55	0.4	3.0	1.45	58.7	7.4	44.7	5.0	53.7	83.7	Unacceptable	Acceptable
		May-July	0	0.50	0.2	0.9	1.30	30.0	7.2	20.0	1.6	29.0	42.0	Ideal	Good
		Aug-Oct	81667	0.63	0.6	2.2	5.37	47.7	7.0	116.7		40.7	53.3	Unacceptable	Interim Target
RP1	Russell S	Nov-Jan	1733	0.93	2.6	0.7	2.33	39.0	8.0	38.3	6.8	28.7	26.0	Acceptable	Acceptable
		Feb-Apr	10800	0.67	0.4	0.5	2.47	37.3	7.2	103.3	8.4	26.7	33.7	Unacceptable	Acceptable
		May-July	333333	1.09	0.3	5.2	12.00	215.3	7.3	48.7	13.6	48.3	70.0	Bad	Unacceptable
		Aug-Oct	255067	0.50	0.2	0.6	5.83	79.7	5.2	153.3	27.2	35.3	313.3	Bad	Good
		Nov-Jan	47667	0.50	0.1	1.8	5.43	92.0	5.5	73.7	16.1	36.3	376.7	Unacceptable	Unacceptable
RP2	Russell S	Feb-Apr	40000	0.50	0.1	1.9	5.77	156.7	4.0	130.7	29.9	63.7	713.3	Unacceptable	Unacceptable
		May-July	0	0.50	0.1	4.2	2.40	150.0	3.1	64.0	13.0	41.0	1100.0	Ideal	Unacceptable
		Aug-Oct	930000	2.03	0.1	0.5	19.67	90.3	6.6	363.3	55.0	45.0	153.7	Bad	Unacceptable
		Nov-Jan	812333	0.50	0.1	1.2	11.33	166.7	4.4	97.7	12.8	52.0	610.0	Bad	Unacceptable
		Feb-Apr	69333	0.50	0.2	1.8	9.53	150.0	4.4	143.3	12.8	54.7	893.3	Bad	Unacceptable
RP3	Russell S	May-July	810667	2.53	0.1	26.5	10.60	103.7	5.1	266.7		45.3	436.0	Unacceptable	Interim Target
		Aug-Oct	138	0.50	0.7	1.2	4.80	88.0	6.5	50.7	45.3	35.3	356.7	Ideal	Good
		Nov-Jan	92000	0.50	0.1	0.5	11.00	73.0	6.7	73.0	51.7	31.0	186.7	Bad	Acceptable
		Feb-Apr	333	0.50	0.2	28.6	5.33	101.0	5.2	54.7	20.8	97.3	790.3	Good	Unacceptable
		May-July	0	0.50	0.1	2.7	3.80	120.0	3.7	34.0	1.9	42.0	850.0	Ideal	Acceptable
SIA1	Klip Spru	Aug-Oct	57700	0.50	0.1	0.5	7.20	105.0	6.3	125.7	16.7	39.0	446.7	Bad	Unacceptable
		Nov-Jan	80367	0.50	0.1	0.9	6.80	92.7	5.0	44.3	19.6	27.7	393.3	Bad	Acceptable
		Feb-Apr	103	0.50	0.1	1.9	9.17	146.7	5.5	69.7	18.7	59.0	796.7	Good	Unacceptable
		May-July	8106	0.50	0.1	1.4	7.17	120.0	5.2	71.7		48.7	603.3	Interim Target	Interim Target
		Aug-Oct	65000	0.50	0.2	2.5	4.40	87.3	6.6	94.7	43.3	34.3	336.7	Bad	Good
SIA12	Klip Spru	Nov-Jan	616667	0.50	0.1	0.5	9.17	67.3	7.0	53.7	19.3	33.3	146.7	Bad	Acceptable
		Feb-Apr	5667	0.50	0.1	1.6	3.10	79.7	5.4	43.0	38.1	37.3	766.7	Unacceptable	Unacceptable
		May-July													
		Aug-Oct	56667	0.50	1.5	2.9	9.50	87.7	7.2	76.0	47.0	49.0	293.3	Bad	Unacceptable
		Nov-Jan	97667	0.61	1.3	4.8	7.47	61.0	7.2	46.0	8.8	39.0	107.3	Bad	Acceptable
SIA1	Klip Spru	Feb-Apr	112000	0.50	0.1	2.1	7.55	155.0	5.5	41.5	37.0	54.0	635.0	Bad	Unacceptable
		May-July	333333	0.50	0.1	1.5	9.63	132.7	5.5	98.3		62.3	720.0	Unacceptable	Interim Target
		Aug-Oct	267	0.50	0.5	0.6	0.50	51.0	7.6	27.3	3.6	30.7	64.7	Ideal	Acceptable
		Nov-Jan	3720	0.50	0.3	1.6	0.54	32.0	7.4	26.0	23.7	17.7	43.7	Good	Acceptable
		Feb-Apr	2017	0.50	0.2	2.3	0.50	44.0	7.5	34.7	14.3	26.3	72.0	Unacceptable	Acceptable
SIA12	Klip Spru	May-July	3000	0.50	0.1	2.0	0.50	40.0	7.7	15.0	1.7	35.0	97.0	Unacceptable	Acceptable
		Aug-Oct	598	0.50	0.5	1.0	0.50	56.0	8.1	27.0	4.4	36.7	86.0	Good	Acceptable
		Nov-Jan	1155	0.19	0.1	0.5	0.20	90.6	7.6	23.9	13.2	18.9	346.7	Good	Good
		Feb-Apr	8480	0.80	0.2	2.4	4.67	52.7	7.9	32.0	7.9	39.0	90.7	Unacceptable	Acceptable
		May-July	1300	0.50	0.2	4.8	0.50	44.0	7.7	19.3		34.0	81.7	Management Target	Management Target
SIA12	Klip Spru	Aug-Oct	68000	0.61	0.8	7.5	11.40	94.7	7.1	43.0	16.5	46.3	218.3	Bad	Good
		Nov-Jan	37367	0.50	0.1	0.5	8.97	72.7	6.9	30.7	35.7	34.0	296.7	Unacceptable	Acceptable
		Feb-Apr	47000	0.50	0.1	0.8	5.03	71.0	6.6	33.0	14.6	32.0	283.3	Unacceptable	Acceptable
		May-July	55000	0.50	0.1	0.6	11.00	120.0	6.6	29.0	6.3	47.0	710.0		



