

**APPENDIX M – 100M INTERVALS****PROPOSED 200MM UPVC RISING MAIN*****Table 1: 100m Intervals - Proposed 200mm UPVC Rising Main to Southern Tie-In with Existing 160mm.***

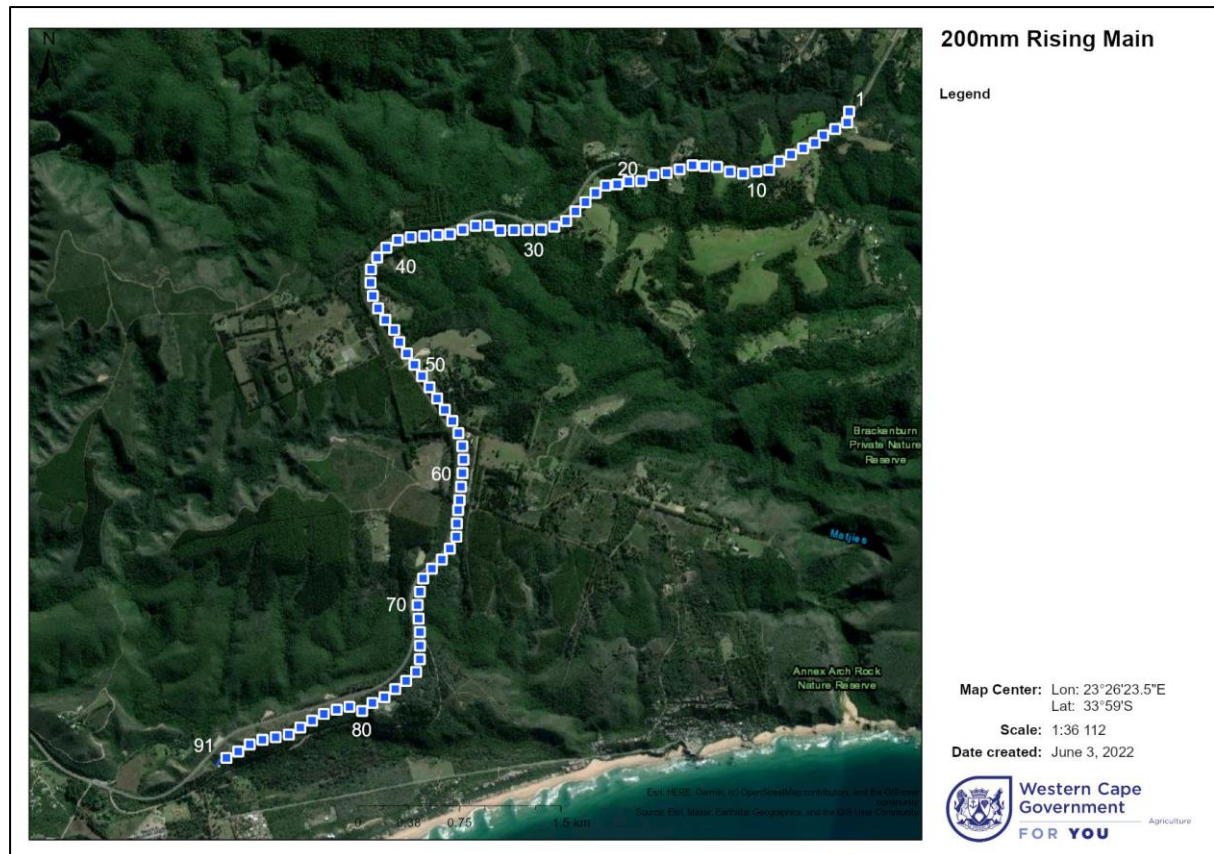
<b>LABEL</b>	<b>DISTANCE</b>	<b>X-COORDINATE</b>	<b>Y-COORDINATE</b>
1	0 meters	23,469738	-33,961964
2	100 meters	23,46958383	-33,96268674
3	200 meters	23,4686284	-33,96311188
4	300 meters	23,46767302	-33,96354189
5	400 meters	23,46698637	-33,96403799
6	500 meters	23,46606127	-33,9644009
7	600 meters	23,46510091	-33,96481698
8	700 meters	23,46415968	-33,96526796
9	800 meters	23,46334522	-33,96582614
10	900 meters	23,46232531	-33,96592529
11	1000 meters	23,46126094	-33,96606676
12	1100 meters	23,46019922	-33,96594948
13	1200 meters	23,45918432	-33,96563103
14	1300 meters	23,45816544	-33,96557532
15	1400 meters	23,45722059	-33,96552086
16	1500 meters	23,45618278	-33,96578904
17	1600 meters	23,4551462	-33,96602721
18	1700 meters	23,45410681	-33,96617794
19	1800 meters	23,453125	-33,96656488
20	1900 meters	23,45209496	-33,96659826
21	2000 meters	23,4512023	-33,96678546
22	2100 meters	23,45028666	-33,96686621
23	2200 meters	23,44945446	-33,967357
24	2300 meters	23,44865442	-33,96796735
25	2400 meters	23,44785437	-33,9685777
26	2500 meters	23,4471094	-33,96922116
27	2600 meters	23,44615982	-33,96959051
28	2700 meters	23,4451146	-33,96979477
29	2800 meters	23,44402773	-33,96981214
30	2900 meters	23,44294085	-33,96982951
31	3000 meters	23,44185395	-33,96984688
32	3100 meters	23,44094524	-33,96948829
33	3200 meters	23,43987607	-33,96953229
34	3300 meters	23,43883824	-33,96980056
35	3400 meters	23,43782805	-33,97009733
36	3500 meters	23,43683816	-33,97014434
37	3600 meters	23,4357633	-33,970219
38	3700 meters	23,43468497	-33,97029199
39	3800 meters	23,43364488	-33,97049003
40	3900 meters	23,43274504	-33,97098758
41	4000 meters	23,43200232	-33,97163697
42	4100 meters	23,43150844	-33,97243033
43	4200 meters	23,43147908	-33,9733091
44	4300 meters	23,43165817	-33,97418307
45	4400 meters	23,43207287	-33,97501171
46	4500 meters	23,43265462	-33,97577331
47	4600 meters	23,433363	-33,97643895
48	4700 meters	23,43377877	-33,97724597
49	4800 meters	23,43437973	-33,97799725
50	4900 meters	23,43498069	-33,97874852
51	5000 meters	23,43558166	-33,9794998

