Zululand

DISTRICT MUNICIPALITY
DISTRIK MUNISIPALITEIT
UMKHANDLU WESIFUNDA

WATER SERVICES DEVELOPMENT PLAN

2022 - 2026
5-year Cycle

REVISION 1: 2022/2023
JUNE 2022

INDEX

A. EXECUTIVE SUMMARY

A.1 Introduction

ZDM as the Water Service Authority has a duty to all customers or potential customers in its area of jurisdiction to progressively ensure efficient, affordable, economical and sustainable access to Water Services [Water Services Act of 1997 Section 11]. ZDM therefore has a legislative responsibility to prepare a Water Services Development Plan (WSDP) for its area of jurisdiction [Water Service Act of 1997 Section 12]. Planning work related to various aspects of water services are being dealt with on a continuous basis through the year and the results of such work are then systematically fed into the WSDP.

Name of WSA

Name	Zululand District Municipality	
Address	Private Bag X76 ULUNDI 3838	Lot B400, Gagane Street ULUNDI 3838

Status of WSDP

The planned completion dates for the revision of the WSDP are as follows:

- WSDP Steering Committee approval (Draft version) – March 2022
- EXCO approval – May 2022
- Expected Council approval – June 2022
- Submission of final WSDP with amended comments & input - August 2022

WSDP drafting team

The contact persons within the municipality who are responsible for the functioning, planning and implementation of the WSDP are shown in Table A1.1 below:

Table A1.1: Drafting team

Name	Position	Tel Number	Email
Mr PM Manqele	Municipal Manager	035 874 5500	mmanqele@zululand.org.za
Mr X Buthelezi	WSA Manager	035 874 5542	xbuthelezi@zululand.org.za
Mrs	HOD: NR Msimango	035 874 5500	nmsimango@zululand.org.za
Mr S. Kheswa	HOD: Planning	035 874 5617	skheswa@zululand.org.za

Process followed

ZDM annually prepares a revised WSDP in time for the approval of the annual municipal budget. Planning work related to various aspects of water services are being dealt with on a continuous basis through the year and the results of such work are then systematically fed into the WSDP.

The WSDP Steering Committee has been established and meets at least four times per year. The steering committee comprises of the ZDM management team, officials from the Local Municipalities, Councillors and consultants involved with the technical work. The aim is to have a first draft of each year's revision ready by end of February. The following approvals are done:

Table A1.2: WSDP Approval Process

Item	Date
WSDP Steering Committee Meetings	Quarterly
Submission of draft WSDP document to WSA for comments	End February
WSDP & IDP Steering Committee Approval	End March
Representative Forum approval – This forum comprises all Government Departments involved with the IDP process, all Councillors and role players from the private sector.	End April
EXCO approval	May
Advertise for public comment	End May
Council approval	June
Submit to DWA for final approval	August

Public comments

The WSDP will be advertised during May 2022 for public comment.

Adoption record

The 2021/2022 revision of the WSDP has been approved by the ZDM Council during June 2021.

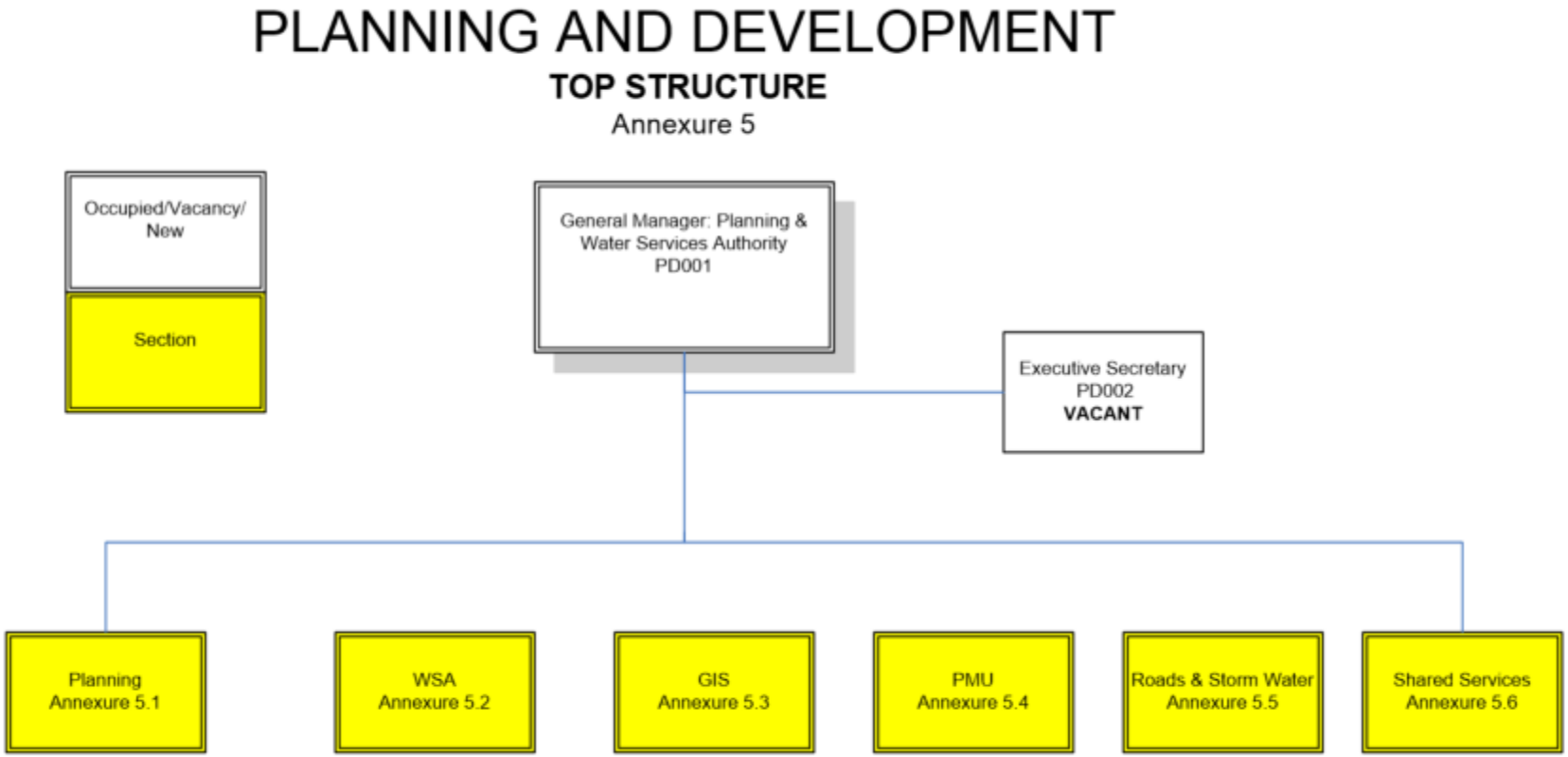
WSDP co-ordinators

The WSDP process is managed by the Deputy Director: Water Services Authority in association with the HOD: Planning & Community Development and the HOD: Technical Services and their staff.

PMU

The ZDM PMU has been established and is functioning well. The PMU unit comprises of a Deputy Director, two technical officers, project administrator and secretary. The PMU manager reports to the HOD: Technical Services and is responsible for the implementation of all projects scheduled by the WSA. The WSA unit is situated in the Planning Department and reports to the HOD: Planning. The organograms below indicates the split in functions related to water services:

Table A1.3: Organogram

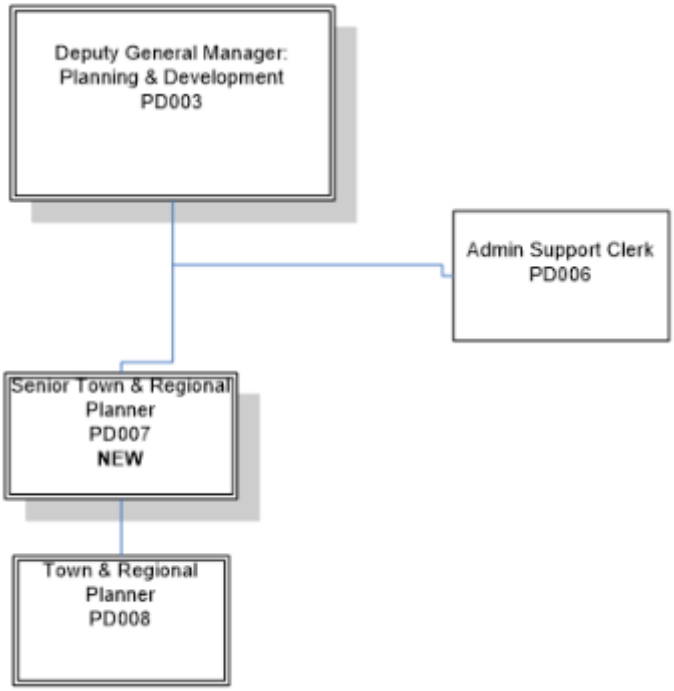


See proceeding pages for each Annexure

PLANNING AND DEVELOPMENT

Planning

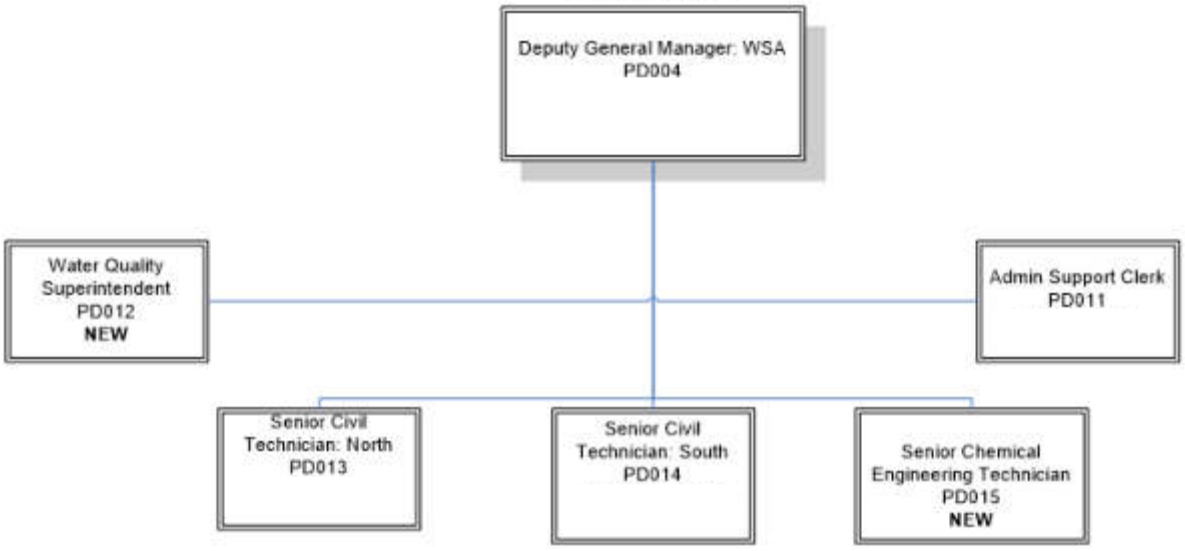
Annexure 5.1



PLANNING AND DEVELOPMENT

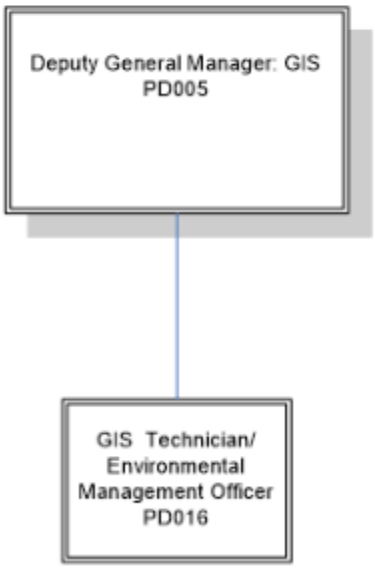
Water Services Authority

Annexure 5.2



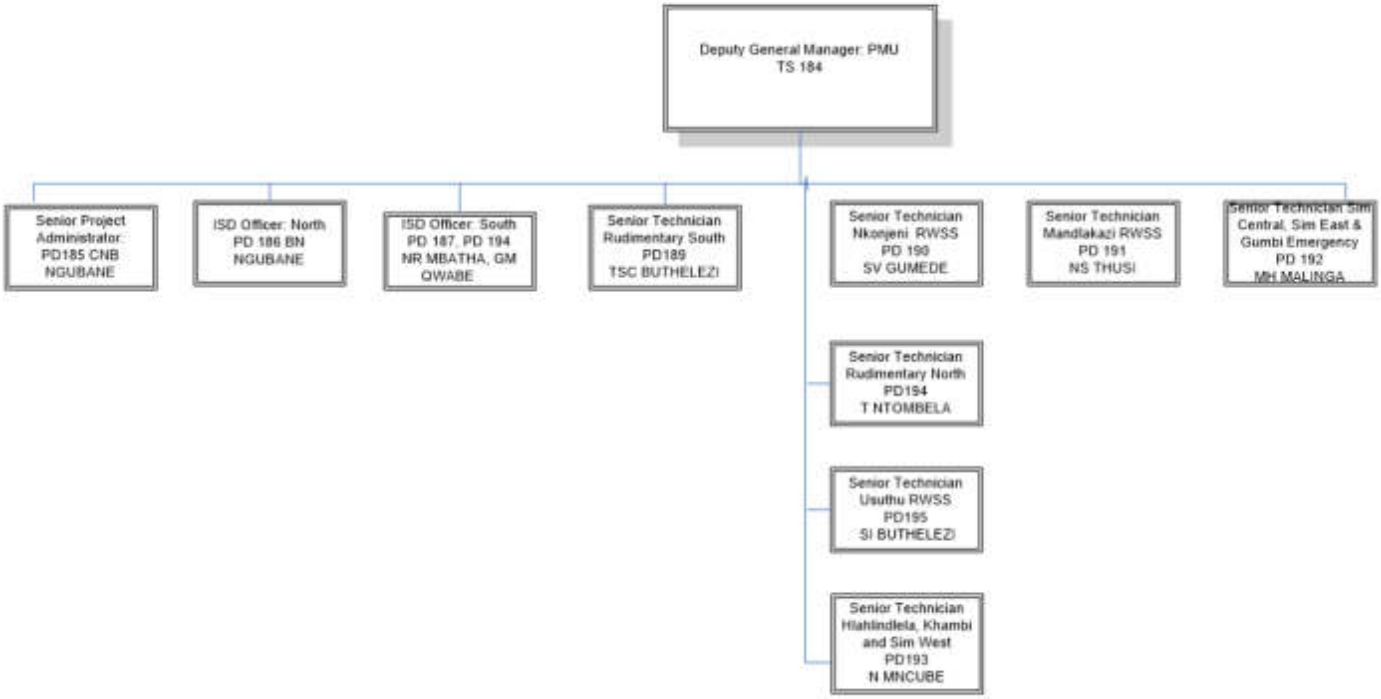
PLANNING AND DEVELOPMENT

Geographic Information Systems
Annexure 5.3



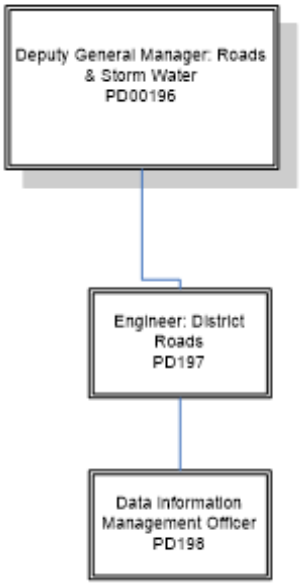
PLANNING AND DEVELOPMENT

Project Management
Annexure 5.4



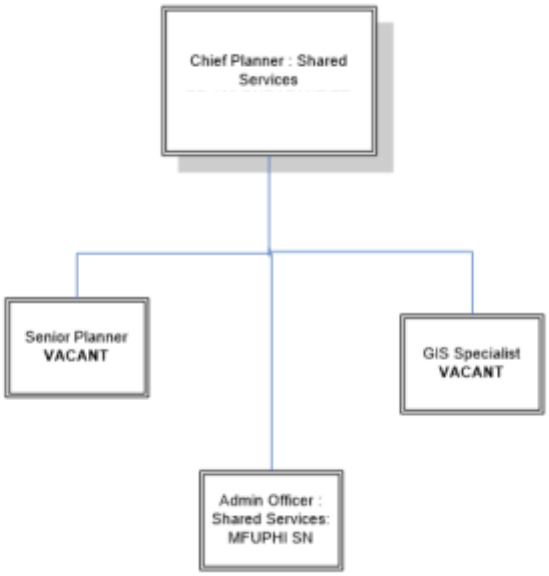
PLANNING AND DEVELOPMENT

Planning
Annexure 5.5



PLANNING AND DEVELOPMENT

Shared Services (Funded)
Annexure 5.6



Water services level policy

ZDM has compiled a Water Services Policy and this is available from the ZDM website at www.zululand.org.za. The following levels of service for water and sanitation are available from the municipality:

Table A1.4: Service Levels

Domestic Water Supply				
Service Level Number	**Level of Service**	**Definition**	**Applicable Tariff Structure**	**Norms and Standards**
DW1	Full pressure conventional house connection	Full pressure unrestricted individual erf/yard connection	Stepped block tariff	Design specifications
DW2	Yard tank (RDP standard)	Restricted (to 200l per day) individual erf connection with tank in yard	No charge	Design specifications
DW3	Communal street taps (RDP standards)	Unrestricted full pressure standpipe not further than 200m from dwellings (shared by a number of consumers)	No charge	Design specifications
DW4	Rudimentary	Formalised supply: • Borehole equipped with hand pump • Protected spring • Communal standpipe within 800m from dwellings	No charge	Design specifications

Domestic Sanitation				
Service Level Number	**Level of Service**	**Definition**	**Applicable Tariff Structure**	**Norms and Standards**
DS1	Water borne	Unrestricted connection to municipal sewerage system	Water consumption based tariff structure included in water tariff	Design specifications
DS2	Conservancy tank	Localised temporary sewage storage facility	Rate per load disposed by municipality	Design specifications
DS3	Septic tanks	On-site disposal (self treatment)	No charge	Design specifications
DS4	Ventilated improved pit (VIP)	Dry pit with sufficient capacity on-site disposal based on set standards	No charge	Design specifications

A.2 IDP and WSDP Goals

The Integrated Development Plan (IDP) for the ZDM has the following vision and mission statement for the region:

IDP vision and mission statement for the municipality
Vision "*We, the people of Zululand are proud communities that are committed to the development of Zululand through hard work, integrity and a common purpose."* **Mission** • **To develop an affluent district by:** o *Optimal delivery of essential services* o *Supporting sustainable local economic development* o *Community participation in service delivery*

Part of the development objectives for Zululand is facilitating the delivery of basic services that include water services (i.e. water and sanitation provision), strengthening the local economy with particular emphasis on tourism, agriculture and small business sectors, and the sustainable use of land and the natural environment.

The importance of the vision and objectives in terms of the WSDP is the development of Zululand through the provision of equitable and sustainable water services leading to an improvement in the quality of life. It therefore follows that planning in respect of water services must increase the current level of service throughout the region with an improvement experienced by all. Planning must therefore be sustainable in terms of water resources, material resources, contractor capacity, management capacity, as well as funding and maintenance cost.

The IDP has a number of key development strategies, namely:

- Delivery and coordination of basic services.
- Social issues of communities.
- Sustainability and environment.
- Economic development.
- Build capacity to lead and manage development in Zululand.

All these development strategies will ultimately link to the need and spatial requirement for water services provision. **Spatial development within the ZDM is directly related to the provision and availability of water services, therefore development tends to follow sustainable planning in the WSDP and not force water services provision into areas that are currently not economically viable or sustainable to supply.**

This support the water and sanitation infrastructure development focus of the KZN Provincial Growth and Development Strategy (PGDS) for 2035, which will be discussed in the next section.

A.3 Strategic Objectives & Development Goals

The ZDM WSDP supports the KZN PGDS Strategic Framework. WSDP goals, objectives, interventions and projects are aligned to place ZDM in a position to fulfil its role as WSA in achieving the provincial PGDS for 2035.

While the focus has been predominantly on providing each person with sustainable infrastructure and eradicating backlogs, the status of existing and aging infrastructure, as well as the availability and sustainability of water resources has been neglected. An extract of the KZN PGDS can be reviewed below.

> *"The 2015/2016 drought experienced in the country and more so in the Province has had a severe impact on the citizens of the Province and their livelihoods. The most severe impact has been felt by the rural communities of KZN whose livelihoods depend on agriculture, including livestock. The Province, through various initiatives and programs, has attempted to ensure a reliable supply of water to its citizens. The continued low rainfall has made this task increasingly challenging. National and Provincial government have spent millions of rand to ensure citizens have access to water.*
>
> ***The discourse on reliable and affordable water supply has forced the water sector to re-look at several aspects of the water source management and water supply**. In terms of water source it is being argued that the Province requires a better understanding of groundwater and its catchment areas. This strategy argues that water planning and resource management should be done at a quaternary catchment level - the focus should not only be at regional level. Alternative water sources, like grey water and desalination must become viable options as sources of supply.*
>
> ***There is also a school of thought that the severity of the drought is a direct correlation to the poor maintenance programs of water services authorities**. These related to poor borehole upgrades and spring protection, high water losses due to leakages not been attended to urgently, water theft and lack of bulk and reticulation planning.*
>
> *Skills development and capacity building, in the water sector continues to be an area of investigation in this review. There is a school of thought that argues that the skills required are more at an artisan level rather than at engineering level. This relates to the **maintenance issue around boreholes and spring protection and attendance of water leaks**. There is, however, another school of thought that water services authorities have focused more on **water demand** rather than water source management and that shift must be emphasised. Further, there is increasing pressure being put on the water sector institution to begin to develop a **sustainable water sector capacity building model**. The water services boards, the water services departments and the water services authorities all have various levels and type of expertise within their institutions. Therefore, these institutions along with engineering councils and the private sector must begin to provide a holistic sustainable **capacity building model** that contributes to a new water sector investment strategy. In addition, there is a growing demand for **localized water skills** at all levels as well as employment and*

business opportunities. The water sector through the vast capital spend have the potential to improve ***employment opportunities and create entrepreneurs in decentralized local spaces****.*

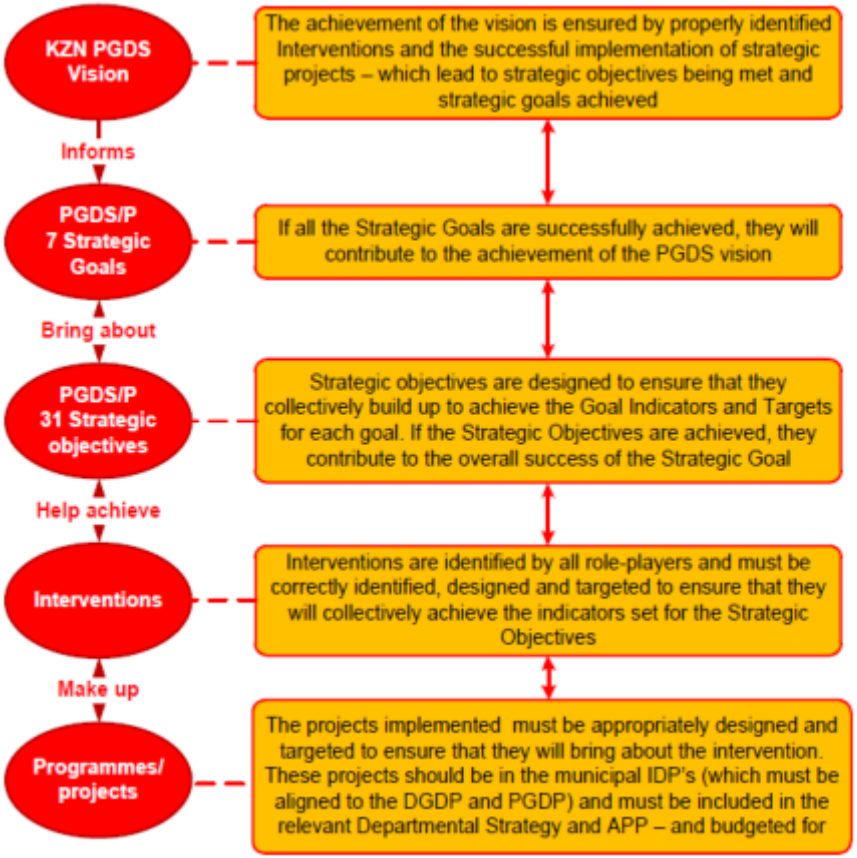
The financial cost of water supply cannot be underestimated and the Province needs to have a funding model to address this*. Like energy, water costs will increase and become increasingly expensive for consumers and business, thus the importance of having a* ***reliable and affordable water supply****. The Department of Water and Sanitation in the Province have several key capital water projects that will ensure a relative supply of water in the province. The growing concerns will be the pace at which our province is urbanizing and the greater demand this will have on water provision in these urbanized areas as well as to ensure reliable access to water, in rural areas.*

Given the above, the Province in the next five years must engage in the development of a new water sector investment strategy. This strategy must include ***elements of water loss and maintenance, water availability, cost of water supply****. In addition, the strategy should include water source plans that consider ground water, desalination, grey-water. Further a discussion on localized skills and local business development. Greater emphasis on improving rural access to water and increasing mitigating measures to this section of our population."*

As water provision will increase, so will water resources needs, operation and maintenance of existing infrastructure, efficient institutional and financial capacity to manage infrastructure and revenue etc. The KZN PGDS Framework aims to achieve at least 90% reliable services by 2035.

