

Water Quality of Final Effluent :Waste Water Treatment Works, Klip River Catchment

Period: 1 July 2019 to 30 September 2019

Sample Point	Period	Flow Ml/day	Element							
			pH	Conductivity mS/M	COD mg/l	N-NH4 mg/l	N-NOx mg/l	P-PO4 mg/l	Suspended solids mg/l	E-coli MPN /100 ml
Dekema	4	31.77	7.30	54	33.78	2.22	4.70	0.37	12	620
	1	31.17	7.15	67	60.04	5.59	4.28	0.56	16	10875
	2	30.40	7.28	53	48.31	2.63	4.51	0.41	12	3786
	3	30.88	7.41	49	35.18	1.46	3.60	0.35	11	226
Rondebult	4	14.64	7.52	63	33.98	2.82	3.36	0.19	12	225
	1	11.68	7.22	79	48.70	4.00	4.64	0.28	17	323
	2	12.19	7.38	66	35.17	6.32	6.32	0.31	12	768
	3	17.18	7.46	60	31.09	3.98	3.98	0.25	11	4080
Vlakplaats	4	104.54	7.26	68	38.55	9.26	3.68	0.36	12	817
	1	95.86	7.19	74	63.21	14.24	1.54	1.06	19	245425
	2	112.59	7.21	68	46.98	8.06	2.73	0.52	18.8	31071
	3	119.59	7.30	65	42.30	6.67	2.77	0.43	13	2552
Waterval	4	293.96	7.53	72	58.01	6.54	2.04	0.12	24	42294
	1	303.41	7.07	85	34.00	2.87	1.80	0.20	19	215
	2	316.94	7.51	79	31.71	1.82	2.42	0.35	11	2551
	3	303.86	7.60	60	1.84	1.84	2.08	0.15	10	392

Remarks: Non-compliance

Dekema: Non compliance of E.coli due to :
 > E. coli due to failure of chlorine tablet dosing system (blockages i.e. insufficient dosing)

Rondebult:

Vlakplaats: Non compliance of E.coli due to :
 >Failure of dosing system (DBF pump VSD)
 >Frequent blockages on the dosing pipes
 > NH4 due to inefficiency of biofilters.
 > Power interruptions due to cable theft and cable damage

Waterval: >Non-compliance due to disinfection dosing equipment (pumps) failures and poor quality of product.
 >Frequent blockages on the dosing pipes
 >Frequent trips of old Blowers 1 trips due to vibrations
 >Shutdown of 5 blowers, due to blower installation

Ideal
Acceptable
Tolerable
Unacceptable

Period:	1	1 July 2019 to 30 September 2019
	2	1 October 2018 to 31 December 2018
	3	1 January 2019 to 31 March 2019
	4	1 April 2019 to 30 June 2019

WUL STANDARDS

SAMPLE POINT	PHYSICAL (CATERGORY 2)			CHEMICAL (CATERGORY 3)				MICRO (CATERGORY 1)
	pH	EC	SS(mg/l)	COD(mg/l)	NH3(mg/l)	NO3(mg/l)	PO4(mg/l)	E-Coli (MPN)
DEKEMA	6.5-8.5	75	20	70	7.0	8.0	0.7	500
RONDEBULT	6.5-8.5	90	20	70	7.0	9.0	0.7	500
VLAKPLAATS	6.0-9.0	100	20	70	9.0	7.0	1.0	500
WATERVAL	6.0-8.5	100	20	70	4.0	9.0	0.7	500