**PROPOSED UPGRADE TO THE BULK WATER INFRASTRUCTURE, KURLAND, BITOU LOCAL MUNICIPALITY**

52	5100 meters	23,43618769	-33,98024283
53	5200 meters	23,43680158	-33,98098689
54	5300 meters	23,43741548	-33,98173095
55	5400 meters	23,43801864	-33,98247485
56	5500 meters	23,43850114	-33,98328145
57	5600 meters	23,43880996	-33,98414124
58	5700 meters	23,43890169	-33,98503591
59	5800 meters	23,43882211	-33,98593424
60	5900 meters	23,43870923	-33,98683085
61	6000 meters	23,43859279	-33,98772719
62	6100 meters	23,43847809	-33,98837828
63	6200 meters	23,43837372	-33,98927468
64	6300 meters	23,43833897	-33,99014853
65	6400 meters	23,43781101	-33,99093408
66	6500 meters	23,43717218	-33,99166022
67	6600 meters	23,43638108	-33,99226582
68	6700 meters	23,43567877	-33,99291962
69	6800 meters	23,43541743	-33,99379449
70	6900 meters	23,43523496	-33,99467457
71	7000 meters	23,43532376	-33,99557307
72	7100 meters	23,43542221	-33,99647081
73	7200 meters	23,43542897	-33,99737118
74	7300 meters	23,4354073	-33,99827254
75	7400 meters	23,4351156	-33,99911244
76	7500 meters	23,434319	-33,99970638
77	7600 meters	23,43345485	-34,00024689
78	7700 meters	23,43258881	-34,00078689
79	7800 meters	23,43162547	-34,00116636
80	7900 meters	23,43080351	-34,00169562
81	8000 meters	23,42978733	-34,00142107
82	8100 meters	23,4287682	-34,00160928
83	8200 meters	23,4277446	-34,00189732
84	8300 meters	23,42679927	-34,0023374
85	8400 meters	23,4258616	-34,00279404
86	8500 meters	23,42494342	-34,0032612
87	8600 meters	23,42389033	-34,00343588
88	8700 meters	23,42282908	-34,00360579
89	8800 meters	23,42181581	-34,00390865
90	8900 meters	23,42089695	-34,00438511
91	9000 meters	23,41994838	-34,00480992