An overview of the KZN PGDS framework with associated goals and objectives for water and sanitation services can be reviewed in the next figure.

Figure A.3.1: KZN PGDS Framework



The 2016 Revised PGDS Strategic Framework

Figure 10: PGDS Strategic Framework

2016 PGDS STRATEGIC GOALS and OBJECTIVES

STRATEGIC GOAL	No	STRATEGIC OBJECTIVE 2016
1 INCLUSIVE ECONOMIC GROWTH	1.1	Develop and promote the agricultural potential of KZN
	1.2	Enhance sectoral development through trade investment and business retention
	1.3	Enhance spatial economic development
	1.4	Improve the efficiency, innovation and variety of government-led job creation programmes
	1.5	Promote SMME and entrepreneurial development
	1.6	Enhance the Knowledge Economy
2 HUMAN RESOURCE DEVELOPMENT	2.1	Improve early childhood development, primary and secondary education
	2.2	Support skills development to economic growth
	2.3	Enhance youth and adult skills development and life-long learning
3 HUMAN AND COMMUNITY DEVELOPMENT	3.1	Eradicate poverty and improve social welfare services
	3.2	Enhance health of communities and citizens
	3.3	Safeguard and enhance sustainable livelihoods and food security
	3.4	Promote sustainable human settlements
	3.5	Enhance safety and security
	3.6	Advance social cohesion and social capital
	3.7	Promote youth, gender and disability advocacy and the advancement of women
4 INFRASTRUCTURE DEVELOPMENT	4.1	Development of seaports and airports
	4.2	Develop road and rail networks
	4.3	Develop ICT infrastructure
	4.4	Ensure availability and sustainable management of water and sanitation for all
	4.5	Ensure access to affordable, reliable, sustainable and modern energy for all
	4.6	Enhance KZN waste management capacity
5 ENVIRONMENTAL SUSTAINABILITY	5.1	Enhance resilience of ecosystem services
	5.2	Expand the application of green technologies
	5.3	Adapt and respond climate change
6 GOVERNANCE AND POLICY	6.1	Strengthen policy, strategy coordination and IGR
	6.2	Build government capacity
	6.3	Eradicate fraud and corruption
	6.4	Promote participative, facilitative and accountable governance
7 SPATIAL EQUITY	7.1	Enhance the resilience of new and existing cities, towns and rural nodes, ensuring equitable access to resources, social and economic opportunities
	7.2	Ensure integrated land management use across the Province, ensuring equitable access to goods and services, attracting social and financial investment

Strategic Objectives and Interventions for the KZN PGDS can be reviewed below.

Figure A.3.2: KZN PGDS Strategic Objectives and Interventions

Strategic Objective 4.4 Indicators:

4.4.1 Percentage mean annual runoff water stored in each district.
4.4.2 Quantity of water abstracted per annum in each district.
4.4.3 Number of households receiving minimum standards of sanitation.
4.4.4 Percentage households with access to safe drinking water
4.4.5 Cubic meters of water available.
4.4.6 Surface Water storage as a percentage of surface mean annual runoff per district.
4.4.7 Non-Revenue Water loss – (physical and non-physical water loss).
4.4.8 Number of projects not approved due to bulk Water and Sanitation Infrastructure constraint.
4.4.9 Number of MIG and WSIG projects meeting 75 litres of water per person per day.

Strategic Objective 4.4 Interventions:

4.4(a) Review and implement the Provincial Water Sector Investment Strategy.
4.4(b) Policy and guidelines on the inclusion of quaternary catchment for groundwater, grey water and desalination.
4.4(c) Develop and implement water sector capacity building programme with all water institutions.
4.4(d) Develop new water and sanitation tariff policy.
4.4(e) Expedite the approval of Water Use Licences.
4.4(f) Programme for development of water sources (desalination, rainwater, recycling, groundwater).
4.4(g) Expedite the planning and implementation of sub-transmission networks in the Province.

The ZDM WSDP supports the above framework, and will elaborate on each aspect in more details throughout the document under each relevant chapter. The following provides a framework for these topics under 11 categories as depicted in the KZN PGDS document.

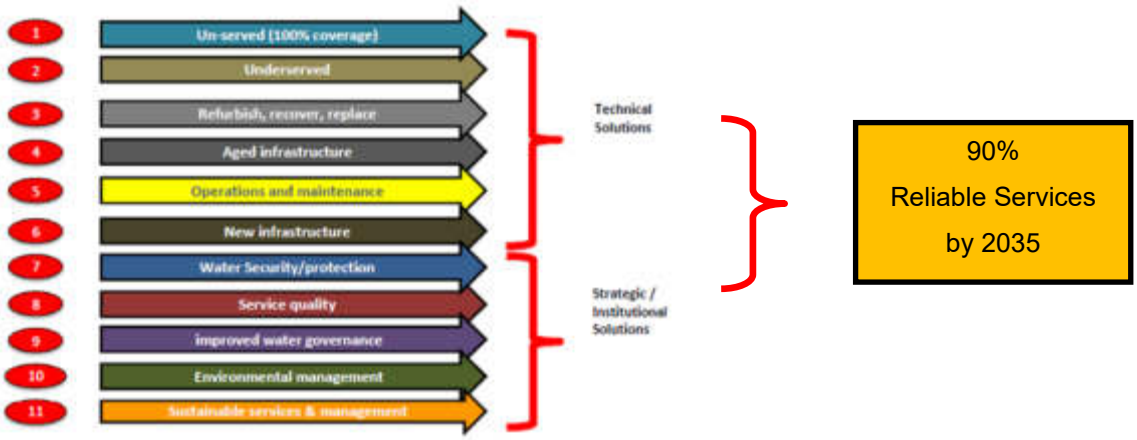


Figure A.3.3: KZN PGDS Strategic Framework

These 11 categories are consolidated in the WSDP under the following chapters as required by the web-based WSDP template of DWS:

- CHAPTER 1: Socio-Economic Profile
- CHAPTER 2: Service Level Profiles
- CHAPTER 3: Water Resources Profile
- CHAPTER 4: Operation and Maintenance
- CHAPTER 5: Water Conservation & Demand Management
- CHAPTER 6: Water & Sanitation Services Profile
- CHAPTER 7: Water Balance
- CHAPTER 8: Institutional Profile
- CHAPTER 9: Customer Service
- CHAPTER 10: Financial Profile
- CHAPTER 11: Project Rollouts
- CHAPTER 12: Strategic Goals

Items related to the Strategic Objectives and Development Framework will be discussed throughout this WSDP and reference will be made to the 2035 targets.

A.4 Background to the area

The ZDM is situated in northern KwaZulu-Natal (KZN). It covers an area of 14,808 km^2 and is divided into five local municipalities (LMs), namely eDumbe (KZ261), uPhongolo (KZ262), Abaqulusi (KZ263), Nongoma (KZ265), and Ulundi (KZ266) (Figure A4.1, pg. 19). There is only one change in the local municipal boundaries from 2011 to 2016. This area is located west of Louwsburg, where a portion of uPhongolo LM has been incorporated into AbaQulusi LM. This change can be reviewed under Figure A 4.1, pg. 19.

The district is predominantly rural with commercial farmland interspersed by protected areas, towns, and dense to scattered rural settlements within traditional authority areas. The majority of these rural settlements are small, making service delivery to these remote areas extremely costly. Settlements are located as follows:

Table A 4.1: Settlement location

Settlement Location	Nr of Settlements
Urban Towns	27
Communal Property	27
Land Reform Areas	75
State-owned	26
Tribal Areas	857
Private Land	257
TOTAL	**1 269**

A revised update of household points and settlements has been done in 2016 to update settlement boundaries and include new land reform areas as settlements. Household clusters on private farms have also been identified, and will be addressed based on ZDM's policy regarding rural residents on privately owned farm lands. A map showing the existing settlements against the revised settlement database can be reviewed under Figure A4.2. The major changes and updates can be seen in AbaQulusi and eDumbe LM's, with minor updates and additions in the uPhongolo LM. The new settlement areas are included as part of this 5-year review of the WSDP.

A comparison table showing the new revised settlement types can be reviewed in Table A4.2 below.

New imagery has been obtained from Google Earth to do a new household count for 2019/2020 household update. The settlements also need to be revised and aligned with these new household points and counts. However, due to COVID restrictions and councillors being off sick, the revised data sets and updated demographic details should be available in the final WSDP review in June 2022.

Table A 4.2: Settlement Types

Class	Settlement Type	Nr of Settlements	Total households
URBAN	Urban - Formal Town	4	6 425
	Urban - Former [illegible]nship	5	14 675
	Urban - Ex Hom[illegible]d Town	13	10 233
	Urban - Working Town	6	1 335
	Urban - Service Centre	8	1 549
	Urban - Squatter Camp	1	115
RURAL	Urban Fringe - Informal Settlement	19	8 906
	Peri-Urban - Squatter Camp	1	284
	Rural - Formal Dense >5000	2	3 046
	Rural - Formal Dense <5000	35	10 310
	Rural - Scattered Dense	5	2 612
	Rural - Scattered Medium Density	5	223
	Rural - Scattered Low Density	59	10 732
	Rural - Scattered Very Low Density	1 106	107 422
	Rural - Scattered households	N/A	5 775
	TOTAL	1 269	183 642

The following provides details of the areas within ZDM defined under urban:

LM	CLASSIFICATION	Z-NR	AREA
AbaQulusi	Urban - Formal Town	Town9	Louwsburg
		Town27a	Vryheid Town
	Urban - Former Township	Town27b	Bhekuzulu
		Town16a	Emondlo town
		Town27c	Lakeside
	Urban - Service Centre	ZNew180	Kandaspunt
		Z846	Mountain view
		ZPM12	Rietvlei
	Urban - Squatter Camp	ZMAP122	Vryheid Dump Site
	Urban - Working Town	ZHC5	Boomlaer
		Z932	Coronation
		Z934	Enyathi
		Z938	Hlobane
		ZHC4	Thutukani
		ZHC8	Vaalbank
eDumbe	Urban - Ex Homeland Town	Z937	Frischgewaagd
	Urban - Formal Town	Town8a	Paulpietersburg Town
	Urban - Former Township	Town8b	Edumbe Township
	Urban - Service Centre	Z928	Luneburg
Nongoma	Urban - Ex Homeland Town	Town22	Nongoma Town
		ZMAP26	White City
Ulundi	Urban - Ex Homeland Town	Z741	Kwazondela
		Z931	Mahlabathini
		Town18-A	Ulundi Unit A
		Town18-B	Ulundi Unit B
		Town18	Ulundi Unit B1
		Town18-BA	Ulundi Unit BA
		Town18-C	Ulundi Unit C
		Town18-D	Ulundi Unit D
		Town18-L	Ulundi Unit L
	Urban - Service Centre	Z940	Babanango
uPhongolo	Urban - Ex Homeland Town	Z459	Belgrade
	Urban - Formal Town	Town15a	Pongola Town
	Urban - Former Township	Town15b	Ncotshane Township
	Urban - Service Centre	ZMAP124	Golela Border Post
		Z936	Magudu
		Town15c	Pongola Town (Sugar Refinery)

Land use in the ZDM is linked primarily to tenure and the land with the highest agricultural potential is in private ownership and is mostly used for commercial farming or conservation, with low settlement densities. Private farmlands constitute a large portion of the ZDM's land area. The land use potential varies throughout the district, but are predominantly varieties of grassveld and thornveld. Agricultural activities are mainly forestry (eDumbe, Abaqulusi and around Babanango), sugar cane (uPhongolo), livestock (throughout the district), maize, soya beans, wheat, groundnuts, sorghum, vegetables and sub-tropical fruit. These commercial farms mostly have well developed infrastructure and farming systems. The difficulties they experience relate more to broader economic factors than spatial factors and linkages in the ZDM. In recent years, a number of cattle farms throughout the ZDM have been converted into game farms. These may be linked to tourism and conservation in the district.

In contrast, the non-arable land and land with severe limitations to agriculture, fall into the traditional authority areas and are densely settled. These Ingonyama Trust areas support settlement and subsistence agriculture (there is moderate to restricted agricultural potential), with the Traditional Authorities (TAs) for each LM being divided as follows:

- eDumbe LM: Dlamini TA and Mtetwa TA.
- uPhongolo LM: Masidla TA, Msibi TA, Ntshangase TA and Simelane TA.
- Abaqulusi LM: Hlahlindhlela TA and Kambi TA.
- Nongoma LM: Mandhlakazi TA, Matheni TA and Usuthu TA.
- Ulundi LM: Empetempithini TA, Mbata TA, Mpungose TA, Ndebele TA, Nobamba TA, Ximba TA and Zungu TA.

A map showing land distribution can be reviewed under Figure A4.1c. Tribal Authority areas, Land Reform Areas, privately owned farms and urban areas can be seen.

Should any boundaries change during the next elections earmarked for 2021, these changes will be updated in the next WSDP review.

Figure A 4.1: Locality map of Zululand District Municipality.

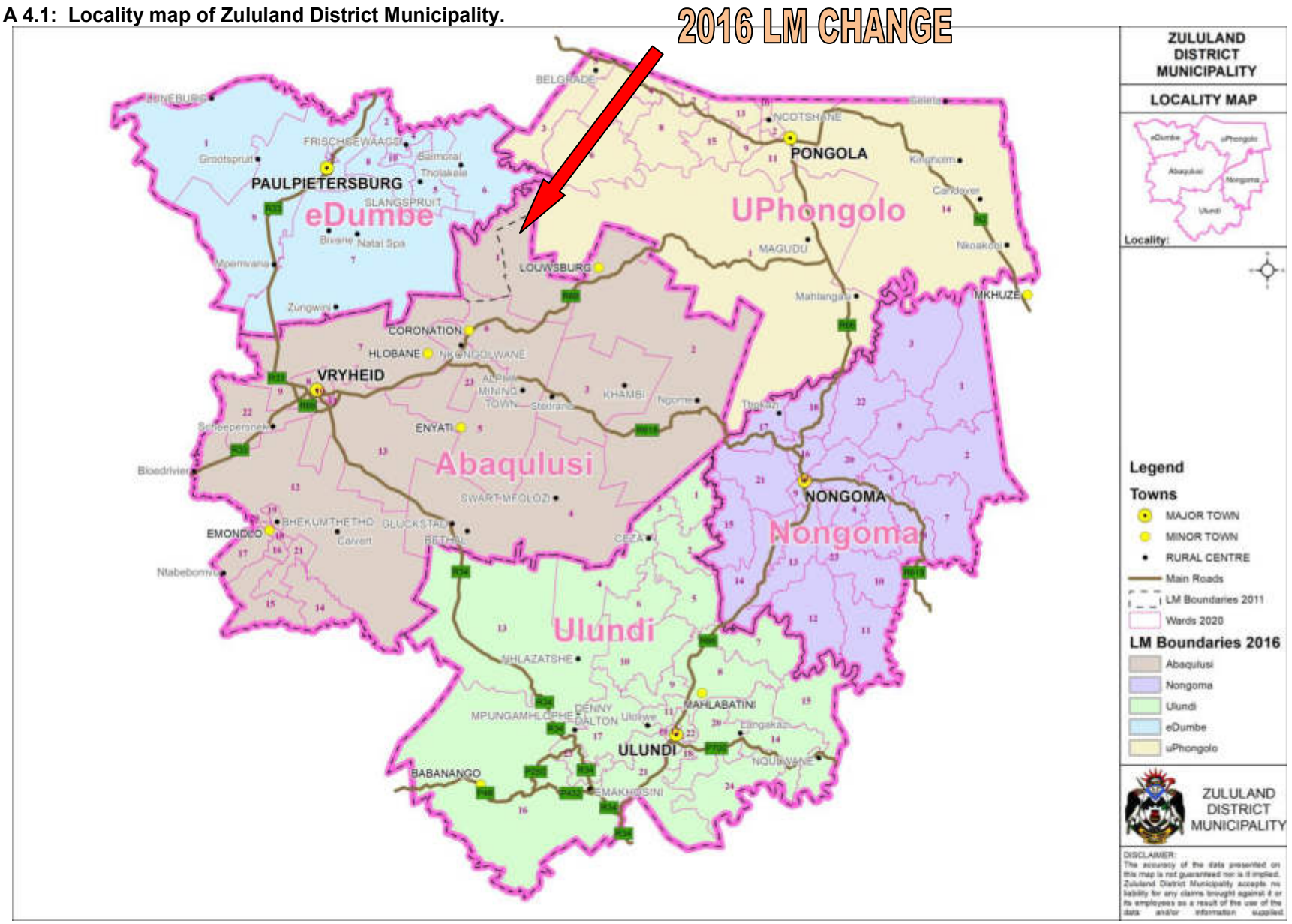


Figure A 4.2: Demographics of Zululand District Municipality.

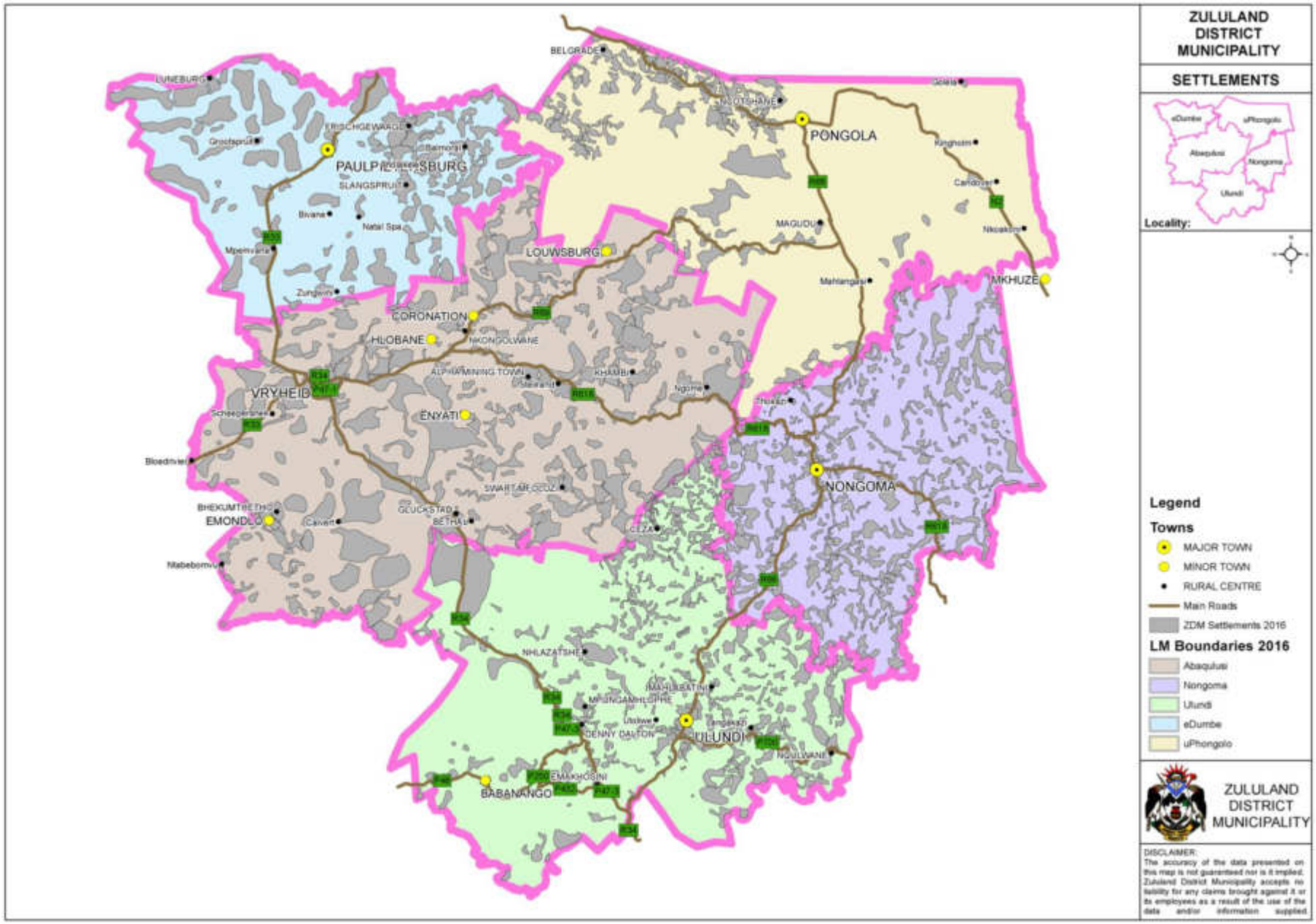
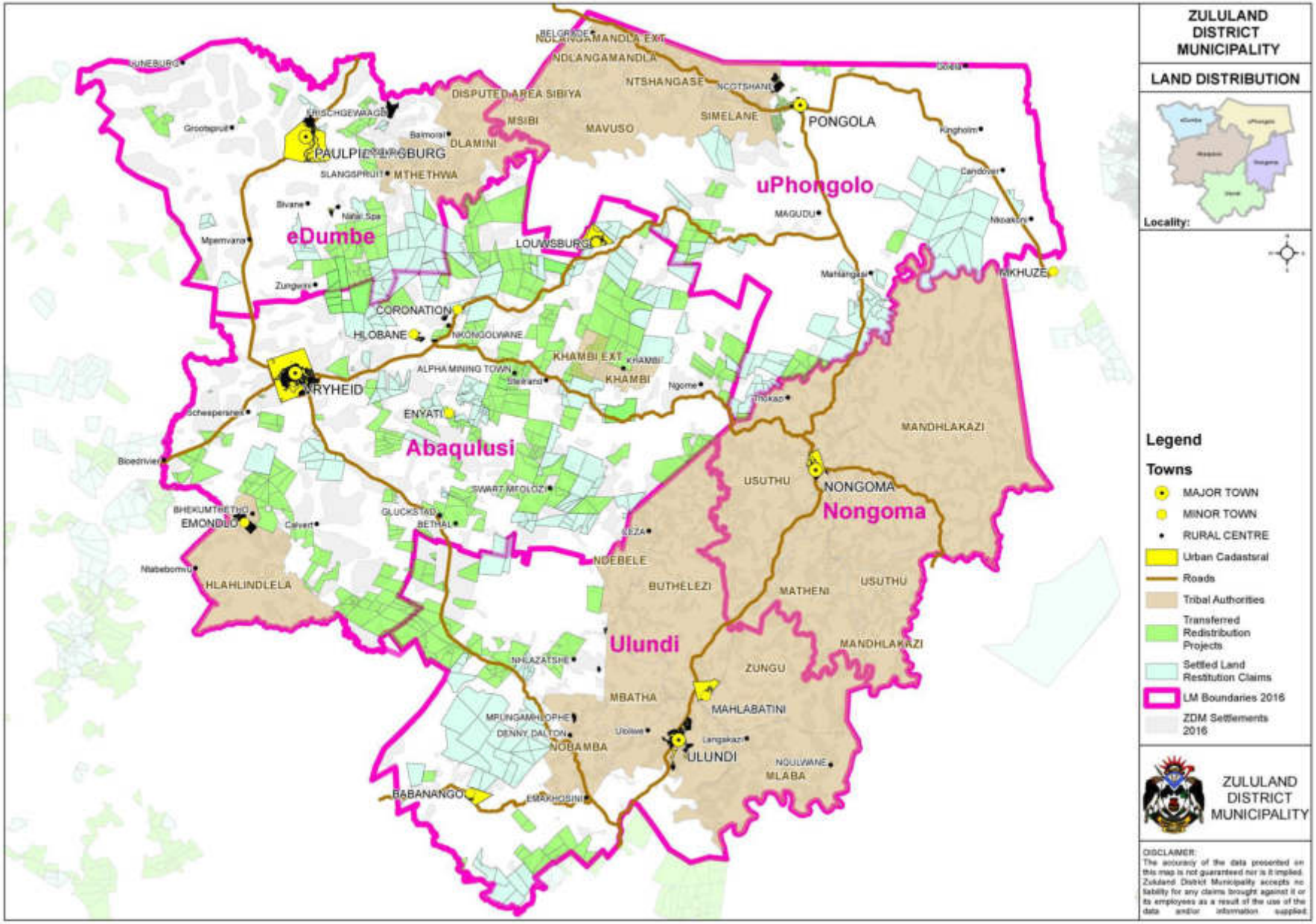


Figure A 4.3: Land distribution in Zululand District Municipality.



The area forms part of the Pongola, Mkuze and Mfolozi River Catchments of the Usuthu/Mhlathuze Water Management Area that extends from the high lying areas in the north and west to the Indian Ocean in the east. The northern and western edges of the ZDM are characterised by steep terrain. The Skurweberg and Elandsberg Mountains on the Western side of the ZDM are approximately 1,700 m above sea level. In the northeast there are the Lebombo Mountains. In general the topography slopes and gets less steep from west to east, as well as from north to south, consequently all the main rivers flow in this direction. There are some large relatively flat areas between 200 m and 300 m around the town of Pongola, as well as on the lower reaches of the Mfolozi River (Figure A4.4).

