Mmabatho Water Treatment Plant

Parameter	Unit	Minimum	Maximum	Average	Compliance	Class I	Class II
pH	#NAME?	6.6	9.4	8.6	Class I	5.0-9.5	4.0-10
Conductivity	mS/m	71.0	90.0	80.5	Class I	<150	150-370
Total Dissolved Solids	mg/l	392.0	585.0	496.0	Class I	<1000	1000-2400
Colour	mg/l	5.0	10.0	7.6	Class I	<20	20-50
Turbidity	NTU	4.0	0.0	1.5	Class II	<1	1 - 5.0
Total Hardness	mg/l as $CaCO_3$	264.0	440.0	315.4			
Calcium hardness	mg/l as $CaCO_3$	20.0	180.0	55.9			
Magnesium hardness	mg/l as $CaCO_3$	220.0	280.0	257.4			
Total Alkalinity	mg/l as $CaCO_3$	15.0	320.0	260.3			
Calcium	mg/l	8.0	76.0	26.4	Class I	< 150	150 - 300
Magnesium	mg/l	54.0	90.0	65.2	Class I	<70	70 - 100
Bicarbonate	mg/l	27.0	390.0	326.1			
Chloride	mg/l	2.4	115.0	78.6	Class I	< 200	200 - 400
Sulphate	mg/l	2.3	31.0	24.3	Class I	< 400	400 - 600
Nitrate	mg/l	0.0	6.2	1.9	Class I	< 10	10 - 20.0
Iron	mg/l	0.0	0.2	0.1	Class I	< 200	200 - 2000
Manganese	mg/l	0.0	0.0	0.0	Class I	< 100	100 - 1000
Flouride	mg/l	0.0	0.0			< 1	1 - 5.0
Residual Chlorine	mg/l	0.5	3.5	2.0			
Total Coliform	mg/l	0.0	0.0	0.0		0.0	10.0
Faecal Coliform	mg/l	0.0	0.0	0.0		0.0	1.00

Mafikeng Water Treatment Plant

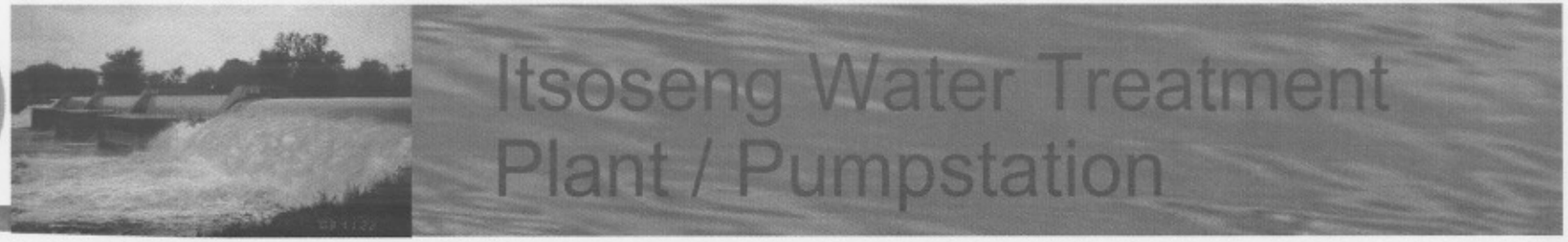
Parameter	Unit	Minimum	Maximum	Average	Compliance	Class I	Class II
pH	#NAME?	7.3	8.1	7.6	Class I	5.0-9.5	4.0-10
Conductivity	mS/m	50.0	56.0	52.8	Class I	<150	150-370
Total Dissolved Solids	mg/l	325.0	364.0	341.3	Class I	<1000	1000-2400
Colour	mg/l	5.0	5.0	5.0	Class I	<20	20-50
Turbidity	NTU	0.2	0.5	0.4	Class I	<1	1 - 5.0
Total Hardness	mg/l as $CaCO_3$	250.0	320.0	293.8			
Calcium hardness	mg/l as $CaCO_3$	130.0	180.0	151.3			
Magnesium hardness	mg/l as $CaCO_3$	140.0	170.0	155.0			
Total Alkalinity	mg/l as $CaCO_3$	250.0	280.0	258.3			
Calcium	mg/l	34.0	72.0	58.2	Class I	< 150	150 - 300
Magnesium	mg/l	10.0	41.0	34.7	Class I	<70	70 - 100
Bicarbonate	mg/l	10.0	342.0	271.6			
Chloride	mg/l	6.0	10.0	9.0	Class I	< 200	200 - 400
Sulphate	mg/l	0.0	10.0	6.9	Class I	< 400	400 - 600
Nitrate	mg/l	0.0	4.5	3.1	Class I	< 10	10 - 20.0
Iron	mg/l	0.0	4.0	2.0	Class I	< 200	200 - 2000
Manganese	mg/l	0.0	0.0	0.0	Class I	< 100	100 - 1000
Flouride	mg/l	1.1	1.1	1.1	Class II	< 1	1 - 5.0
Residual Chlorine	mg/l	0.5	1.7	1.0			
Total Coliform	mg/l	0.0	0.0	0.0		0.0	10.0
Faecal Coliform	mg/l	0.0	0.0	0.0		0.0	1.0