200mm UPVC RISING MAIN		
	Longitude	Latitude
Start of 200mm Rising Main	23°25'9.01"E	34° 0'19.02"S
New Proposed Upper Pump Station and Reservoir	23°26'19.49"E	33°59'17.00"S
End of 200mm Rising Main	23°28'11.06"E	33°57'43.07"S

PROPOSED UPGRADE TO THE BULK WATER INFRASTRUCTURE, KURLAND, BITOU LOCAL MUNICIPALITY



## PROPOSED 200MM RISING MAIN FROM THE EXISTING 160MM NORTHERN TIE-IN TO KURLAND WATER TREATMENT WORKS

**Table 2: 100m Intervals - Proposed 200mm Rising Main from the northern 160mm Tie-In to the Kurland Water Treatment Works.**

Label	Distance	X_Coords	Y_Coords
(End) 0	0 meters	23° 29' 44,527	33° 55' 37,949
1	100 meters	23° 29' 42,971	33° 55' 40,777
2	200 meters	23° 29' 42,289	33° 55' 43,972
3	300 meters	23° 29' 41,607	33° 55' 47,167
4	400 meters	23° 29' 40,927	33° 55' 50,363
5	500 meters	23° 29' 38,125	33° 55' 51,891
6	600 meters	23° 29' 36,186	33° 55' 54,401
7	700 meters	23° 29' 33,612	33° 55' 56,145
8	800 meters	23° 29' 30,170	33° 55' 57,604
9	900 meters	23° 29' 27,516	33° 55' 59,806
10	1000 meters	23° 29' 27,448	33° 56' 3,049"
11	1100 meters	23° 29' 27,035	33° 56' 6,262"
12	1200 meters	23° 29' 25,879	33° 56' 9,355"
13	1300 meters	23° 29' 24,573	33° 56' 12,413
14	1400 meters	23° 29' 23,267	33° 56' 15,470
15	1500 meters	23° 29' 21,960	33° 56' 18,529
16	1600 meters	23° 29' 20,652	33° 56' 21,587
17	1700 meters	23° 29' 19,345	33° 56' 24,643
18	1800 meters	23° 29' 18,038	33° 56' 27,700
19	1900 meters	23° 29' 16,733	33° 56' 30,757
20	2000 meters	23° 29' 15,425	33° 56' 33,814
(Start) 21	2050 meters	23° 29' 15,356	33° 56' 34,727





**Proposed 200mm  
Rising Main to WTW**  
Legend

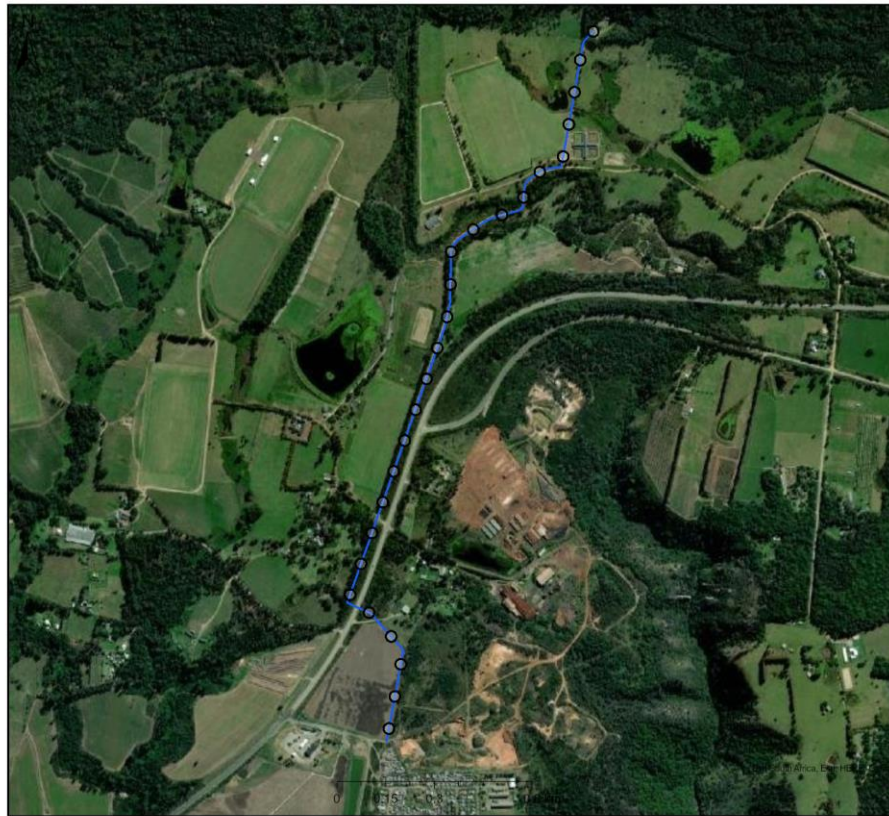
Map Center: Lon: 23°29'27.7"E  
Lat: 33°56'3.2"S  
Scale: 1:15 000  
Date created: November 11, 2022