Climatic conditions vary significantly from the northern highlands to the eastern low-lying areas around the town of Pongola. Rainfall is strongly seasonal with more than 80% occurring as thunderstorms between October and March, with the peak months being December to February in the inland areas. Rainfall varies from over 1,000 mm in the north and west, dropping to below 600 mm in the central area around Pongola. The resultant Mean Annual Runoff (MAR) ranges from above 200 mm in the north and west, to below 100 mm in the central areas. Overall the Mean Annual Precipitation (MAP) is 840 mm, and the corresponding MAR 102 mm (12 % of MAP) (Figure A4.5). Annual variability of rainfall is indicated by the historic coefficient of variation of the rainfall record, which ranges from (20 % to 25 %) in the west to greater than 35 % in the Pongola area. In accordance with the rainfall pattern the relative humidity is higher in summer than in winter. Potential mean annual gross evaporation ranges from 1400mm in the west to 1600 mm in the lowveld. The highest mean monthly evaporation is in December and the lowest mean monthly evaporation in June. One strategic dam, namely Pongolapoort/Jozini, has been developed. There is a vast amount of water in the area with both surface resources, as well as good ground water potential.

Topography type	**Percentage of total municipal area**
Mountainous	30%
Rolling	70%
Flat	0%
Coastal	0%

Figure A 4.4: Terrain map of Zululand District Municipality.

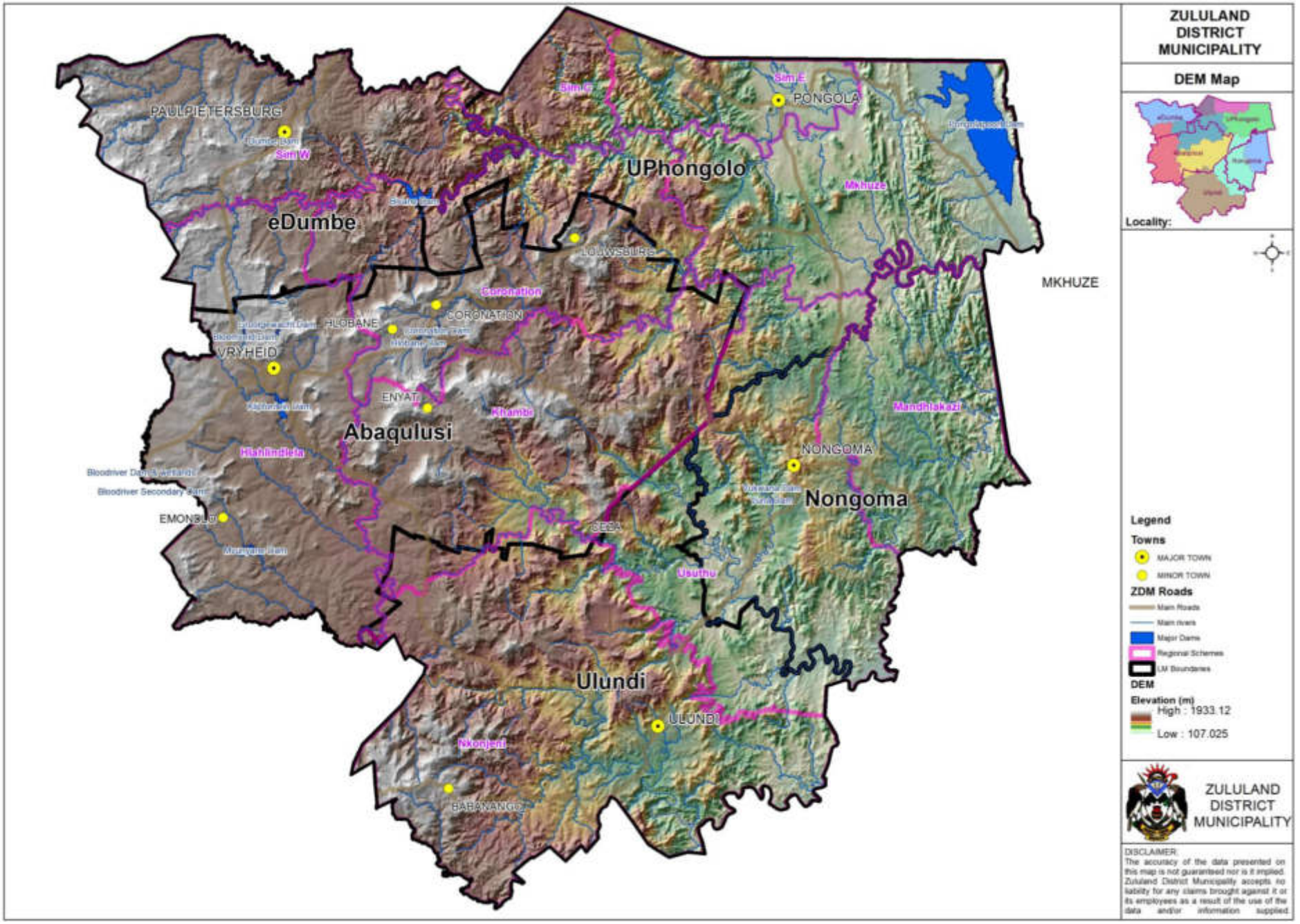
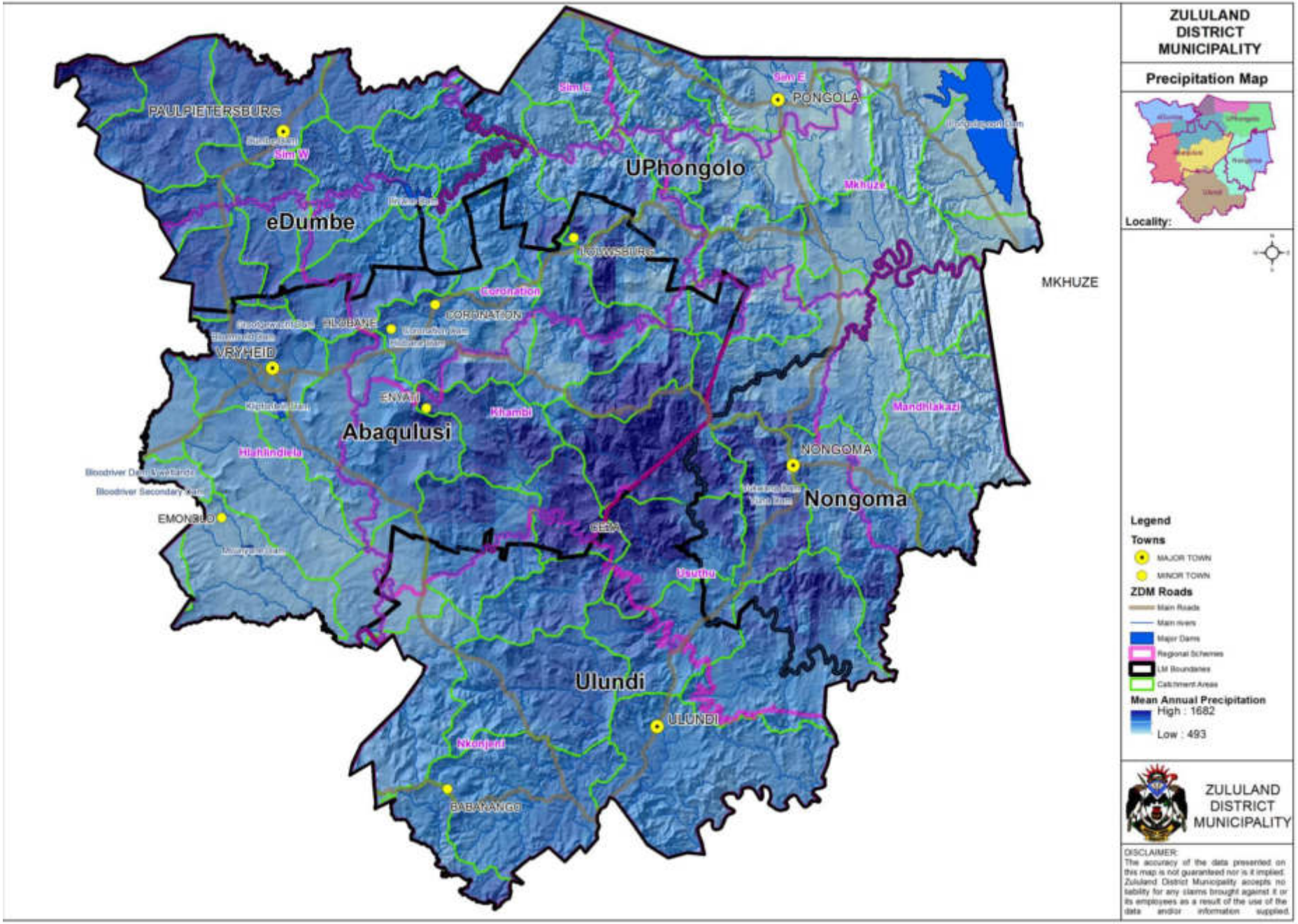


Figure A 4.5: Precipitation map of Zululand District Municipality.



A.5 Backlogs

Tables A.5.1 and A.5.2 below indicate the status in ZDM with regards to water services backlogs in the district. Backlogs, progress and funding allocations are to be finalised during the final review of the WSDP in May.

Table A.5.1: Access to water (households)

Water	None or Inadequate	Rudimentary <RDP	Communal standpipes RDP	Yard/House connections >RDP	TOTALS
AbaQulusi LM	0	0	0	16 000	16 000
eDumbe LM	0	0	0	5 458	5 458
Nongoma LM	0	0	0	632	632
Ulundi LM	0	0	0	5 912	5 912
uPhongolo LM	0	0	0	4 009	4 009
Total (urban)	**0**	**0**	**0**	**32 011**	**32 011**
AbaQulusi LM	6 493	4 161	10401	10 064	31 119
eDumbe LM	2 695	806	1628	7 054	12 183
Nongoma LM	5 598	10 019	10 852	17 275	43 744
Ulundi LM	2 596	1 410	14 333	20 736	39 075
uPhongolo LM	1 307	1111	2570	20 522	25 510
Total (rural)	**18 689**	**17 507**	**39 784**	**75 651**	**151 631**
Total (households)	**18 689**	**17 507**	**39 784**	**107 662**	**183 642**

The following figure depicts the estimated time it will take to eradicate all water backlogs below RDP standard if current MIG funding allocations remains constant. RBIG and WSIG funding allocations fluctuate based on approved funding applications, and future projections have been based on the current financial year's allocations.

Most of the regional scheme business plans and technical reports have been updated to allow for price escalations, amendments and upgrades. At a total remaining cost of nearly R10b with only an annual funding allocation of R562m, ZDM will only be able to complete all remaining water infrastructure by 2039. The 2035 target will therefore not be met. ZDM will require at least **R700m** annual funding allocation for water alone to reach the 2035 provincial goals.

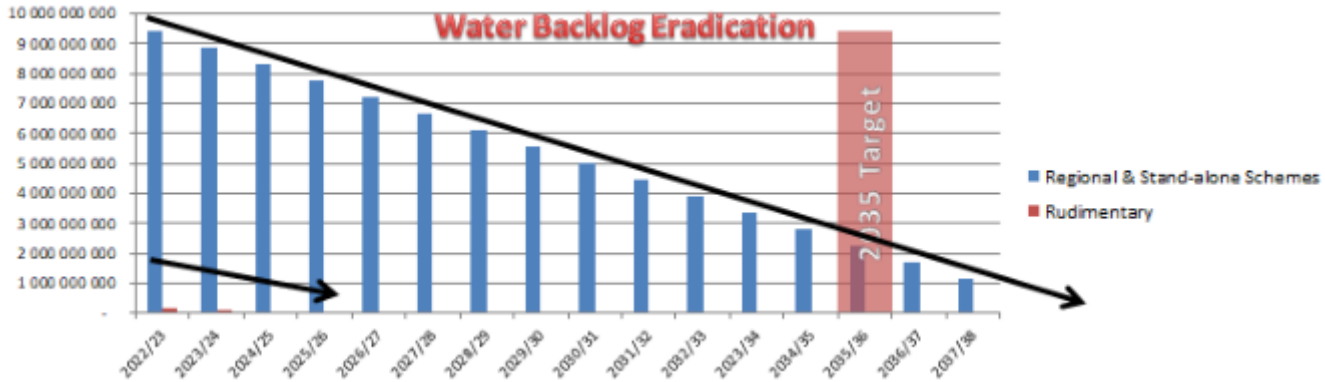


Figure A 5.1: Water Backlog eradication at current funding allocation of R550m/annum

Table A.5.2: Access to sanitation

	Inadequate (Excl. Infills/Replacements)	VIP	Septic tank	Waterborne	TOTALS
		RDP	RDP	>RDP	
AbaQulusi LM	0	0	1035	14 965	16 000
eDumbe LM	0	2981	498	1 979	5 458
Nongoma LM	0	283	0	349	632
Ulundi LM	0	635	0	5 277	5 912
uPhongolo LM	0	698	0	3 311	4 009
Total (urban)	**-**	**4 597**	**1 533**	**25 881**	**32 011**
AbaQulusi LM	5 750	24 945	424	0	31 119
eDumbe LM	967	10 950	266	0	12 183
Nongoma LM	8 621	35 123	0	0	43 744
Ulundi LM	640	38 383	52	0	39 075
uPhongolo LM	6 560	18 614	336	0	25 510
Total (rural)	**22 538**	**128 015**	**1 078**	**0**	**151 631**
Total (households)	**22 538**	**132 612**	**2 611**	**25 881**	**183 642**

The following figure depicts the estimated time it will take to eradicate all sanitation backlogs below RDP standard if current MIG funding allocations remains constant.

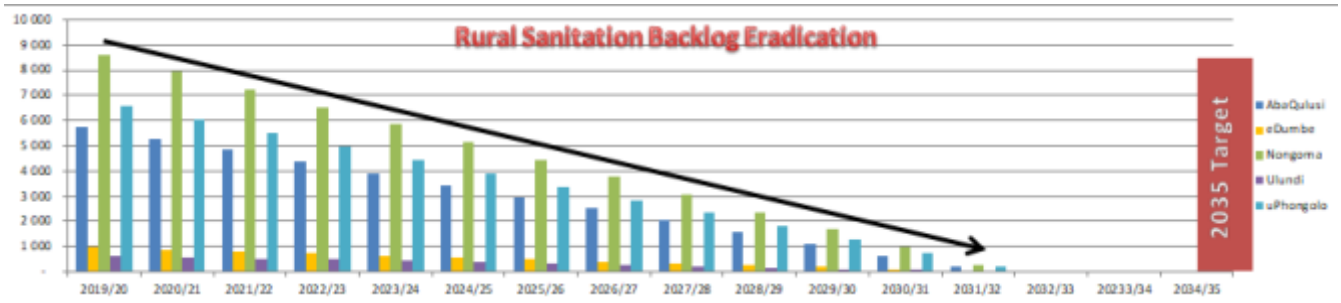


Figure A 5.2: Sanitation Backlog eradication at current funding allocation of R36m/annum

With the 2035 goals in mind, the backlogs in rural sanitation should be eradicated by 2032. However, settlements are continuously expanding, and household growth will maintain an increase in the future.

Table A.5.3: Percentage backlogs (water & sanitation)

WATER	TOTAL HOUSEHOLDS	BACKLOGS	% BACKLOGS	% OF TOTAL BACKLOGS
AbaQulusi LM	47 119	10 654	22.61%	29.43%
eDumbe LM	17 641	3 501	19.85%	9.67%
Nongoma LM	44 376	15 617	35.19%	43.15%
Ulundi LM	44 987	4 006	8.90%	11.07%
uPhongolo LM	29 519	2 418	8.19%	6.68%
Total	**183 642**	**36 196**	**19.71%**	**100.00%**
SANITATION	**TOTAL HOUSEHOLDS**	**BACKLOGS**	**% BACKLOGS in LM**	**% OF TOTAL BACKLOGS**
AbaQulusi LM	47 119	5 750	12.20%	25.51%
eDumbe LM	17 641	967	5.48%	4.29%
Nongoma LM	44 376	8 621	19.43%	38.25%
Ulundi LM	44 987	640	1.42%	2.84%
uPhongolo LM	29 519	6 560	22.22%	29.11%
Total	**183 642**	**22 538**	**12.27%**	**100.00%**

Table A.5.4: Existing backlogs against funding allocations

YEAR	BACKLOGS (Households)		ALLOCATIONS		Household count
	Water	Sanitation	Water	Sanitation	
2019-2020	42 711	30 586	383 328 220	51 310 825	**2016 Households**
2020-2021	39 145	28 586	394 165 250	59 721 750	
2020-2021	37 497	26 848	596 157 000	61 127 500	
2022/2023	**36 196**	**22 538**	**549 102 401**	**36 334 200**	

YEAR	BACKLOGS REMAINING (%)	
	Water	Sanitation
2019-2020	23.26	16.66
2020-2021	21.32	15.57
2021/2022	20.42	14.62
2022/2023	**19.7**	**12.3**

PLEASE NOTE THAT BACKLOGS ARE ESTIMATES BASED ON PROJECTED COMPLETION DATES OF PROJECTS AT THE END OF JUNE, AND MAY VARY ON FINAL FINANCIAL YEAR END.

ACTUAL FIGURES WILL BE UPDATED AFTER FINANCIAL YEAR END.

A.6 Summary of content

The key information contained in the WSDP is listed below for ease of reference. More detail can be obtained by referring to the respective chapters in the document:

Chapter 1: Socio Economic Profile

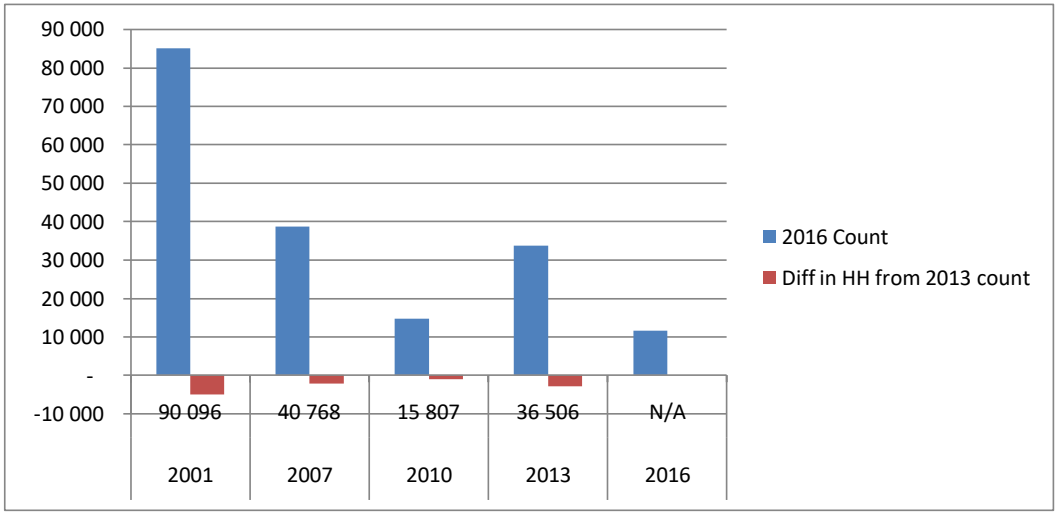
The current consumer profile of the district reflect an updated household count which was done by ZDM from aerial photography taken in 2016 by National Geo-spatial Information (NGI). A total of **182 585 households** and **1 057 farm houses** were captured, bringing the total dwellings in ZDM to **183 642.** Although this is only 465 households more than what the total household count was for 2013, there were many household ruins in the rural areas where dwellings were either abandoned or people have relocated. A comparison between the various households counts since 2001 is shown in the table below. This indicates the reduction in households over the past 17 years.

Table A 6.1: Household Count Analysis Table (2001-2016)

YEAR FLOWN	2013 Count	2016 Count	Diff in HH from 2013 count
2001	90 096	85 091	-5 005
2007	40 768	38 607	-2 161
2010	15 807	14 717	-1 090
2013	36 506	33 666	-2 840
2016	N/A	11 561	-
Overall increase in HH from 2013 count			**465**

The above table can be reviewed in graph format in the following chart.

Figure A.6.1: Household Count Analysis Graph (2001-2016)



New imagery has been obtained from Google Earth to do a new household count for 2019/2020 household update. The settlements also need to be revised and aligned with these new household points and counts. However, due to COVID restrictions and councillors being off sick, the revised data sets and updated demographic details should be available in the next WSDP review.

From a spatial perspective, the following map indicates the number of households per square kilometer for 2016 compared with the number of households from 2013. The yellow and light green areas show a strong decline in dwellings, whereas blue indicates a strong increase in households.

Figure A.6.2: Dwelling Growth Pattern per Square Kilometer (2013-2016)

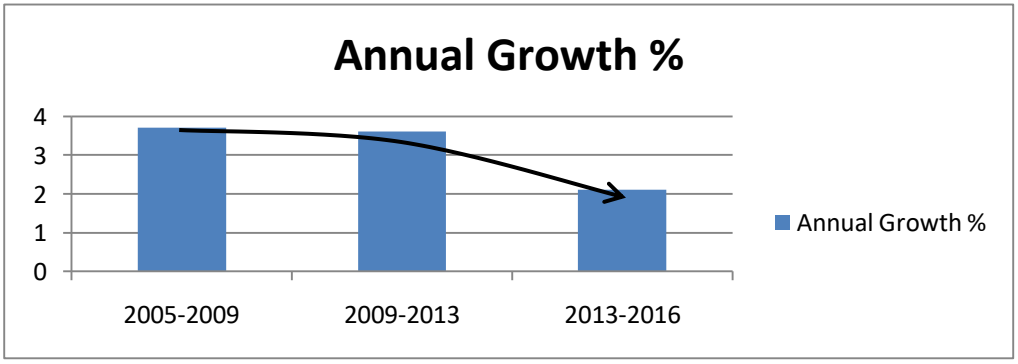
Growth trends per local municipality can be summarised as follows:

- **AbaQulusi**
  High growth in the surrounding eMondlo town areas as well as in Nkongolwane. There is a substantial growth in the Kwa Shoba & Tinta's Drift areas, with a high decrease in rural households surrounding Vryheid town.
- **eDumbe**
  Strong positive growth in eDumbe, Frischgewaagd & Bilanyoni.

- **uPhongolo**
  High growth in Ncotshane as well as settlements all along the N2 going west towards Belgrade.
- **Nongoma**
  Positive growth along the Nongoma/Hlabisa road, with an overall slight negative growth in most of the rural areas.
- **Ulundi**
  Positive growth surrounding Ulundi town areas, with an overall slight negative growth in most of the rural areas between Ulundi and Nongoma.

When the new household count of 11 561 from 2013 to 2016 is considered, it represents an increase in the number of households of 6.31% over 3 years. An **annual average household growth of 2.1%** is therefore evident over the period from 2013 to 2016, which is less than the 3.6% increase from the period 2009-2013. The period from 2005/2006 to 2009 shows an average annual household growth of 3.7%. There is therefore a slight decreasing trend in the household growth over the past 10 years in ZDM.

Figure A.6.3: Household Count Analysis Graph (2001-2016)



Due to the spatial analysis requirements for water and sanitation provision at household level, ZDM uses its own household data set which contains actual household positions as opposed to numerical values provided by STATSSA per enumeration area. Households and defined by and projects are implement per local settlement areas as defined by the ward councillors, and these settlements areas don't always coincide with the enumeration area boundaries of STATSSA. It is therefore impossible to correlate the enumeration areas with settlement areas and derive household statistics between the two data sets.

STATSSA has released the interim 2016 Community Survey statistics per local municipality, and the estimated number of households for the 2016 community survey is slightly higher than the spatial household count for ZDM. A comparison table between the 2011 census data and the 2016 community survey details can be seen in Table A.6.2 below.