Motswedi Water Treatment Plant

Parameter	Unit	Minimum	Maximum	Average	Compliance	Class I	Class II
pH	#NAME?	6.7	8.4	7.5	Class I	5.0-9.5	4.0-10
Conductivity	mS/m	15.0	19.0	16.8	Class I	<150	150-370
Total Dissolved Solids	mg/l	98.0	124.0	107.0	Class I	<1000	1000-2400
Colour	mg/l	5.0	117.0	46.3	Class I	<20	20-50
Turbidity	NTU	2.0	26.0	12.8	> Class II	<1	1 - 5.0
Total Hardness	mg/l as $CaCO_3$	0.5	104.0	66.6			
Calcium hardness	mg/l as $CaCO_3$	16.0	76.0	34.0			
Magnesium hardness	mg/l as $CaCO_3$	11.0	72.0	40.1			
Total Alkalinity	mg/l as $CaCO_3$	6.0	90.0	33.7			
Calcium	mg/l	9.0	76.0	18.1	Class I	< 150	150 - 300
Magnesium	mg/l	6.0	13.0	9.3	Class I	<70	70 - 100
Bicarbonate	mg/l	39.0	110.0	54.2			
Chloride	mg/l	10.0	36.0	22.8	Class I	< 200	200 - 400
Sulphate	mg/l	0.1	93.0	19.5	Class I	< 400	400 - 600
Nitrate	mg/l	0.0	8.0	2.0	Class I	< 10	10 - 20.0
Iron	mg/l	12.0	12.0	12.0	Class I	< 200	200 - 2000
Manganese	mg/l	1.5	1.5	1.5	Class I	< 100	100 - 1000
Flouride	mg/l				Class II	< 1	1 - 5.0
Residual Chlorine	mg/l	0.3	1.7	1.1			
Total Coliform	mg/l	0.0	0.0	0.0		0.0	10.0
Faecal Coliform	mg/l	0.0	0.0	0.0		0.0	1.00

Kopfontein Water Treatment Plant

Parameter	Unit	Minimum	Maximum	Average	Compliance	Class I	Class II
pH	#NAME?	7.0	8.4	8.0	Class I	5.0-9.5	4.0-10
Conductivity	mS/m	56.0	68.0	60.7	Class I	<150	150-370
Total Dissolved Solids	mg/l	364.0	403.0	387.9	Class I	<1000	1000-2400
Colour	mg/l	5.0	5.0	5.0	Class I	<20	20-50
Turbidity	NTU	0.4	0.9	0.7	Class I	<1	1 - 5.0
Total Hardness	mg/l as $CaCO_3$	210.0	280.0	263.8			
Calcium hardness	mg/l as $CaCO_3$	80.0	100.0	93.8			
Magnesium hardness	mg/l as $CaCO_3$	130.0	190.0	167.5			
Total Alkalinity	mg/l as $CaCO_3$	250.0	280.0	266.7			
Calcium	mg/l	10.0	41.0	34.8	Class I	< 150	150 - 300
Magnesium	mg/l	32.0	329.0	97.9	Class II	<70	70 - 100
Bicarbonate	mg/l	305.0	342.0	321.3			
Chloride	mg/l	6.0	18.0	14.2	Class I	< 200	200 - 400
Sulphate	mg/l	40.0	125.0	67.1	Class I	< 400	400 - 600
Nitrate	mg/l	0.7	1.3	1.1	Class I	< 10	10 - 20.0
Iron	mg/l				Class I	< 200	200 - 2000
Manganese	mg/l	0.0	3.5	1.8	Class I	< 100	100 - 1000
Flouride	mg/l	0.0	0.4	0.1	Class I	< 1	1 - 5.0
Residual Chlorine	mg/l	0.0	3.5	1.7			
Total Coliform	mg/l	0.0	100.0	10.0		0.0	10.0
Faecal Coliform	mg/l	0.0	0.0	0.0		0.0	1.00