## PROPOSED 315MM SUPPLY PIPELINE FROM THE KURLAND WATER TREATMENT WORKS TO KURLAND

**Table 3: 315mm UPVC Supply Pipeline from Kurland Water treatment Works to Kurland**

Label	Distance	X_Coords	Y_Coords
(End) 0	0 meters	23° 29' 44,527	33° 55' 37,949
1	100 meters	23° 29' 42,971	33° 55' 40,777
2	200 meters	23° 29' 42,289	33° 55' 43,972
3	300 meters	23° 29' 41,607	33° 55' 47,167
4	400 meters	23° 29' 40,927	33° 55' 50,363
5	500 meters	23° 29' 38,125	33° 55' 51,891
6	600 meters	23° 29' 36,186	33° 55' 54,401
7	700 meters	23° 29' 33,612	33° 55' 56,145
8	800 meters	23° 29' 30,170	33° 55' 57,604
9	900 meters	23° 29' 27,516	33° 55' 59,806
10	1000 meters	23° 29' 27,448	33° 56' 3,049"
11	1100 meters	23° 29' 27,035	33° 56' 6,262"
12	1200 meters	23° 29' 25,879	33° 56' 9,355"
13	1300 meters	23° 29' 24,573	33° 56' 12,413
14	1400 meters	23° 29' 23,267	33° 56' 15,470
15	1500 meters	23° 29' 21,960	33° 56' 18,529
16	1600 meters	23° 29' 20,652	33° 56' 21,587
17	1700 meters	23° 29' 19,345	33° 56' 24,643
18	1800 meters	23° 29' 18,038	33° 56' 27,700
19	1900 meters	23° 29' 16,733	33° 56' 30,757
20	2000 meters	23° 29' 15,425	33° 56' 33,814
21	2100 meters	23° 29' 17,705	33° 56' 35,594
22	2200 meters	23° 29' 20,351	33° 56' 37,957
23	2300 meters	23° 29' 21,501	33° 56' 40,712
24	2400 meters	23° 29' 20,788	33° 56' 43,903
25	2500 meters	23° 29' 20,075	33° 56' 47,094
(Start) 26	2560 meters	23° 29' 19,767	33° 56' 48,402