Table A.6.2: STATSSA 2016 Community Survey

	HOUSEHOLDS		POPULATION		Ave Households Size	
Local Municipality	**2011**	**2016**	**2011**	**2016**	**2011**	**2016**
AbaQulusi	43 299	51 472	224 998	241 196	4.90	4.70
eDumbe	16 138	17 415	85 022	89 614	5.10	5.10
Nongoma	34 341	36 409	200 948	211 892	5.70	5.80
Ulundi	35 198	38 553	264 765	205 762	5.40	5.30
uPongolo	28 772	34 667	153 727	143 845	4.40	4.10
Total	**157 748**	**178 516**	**929 461**	**892 310**	**5.10**	**5.00**

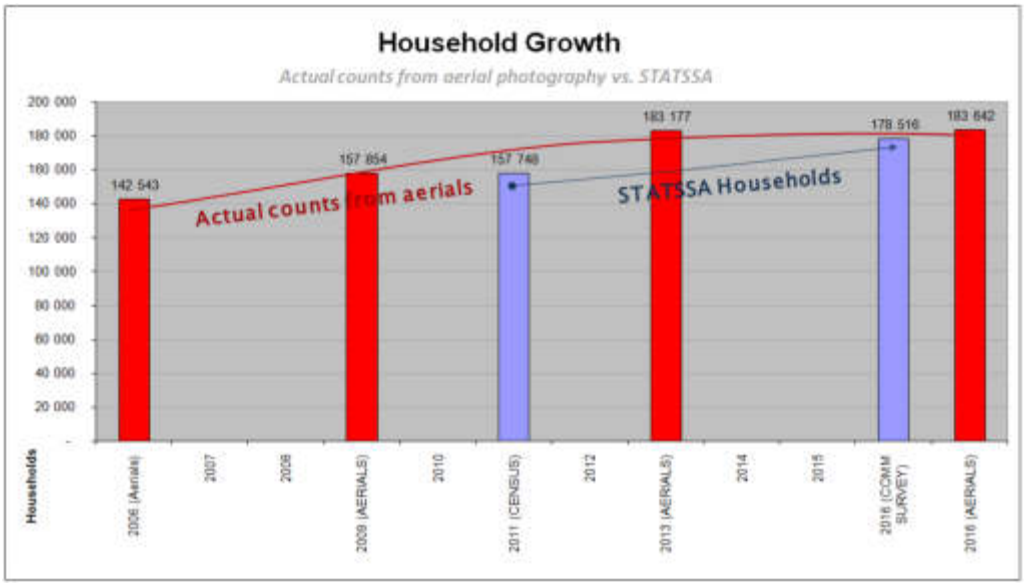
For population analysis, the 2011 Census figures will however be applied to the ZDM household count as per local municipality since the 2016 Community Survey was not a full Census. A comparison table can be reviewed under Table A.6.3. below, showing household growth and population figures per local municipality.

Table A.6.3: ZDM and STATSSA Census 2011 household growth analysis (2005 - 2017)

	Actual Household Statistics (Captured from aerial photography over 4 consequtive periods) vs CENSUS Data												
Local Municipality	**2006**	**2009 (AERIALS)**	**2010**	**2011 (CENSUS)**	**2012**	**2013 (AERIALS)**	**2014**	**2015**	**2016 (COMM SURVEY)**	**2016 (AERIALS)**	**Annual household growth rate**	**Average Population per household**	**Total Population (ZDM)**
AbaQulusi	36 069	40 302				45 918				47 119	0.9%	4.90	230 883
eDumbe	15 011	16 880				16 671				17 641	1.9%	5.10	89 969
Nongoma	34 056	38 171				45 670				44 376	-0.9%	4.40	195 254
Ulundi	35 309	37 365				46 450				44 987	-1.1%	5.70	256 426
uPongolo	22 098	25 136				28 468				29 519	1.2%	5.40	159 403
Total	142 543	157 854		157 748		183 177			178 516	183 642	0.41%	5.10	931 935

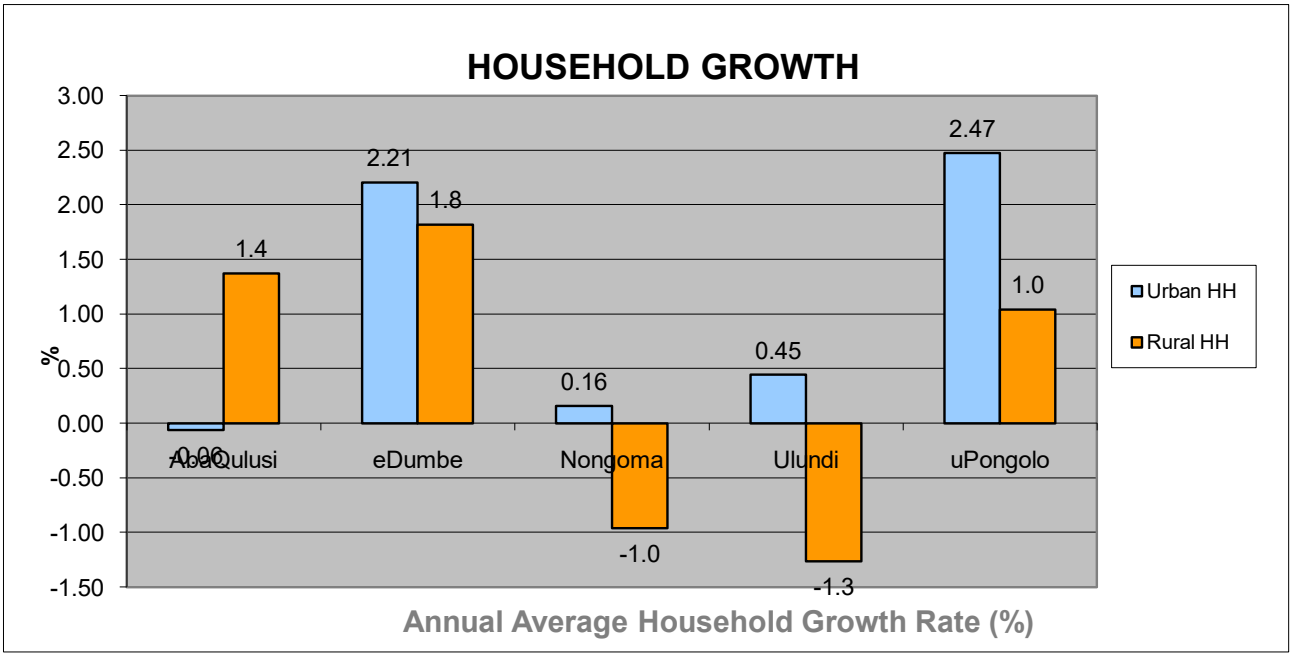
To summarise the above outcomes, the current household count for ZDM taken from the 2016 household count, is 183 642, with a total population count of 931 935 when STATSSA population per household is applied *(http://www.statssa.gov.za/publications/Report-03-01-74/Report-03-01-742011.pdf)*

Figure A.6.4: ZDM household growth analysis (2005 - 2017)



In the following graph the household growth per local municipality can be compared between urban and rural growth over the past 3 years. eDumbe and uPhongolo shows the highest urban growth. Rural growth is negative in Ulundi and Nongoma, with a slight positive growth in AbaQulusi, eDumbe and uPhongolo.

Figure A.6.5: Annual Urban and Rural Household Growth per Local Municipality



Data derived from 2013 and 2016 Aerial Photography (NGI)

In Table A.3(d) the domestic dwellings and farm houses per local municipality can be reviewed. Industrial and business properties were only captured in urban areas since it is not always possible to distinguish businesses and commercial buildings in rural areas from aerial photography.

Table A.6.3: Current consumer profile (units)

LOCAL MUNICIPALITIES	DOMESTIC	INDUSTRIAL / BUSINESSES	FARM HOUSES	TOTAL
AbaQulusi	16 031	1 947	-	17 978
eDumbe	5 119	336	-	5 455
Nongoma	629	483	-	1 112
Ulundi	5 834	638	-	6 472
uPhongolo	3 732	576	-	4 308
Total (urban)	**31 345**	**3 980**	**-**	**35 325**
AbaQulusi	29 463	-	424	29 887
eDumbe	11 286	-	266	11 552
Nongoma	45 041	-	-	45 041
Ulundi	40 564	-	52	40 616
uPhongolo	24 400	-	336	24 736
Total (rural)	**150 754**	**-**	**1 078**	**151 832**
Total	**182 099**	**3 980**	**1 078**	**187 157**

Chapter 2: Service Level & Associated Services Profile

The current levels of access to water services in the district are indicated below:

Table A.6.4: Residential consumers: access to water

Water	None or Inadequate	Rudimentary	Communal standpipes	Yard/House connections	TOTALS
		<RDP	RDP	>RDP	
AbaQulusi LM	0	0	0	16 000	16 000
eDumbe LM	0	0	0	5 458	5 458
Nongoma LM	0	0	0	632	632
Ulundi LM	0	0	0	5 912	5 912
uPhongolo LM	0	0	0	4 009	4 009
Total (urban)	**0**	**0**	**0**	**32 011**	**32 011**
AbaQulusi LM	6 493	4 161	10401	10 064	31 119
eDumbe LM	2 695	806	1628	7 054	12 183
Nongoma LM	5 598	10 019	10 852	17 275	43 744
Ulundi LM	2 596	1 410	14 333	20 736	39 075
uPhongolo LM	1 307	1111	2570	20 522	25 510
Total (rural)	**18 689**	**17 507**	**39 784**	**75 651**	**151 631**
Total (households)	**18 689**	**17 507**	**39 784**	**107 662**	**183 642**

Table A.6.5: Residential consumers: access to sanitation

	Inadequate (Excl. Infills/Replacements)	VIP	Septic tank	Waterborne	TOTALS
		RDP	RDP	>RDP	
AbaQulusi LM	0	0	1035	14 965	16 000
eDumbe LM	0	2981	498	1 979	5 458
Nongoma LM	0	283	0	349	632
Ulundi LM	0	635	0	5 277	5 912
uPhongolo LM	0	698	0	3 311	4 009
Total (urban)	**-**	**4 597**	**1 533**	**25 881**	**32 011**
AbaQulusi LM	5 750	24 945	424	0	31 119
eDumbe LM	967	10 950	266	0	12 183
Nongoma LM	8 621	35 123	0	0	43 744
Ulundi LM	640	38 383	52	0	39 075
uPhongolo LM	6 560	18 614	336	0	25 510
Total (rural)	**22 538**	**128 015**	**1 078**	**0**	**151 631**
Total (households)	**22 538**	**132 612**	**2 611**	**25 881**	**183 642**

Table A.6.6: Backlog Figures

YEAR	BACKLOGS (Households)		ALLOCATIONS		Household count
	Water	Sanitation	Water	Sanitation	
2019-2020	42 711	30 586	383 328 220	51 310 825	**2016 Households**
2020-2021	39 145	28 586	394 165 250	59 721 750	
2020-2021	37 497	26 848	596 157 000	61 127 500	
2022/2023	**36 196**	**22 538**	**549 102 401**	**36 334 200**	

Table A.6.7: Backlog Eradication Progress

YEAR	BACKLOGS REMAINING (%)	
	Water	Sanitation
2019-2020	23.26	16.66
2020-2021	21.32	15.57
2021/2022	20.42	14.62
2022/2023	**19.7**	**12.3**

Table A.6.8: Public institutions and 'dry' industries: access to water

Institution	No off	WATER		
		None or inadequate	Communal standpipe	Yard connection
Businesses	3 980			958
Clinics	68	5	48	[illegible]
Creches	7	2		5
"Dry" Industries				
Hospitals	13			13
Magistrate offices	7			7
Police Stations	15	4		11
Prisons	3			3
Schools	789	360	329	100
Community Halls	39	27		12
Total	4 921	398	377	1 124

Table A.6.9: Public institutions and 'dry' industries: access to sanitation

Institution	No off	SANITATION		
		None or inadequate	Dry pit / Septic tanks	Waterborne
Businesses	3 980			[illegible]
Clinics	68		1	67
Creches	7	2		5
"Dry" Industries				
Hospitals	13			13
Magistrate offices	7			7
Police Stations	15	4		11
Prisons	3			3
Schools	789	24	637	128
Community Halls	39	27		12
Total	4 921	57	638	4 226

Chapter 3: Water Resource Profile

The ZDM falls within the Mfolozi (W2), Mkuze (W3) and Pongola (W4) secondary catchments of the Usuthu/Mhlathuze Water Management Area (WMA)[1]. The aerial extent of the ZDM occupies approximately 22% of this WMA. . The total available water and requirements as at year 2000, based on a 98% assurance of supply within these sub-areas, is summarised in Table A.6.6. It is evident that apart from the Pongola catchments, water from these sub-areas is currently over-utilised and a deficit is created. However, according to Basson and Rossouw[2], this deficit is a result of the provision made for future implementation of the Reserve. The Reserve is a legislated requirement of the amount of water required to satisfy the ecological needs of a river system (provisionally estimated at 20%) as well as the basic human needs (that have been established as 25 litres per person per day).

Table A.6.6: Water balance - summary of the water available and required within Zululand District Municipality for the year 2000 (Million m^3 (kℓ) per annum).

			Mfolozi	Mkuze	Pongola	Total
Available water	Natural resource	surface water	36	15	616	667
		groundwater	5	12	8	25
	Usable return flow	Irrigation	5	6	21	32
		Urban	4	0	0	4
		Mining & bulk	1	0	0	1
	Total local yield*		**51**	**33**	**645**	**729**
	Transfers in		0	30	0	30
	Total available		**51**	**63**	**645**	**759**
Water requirements	Consumer groups	Irrigation	51	61	213	325
		Urban**	12	1	1	14
		Rural**	11	10	6	27
		Mining & bulk industrial***	4	0	1	5
		Afforestation****	2	6	34	42
	Total local requirements		**80**	**78**	**255**	**413**
	Transfers out		18	0	30	**48**
	Total used		**98**	**78**	**285**	**461**
Balance			**-47**	**-15**	**360**	**298**

Source: Basson and Rossouw (2003).
**Includes allowance for impacts of the ecological component of the Reserve, river losses, alien vegetation, rain-fed agriculture and urban run-off on yield.*
***Includes allowance for basic human needs component of the Reserve (25 ℓ/c/d).*
****Mining and bulk industrial water uses that are not part of the urban system.*
*****Afforestation quantities refer to the impact on yield only.*

[1] *The Usuthu/Mhlathuze WMA is one of 19 areas defined across South Africa in terms of the National Water Act, 1998 (Act 36 of 1998). These WMAs have been defined to improve water resource management within South Africa. With time, each of the WMAs will establish a catchment management agency (CMA) for the regulation and control of water use in the WMA.*

[2] *Op cit 2 at 23.*

CHAPTER 4: Operation & Maintenance

Operation and Maintenance management is split up as follows:

- **Bulk Water and Wastewater Management:**
  The core function for Water Services Provision Bulk is to ensure that water and wastewater infrastructure is managed properly in order to produce a cost effective and SANS 241 acquiescent quality of water. It is also to Operate and Maintain the Bulk Infrastructure in order to minimize down time).
- **Rural and Urban Reticulation:**
  The main function of the "Urban and Rural Reticulation Section" division is to operate and maintain the water and sanitation networks in both urban and rural areas within the Local Municipalities.

Of critical importance is the funding of Operations and Maintenance of existing and future schemes as they are being commissioned. Correct O&M of physical infrastructure is arguably more important than infrastructure construction because unless successful preventative maintenance procedures are instituted schemes will become inoperative. As a large proportion of expenditure relates to staff, competent personnel are required to ensure that the large investments in water services are not negated through dysfunction or dereliction.

This section looks at existing infrastructure which have reached its end of lifespan, and whether refurbishment, O&M or replacement is necessary for sustainable service delivery. This is applicable for water and sanitation components such as WTW's or Pump Stations, but also for scheme networks where infrastructure has deteriorated or reached the end of its lifespan. It furthermore entails O&M for all borehole and spring protection services where O&M plays a significant role.

Other factors influencing proper O&M include Staff capacity, external resources, equipment and budget requirements.

Table A.6.7 below shows the operational costs associated with the provision of water services in the district against the total income. At present a significant decline exists for O&M, and ZDM is addressing these issues through various means.

Table A.6.7: Operational costs and income

		Actual		Projected				
Operating costs and income	**Total 5yr projected**	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**	**2026-2027**
Operational costs	R 2 135 402 037	R 344 986 742	R 317 975 886	R 349 773 474	R 384 750 822	R 423 225 904	R 465 548 494	R 512 103 344
Personnel costs	R 903 187 212	R 134 235 055	R 134 490 718	R 147 939 790	R 162 733 769	R 179 007 146	R 196 907 860	R 216 598 647
Total O&M costs	**R 3 038 589 249**	**R 479 221 796**	**R 452 466 604**	**R 497 713 264**	**R 547 484 591**	**R 602 233 050**	**R 662 456 355**	**R 728 701 990**
Equitable share: FBS	R 2 892 813 490	R 564 272 000	R 524 645 000	R 559 056 000	R 566 225 000	R 577 549 500	R 589 100 490	R 600 882 500
Income: sales (actual payment)	R 290 114 352	R 25 410 596	R 43 200 000	R 47 520 000	R 52 272 000	R 57 499 200	R 63 249 120	R 69 574 032
Total income	**R 3 182 927 842**	**R 589 682 596**	**R 567 845 000**	**R 606 576 000**	**R 618 497 000**	**R 635 048 700**	**R 652 349 610**	**R 670 456 532**
Deficit/surplus	**R 144 338 593**	**R 110 460 800**	**R 115 378 396**	**R 108 862 736**	**R 71 012 409**	**R 32 815 650**	**R -10 106 745**	**R -58 245 458**

KPI's include maintaining proper O&M on relevant assets, as well as keeping staff and budget requirements in place.

Chapter 5: Water Conservation/ Demand Management

ZDM has embarked on an extensive Unaccounted for Water programme (UAW), aimed at understanding the usage of water in the district and to provide guidance to future demand management and waterloss interventions. Specific interventions will be launched at individual schemes to address water losses through:

- Pressure management
- Leak repair programmes
- Meter repair & replacement programmes
- Internal plumbing leaks
- Consumer end-use demand management initiatives

The water demand strategy will focus on a number of ways to ensure the reduction of water demand by consumers, for example:

- Influencing the behaviour of consumers
    - School and public educational and awareness programmes aimed at promoting effective usage of water (brochures, advertising, newsletters, demonstrations, exhibits, informative billing, etc)
    - Water services tariff that promotes efficient water usage
    - Any other “win-win” initiatives that could influence consumers positively
- Specific targeted projects like;
    - Repair plumbing leaks inside properties
    - Installation of water flow control devices, etc.

Chapter 6: Water and Sanitation Services Infrastructure Profile

ZDM has done extensive work on the development of a database that will serve as an asset register, but also to be used as the basis for the development of an asset management system and to capture asset related information electronically for ongoing use. The system has been named ‘MANZI’ and access can be gained on the ZDM website at www.zululand.org.za once the user has been issued with a username and password.
Table A.6.7 below provides a brief overview of the schemes in the district that have been captured on the MANZI system and a summary of the infrastructure under consideration, as well as a rough estimate of the value of assets. These figures will be refined over time once the asset management system has been rolled out.

Table A.6.8: Summary of schemes in the district

Summary Data	LOS	Total
Number of Schemes	Above RDP - Urban	14
	Above RDP - Rural	63
	RDP	122
	Rudimentary	145
	To be confirmed on GIS	11
	TOTAL SCHEMES	**355**

Table A.6.8 below shows examples of infrastructure data that is currently available on the GIS system and MANZI. Some gaps still exist in the infrastructure information, ZDM has been systematically updating its infrastructure details and eliminating data gaps where possible within its capability and resources. This process involves both feature as well as attribute data, and will support the asset management system initiative of ZDM which is currently in development

Table A.6.9: Summary of infrastructure components available the ZDM GIS

Summary Data	Description	Total
Pipelines	Bulk	12922 km
	Reticulation	6539 km
Installations	Yard Connection	32 967
	StandPipe - Barrel	305
	StandPipe - Communal	6 011
	Electrical Point	154
	Valve	16 617
	Meter	1 198
	Bulk Metering Points	233
	Handpump	717
	Playpump	36
	Electrical Pump	110
	Diesel Pumps	25
	Equipped BH pumps (Type unverified)	869
	Pump Station	114
	Scheme Source / Abstraction	549
	Break-pressure Tank	608
	Storage - Jojo	247
	Storage - Reservoir	792
	Treatment (Sand filters etc)	12
	Water Treatment Works	40
	Boreholes	2473
	Spring Protections	67
	Windmills	17

Chapter 7: Water Balance

A first order water balance is presented in Chapter 7 from available data at the time.

Chapter 8: Water Services Institutional Arrangements

The ZDM Section 78 investigation process was completed in 2007 and the conclusion was that a single Water Services Provider for the entire district (internal department within ZDM) is the preferred water services provision arrangement for the future and that this be implemented progressively. Certain specialised functions were also listed that should rather be contracted out to private business, although still being part of the overall WSP structure. These are services that require skilled personnel that are expensive and difficult to source and that are more cost effective to contract in rather than source in-house, for example electrical/mechanical artisans, certain maintenance functions, etc. The detailed outcome of the Section 78 investigation process is captured in Chapter 7 herewith.

Chapter 9: Customer Services Profile

The provision of high quality water services to consumers involves good water quality and the reliability of water services. This chapter covers interventions implemented or planned by ZDM to address the above mentioned issues. A customer care charter is being drafted that will be the “contract” with the consumer and will also list the consumer’s responsibilities in this regard. Work has been done on the drafting of a customer care strategy and the following key focus areas have been identified:

- To know your customers (complete customer database)
- To develop proper mechanisms for effective two way communication with customers
- To provide affordable, high quality services that are accessible to all
- To empower your consumers through education
- To develop a customer focused organisation
- To develop a customer charter and honour the agreement with the customer
- To accelerate the implementation of appropriate service provision structures

Chapter 10: Financial Profile

This chapter deals with two financial issues related to water services infrastructure, namely:

- New capital projects
- Operations and maintenance (O&M) of existing infrastructure

The details are contained in Chapter 9 but can be summarised in the tables below:

Table A.6.10: Capital requirements: water

WATER	Capital requirements	2022/2023	2023-2024	2024-2025	2025-2026	2026-2027
Regional bulk	R 7 244 921 638	R 346 335 383	R 574 809 919	R 494 047 695	R 536 953 490	R 534 572 203
Reticulation	R 2 592 990 861	R 282 150 148	R 108 756 956	R 159 813 619	R 105 229 123	R 135 089 108
Total capital (new)	**R 9 837 912 499**	**R 628 485 531**	**R 683 566 875**	**R 653 861 314**	**R 642 182 613**	**R 669 661 311**
Regional bulk (WTW)	R 378 401 219	TBA	TBA	TBA	TBA	TBA
Reticulation	TBA	TBA	TBA	TBA	TBA	TBA
Total capital (refurbishment)	**R 378 401 219**					
Total capital	**R 10 216 313 718**	**R 628 485 531**	**R 683 566 875**	**R 653 861 314**	**R 642 182 613**	**R 669 661 311**

Table A.6.11: Capital requirements: sanitation

SANITATION	Capital requirements	2022/2023	2023-2024	2024-2025	2025-2026	2026-2027
Bulk infrastructure	TBA	TBA	TBA	TBA	TBA	TBA
Reticulation	TBA	TBA	TBA	TBA	TBA	TBA
VIP toilets	R 450 760 000	36 334 200	36 334 200	36 334 200	36 334 200	36 334 200
Total capital (new)	**R 450 760 000**	**R 36 334 200**	**R 36 334 200**	**R 36 334 200**	**R 36 334 200**	**R 36 334 200**
Bulk infrastructure (WWTW)	225 985 526	TBA	TBA	TBA	TBA	TBA
Reticulation	TBA	TBA	TBA	TBA	TBA	TBA
VIP toilets (Replacement Prgrm)	817 760 000	TBA	TBA	TBA	TBA	TBA
Total capital (refurbishment)	**R 1 043 745 526**	**R -**	**R -**	**R -**	**R -**	**R -**
Total capital	**R 1 494 505 526**	**R 36 334 200**	**R 36 334 200**	**R 36 334 200**	**R 36 334 200**	**R 36 334 200**

Table A.6.12: Sources of Capital Income: Water

WATER	Expected Funding	2022/2023	2023-2024	2024-2025	2025-2026	2026-2027
MIG	R 223 195 800	R 223 195 800	R 223 195 800	R 223 195 800	R 223 195 800	R 223 195 800
DWA (RBIG)	R 217 883 101	R 217 883 101	R 217 883 101	R 217 883 101	R 217 883 101	R 217 883 101
Housing	R -	R -	R -	R -	R -	R -
WSIG	R 121 000 000	R 121 000 000	R 121 000 000	R 121 000 000	R 121 000 000	R 121 000 000
Loans	R -	R -	R -	R -	R -	R -
TOTAL	**R 562 078 901**	**R 562 078 901**	**R 562 078 901**	**R 562 078 901**	**R 562 078 901**	**R 562 078 901**
Capital requirements	R 10 216 313 718					
Shortfall up to 2026/2027	**R -9 654 234 817**					

Table A.6.13: Sources of Capital Income: Sanitation

SANITATION	Expected Funding	2022/2023	2023-2024	2024-2025	2025-2026	2026-2027
MIG	R 181 671 000.00	R 36 334 200.00	R 36 334 200.00	R 36 334 200.00	R 36 334 200.00	R 36 334 200.00
DWA						
Housing	R -	R -	R -	R -	R -	R -
Other grant funding						
Loans						
TOTAL	**R 181 671 000**	**R 36 334 200**	**R 36 334 200**	**R 36 334 200**	**R 36 334 200**	**R 36 334 200**
Capital requirements	R 1 494 505 526					
Shortfall up to 2026/2027	**R -1 312 834 526**					

Table A.6.14: Operational costs and income

		Actual		Projected				
Operating costs and income	**Total 5yr projected**	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**	**2026-2027**
Operational costs	R 2 135 402 037	R 344 986 742	R 317 975 886	R 349 773 474	R 384 750 822	R 423 225 904	R 465 548 494	R 512 103 344
Personnel costs	R 903 187 212	R 134 235 055	R 134 490 718	R 147 939 790	R 162 733 769	R 179 007 146	R 196 907 860	R 216 598 647
Total O&M costs	**R 3 038 589 249**	**R 479 221 796**	**R 452 466 604**	**R 497 713 264**	**R 547 484 591**	**R 602 233 050**	**R 662 456 355**	**R 728 701 990**
Equitable share: FBS	R 2 892 813 490	R 564 272 000	R 524 645 000	R 559 056 000	R 566 225 000	R 577 549 500	R 589 100 490	R 600 882 500
Income: sales (actual payment)	R 290 114 352	R 25 410 596	R 43 200 000	R 47 520 000	R 52 272 000	R 57 499 200	R 63 249 120	R 69 574 032
Total income	**R 3 182 927 842**	**R 589 682 596**	**R 567 845 000**	**R 606 576 000**	**R 618 497 000**	**R 635 048 700**	**R 652 349 610**	**R 670 456 532**
Deficit/surplus	**R 144 338 593**	**R 110 460 800**	**R 115 378 396**	**R 108 862 736**	**R 71 012 409**	**R 32 815 650**	**R -10 106 745**	**R -58 245 458**

Chapter 11: List of Projects

The ZDM Water Master Plan comprises of ten back-to-back regional water schemes. The detailed project list included under Chapter 10 herewith lists sub-projects or phases associated with each regional scheme according to the approved progressive roll-out of the scheme.

