INDEX

NO	CHAPTER AND SECTION	PAGE REF
Α	EXECUTIVE SUMMARY	SECTION A
A.1	Administration	Sec A: 1 of 18
	Table A1.1: Drafting team	
A.2	Panklago	Sec A: 4 of 18
A.2	Backlogs Table A 2 (a): Pecidential consumers: access to water	Sec A: 4 01 16
	Table A.2 (a): Residential consumers: access to water	
	Table A.2 (b): Residential consumers: access to sanitation	
	Table A.2 (c): Percentage backlogs (water & sanitation)	
A.3	Summary of content	Sec A: 5 of 18
	Table A.3 (a): Current consumer profile (units)	
	Table A.3 (b): Residential consumers: access to water	
	Table A.3 (c): Residential consumers: access to sanitation	
	Table A.3 (d): Resource water balance	
	Table A.3 (e): Summary of schemes in the district	
	Table A.3 (f): Summary of MANZI infrastructure components	
	Table A.3 (g): Capital requirements: water	
	Table A.3 (h): Capital requirements: sanitation	
	Table A.3 (i): Sources of capital income: water	
	Table A.3 (j): Sources of capital income: sanitation	
	Table A.3 (k): Operational costs and income	
A 4	Rackground to the area	Soc A: 14 of 19
A.4	Background to the area	Sec A: 14 of 18
	Map A.4.1: Locality map	
A.5	IDP and WSDP goals	Sec A: 17 of 18

NO	CHAPTER AND SECTION	PAGE REF
1	SOCIO ECONOMIC PROFILE	SECTION 1
1.1	Demographics	Sec 1: 1 of 10
	Table 1.1 (a): Current consumer profile (units)	
	Figure 1.1 (a): % Urban household growth per LM	
	Figure 1.1 (b): % Rural household growth per LM	
	Table 1.1 (b): Population growth rate projections	
	Map 1.1 (a): Demographic trends and migration patterns	
	Table 1.1 (c): Percentage age breakdown	
1.2	Health	Sec 1: 5 of 10
	Map 1.2 (a): Clinics and hospitals	
1.3	Employment and income	Sec 1: 7 of 10
	Table 1.3 (a): Household income breakdown	
	Table 1.3 (b): Levels of employment	
	Figure 1.3 (a): Levels of education	
1.4	Economic sectors, GGP contribution and employment	Sec 1: 9 of 10
	Table 1.4 (a): Economic sector contribution to GGP	
	Table 1.4 (b): GGP and employment	
1.5	Economic trends	Sec 1: 10 of 10

NO	CHAPTER AND SECTION	PAGE REF
2	SERVICE LEVEL PROFILE	SECTION 2
2.1	Residential consumer units	Sec 2: 2 of 7
	Table 2.1 (a): Residential consumers: access to water	
	Table 2.1 (b): Residential consumers: access to sanitation	
	Table 2.1 (c): Percentage backlogs (water & sanitation)	
2.2	Public institutions and 'dry' industries	Sec 2: 3 of 7
	Table 2.2 (a): Public institutions and 'dry' industries: water	
	Table 2.2 (b): Public institutions and 'dry' industries: sanitation	
	Map 2.2 (a): Location of institutional facilities	
	Map 2.2 (b): Location of schools	
2.3	Wet industries	Sec 2: 4 of 7
2.5	Wet muustres	360 2. 4 01 7
2.4	Raw' water consumers	Sec 2: 4 of 7
2.5	Industrial consumer units: sanitation	Sec 2: 4 of 7
2.5	industrial consumer units: sanitation	Sec 2: 4 of 7
2.6	Industries and their permitted effluent releases	Sec 2: 5 of 7
	-	
3	WATER RESOURCE PROFILE	SECTION 3
2.4	Water course	Sec. 2: 4 of 0
3.1	Water sources Table 3.1 (a): Resource water balance	Sec 3: 1 of 9
	Table 3.1 (a). Resource water balance	
3.2	Water quality	Sec 3: 5 of 9
	Table 3.2 (a): Water quality monitoring	
	Table 3.2 (b): Example of monthly water quality reports	
3.3	Abstraction licenses and effluent permits	Sec 3: 7 of 9
0.5	Table 3.3 (a): List of water permits	300 0. 7 01 9
	Table 3.3 (b): List of sewage effluent permits	