Itsoseng Water Treatment Plant / Pumpstation

Parameter	Unit	Minimum	Maximum	Average	Compliance	Class I	Class II
pH	#NAME?	7.0	7.7	7.3	Class I	5.0-9.5	4.0-10
Conductivity	mS/m	64.0	66.0	64.6	Class I	<150	150-370
Total Dissolved Solids	mg/l	416.0	429.0	420.1	Class I	<1000	1000-2400
Colour	mg/l	5.0	5.0	5.0	Class I	<20	20-50
Turbidity	NTU	0.2	0.5	0.3	Class I	<1	1 - 5.0
Total Hardness	mg/l as $CaCO_3$	320.0	440.0	378.8			
Calcium hardness	mg/l as $CaCO_3$	120.0	190.0	173.75			
Magnesium hardness	mg/l as $CaCO_3$	170.0	268.0	206.0			
Total Alkalinity	mg/l as $CaCO_3$	290.0	320.0	313.3			
Calcium	mg/l	48.0	76.0	70.4	Class I	< 150	150 - 300
Magnesium	mg/l	36.0	63.0	48.1	Class I	<70	70 - 100
Bicarbonate	mg/l	354.0	390.0	382.0			
Chloride	mg/l	12.0	16.0	14.0	Class I	< 200	200 - 400
Sulphate	mg/l	5.0	8.0	6.4	Class I	< 400	400 - 600
Nitrate	mg/l	0.0	6.2	4.34	Class I	< 10	10 - 20.0
Iron	mg/l	0.0	0.0	0.0	Class I	< 200	200 - 2000
Manganese	mg/l	0.0	0.0	0.0	Class I	< 100	100 - 1000
Flouride	mg/l				Class I	< 1	1 - 5.0
Residual Chlorine	mg/l	0.0	0.6	0.4			
Total Coliform	mg/l	0.0	988.0	197.6		0.0	10.0
Faecal Coliform	mg/l	0.0	0.0	0.0		0.0	1.00

Dinokana Water Treatment Plant / Pump station

Parameter	Unit	Minimum	Maximum	Average	Compliance	Class I	Class II
pH	#NAME?	7.3	8.2	7.7	Class I	5.0-9.5	4.0-10
Conductivity	mS/m	45.0	56.0	48.3	Class I	<150	150-370
Total Dissolved Solids	mg/l	293.0	364.0	319.5	Class I	<1000	1000-2400
Colour	mg/l	5.0	5.0	5.0	Class I	<20	20-50
Turbidity	NTU	0.2	0.6	0.3	Class I	<1	1 - 5.0
Total Hardness	mg/l as $CaCO_3$	60.0	330.0	266.7			
Calcium hardness	mg/l as $CaCO_3$	29.0	150.0	109.1			
Magnesium hardness	mg/l as $CaCO_3$	6.0	220.0	138.0			
Total Alkalinity	mg/l as $CaCO_3$	240.0	300.0	266.7			
Calcium	mg/l	8.0	62.0	43.20	Class I	< 150	150 - 300
Magnesium	mg/l	0.0	53.0	32.9	Class II	<70	70 - 100
Bicarbonate	mg/l	293.0	366.0	325.3			
Chloride	mg/l	0.0	14.0	7.7	Class I	< 200	200 - 400
Sulphate	mg/l	0.8	10.0	6.8	Class I	< 400	400 - 600
Nitrate	mg/l	0.0	2.4	1.5	Class I	< 10	10 - 20.0
Iron	mg/l	0.0	0.2	0.1	Class I	< 200	200 - 2000
Manganese	mg/l	0.0	4.0	2.0	Class I	< 100	100 - 1000
Flouride	mg/l	0.0	0.0	0.0	Class I	< 1	1 - 5.0
Residual Chlorine	mg/l	0.0	2.0	1.0			
Total Coliform	mg/l	0.0	2.0	0.5		0.0	10.0
Faecal Coliform	mg/l	0.0	0.0	0.0	0.0	0.0	1.00

Infrastructure

- The Infrastructure Roll Out Plan

Botshelo Water Operate and Maintains assets on behalf of DWAF.

DWAF is in the process of finalizing the transfer of assets agreement.

Corporate Services

- BW has HR, Marketing Divisions, Operations and Finance.
- The staff compliment is 296.
- Achievements: skills development, resolution of labour relations.

Financials

-
- Audit is unqualified
- Going concern on the debt of R 34.6 million.
- BW is engaging DWAF on this debt because of wrong billing (matter is under discussions).