The WSDP further allows for intermediate stand-alone schemes for areas falling within the regional scheme context which will take a long time to be implemented due to costly bulks. These intermediate stand-alone schemes are designed with a sustainable intermediate source which will all be integrated into the regional scheme once the regional scheme bulks reaches the area.

For remote communities where no bulk services are feasible or possible, a rudimentary water level of service is implemented in the form of boreholes with handpumps, or spring protections. In some areas a small reticulation scheme with RDP level of services will be constructed where possible.

Sanitation is being rolled out progressively based on prioritised zones or clusters to make implementation more cost-effective and practical. There is also a future sanitation rollout planned to replace the old Archloo, Zinc and block-type VIP's.

The water and sanitation projects to be implemented over the next 5 years and beyond are listed in detail in Chapter 10 of the document. Rollout maps can be reviewed under Figure A.6.6 – A.6.10, and include the following rollouts:

- Regional Water Supply Schemes
- Intermediate Stand-alone Water Supply Schemes
- Rudimentary Water Supply
- Rural Sanitation
    - New infrastructure
    - Future Rural Sanitation Replacement Programme

Figure A.6.6: Regional Water Supply Schemes

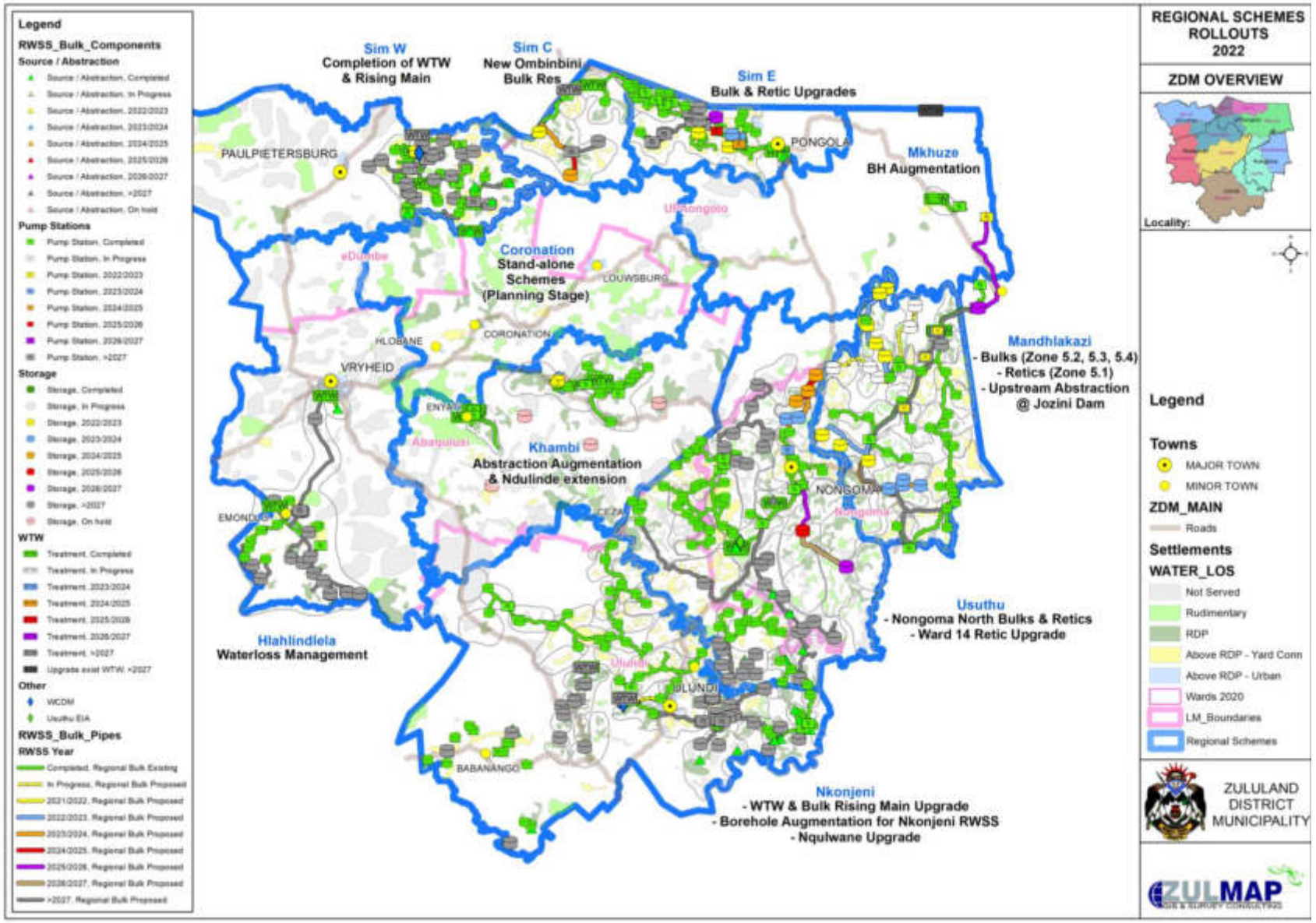


Figure A.6.7: Intermediate Stand-alone Water Supply Schemes

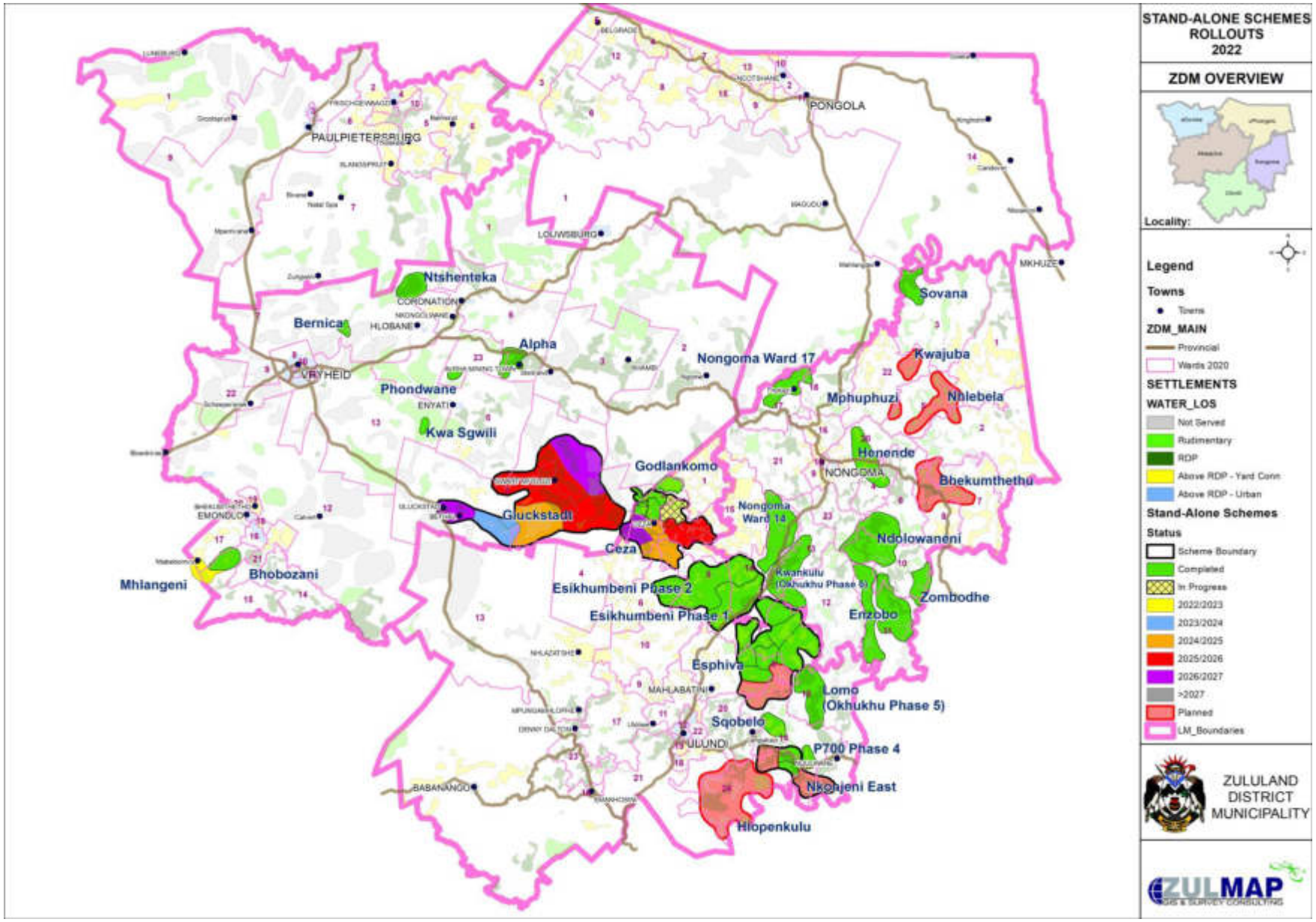


Figure A.6.8: Rudimentary Water Supply

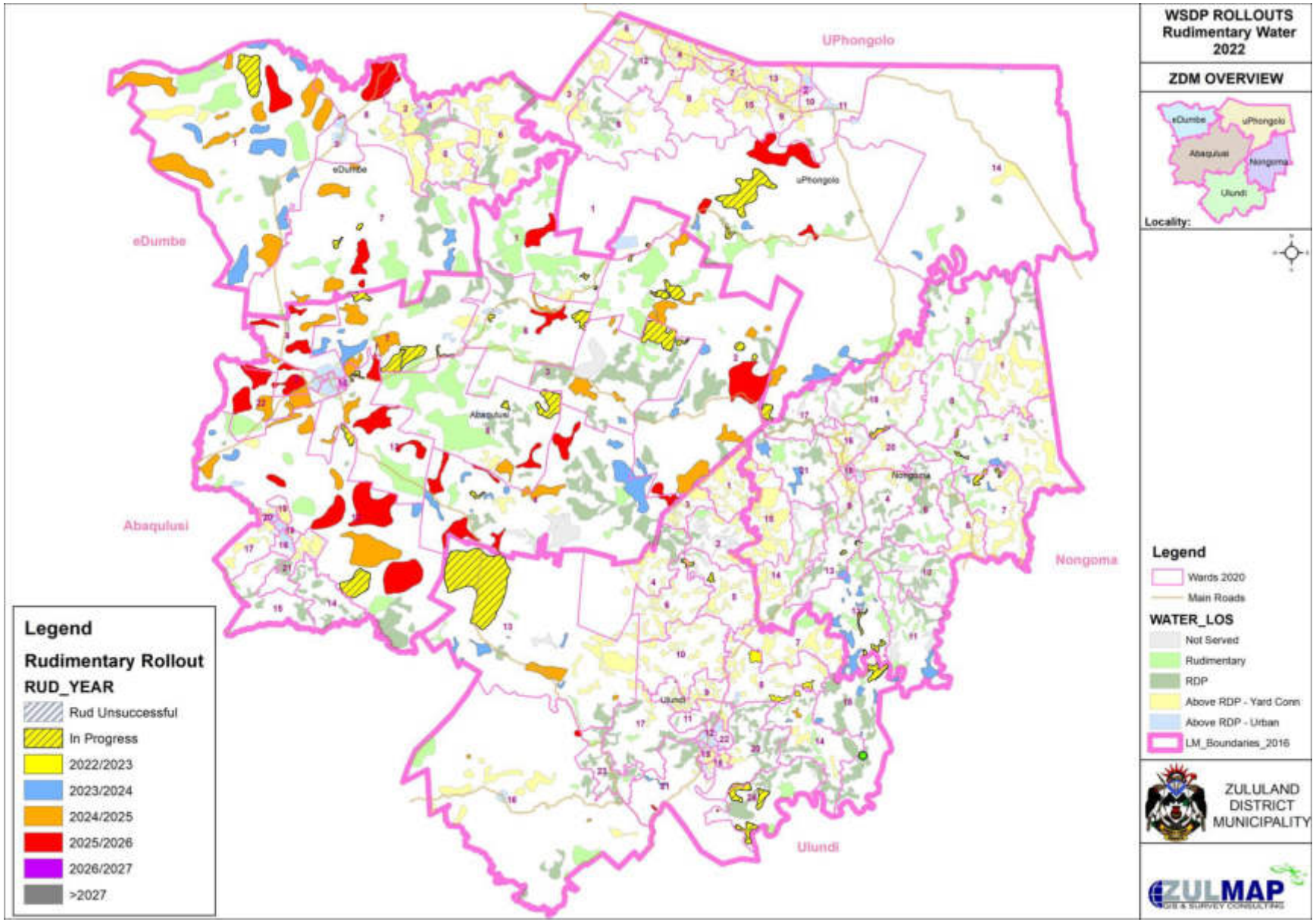


Figure A.6.9: Rural Sanitation (New infrastructure)

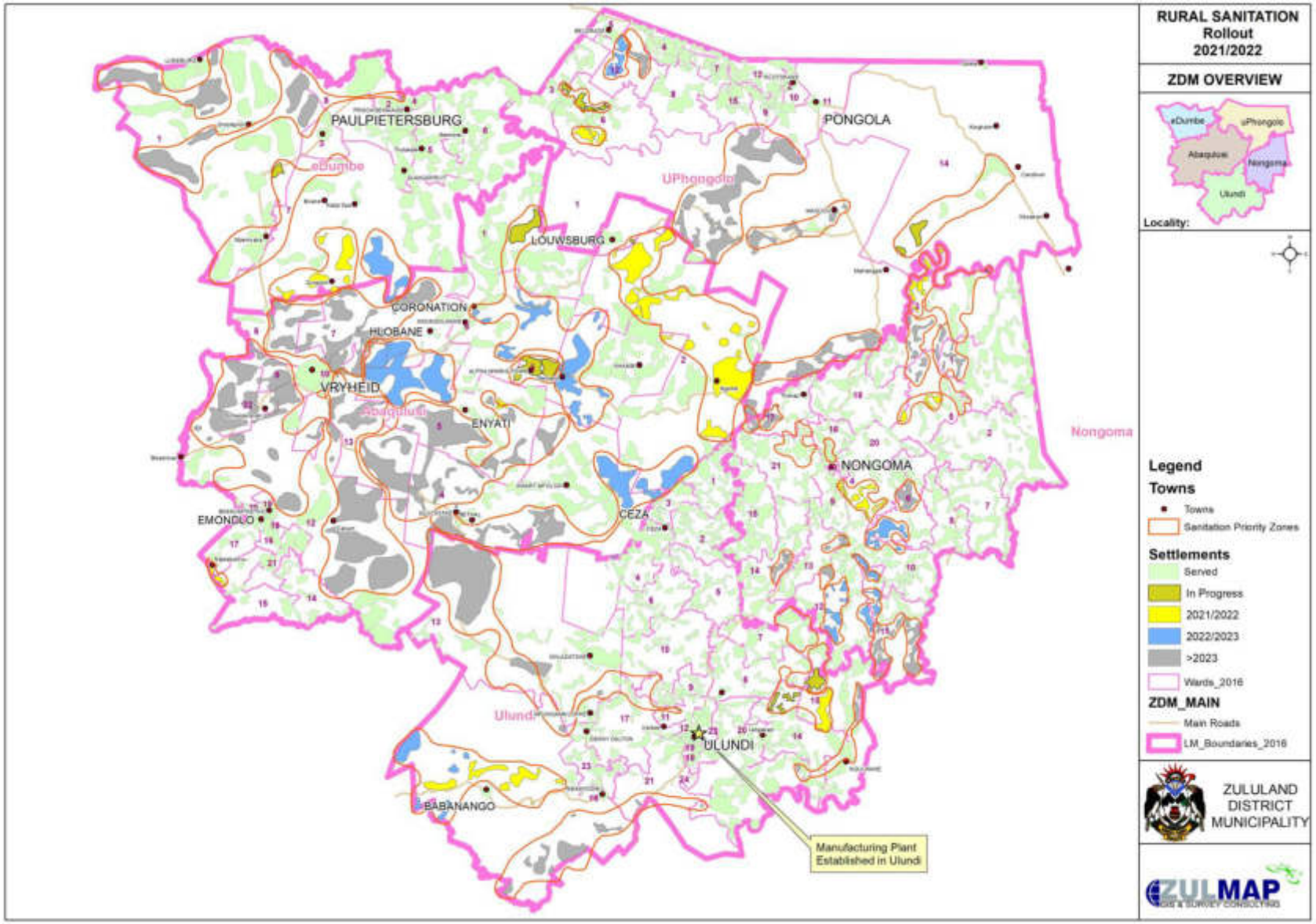
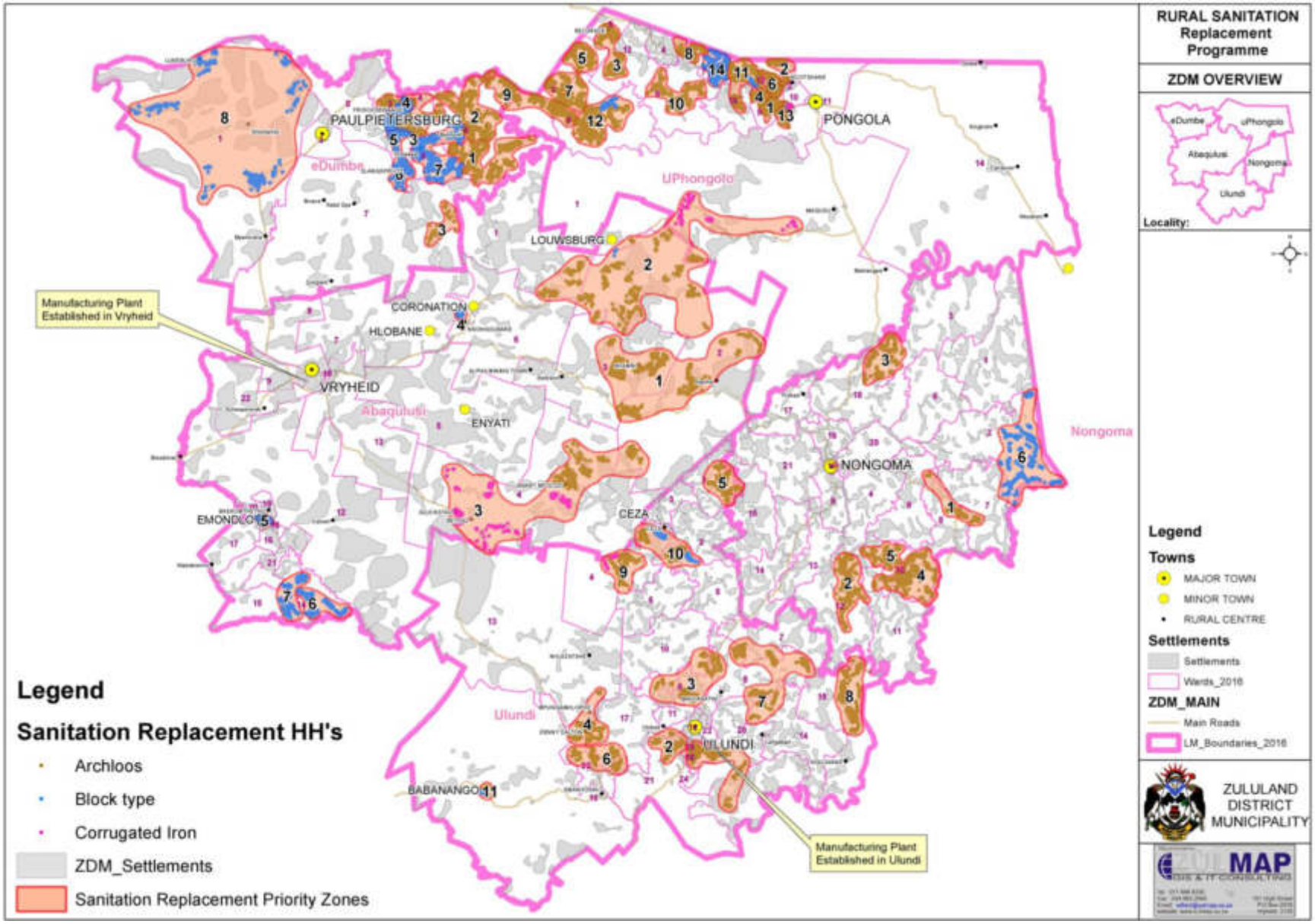


Figure A.6.10: Rural Sanitation (Replacement Programme)



Chapter 12: Strategic Objectives & Development Strategies

The ZDM WSDP supports the KZN PGDS Strategic Framework. WSDP goals, objectives, interventions and projects are aligned to place ZDM in a position to fulfil its role as WSA in achieving the provincial PGDS for 2035.

While the focus has been predominantly on providing each person with sustainable infrastructure and eradicating backlogs, the status of existing and aging infrastructure, as well as the availability and sustainability of water resources has been neglected.

As water provision will increase, so will water resources needs, operation and maintenance of existing infrastructure, efficient institutional and financial capacity to manage infrastructure and revenue etc. The KZN PGDS Framework aims to achieve at least 90% reliable services by 2035.

An overview of the KZN PGDS framework with associated goals and objectives for water and sanitation services can be reviewed in the next figure.

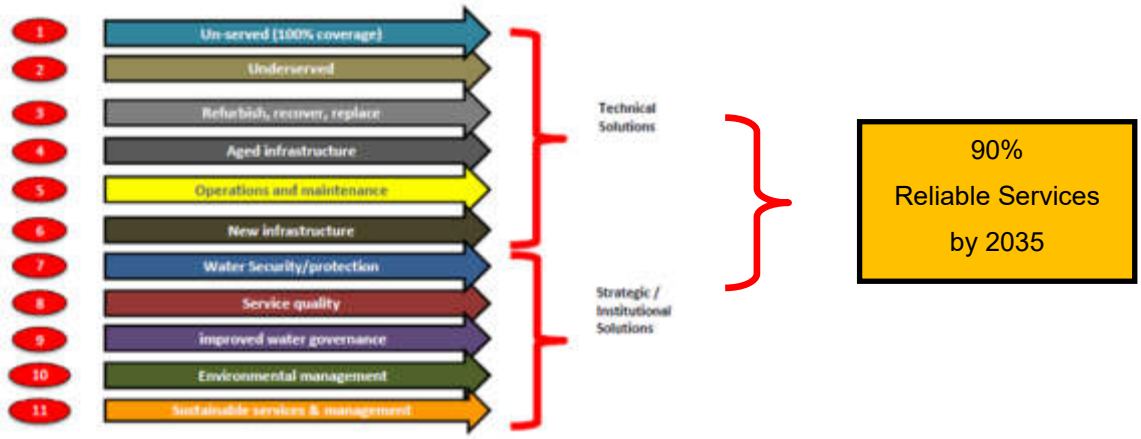


Figure A.3.3: KZN PGDS Strategic Framework

These 11 categories are consolidated in the WSDP under the following chapters as required by the web-based WSDP template of DWS:

- CHAPTER 1: Socio-Economic Profile
- CHAPTER 2: Service Level Profiles
- CHAPTER 3: Water Resources Profile
- CHAPTER 4: Operation and Maintenance
- CHAPTER 5: Water Conservation & Demand Management
- CHAPTER 6: Water & Sanitation Services Profile
- CHAPTER 7: Water Balance
- CHAPTER 8: Institutional Profile

- CHAPTER 9: Customer Service
- CHAPTER 10: Financial Profile
- CHAPTER 11: Project Rollouts
- CHAPTER 12: Strategic Goals

The Strategic Objectives and Development Framework with associated targets and KPI's will be provided in this chapter.

