

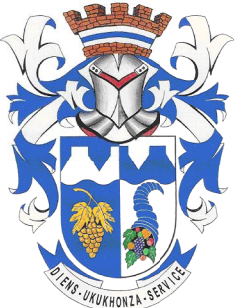
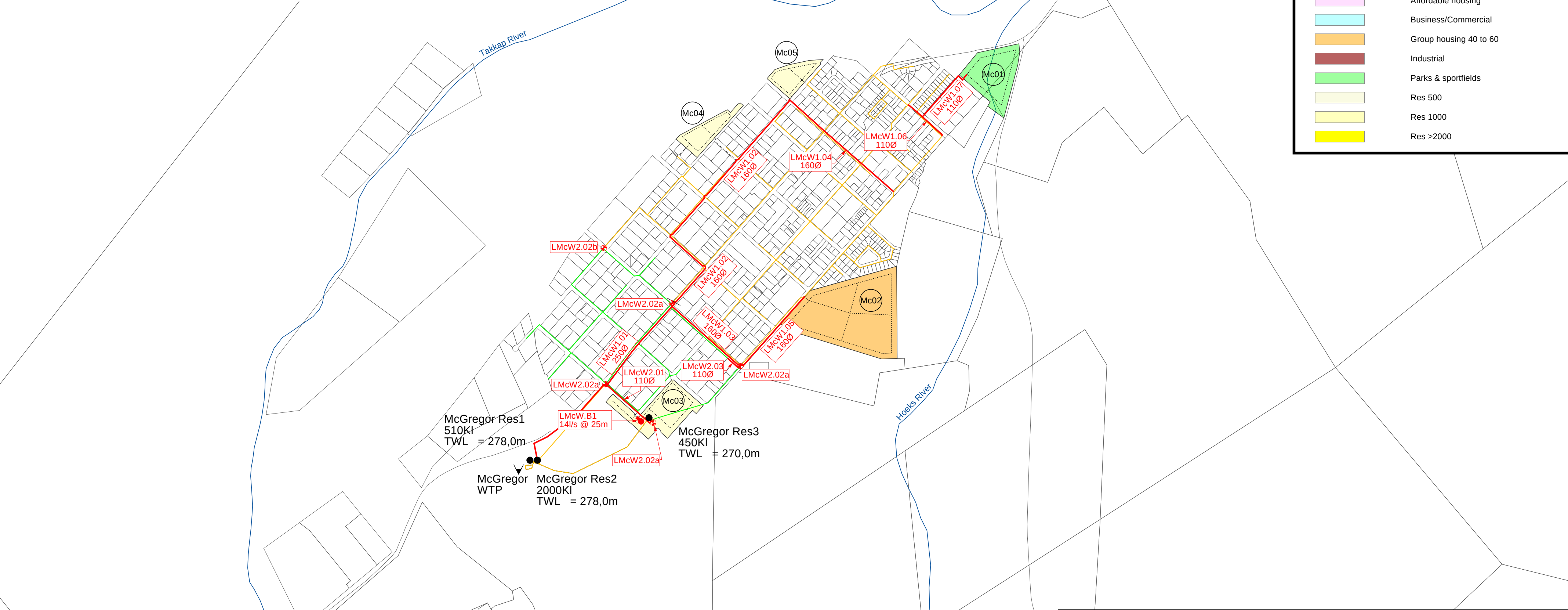
FUTURE DEVELOPMENT AREAS (FDA)

Future Development Name	Description	Anticipated Landuse	Density (Units/ha)	Gross Area (ha)	No. of Units (base year : 2011)				UWD (inc. UAW) (l/d)	UWD (inc. UAW) (kl/ha)	AADD (inc. UAW) (kl/d)
					Next 5 yr's	5 - 10 yr's	10 - 20 yr's	Total			
McGregor											
Mc01	Parks and sportsfields	Recreation	1	3.2			3	3		15	48
Mc02	Cluster	Group housing 40 to 60	67	9.0	600			600	400		240
Mc03	High density	Single residential 500	35	3.1		109		109	600		65
Mc04	High density	Single residential 500	37	1.5		55		55	600		33
Mc05	High density	Single residential 500	42	1.4		57		57	600		34
Sub-Total McGregor									824		421

COST ESTIMATES AND PHASING OF THE REQUIRED WORKS

Item No.	Description	Estimated cost * (R-yr 2011 value)	Time Related Phasing	Comments	Project no.
McGregor					
Distribution System Items					
LMcW1.01	805 m x 250 mm Ø Pipe to install	732 200	2014	Parallel reinforcement of main pipe.	PRJ-LMcW-002
LMcW1.02	1010 m x 160 mm Ø Pipe to install	537 600	2014	Parallel reinforcement of main pipe.	PRJ-LMcW-002
LMcW1.03	330 m x 160 mm Ø Pipe to install	190 400	2015	New supply pipe after rezoning.	PRJ-LMcW-002
LMcW1.04	500 m x 160 mm Ø Pipe to install	277 200	2014	Parallel reinforcement of main pipe.	PRJ-LMcW-002
LMcW1.05	340 m x 160 mm Ø Pipe to install	196 000	2015	Parallel reinforcement. When FDA Mc02 develops.	PRJ-LMcW-003
LMcW1.06	170 m x 110 mm Ø Pipe to install	81 200	2020	Parallel reinforcement and inter-connection. When FDA Mc01 develops.	PRJ-LMcW-003
LMcW1.07	240 m x 110 mm Ø Pipe to install	99 400	2020	Supply pipe. When FDA Mc01 develops.	PRJ-LMcW-003
LMcW2.01	230 m x 110 mm Ø Pipe to install	103 600	2012	Supply pipe and inter-connection.	PRJ-LMcW-001
LMcW2.02a	4 x 110 mm Ø Valve to insert and close	246 400	2012	Install and close new zone valves.	PRJ-LMcW-001
LMcW2.02b	1 x 75 mm Ø Valve to insert and close	58 800	2012	Install and close new zone valves.	PRJ-LMcW-001
LMcW2.03	55 m x 110 mm Ø Pipe to install	39 200	2012	Inter-connection pipe.	PRJ-LMcW-001
Sub-totals Distribution System Items		2 562 000			
Bulk Supply Items					
LMcW.B1	14 l/s @ 25 m Pump Station to construct	575 400	2012	New 14l/s @ 25 m booster pumping station.	PRJ-LMcW-001
Sub-totals Bulk Supply Items		575 400			
Water Demand Management					
LMcW.M1	Telemetry at reservoirs, pumping stations and bulk water meters	100 000			
Sub-totals Water Demand Management		100 000			
TOTALS		3 237 400			

* Costs include P&G's, Contingencies & Fees, but exclude EIA studies, registration of servitudes and/or land acquisition, protection, monitoring and VAT.



March 2012

Water Master Plan

Langeberg Municipality

100 200 400 800 meters

Scale 1:10000



Figure LBW 6.5c

Future required works - McGregor