NO	CHAPTER AND SECTION	PAGE REF
4	WATER CONSERVATION/DEMAND MANAGEMENT	SECTION 4
4.1	Water resource management interventions	Sec 4: 1 of 6
	Figure 4.1: IWA Method of categorizing water use	
	Table 4.1 (a): List of schemes with total monthly production & UAW	
4.2	Water demand management interventions	Sec 4: 6 of 6
5	WATER SERVICES INFRASTRUCTURE PROFILE	SECTION 5
5.1	Existing water services infrastructure	Sec 5: 1 of 21
	Table 5.1 (a): Summary of schemes in the district	
	Table 5.1 (b): Summary of MANZI infrastructure components	
	Figure 5.1 (a): Existing water infrastructure in the district	
	Figure 5.1 (b): Existing bulk infrastructure: Ulundi-Mabedlane	
	Figure 5.1 (c): Existing reticulation networks: Ulundi-Mabedlane	
	Figure 5.1 (d): Ulundi-Mabedlane - scheme level	
	Figure 5.1 (e): Ulundi water treatment works - "installation" level	
	Figure 5.1 (f): Ulundi water treatment works - "node" level	
	Figure 5.1 (g): Ulundi water treatment works - "component" level	
	Figure 5.1 (h): Schematic layout of Frischgewaagd water scheme	
5.2	Asset management assessment	Sec 5: 10 of 21
5.3	Schemes to be transferred	Sec 5: 11 of 21
5.4	Schemes to be rehabilitated	Sec 5: 11 of 21
	Table 5.4 (a): The list of Waste Water Treatment works	
	Table 5.4 (b): The list of Water Treatment works	
	Table 5.4 (c): Assessment of Water Treatment works	
	Table 5.4 (d): Assessment of Waste Water Treatment works	
	Figure 5.4 (a): Locality map of the water works	
	Figure 5.4 (b): Locality map of the sewage works	
5.5	New infrastructure to be built	Sec 5: 18 of 21
	Figure 5.5 (a): Ten back-to-back regional water schemes	
	Figure 5.5 (b): Planned future bulk infrastructure	
	Table 5.5 (a): Cost of new infrastructure to be built	

NO	CHAPTER AND SECTION	PAGE REF
6	WATER BALANCE	SECTION 6
	Table 6.1 (a): First order water balance for district	Sec 6: 1 of 1
7	WATER SERVICES INSTITUTIONAL ARRANGEMENTS	SECTION 7
•	WATER OF THOSE WOTTO TO THOSE ARRANGEMENTO	OLOTION 7
7.1	Water services authority assessment	Sec 7: 1 of 5
	Table 7.1 (a): WSA functions and outputs within the ZDM	
7.2	By-laws affecting water services	Sec 7: 2 of 5
7.3	Water services providers' institutional arrangements	Sec 7: 2 of 5
	Table 7.3 (a): Summary of costs	
8	CUSTOMER SERVICES PROFILE	SECTION 8
8.1	Quality of service	Sec 8: 1 of 6
	Table 8.1 (a): Water quality report produced through MANZI	
	Table 8.1 (b): Monthly water quality report	
8.2	Consumer complaints	Sec 8: 2 of 6
	Table 8.2 (a): 2009/10 PM KPI's for the provision of water services	
8.3	Health and hygiene awareness education	Sec 8: 2 of 6
9	FINANCIAL PROFILE	SECTION 9
9.1	Capital funds	Sec 9: 1 of 7
	Table 9.1 (a): Capital requirements: water	
	Table 9.1 (b): Capital requirements: sanitation	
	Table 9.1 (c): Sources of capital income: water	
	Table 9.1 (d): Sources of capital income: sanitation	
9.2	Operating costs and income (water and sanitation)	Sec 9: 4 of 7
	Table 9.2 (a): Operational costs and income	
9.3	Tariffs and charges	Sec 9: 4 of 7
3.3	Table 9.3 (a): ZDM water services tariffs	000 0. 4 01 7
	1 45.5 0.0 (a). ESIN Nator 00171000 tallillo	

NO	CHAPTER AND SECTION	PAGE REF
9	FINANCIAL PROFILE	SECTION 9
9.4	Income and sales	Sec 9: 7 of 7
9.5	Metering and billing	Sec 9: 7 of 7
10	LIST OF PROJECTS	SECTION 10
10.1	Introduction	Sec 10: 1 of 53
10.2	Critical Issues	Sec 10: 1 of 53
10.3	Infrastructure Roll-outs	Sec 10: 7 of 53
	Figure 10.1: Roll-out of water services in the district - next 5 years	
	Figure 10.2: Roll-out of water services (Nkonjeni) - next 5 years	
	Figure 10.3: Roll-out of water services (Usuthu) - next 5 years	
	Figure 10.4: Roll-out of water services (Mandlakazi) - next 5 years	
	Figure 10.5: Roll-out of water services (Mkhuze) - next 5 years	
	Figure 10.6: Roll-out of water services (Sim East) - next 5 years	
	Figure 10.7: Roll-out of water services (Sim Central) - next 5 years	
	Figure 10.8: Roll-out of water services (Sim West) - next 5 years	
	Figure 10.9: Roll-out of water services (Coronation) - next 5 years	
	Figure 10.10: Roll-out of water services (Khambi) - next 5 years	
	Figure 10.11: Roll-out of water services (Hlahlindlela) - next 5 years	
	Figure 10.12: Roll-out of sanitation services - next 5 years	
	Figure 10.13: Roll-out of rudimentary services – next 5 years	
	Table 10.1 (a): Roll-out of water services in district - next 5 years	
	Table 10.1 (b): Roll-out of sanitation services in district - next 5 years	
	Table 10.1 (c): Roll-out of rudimentary services in district - next 5 years	