11. List of projects

11.1 Introduction

ZDM has the following implementation programmes in terms of water and sanitation provision:

- **WATER**
  - **Regional Water Supply Schemes**

    There were originally 10 back to back Regional Water Supply Schemes. Coronation is however currenlty under review to rather implement stand-alone schemes:

NAME	STATUS QUO
Coronation	Masterplan under review to implement stand-alone schemes instead of regional scheme
Khambi	Source augmentation
Hlahlindlela	On hold due to water shortage
Mandlakazi	In progress
Mkhuze	Completed, borehole augmentation planned
Nkonjeni	In progress
Simdlangentsha East	Upgrades to cater for increased water demands
Simdlangentsha Central	In progress
Simdlangentsha West	In progress
Usuthu	In progress

    Each regional scheme footprint has a sustainable water source from where infrastructure is progressively being rolled out to all households within the supply area. The supply footprints have been identified in such a way that water can be provided to all households within the area in a sustainable manner and at the lowest possible cost (R/kl).

  - **Intermediate Stand-alone Schemes**

    Due to time and budget constraints with implementation of costly bulk infrastructure, ZDM has initiated an intervention to alleviate the severe water shortage in areas where a sustainable local source can be developed. These water sources will supply several settlements in the surrounding area, and will become part of the Regional Scheme infrastructure in future. Implementation will be done according to the ZDM Prioritisation Model for water services within each Regional Scheme.

  - **Rudimentary Water Supply**

    In areas where settlements cannot be served in the near future by the Regional Schemes or Intermediate Schemes, local water sources will be used to provide a survival level of water on

a rudimentary level. Implementation is done according to the ZDM Prioritisation Model for water services.

- **RURAL SANITATION**

  Sanitation in the rural areas is being provided in the form of dry-pit VIP toilets. Implementation is done according to the ZDM Prioritisation Model for rural sanitation services.

  A Rural Sanitation Replacement Programme has also been deemed neccessary in 2013 to replace the old Archloo-, Block- and Zink-type VIP's. This programme's implementation will be included in the next 5-year review of the WSDP.

- **SPECIAL PROJECTS**

  Special projects are individual infrastructure requirements on a Local Municipal level which are addressed and budgetted for on a needs basis.

- **EMERGENCY INTERVENTION PROJECTS**

  Emergency Intervention Projects are projects which require immediate intervention, such as during disaster management. Two such projects have been implemented over the past few years in ZDM, namely:

  - **Drought Relief**

    Emergency drought relief funding was provided to ZDM in 2016. An amount of R37 493 000 was made available in 2016 for drought relief interventions, and a planned 7 880 households were to benefit from this funding allocation. More details can be reviewed at the end of this section.

  - **COVID-19**

    South Africa has been in lock-down due to the COVID-19 epidemic. Emergency interventions were immendiately put in place in ZDM, with 2 task teams deployed to plan, manage and oversee emergency interventions. More details can be reviewed at the end of this section.

Rollout programmes for each of the above can be reviewed at the end of this section.

11.2 ZDM Prioritisation Models

11.2.1 Introduction to Prioritisation Models in Service Delivery

The first Water Supply and Sanitation Policy White Paper was published in 1994 and enacted as the Water Services Act, Act 108 of 1997 (dwa.gov.za, 1994). The Department of Water Affairs (DWA)

had the responsibility of providing these services. A few guidelines were provided on how to implement these services, and **the primary principle is that development should be demand-driven.** The Apartheid era has left a legacy of prejudice, and it is important that the new water supply policies ensure that their implementation does not become subjective to political influence. The Water for Growth and Development Framework, published by DWA, stipulates that proper planning and resources need to be used to supply water through various programmes, such as bulk water schemes, intermediate stand-alone schemes, and survival-level of water where water scarcity is prevalent (dwa.gov.za, 2011). The water policies, however, provide little guidance about how these services should be prioritised.

The Water and Sanitation White Paper was revised in 2002 and adopted by Parliament on 17 September 2003 as the Strategic Framework for Water Services (dwa.gov.za, 2003). Some major amendments were made to the roles of the DWA and local government. DWA's function changed from being a direct delivery function to being a sector leader, supporter and regulator. The responsibility of service delivery was handed over to the local government, and each district and local municipality have to implement their own policies to manage service delivery. This includes their approach to prioritise service delivery. The prioritisation of these service deliveries has created an immense challenge to local government. The most basic of these services is water and sanitation supply. Due to the vastness and remote characteristics of the rural areas, it is one of the most difficult aspects of service delivery that local government faces. Additional to the spatial characteristics of these areas, political influence often dictates the outcomes of service delivery planning instead of focusing on the actual water needs of rural communities.

Most District Municipalities, in the more rural areas, are the WSP's for their respective area of jurisdiction. This includes the Local Municipal areas within the District Municipal area. In the Water Services Act of 1997, it stipulates that an Integrated Development Plan (IDP) for each District Municipality should provide details on all Sector Plans required on a National level (Government Gazette, 1997). The purpose of Sector Plans is to provide details on certain aspects or roles that the District Municipalities have to adhere to, explaining their plan of action for each aspect. The Water Services Development Plan (WSDP) is the Sector Plan detailing the approach that the municipality follows for water services, and how they intend to provide water services to its users. This is part of the planning purposes of the Municipality; therefore, the responsibility for compiling the WSDP usually lies with the Planning Department.

The WSDP should, therefore, detail the approach that the municipality follows for water services delivery, and the process followed to prioritise and implement these services. It is this process that

should include the consultative process with all relevant stakeholders to take their views into consideration (dwa.gov.za, 2004).

This consultative process is, in many cases driven by political influence, and is prone to result in argumentative situations between ward councillors to motivate projects within their own wards.

The ward councillors fulfil the role of acting on behalf of the local people in their respective wards with their focus on a consultative and participatory process for service delivery needs. A ward councillor, therefore, has the responsibility of being a spokesperson for the ward, which entails the successful voicing of community needs to the entities providing service delivery. Due to this responsibility, it is important that the councillor ensures that community needs are being addressed. Councillors for these wards may affiliate to different political parties.

Ward councillors are, therefore, in a predicament because they compete with the other ward councillors for budget allocations. The Water Services Provider (WSA), in return, faces the following challenges:

- If ten communities from different wards do not have water services, how should the budget allocations be done and which settlement will get water services first?
- Whose viewpoint acts as the decisive when deciding where water services should be implemented?

The community with the lowest level of services in one ward may, for example, be in a better position compared to communities in other wards because it is close to a perennial river. The question remains what objective measurement can determine which community is worse-off?
Figure 1 represents a typical workflow process to approve a WSDP review:

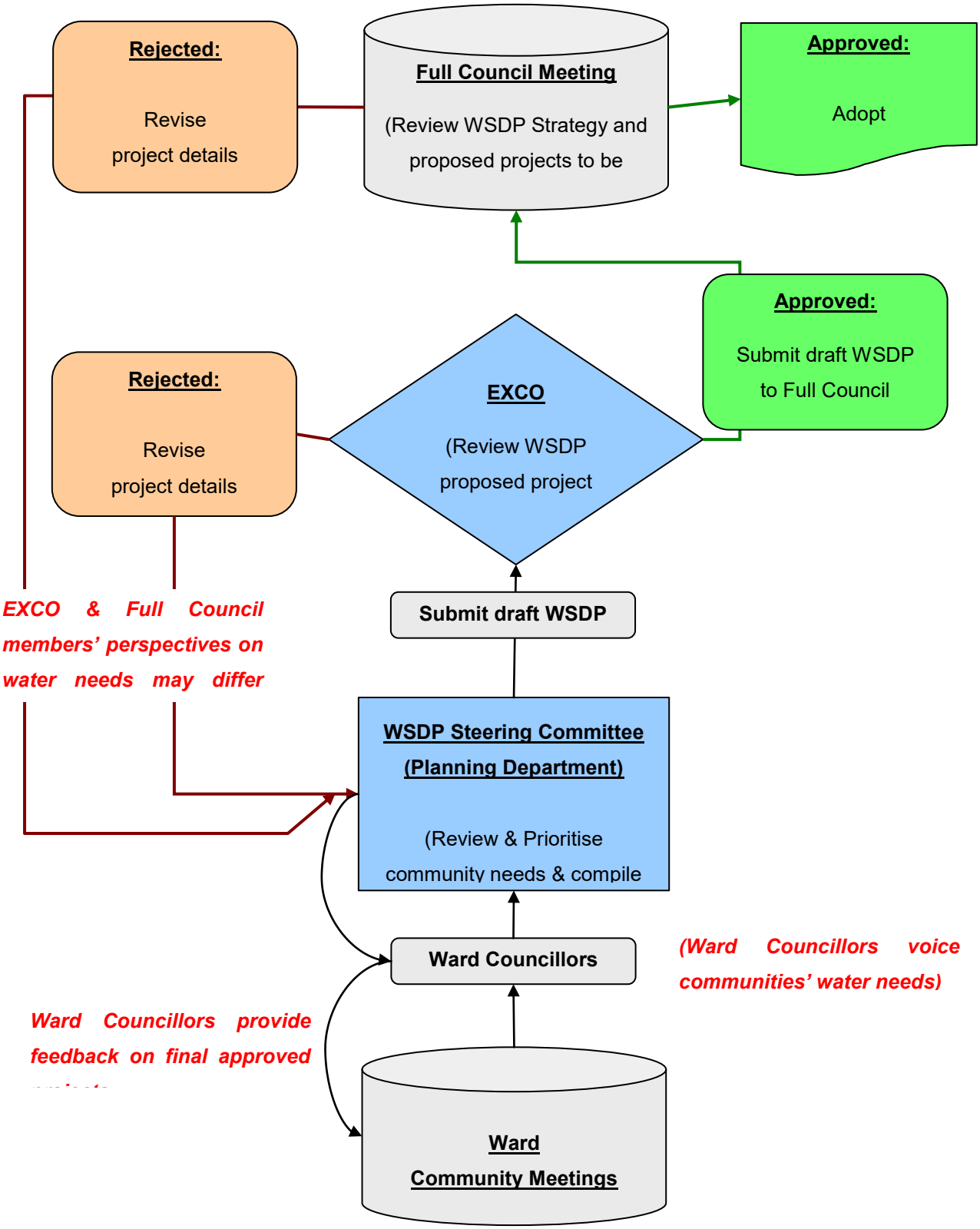


Figure 11.2.1: Typical WSDP Approval Process of a District Municipality

Figure 1 clearly demonstrates that an endless cycle of resubmissions may occur if the perspectives of the Executive Council (EXCO) and the councillors on water needs differ from what the WSDP Steering Committee view as priorities for water services implementation. Three factors play a dominant role in the above situation:

- **Individual perceptions of their own needs**
  People in one location may feel that they have an urgent need for water services since they have to walk down to the river to fetch water, but another community may not even have surface water within walking distance.

- **Community expectations of ward councillors**
  Ward councillors are voted for mainly on the expectation from the ward communities about what the councillor can do for them. This includes service delivery on various levels. Councillors, therefore, need to ensure that service delivery is taking place in their respective wards else they will lose their position as ward councillor.

- **Political pressure**
  Since multiple political parties are presented in a given municipality, it may become a tug-of-war to see which political party can do the most for their wards. This mainly consists of provision for basic services in the rural areas. Prioritisation for service delivery may, therefore, become biased to maintain favour with the ward communities.

A Prioritisation Model for water and sanitation needs resolves the above conflict situations where projects are prioritised in an objective, unbiased approach based on their most urgent need for water and sanitation services.

11.2.2 Prioritisation Methods

Several prioritisation methods exist that can be used, depending on the scenario and what the desired outcomes should be. A few of these typical methods are discussed in this section.

The National Association of County and City Health Officials (NACCHO), Washington DC, has developed the Assessment Protocol for Excellence in Public Health (APEX*PH*) planning tool (NACCHO, 2012). This is a flexible planning tool for health officials to address health-related issues in communities. A critical component of the Part I and Part II APEX*PH* processes occurs at the point where the identified issues are prioritised. Prioritising issues allows the health department and community to direct resources, time, and energy to those issues that are deemed most critical and practical to address.

The APEX*PH* workbook briefly mentions some of the most popular prioritisation methods, which are further described in the NACCHO document (cdc.gov, 2012). A brief summary of these methods is described next:

1 Simplex Method

The Simplex Method obtains group perceptions by the use of questionnaires. The answers to the questionnaires are scored and ranked and the issues with the highest scores are given the highest priority.

2 Nominal Group Planning Method

Nominal Group Planning was developed for situations where individual judgments must be obtained and combined to arrive at decisions which cannot be determined by one person. This strategy is best for problem exploration, knowledge exploration, priority development, program development, and program evaluation.

3 Criteria Weighting Method

The criteria weighting method is a mathematical process whereby participants establish a relevant set of criteria and assign a priority ranking to issues based on how they measure against the criteria. **The calculated values do not necessarily dictate the final policy decision, but offer a means by which choices can be ordered.**

4 A "Quick and Colorful" Method

This technique uses a means whereby individual group members vote to prioritise each health problem. A ballot or open method can be used.

The document further provides a summary of the positive and negative aspects of each method in Table 11.2.1.

Table 11.2.1: Prioritisation Methods

PRIORITIZATION TECHNIQUES	Strengths	Weaknesses	Optimal size of group
Simplex	Efficient and quick to use, once questionnaire is constructed. Can be used with any size group. Allows for weighting of problems.	Requires the development of a questionnaire. Relies heavily on how questions are asked.	Any size.
Nominal Group Planning	Motivates and gets all participants involved. Can be used to identify areas for further discussion and can be used as part of other techniques (e.g., to help develop a Simplex questionnaire.) Allows for many ideas in a short period of time Stimulates creative thinking and dialogue. Uses a democratic process.	Vocal and persuasive group members can affect others. A biased or strong-minded facilitator can affect the process. Can be difficult with larger groups (more than 20-25) May be overlap of ideas due to unclear wording or inadequate discussion.	10-15 (larger groups can be broken down into subgroups.) Not <6.
Criteria Weighting	Offers numerical criteria with which to prioritize. Mathematical process (this is a weakness for some.) Objective; may be best in situations where this is competition among the issues. Allows group to weight criteria differently.	Can become complicated. Requires predetermining criteria.	Any size.
Hanlon (described in the APEX*PH* Workbook, pp 23 24 and Appendix E)	PEARL component can be a useful feature. Offers relatively quantitative answers that are appealing for many. Baseline data for issues can be used for parts; this can be appealing due to the objectivity of the data.	The process offers the lowest priorities for those issues where solution requires additional resources or legal changes which may be problematic. Very complicated.	Any size.
A "Quick and Colorful" Approach	Simple. Well-suited to customizing. Blinded responses prevent individuals influencing others. Less time intensive.	Less sophisticated (may be a benefit for some groups). Doesn't offer the ability to eliminate options that may be difficult to address given current laws and resources. If open voting is used, participants may be influenced by others' votes.	Any size.

The document concludes with the following statement:

> *"By using formalized techniques, such as those described here, groups have a structured mechanism that can facilitate an orderly process. Such a process also offers a common starting point that groups can alter to suit their own specific needs. Whatever technique is used, it is important to keep in mind that the reason prioritization is undertaken is to include input from all interest groups. Therefore, it is vitally important to include the community when defining criteria."*

The theoretical foundation of the expected outcomes and results of a prioritisation model is that the level of urgency or the need for water ans sanitation supply to rural communities can be determined by establishing the existing form of water access.

It should be possible to assign a "water and sanitation needs" value to the various aspects and characteristics of each settlement related to water and sanitation access. A total score can then be assigned to each settlement, which represents their urgency or need for water and sanitation services. **The higher the score, the higher the priority of the project for implementation.**

The most appropriate prioritisation technique for water and sanitation services in the South African rural context proves to be the Criteria Weighting method, and has been used successfully in various local government institutions to prioritise service delivery.

11.2.3 ZDM Prioritisation Models for Service Delivery

ZDM has initiated prioritisation models for water and sanitation implementation since 2002. The purpose of the prioritisation models are to priortise settlements and project implementation in an un-biased, objective way. Current Prioritisation Models include:

1 Regional Scheme Rollouts
2 Intermediate Stand-Alone Schemes
3 Rudimentary Water Supply Rollouts
4 Rural Sanitation Rollouts
  4.1 New Infrastructure
  4.2 Phase 3 Replacement Programme (TBA)
5 Budget Allocation Model

The Prioritisation Models are based on a weighted criteria method, whereby criteria for each model is given a weight, which counts up to a total score of 100. The highest score implies the highest priority for implementation.

11.2.4 Water Implementation Model

For water implementation on a rudimentary as well as regional level, the weighted criteria is based on specific characteristics of each settlement within ZDM. Where water needs to be provided to individual settlements, the settlements' individual prioritisation score is used to prioritise implementation.

Where larger areas are involved with several settlements grouped together, eg. within regional bulk reservoir zones, the average score of all settlements within each zone is calculated. This is then used as a zoning score to prioritise zones. The scoring criteria can be seen below:

Table 11.2.2: Scoring criteria for water implementation

FACTOR	CRITERION	VALUE	WGHT
Existing Primary Water Source	Urban & RWSS (with Bulk, Secondary Bulk, Retic) RWSS (with Bulk, Secondary Bulk) RWSS (only Retic) CWSS/Stand alone Potable BH/Spring/H.Pump Unprotected Surface Water (River/Dam etc)	0 0.25 0.5 0.5 0.75 1	30
Project Cost / Capita Project Cost / HH	> R 40,000 R30,000 - R40,000 R20,000 - R30,000 R10,000 - R20,000 < R10,000	0.2 0.4 0.6 0.8 1	15
Walking Distance to Water	< 1 km 1 – 3 km > 3 km	0 0.7 1	20
Within 4 km of a Dev. Corridor/RSC	Primary / Service Centre Secondary Tertiary None	1 0.75 0.5 0	5
Existing Sanitation	Less than 5% 25% 75% More than 95%	1 0.75 0.25 0	5
Existing Use / Level of Service	Nothing (> 3km walking) Survival (< 3km walking) Rudimentary ≥ RDP	1 0.75 0.5 0	15
Linkages to other projects< (supplyable) All settlements within 5km of existing Regional Scheme Layouts	Yes No	1 0	5
History of Water Borne Disease	Yes No	1 0	5
		Total	**100**

11.2.5 Rural Sanitation Implementation Model

Rural sanitation implementation is based on the same principle as with water, however different criteria and weights are used to address specific rural sanitation needs. Two prioritisation models are used for sanitation implementation:

- **Phase 1 & 2 (New projects)**

  These phases provide sanitation to settlements having not received any form of sanitation from previous sanitation projects.

- **Phase 3 (Replacement Programme)**

  Phase 3 will be initiated after completion of the current remaining settlements without sanitation services have been completed. This project will replace old VIP-type structures, especially the Archloo-type structures which have proofed to have a very short lifespan. Old VIP-types such as block- and zink-type where pits are full and the top structure cannot be moved to a new location will also be replaced.

The scoring criteria for both these two programmes can be seen below:

Table 11.2.3: Phase 1 and 2 scoring criteria for rural sanitation implementation

FACTOR	CRITERION	VALUE	WEIGHT
Water Implementation	Catch-up Current Water Implementation (2008-2014) Future Water Projects	1 0.5 0	40
Distance to downstream open groundwater (Pollution potential)	<50m 100m 250m 500m >500m	1 0.6 0.4 0.2 0	25
Settlement density in relation to HH count. (Susceptability to diseases)	> 10 5 - 9.99 2 - 4.99 1 - 1.99 <1	1 0.6 0.4 0.2 0.1	15
Settlement type (Susceptability for diseases to surrounding urbanised area)	Urban Fringe Peri-urban Rural	1 0.5 0.1	10
Rural Development Nodes Development Corridors Service Centres	Yes No	1 0	10
		Total	**100**

Table 11.2.4: Phase 3 scoring criteria for rural sanitation implementation

FACTOR	CRITERION	VALUE	WEIGHT
Existing households not covered by previous project	76-100% 51-75% 26-50% 0-25%	1 0.67 0.33 0.01	35
Sanitation Top Structure Type	Archloo Zink Block Pre-cast	1 0.67 0.33 0.01	25
Condition	Need replacement Need repairs New	1 0.5 0.01	20
Year built	<2000 2001-2006 >2007	1 0.5 0.01	5
Settlement density	High Medium Low Very low	1 0.6 0.3 0.01	15
		Total	**100**

11.2.6 Budget Allocation Model

The annual funding allocations are split proportionally between the various implementation programmes for ZDM. Each implementation programme area is allocated a percentage in proportion to the overall budget requirement for eradicating the total backlog in that particular category of infrastructure projects.

Due to backlogs being eradicated continuously, these percentages are revised on an annual basis to ensure that the allocations reflect the revised backlogs for a particular programme and area.

11.3 Project Details

11.3.1 Regional Schemes

The ten Regional Water Supply Schemes require the largest portion of external funding due to costly bulk infrastructure. Due to this, ZDM augment the bulk reservoir zones with intermediate stand-alone schemes as well as survivial-level rudimentary water supply. Each rollout is prioritised as described above.
Since the master planning was done for the regional schemes, ZDM has experienced some unique challenges concerning the sustainability of the water sources to be used for the regional schemes. Land reform areas have seen an unexpected high household growth in certain areas, which increased the water demand for regional schemes drastically. Critical issues related to the above have been identified for each regional scheme, and project progress and interventions to these issues are discussed in more detail below.

11.3.1.1 Nkonjeni

- **Background**
  The Nkonjeni regional scheme is in the privileged position of having a well-developed and sustainable water source. Therefore the bulk of the available funding can be applied towards the progressive roll-out of water services to the respective communities.

- **Key Issues and Interventions**
  The sustainability of the scheme is threatened by water losses in existing networks and excessive water usage from unmetered consumers. A water audit was done in 2006 (Ulundi Water Audit – October 2006) that indicated the inefficiency of water usage in Ulundi town to be 68% of the volume of water put into the system. ZDM has initiated a waterloss management programme where these waterlosses are systematically been addressed.
  Due to limited spatial information that was available for planning purposes at the start of the Regional Schemes, the area around Babanango was not covered initially under Nkonjeni Regional Scheme. During 2008 a demographic verification process was done which allowed ZDM to identify existing settlements footprints in the Babanango area. A business plan was submitted to DWA and MIG in 2009 which included these settlements under MIG funding, and implementation of water supply is completed. In the long-term planning it is proposed to provide Babanango and surrounding areas with sustainable water supply from Mpungamhlope WTW.

- **External Support**
  Funding for Nkonjeni Regional Scheme is provided through MIG.

11.3.1.2 Usuthu

- **Background**

  The Usuthu Regional Scheme is the largest water supply scheme in the district and also represents the biggest portion of the total backlogs. The scheme required the development of a new water source from the Black Mfolozi river and expensive bulk infrastructure to be rolled out over vast distances to scattered rural communities.

- **Key Issues and Interventions**

  The biggest challenge with this scheme is the funding of the enormous capital investment for bulk services that is required. ZDM has aquired additional DWA funding to fast-track the implementation of bulk services for this scheme via RBIG funding.

  The huge capital investment required eradicating the backlogs through the regional scheme infrastructure and the resulting slow progress with the roll-out of services requires an intermediate solution to be developed to alleviate immediate water supply needs. The existing rudimentary supply programme, whereby local groundwater sources are developed within 800m walking distance from households, was hampered in Usuthu area due to difficulty in finding reliable and good quality water sources close to communities. ZDM has initiated intermediate, stand-alone water schemes to address the delay in providing reticulation to communities. These intermediate schemes are developed from production boreholes where available, and are designed in such a way that they can easily be integrated into the bulk services network in future.

  The sustainability of the main water source of Nongoma town is under severe strain and not sustainable during drought periods. The installation of a bulk pipeline from the Black Mfolozi river to Nongoma has been completed to address this issue. The internal bulks for Nongoma town have also been upgraded to augment the existing water supply.

  Nongoma town frequently experiences intermittent water supply to consumers and businesses, even outside of drought periods. Excessive water usage by unmetered consumers and high water losses contribute to the problem. A water loss study conducted in 2003 indicated that unaccounted water supply in Nongoma was in excess of 41%. A waterloss and water demand strategy is in progress as part of the Usuthu Regional Scheme planning.

- **External Support**

  Funding is provided by MIG as well as RBIG (Bulks).

11.3.1.3 Mandlakazi

- **Background**

  The Mandlakhazi Regional Scheme represents the second largest supply area in the district and also the second biggest portion of the total backlogs of the municipality. There are no towns in the supply area and the communities are sparsely scattered and vast distances apart. The provision of water services to all communities are therefore extremely expensive and will take a long time to conclude.

  Water supply problems in the neighbouring Hlabisa area has resulted in a change of priorities and the construction of a bulk supply pipeline to supply the eastern side of Mandlakazi and eventually reach the Hlabisa communities.

  The scheme is supplied with raw water from a privately-owned dam outside of the Zululand municipal area. The dam is supplied by the owner from the Pongolapoort Dam, which is a very reliable water source. Bulk water supply agreements are in place with the owner and the supply is secured. ZDM is however in the process of obtaining an individual allocation and raw water abstraction permit from DWA for abstraction from the Pongolapoort Dam for long-term sustainability. Funding application to DWS via RBIG is also in progress.