**Proposed 315mm  
Supply to Kurland**  
Legend

Map Center: Lon: 23°29'27.9"E  
Lat: 33°56'15.5"S

Scale: 1:15 000

Date created: November 11, 2022

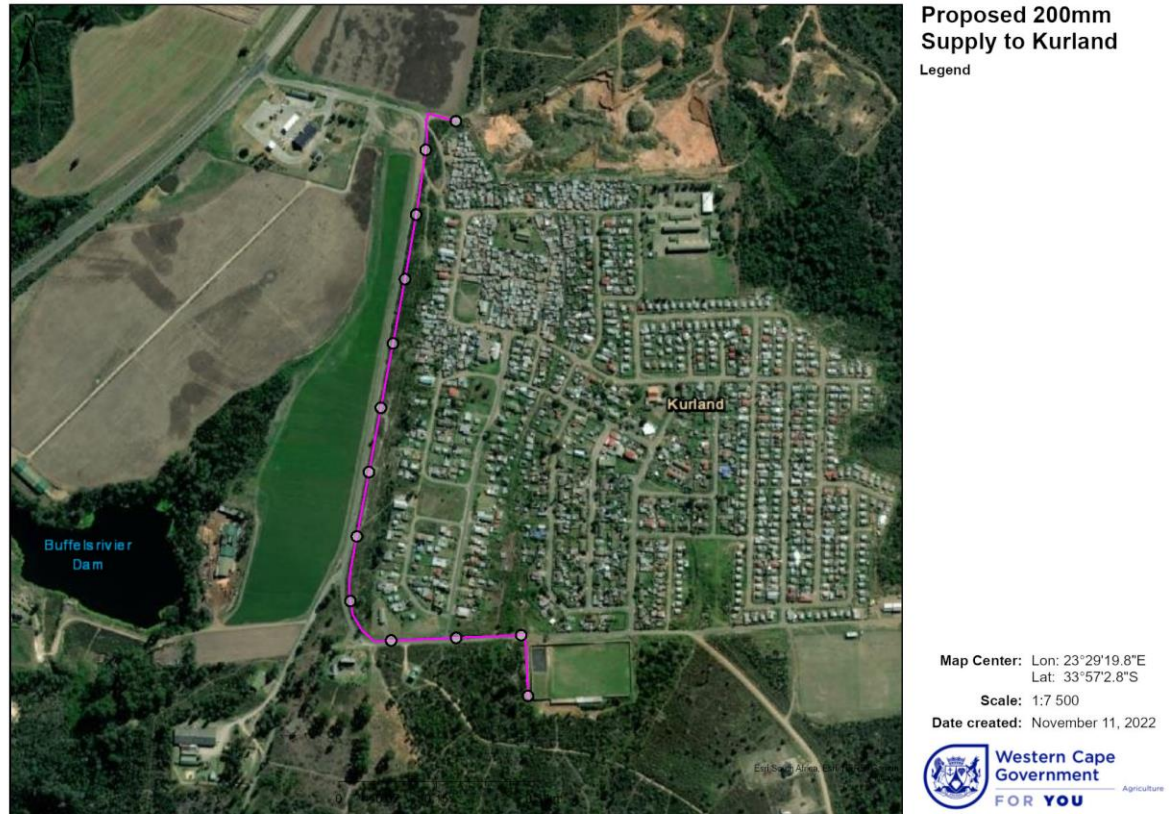


## PROPOSED 200MM SUPPLY TO THE PROPOSED KURLAND HOUSING DEVELOPMENT

**Table 4: 200mm UPVC Supply Pipeline to the Proposed Kurland Housing Development**

Label	Distance	X Coords	Y Coords
(Start) 0	0 meters	23° 29' 19,770	33° 56' 48,455
1	100 meters	23° 29' 17,966	33° 56' 49,877
2	200 meters	23° 29' 17,392	33° 56' 53,087
3	300 meters	23° 29' 16,725	33° 56' 56,284
4	400 meters	23° 29' 16,007	33° 56' 59,474
5	500 meters	23° 29' 15,282	33° 57' 2,663"
6	600 meters	23° 29' 14,567	33° 57' 5,853"
7	700 meters	23° 29' 13,845	33° 57' 9,043"
8	800 meters	23° 29' 13,460	33° 57' 12,250
9	900 meters	23° 29' 15,895	33° 57' 14,206
10	1000 meters	23° 29' 19,786	33° 57' 14,070
11	1100 meters	23° 29' 23,676	33° 57' 13,937
12	1200 meters	23° 29' 24,083	33° 57' 16,952
(End)13	1204 meters	23° 29' 24,086	33° 57' 17,069





## PROPOSED 200MM SUPPLY PIPELINE TO THE PROPOSED KURLAND HOUSING DEVELOPMENT

***Table 5: 200mm UPVC Supply Pipeline to the Kurland Township Reservoir***

Label	Distance	X_Coord	Y_Coord
(Start) 0	0 meters	23° 29' 19,770	33° 56' 48,455
1	100 meters	23° 29' 21,708	33° 56' 51,249
2	200 meters	23° 29' 25,355	33° 56' 51,583
3	300 meters	23° 29' 29,267	33° 56' 51,524
(End) 4	330 meters	23° 29' 30,362	33° 56' 51,502



PROPOSED UPGRADE TO THE BULK WATER INFRASTRUCTURE, KURLAND, BITOU LOCAL MUNICIPALITY



**Proposed 200mm  
Supply to Kurland**  
Legend

Map Center: Lon: 23°29'25.2"E  
Lat: 33°56'51.3"S

Scale: 1:2 500

Date created: November 11, 2022