**Key**

Hot spot area
Aug-Oct 2008
Nov08-Jan2009
Feb-Apr 2009
May-July 2009
Aug-Oct 2009
Nov09-Jan2010
Feb-Apr 2010

**Water Quality Guidelines**

Ideal
Acceptable
Tolerable
Unacceptable

**Water Quality Index**

Ideal
Good
Acceptable
Unacceptable
Bad
Management Target

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Sample Point	Sample ID	PERIOD	E_COLI_1	PO <sub>4</sub>	NO <sub>2</sub>	NO <sub>3</sub>	NH <sub>4</sub>	COND	PH	COD	TURBIDITY	CL	SO <sub>4</sub>	(Bacteriolog)	(Chemical)
SIN2	Klip River	Aug-Oct	3	0.50	0.2	0.5	0.53	24.3	8.0	29.3	1.0	10.2	13.0	Ideal	Acceptable
		Nov-Jan	125	0.50	0.1	1.5	0.50	26.7	7.7	14.7	2.4	41.0	19.0	Ideal	Good
		Feb-Apr	962	0.50	0.1	0.6	0.50	23.0	7.9	31.3	0.6	14.0	14.3	Good	Good
		May-July	2500	0.50	0.2	1.0	0.50	50.0	7.9	34.0	5.0	15.0	90.0	Unacceptable	Acceptable
		Aug-Oct	62133	0.50	0.1	0.5	0.73	30.7	7.6	14.0	1.4	12.3	22.7	Bad	Good
		Nov-Jan	841333	0.50	0.1	0.7	0.77	26.3	7.5	17.7	2.8	12.7	19.3	Bad	Good
		Feb-Apr	51333	0.50	0.5	1.3	0.50	44.0	7.9	22.0	7.1	15.3	58.0	Bad	Acceptable
WOUT	Wemmer	May-July	78333	0.50	0.1	2.2	0.63	38.3	7.5	15.0	5.2	17.3	28.7	Unacceptable	Management Target
		Aug-Oct	12	0.50	0.1	0.5	0.50	40.7	7.1	26.0	2.0	19.7	110.0	Ideal	Acceptable
		Nov-Jan	2107	0.50	0.1	0.5	0.50	36.0	7.5	21.0	6.3	18.0	96.3	Good	Acceptable
		Feb-Apr	4246	0.50	0.1	0.5	0.50	31.7	7.7	23.0	3.8	16.3	84.7	Unacceptable	Acceptable
		May-July	340	0.50	0.1	0.5	0.50	41.0	7.7	29.0	1.3	16.0	120.0	Good	Acceptable
		Aug-Oct	139	0.50	0.1	0.5	0.50	35.3	7.9	30.7	4.8	17.3	100.3	Good	Acceptable
		Nov-Jan	758	0.50	0.1	0.5	0.71	35.3	7.9	22.7	5.7	16.0	88.0	Good	Acceptable
WPIN	Wemmer Pan inlet	Feb-Apr	108	0.50	0.1	0.6	0.50	32.5	7.3	19.5	5.6	14.0	118.5	Ideal	Acceptable
		May-July	125	0.50	0.1	0.6	0.52	36.3	7.5	19.3	5.2	15.0	92.0	Ideal	Management Target
		Aug-Oct	12033	0.50	0.1	1.0	0.52	38.0	7.4	29.3	2.6	20.3	90.3	Bad	Acceptable
		Nov-Jan	6170	0.50	0.1	0.5	0.53	36.3	7.2	24.3	4.8	18.3	97.3	Unacceptable	Good
		Feb-Apr	4700	0.50	0.1	1.0	0.50	34.3	7.6	24.7	4.4	20.3	110.0	Unacceptable	Good
		May-July	0	0.50	0.1	0.5	0.50	29.0	7.4	25.0	1.9	17.0	120.0	Ideal	Good
		Aug-Oct	305	0.50	0.1	0.6	0.50	33.0	7.3	24.0	2.9	18.3	79.0	Good	Good
Nov-Jan	427	0.50	0.1	0.5	0.64	35.0	7.8	19.3	4.4	16.3	79.0	Good	Good		
Feb-Apr	130	0.50	0.1	0.6	0.50	38.5	7.3	17.0	5.6	14.0	118.0	Good	Good		

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