- **Key Issues and Interventions**

  The Mandlakazi area is also in need of an intermediate solution to accelerate the provision of services to households until the regional scheme bulk infrastructure can eventually reach all the communities. Drought problems are frequent in the area and the rudimentary programme has limited success in finding sustainable and potable local sources. However, success has been achieved in some areas for good production boreholes and this will be developed as intermediate stand-alone schemes which will be integrated into the regional scheme in future.

- **External Support**

  The regional scheme is funded by MIG as well as an allocation from RBIG to accellerate the implementation of the bulk services.

11.3.1.4 Mkhuze

- **Background**
  The Mkhuze Regional Scheme area comprises of mostly formal farm areas and a small number of sparsely scattered rural communities. The construction of a single regional scheme to supply the entire footprint is not feasible, but rather individual schemes from local sources.

- **Key Issues and Interventions**
  An existing land reform project at the Gumbi settlement has resulted in a dramatic influx of families that settled without any water or sanitation infrastructure being in place. This resulted in the construction of an emergency supply from the neighbouring Pongolapoort Dam. This project is completed. The abstraction point at the dam is however not ideal and in future a second abstraction point from a more ideal position should be investigated.

  There is huge potential for economic development on the western side of the Pongolapoort Dam but abstraction on that side of the dam is unfortunately very difficult. Groundwater sources in the area are also of poor quality and insufficient yield to sustain large scale development.

- **External Support**
  Funding is provided by MIG.

11.3.1.5 Simdlangentsha East

- **Background**
  The Simdlangentsha East Regional Scheme is a well-served area and consists of the lowest backlogs in the district. The scheme supplies Pongola town as well as a vast rural area. Water is abstracted from irrigation channels next to the Pongola river and with an emergency supply that is available further down at the Pongola river. The irrigation channels are managed by DWS and the supply is mostly reliable, except when the channels are closed for maintenance. ZDM also pays DWS a raw water charge for water abstracted from the channels.

- **Key Issues and Interventions**
  Water supply in the rural areas is under severe pressure with frequent interruptions to the supply. Excessive water usage and high waterlosses due to illegal and unmetered connections are the main contributors to the problem. Apart from the above problems the bulk infrastructure is also in need of upgrade as a result of population growth since the inception of the scheme. The challenges on the scheme therefore require a combination of water demand management interventions and the upgrade of bulk infrastructure to address the long-term sustainability of the scheme. The waterloss

managagement programme initiated by ZDM is addressing this at present, and the upgrading of the existing bulk infrastructure for the southern part of the scheme is in progress.

Pongola town has experienced significant development over the recent years and this was hampered by especially the absence of waterborne sanitation throughout the town. There is a need to compile a sewerage master plan for the area and plan upgrade requirements systematically.

- **External Support**
  Funding is provided by MIG.

11.3.1.6 Simdlangentsha Central

- **Background**
  The planning of the Simdlangentsha Central scheme is complete and the first phases of the bulk infrastructure have been completed. The project also requires a substantial investment in bulk infrastructure before communities will be reached with water supply. The area is however quite well served with localised schemes from local sources. The challenge is to keep these schemes operational until the bulk scheme can reach all the areas.

- **Key Issues and Interventions**
  The Simdhlangentsha East Regional Scheme experienced water pressure problems, and the Simdhlangentsha Central Regional Scheme is used to augment water supply to these settlements.

  The Simdlangentsha Central scheme contributes a small portion to the total backlogs of the ZDM and therefore also receives a small portion of the available capital funds, although a substantial capital investment is still required to provide the necessary infrastructure.

  Although the area is generally well-served, all schemes are old and the regional scheme planning will include infills to provide water to additional households.

- **External Support**
  Funding is provided by MIG.

11.3.1.7 Simdlangentsha West

- **Background**

  Simdhlangentsha West Regional Scheme mainly consists of rural areas to the east of Paulpietersburg town. The area is generally well-served although existing networks are old and infills and waterloss management is required.

  The current capacity of the rising main line from the existing weir in the Pongola River to the existing Water Treatment Works at Frischgewaagd Township is 2ML/day (Supplies Frischgewaagd and Mangosuthu with raw water), and the current capacity of the existing Water Treatment Works at Frischgewaagd town is 3Ml/day. New networks were installed at Frischgewaagd during 2007/2008. and the water demand was reduced from the maximum possible supply of 2ML/day to 0.7Ml/day. The balance of the water (1.3ML/day) is consumed by Mangosuthu (with only 20% of the population of Frischgewaagd). A new Water Treatment Works and rising main line from the Pongola river to Frischgewaagd have been constructed. Bulk infrastructure will be constructed to link up all the existing stand-alone schemes to provide sustainable water throughout the regional scheme.

- **Key Issues and Interventions**

  High waterlosses are evident, especially in the Mangosuthu area. ZDM has addressed this issue and the construction of new networks at Mangosuthu is completed. Construction includes metered yard connections and consumers are restricted to 200 litres per household. Consumers will be able to register for a higher level of service, but will be billed for the balance. A Water Demand study is also planned to assess the entire regional scheme area.

  In the near future Frischgewaagd will also be restricted to 200 litres per day, with the option to register and pay for a higher level of service.

  The biggest challenge is to obtain funding for the proposed bulk infrastructure, and other funding sources will be required to fast-track the construction of bulk infrastructure.

- **External Support**

  Existing funding is provided by MIG.

11.3.1.8 Khambi

- **Background**

  The Khambi Tribal Authority area is well-served with several small stand alone schemes. (Esihlengeni, Kwamakweshe, Ngenetsheni, Cibilili and Ntumbane Community Water Supply schemes). Not all of these schemes however have had a sustainable water source. The clinic at Ntumbane is often without water during the dry winter periods.

A weir was constructed in the KwaMthazi River and a new water treatment works was constructed. This supplies water to the Khambi Tribal Authority and the integration of all the stand-alone schemes to this bulk service is completed.

- **Key Issues and Interventions**
  The long-term planning was to supply water from the Coronation Dam to the Khambi area, but an in-depth study by ZDM concluded that the Coronation Dam will not be a sustainable solution for the long-term additional demand, and the cost per capita would be too high. ZDM is currently equipping sustainable local sources closer to Khambi area, which will result in a substantial saving in bulk infrastructure.

- **External Support**
  Funding is provided by MIG.

11.3.1.9 eMondlo/Hlahlindlela

- **Background**
  The eMondlo area is well-served with existing stand-alone schemes. eMondlo town receives water from the Mvunyane dam. These existing sources are however not sustainable for future use, and will receive water in future from the Klipfontein dam situated next to Vryheid town. Mvunyane dam is silted up to such an extent that it is no longer a sustainable source for eMondlo town.

- **Key Issues and Interventions**
  During 2000 a new water reticulation network at eMondlo A and B was installed in order to lessen the water losses from 12 Ml/day to 4 Ml/day. The eMondlo water treatment works can supply 8 Ml/day. This meant that 4 Ml/day would have been available towards the settlements surrounding eMondlo A and B after the installation of the new networks. Networks were installed at these settlements and connected to eMondlo A and B. The old network at Emondlo A and B was never decommissioned and expected savings of 4Ml/day never realised. The residents of eMondlo also connected the new network to the old network with pipes in their yards.

  The eMondlo water treatment works has been refurbished and upgraded to supply 12Ml/day, but the water demand has grown from 8Ml/day in 2000 to 16 Ml/day currently. With the refurbishment completed there is still a shortfall of 4 Ml/day. The existing rising main line from Mvunyane Dam to eMondlo Water Treatment works can furthermore only supply 12 Ml/day.

  The above issues will all be addressed with the bulk services implementation through the Hlahlindlela Regional Scheme. In future water will be supplied from Klipfontein Dam to Vryheid Water Treatment

works. Water will then be pumped from the Vryheid Water Treatment works to Hlahlindlela (including eMondlo Township). A regional water supply assessment was done during 2015 providing several recommendations to cater for the Hlahlindlela water demand.

AbaQulusi as the WSP for urban areas has initiated a waterloss programme at eMondlo B. This is crucial towards the sustainability of water supply to the area. All connections will be inspected for water leaks and repaired where neccessary. In addition to this, ZDM has allocated funding for the remaining Emondlo B as well as eMondlo A to resolve the excessive waterlosses experienced in these two areas. Waterloss Management implementation is currently in progress.

- **External Support**
  Funding is provided by MIG.

11.3.1.10 Coronation

- **Background**
  The Coronation Regional Scheme consists of a few small and isolated towns and a number of scattered and very isolated rural settlements within formalised farm areas.

- **Key Issues and Interventions**
  The towns have a high level of service but the infrastructure is very old and urgent refurbishment is required in most cases. The Coronation scheme however is a small contributor to the total backlogs of the district and receives a small portion of the total capital funds. Refurbishment needs are competing with new infrastructure requirements for limited available funds. There is a need for refurbishment funding over and above funding for the eradication of backlogs.

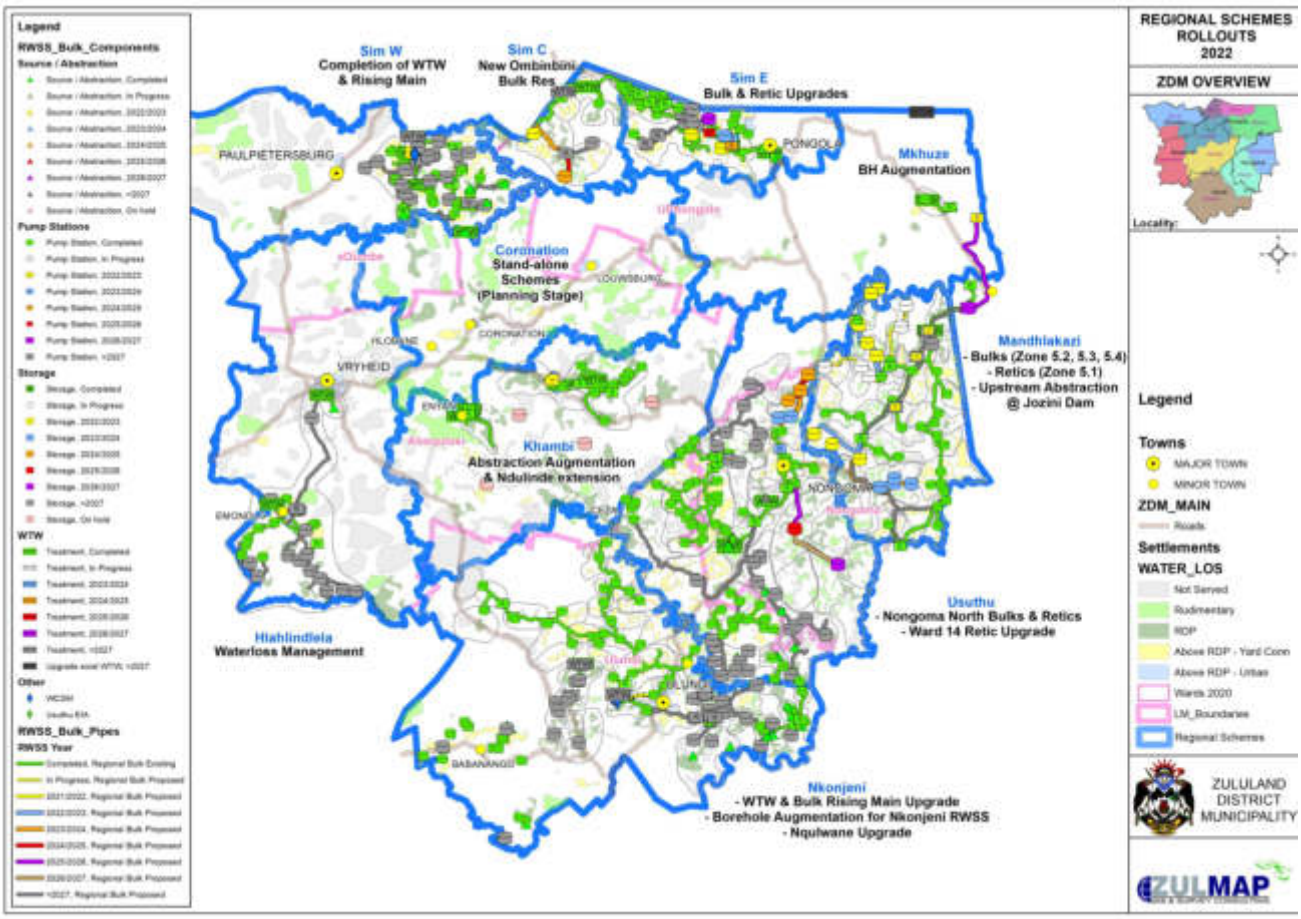
  The original planned regional scheme is currently under revision. The Coronation dam is not sustainable to supply Khambi Regional Scheme with additional water, and bulk services to the rural scattered settlements of Coronation area will be too costly to supply from a bulk infrastructure network. A revised Master Plan is currently in progress whereby stand-alone schemes from local sustainable sources will be developed to cover as many settlements as possible. Khambi Regional Scheme will also receive additional water needed from local sustainable sources.

  The town of Louwsburg within the Coronation regional scheme area have a water resource challenge that will not be easy to solve. The existing dam has a limited catchment and groundwater is difficult to find due to the locality of the town. Any possible solutions will be very costly and there is insufficient funding at this stage to address the issue. The town is also in need of waterborne sewage, but the water problems receive a higher priority at present.

A revised Master Plan for Coronation is in progress to assess local water sources for stand-alone schemes in areas where no sustainable water is present.

- **External Support**
  Funding is provided by MIG.

The following map depicts the rollouts of the regional schemes:



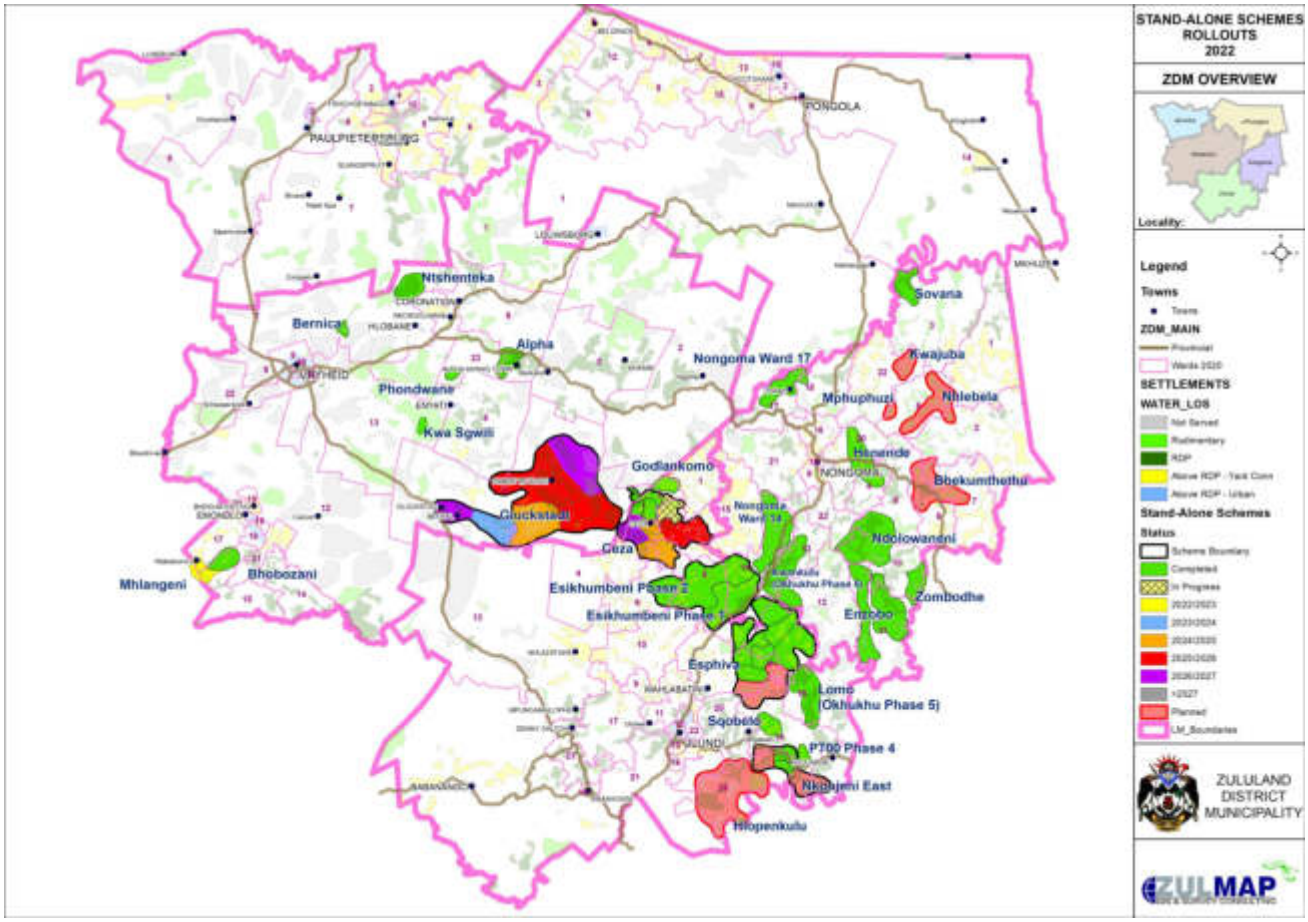
11.3.2 Intermediate Stand-alone Schemes

Due to time and budget constraints with implementation of costly bulk infrastructure, ZDM has initiated an intervention to alleviate the severe water shortage in areas where a sustainable local source can be developed. These water sources will supply several settlements in the surrounding area, and will become part of the Regional Scheme infrastructure in future.

New production boreholes are continuously been identified under the Rudimentary Programme, and if suitable, an intermediate stand-alone scheme will be designed around these production boreholes.

Implementation are done according to the ZDM Prioritisation Model for water services within each Regional Scheme.

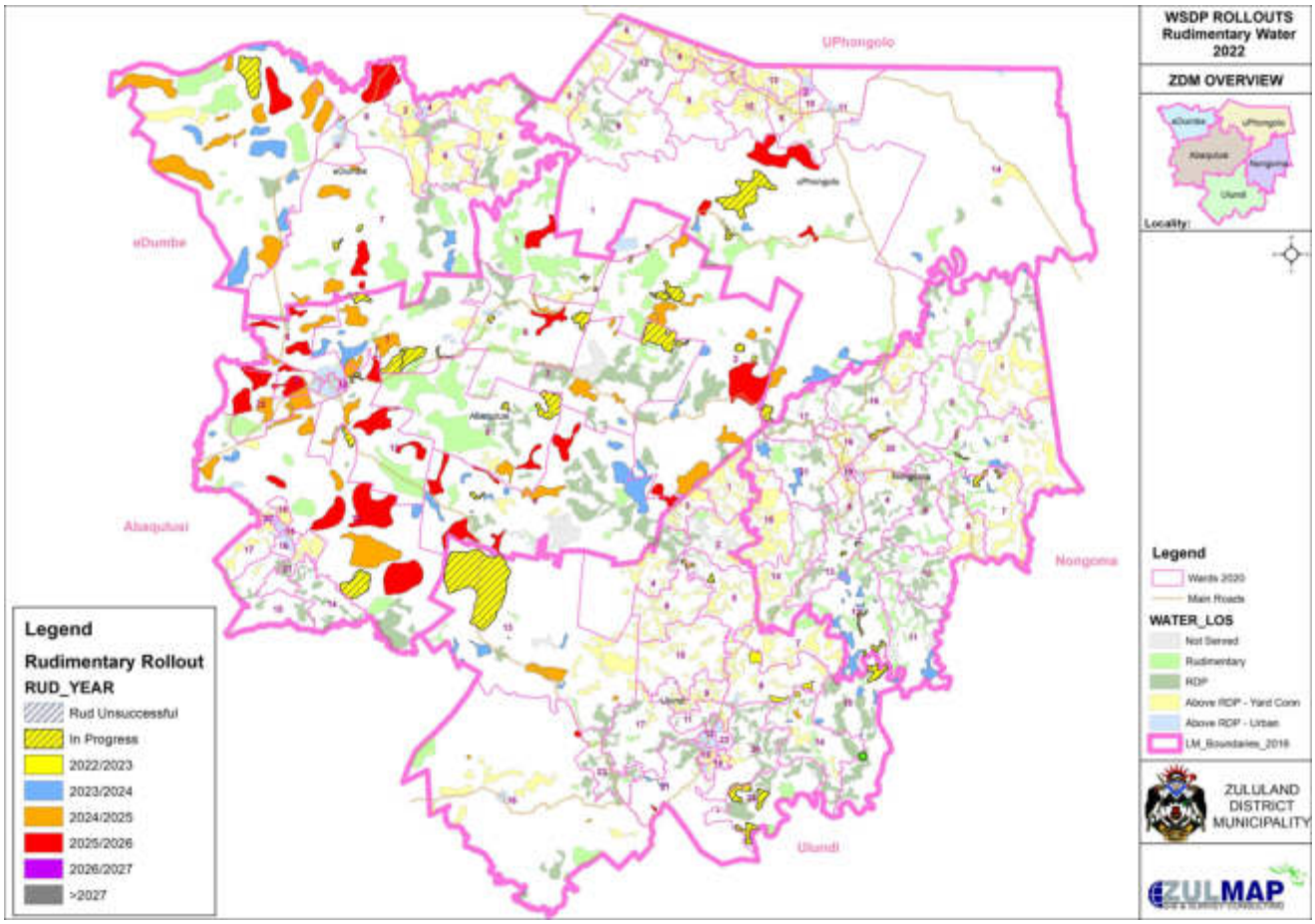
The following map depicts the rollouts of the current intermediate stand-alone schemes:



11.3.3 Rudimentary Water Supply

In areas where settlements cannot be served in the near future by the Regional Schemes or Intermediate Schemes, local water sources will be used to provide a survival level of water on a rudimentary level. Implementation is done according to the ZDM Prioritisation Model for water services. Through the rudimentary programme production boreholes are also identified for possible implementation of stand-alone schemes.

The following map depicts the rollouts of the rudimentary programme:

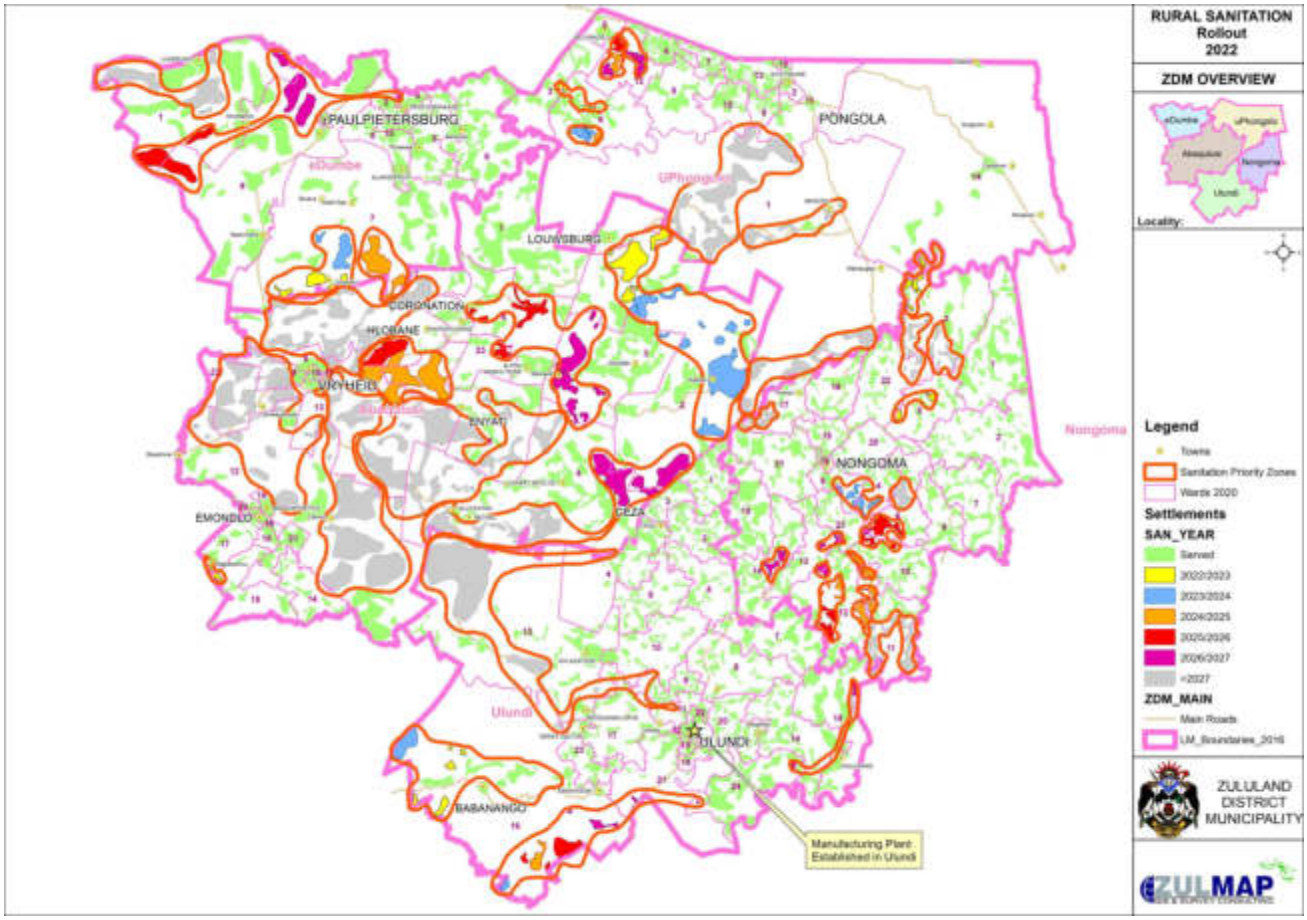


11.3.4 Sanitation Services

Sanitation in the rural areas is being provided in the form of dry-pit VIP toilets. Implementation is done according to the ZDM Prioritisation Model for rural sanitation services.

A Rural Sanitation Replacement Programme has also been deemed neccessary in 2013 to replace the old Archloo-, Block- and Zink-type VIP's. This programme's implementation will commense after the current outstanding settlements have been served.

The following map depicts the rollouts of the sanitation programme:



11.3.4 Emergency Intervention Projects

Emergency Intervention Projects are projects which require immediate intervention, such as during disaster management. Two such projects have been implemented over the past few years in ZDM, namely:

- **Drought Relief**

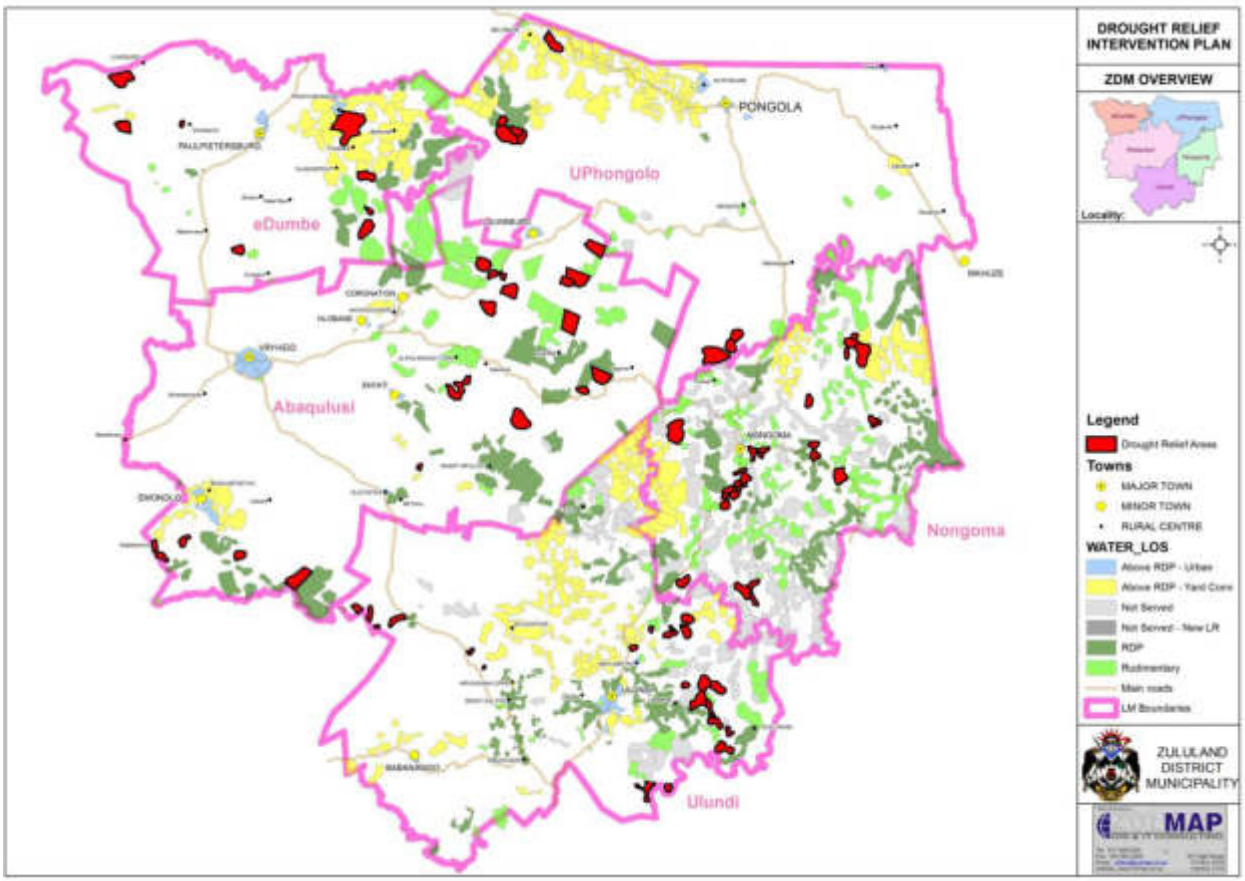
  Emergency drought relief funding was provided to ZDM in 2016. An amount of R37 493 000 was made available in 2016 for drought relief interventions, and a planned 7 880 households were to benefit from this funding allocation.

  A summary of the interventions can be seen in the next table.

Municipal Name	Spring Protection	Water Tankers rental (6 months' period)	Boreholes Drilling and equipping	Refurbish Non-functioning Schemes
	Qty	Qty	Qty	Qty
Abaqulusi LM	4			
		1		
			14	
				1
Nongoma LM	2			
		2		
			27	
				3
uLundi LM	2			
		2		
			18	
				2
eDumbe LM	6			
		1		
			8	
uPhongolo LM	4			
		1		
			10	

The town of Vryheid was forced to rely on water tankers and water points at designated borehole and water tank points. Since then dam levels have normalised again but it is clear that the greater Vryheid region is in urgent need for major interventions in terms of sustainable water during dry winter months. From the regional water demand study that was conducted in 2015, the most effective recommendation was to increase the Klipfontein dam level with approximately 1 meter to increase capacity. Implementation of this is however unclear.

The present status of ZDM is satisfactory, but water use and dam levels are closely monitored.



❖ **COVID-19**

South Africa is currently in lock-down due to the COVID-19 epidemic. Emergency interventions were immendiately put in place in ZDM, with 2 task teams deployed to plan, manage and oversee emergency interventions.

Two task teams, namely the ZDM Techincal Task Team and the ZDM Command Council was established, which are represented by ZDM and it's local municipalities' management delegates, MEC, the SADF, SAPS and Dept. of Health. These task teams meet bi-weekly where feedback and planning are discussed.

The COVID-19 pandemic accelerated the need for emergency interventions and as a result the municipality was required to expand the programme to include additional vulnerable communities.

The emergency water supply interventions include water provision through static tanks and water tankers. These interventions are implemented throughout the district, in each of the five Local Municipalities. Water tankers operate on fixed routes and pre-approved water supply rosters, which determine when each community will receive water. The aim is to supply each community at least once a week.

The table below shows the full contingent of water tankers operating in the district and the distribution per LM's:

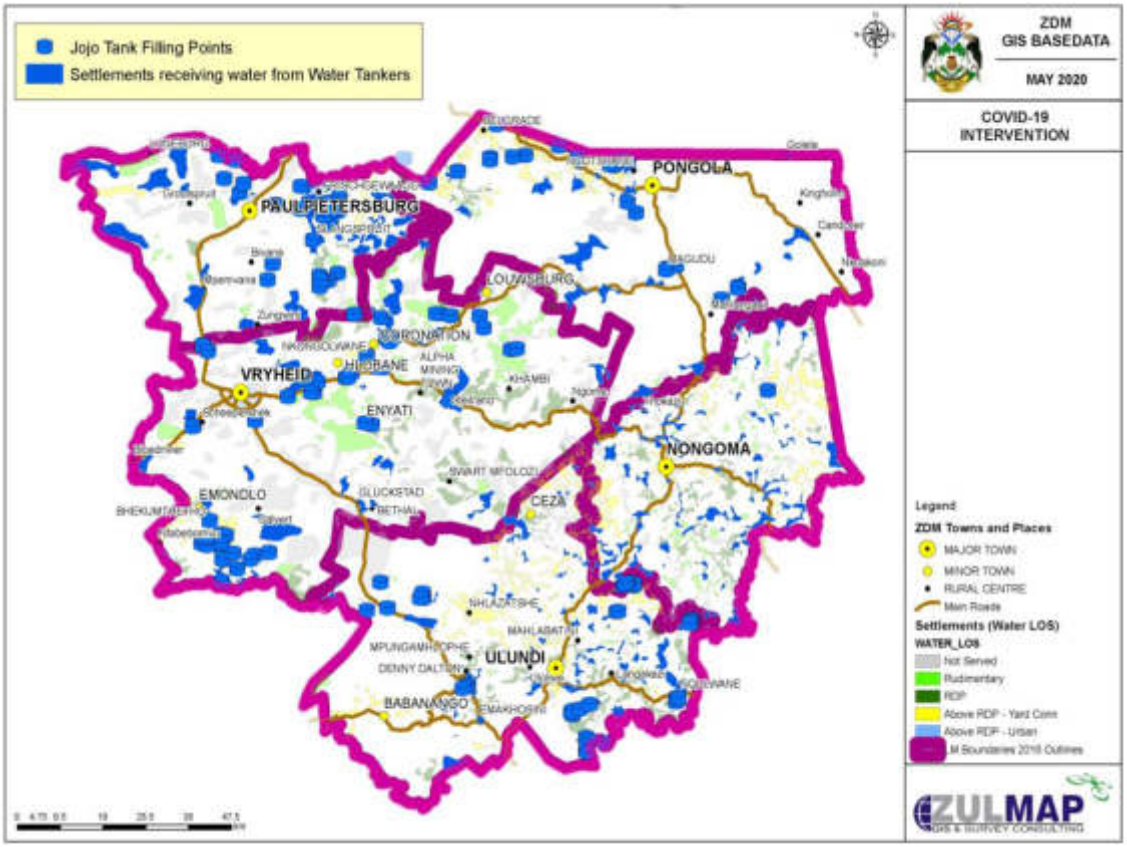
Local Municipality	*Total*	*Hired*	*ZDM*	*Rand Water*	*COGTA*	*LM's*
Ulundi	**22**	18	3	1		
Nongoma	**11**	10		1		
eDumbe	**9**	7	1		1	
Abaqulusi	**15**	12		1	1	1
uPhongolo	**10**	8		2		
	67	**55**	**4**	**5**	**2**	**1**

The majority of the water tankers are hired and operated by external Service Providers, under the supervision of ZDM technical personnel. ZDM water tanker supervisors accompany the water tanker drivers to ensure that the supply routes are adhered to and water is delivered where intended, in accordance with the water supply roster. ZDM also contributed four water tankers from our own fleet towards the programme.

The Department of Water and Sanitation, through Rand Water, contributed an additional five water tankers to the district for the duration of the pandemic. COGTA also contributed two water tankers, albeit directly to the eDumbe and Abaqulusi LM's. These water tankers are being controlled by the respective LM's. Abaqulusi LM also contributed a water tanker from their own fleet.

COGTA made available 50 x 2 700L static tanks during April 2020, and also distributed static tanks directly to certain Local Municipalities.

A map depicting settlements benifitting from the water tanker water supply as well as positions of current Jojo tanks can be reviewed in the map sbelow.



ZDM has also assisted with the provision of emergency sanitation facilities in some areas, as part of the COVID-19 intervention programme. Temporary sanitation facilities have been provided at the following places, to assist with the COVID-19 prevention measures:

- uPhongolo taxi rank (2 units)
- Mavalane road block (4 units)

ZDM has, in response to Circular 11 of 2020, issued by the Department of Cooperative and Traditional Affairs on 1 April 2020, reprioritised the MIG and WSIG capital programmes to make funding available for Covid-19 interventions. ZDM reprioritised R15m from the WSIG and R20m from the MIG allocations towards this programme.

The WSIG Business Plan for the approval and re-prioritisation of R15m funding was also approved. The aim of this programme was to refurbish existing non-functioning water schemes and provide additional handpumps as an emergency intervention for water supply to communities.

PROJECT ROLLOUT TABLES

11.1 Regional Water Supply Schemes

11.2 Intermediate Stand-alone Schemes

11.3 Rudimentary Water Supply

11.4 Sanitation Rollouts

Table 11.1: Roll-out of Regional Water Infrastructure

REGIONAL SCHEME ROLLOUTS

LM	Reg. Scheme	FIN. YEAR	Ward 2016	Infrastructure Type	Size or Number of households	LENGTH or SIZE	Settlement ID	Description or Settlement Name	Cost (Bulks)	Cost (Retics)
AbaQulusi	Coronation	In Progress	1,2,3,5,6,7,13,23	Planning				Coronation Regional Scheme Masterplan - Stand-alone Schemes		1 000 000
AbaQulusi	Hlahlindlela	In Progress	18,20	Water Conservation				Water Conservation and Demand Management for eMondlo Town	3 092 654	
AbaQulusi	Hlahlindlela	On hold	TA	Bulks & Secondary Bulk Cor	16 051 HH			Remaining Regional Bulks & Secondary bulk connections to all existing	263 878 995	
AbaQulusi	Khambi	2022/2023	3	Khambi RWSS Augmentation				New Production BH, rising main to existing Khambi WTW.	10 727 651	
AbaQulusi	Khambi	2023/2024	3	Settlement Reticulation		26	ZNEW30	Kewulane		
AbaQulusi	Khambi	2023/2024	3	Settlement Reticulation		54	ZNEW31	Ndulinde		1 572 349
eDumbe	Coronation	In Progress	7	Planning				Coronation Regional Scheme Masterplan - Stand-alone Schemes		1 000 000
eDumbe	Sim West	Completed	4	Treatment	10ml			Phase2 10ML to Sim West		
eDumbe	Sim West	Completed	4	Bulks				Raw Water Abstraction, Booster P/S & Rising Main to Frishgewaagd.		
eDumbe	Sim West	2022/2023	2,4,5,6,8	WCDM				Water Conservation & Demand Management	10 000 000	
eDumbe	Sim West	2022-2024	2	Storage	10ML			Demolish existing WTW and construct new terminal res.		
eDumbe	Sim West	2022-2024	4	Pump Station				New P/S to Mpunzi	84 646 060	
eDumbe	Sim West	2024-2026	2,10	Rising Main				Rising Main from Terminal Res to New Mpunzi Res.	41 591 876	
eDumbe	Sim West	2026/2027	10	Pump Station				Mpunz1 Booster Pumpstation with 600kl Sump	12 118 575	
eDumbe	Sim West	2026/2027	10	Reservoir	5ML			Mpunz1 5Ml Reservoir	12 298 928	
eDumbe	Sim West	>2027	5,6,8	Bulks				Remaining scope of works to connect all existing stand-alone schemes	363 847 582	
Nongoma	Mandlakazi	Completed	2,5,22	Bulks				PHASE 5.5 Bulk Pipelines & Reservoirs		
Nongoma	Mandlakazi	Completed	3	Bulks				Phase 5.1 Bulks		
Nongoma	Mandlakazi	In Progress	3	Reticulation				PHASE 5.1 Reticulation		
Nongoma	Mandlakazi	In Progress	3,22	Bulks				PHASE 5.2 Bulk Pipelines & Reservoirs	72 811 713	
Nongoma	Mandlakazi	In Progress	3	Bulks				PHASE 5.3 Bulk Pipelines & Reservoirs	14 109 144	
Nongoma	Mandlakazi	2022/2023	3	Reticulation				PHASE 5.3 Reticulation		52 250 489
Nongoma	Mandlakazi	2022/2024	3	Bulks				PHASE 5.4 Bulk Pipelines & Reservoirs	58 676 211	
Nongoma	Mandlakazi	2022-2027	All	Bulks				Upstream Bulks: Abstraction Works & Raw Water Mains	1 443 865 170	
Nongoma	Mandlakazi	2023/2024	2,5,22	Reticulation				PHASE 5.5 Reticulation		202 756 956
Nongoma	Mandlakazi	2023/2024	20	Bulks				PHASE 5.6A Bulk Pipelines & Reservoirs	86 236 319	
Nongoma	Mandlakazi	2024/2025	6,7,8	Bulks				PHASE 5.6B Bulk Pipelines & Reservoirs	46 448 406	
Nongoma	Mandlakazi	2024-2026	3,22	Reticulation				PHASE 5.2 Reticulation		59 853 619
Nongoma	Mandlakazi	2024-2026	20	Reticulation				PHASE 5.6A Reticulation		75 645 844
Nongoma	Mandlakazi	2024-2026	1	Bulks				Potable water rising main & P/S to command reservoir	118 682 216	
Nongoma	Mandlakazi	2026/2027	3	Reticulation				PHASE 5.4 Reticulation		73 529 532
Nongoma	Mandlakazi	2026-2029	6,7,8	Reticulation				PHASE 5.6B Reticulation		223 233 058
Nongoma	Mandlakazi	2026/2028	1	Bulks				WTW Upgrade to 60ML/day	344 919 960	
Nongoma	Mandlakazi	>2027	1,5,6,7,8,20	Bulks				Bulk Mains & Pump Stations for Hlabisa Bulk Supply	479 083 370	
Nongoma	Mandlakazi	On Hold	22	Bulks				PHASE 5.7 Bulk Pipeline	33 377 821	

REGIONAL SCHEME ROLLOUTS

LM	Reg. Scheme	FIN. YEAR	Ward 2016	Infrastructure Type	Size or Number of households	LENGTH or SIZE	Settlement ID	Description or Settlement Name	Cost (Bulks)	Cost (Retics)
Nongoma	Usuthu	Completed	9	PS Mech/Electr		-	-	Lindizwe PS2	-	-
Nongoma	Usuthu	Completed	9	PS Mech/Electr		-	-	Holinyoka PS1	-	-
Nongoma	Usuthu	Completed	9	Usuthu Bulk Res B & 3ML R		-	-	Completion of bulk reservoirs for Zone G	-	-
Nongoma	Usuthu	Completed	15	Usuthu Raw Water Abstracti		-	-	Mechanical Works	-	-
Nongoma	Usuthu	In Progress	14	Reticulation	142	-	Z554	Badlaneni	-	
Nongoma	Usuthu	In Progress	14	Reticulation	112	-	Z564	Emahlombe	-	
Nongoma	Usuthu	In Progress	14	Reticulation	284	-	Z561	Esigangeni 1	-	
Nongoma	Usuthu	In Progress	14	Reticulation	80	-	Z562	Itshodo	-	
Nongoma	Usuthu	In Progress	14	Reticulation	297	-	Z578	Ivuna	-	13 800 000
Nongoma	Usuthu	In Progress	14	Reticulation	49	-	Z560	Khalweni	-	
Nongoma	Usuthu	In Progress	14	Reticulation	66	-	Z563	Kwandase	-	
Nongoma	Usuthu	In Progress	14	Reticulation	66	-	ZJM2c	Kwazwede	-	
Nongoma	Usuthu	In Progress	14	Reticulation	110	-	Z559	Newgoli	-	
Nongoma	Usuthu	In Progress	14	Reticulation	42	-	ZJM2b	Phenyane 2	-	
Nongoma	Usuthu	2022/2023	16	Pump Station				Canaan Pump Station	1 500 000	
Nongoma	Usuthu	2022/2023	23	Reticulation				Holinyoka Area Reticulation Phase 1		30 000 000
Nongoma	Usuthu	2023/2024	13	Reticulation				Holinyoka Area Reticulation Phase 2		6 000 000
Nongoma	Usuthu	2023/2024	18	Bulks				Bulk pipelines for Bulk Res G North	30 000 000	
Nongoma	Usuthu	2024/2025	18	Bulks				Remaining Bulk pipelines for Bulk Res G North	9 000 000	
Nongoma	Usuthu	2025/2026	23	Bulks				Bulk Pipline to Res F, Reservoir F	27 552 000	
Nongoma	Usuthu	2026-2029	10,12,13,23	Reticulation				Reticulation within Bulk Res F Zone		142 600 000
Nongoma	Usuthu	2026/2027	23,10	Bulks				Bulk Pipline to Res J, Reservoir J	6 221 000	
Nongoma	Usuthu	>2027	10,11	Reticulation				Reticulation within Bulk Res J Zone		55 042 000
Nongoma	Usuthu	>2027	17,21	Bulks				Bulks in Res H Zone	28 000 000	
Nongoma	Usuthu	>2027	17,21	Reticulation				Reticulation in Bulk Res H Zone		140 000 000
Nongoma	Usuthu	>2027	12,13	Bulks				Bulk supply lines & Reservoirs to Zone D	53 694 000	
Nongoma	Usuthu	>2027	4	Reticulation				White City Reticulation Upgrade		12 000 000
Nongoma	Usuthu	>2027	16	Reticulation				Mthwatube and surrounding reticulation upgrade		59 960 000
Nongoma	Usuthu	>2027	13	RWSS				Fish Ladder @ Vuna Dam	3 500 000	
Nongoma	Usuthu	>2027	13	RWSS				Vuna Dredging	13 000 000	
Ulundi	Usuthu	>2027	7,8,14	Bulks				Bulk supply lines & Reservoirs to Zone E	57 550 000	
Ulundi	Usuthu	>2027	5	Bulks				Bulk supply lines & Reservoirs to Zone C	23 100 000	
Ulundi	Usuthu	>2027	4,5	Bulks				Bulk Supply to Ceza, Ceza Bulk Res	71 000 000	
Ulundi	Usuthu	>2028	4,6	Bulks				Off-channel Dam	613 822 560	

REGIONAL SCHEME ROLLOUTS

LM	Reg. Scheme	FIN. YEAR	Ward 2016	Infrastructure Type	Size or Number of households	LENGTH or SIZE	Settlement ID	Description or Settlement Name	Cost (Bulks)	Cost (Retics)
Ulundi	Nkonjeni	In Progress	RWSS	RWSS Augmentation	Boreholes			Additional BH's to augment water supply to Nkonjeni & Ulundi water sch	14 500 000	
Ulundi	Nkonjeni	In Progress	RWSS	Bulks	20ML			Upgrade WTW with 20ML Phase1	10 600 000	
Ulundi	Nkonjeni	In Progress	RWSS	Bulks				Replace Rising Main to Ulundi Town	17 900 000	
Ulundi	Nkonjeni	2022/2023	RWSS	WCDM				Water Conservation & Demand Management	10 000 000	
Ulundi	Nkonjeni	2022/2023	15	Reticulation	455		Z417	Reticulation upgrade at Nqulwane		3 500 000
Ulundi	Nkonjeni	2023-2024	RWSS	RWSS Augmentation	Boreholes			Additional BH's to augment water supply to Nkonjeni & Ulundi water sch	8 573 600	
Ulundi	Nkonjeni	2023-2032	RWSS	WCDM				Water Conservation & Demand Management	240 925 400	
Ulundi	Nkonjeni	2023-2026	RWSS	Treatment				Upgrade WTW with 20ML Phase2	159 279 945	
Ulundi	Nkonjeni	2026/2027	RWSS	Pump Station	22KV			Upgrading of P/S at WTW	10 830 000	
Ulundi	Nkonjeni	>2017	RWSS	WTW	30ML			Upgrading of WTW Phase 3 to 30ML/day	639 427 140	
Ulundi	Nkonjeni	>2017	14,20,24	Bulks				Planned bulk water supply to Nkonjeni Central and East	498 985 291	
Ulundi	Nkonjeni	>2017	13,16,17,23	Bulks				Planned bulk water supply to Mpungamhlope region		
Ulundi	Nkonjeni	>2017	16	Bulks				Planned bulk water supply to Babanango region from Mpungamhlope WTW	523 831 154	
uPhongolo	Coronation	In Progress	1	Planning				Coronation Regional Scheme Masterplan - Stand-alone Schemes		1 000 000
uPhongolo	Mkhuze	2022/2023	1	RWSS Augmentation			ZHR2	Gumbi Trust Water Supply Augmentation	2 601 477	
uPhongolo	Sim East	2022-2024	9	Bulks	1ML			PROJECT 3A: Rising Main, Pump Station & Reservoir S1		
uPhongolo	Sim East	2022-2024	9	Reticulation				PROJECT 3B: Reticulation to Res S1 zone	42 368 141	
uPhongolo	Sim East	2022-2026	11					Augmentation to Golela WTW, Rising Main & Reticulation to Golela Bor	55 000 000	
uPhongolo	Sim East	2024/2025	13		700ML			PROJECT 2A: Rising Main, Pump Station & Reservoir S3		
uPhongolo	Sim East	2024/2025	13	Reticulation				PROJECT 2B: Reticulation to Res S3 zone	28 599 289	
uPhongolo	Sim East	2025/2026	9,11	Reticulation				PROJECT 1B: Reticulation to Reservoir S2		29 483 379
uPhongolo	Sim East	2025/2026	9,15		300KL			PROJECT 4-6: 2x Pump Stations & Reservoir P2	19 979 490	
uPhongolo	Sim East	2026/2027	13		300KL			PROJECT 7-9A: Pump Station, Rising Main & Reservoir S5	6 972 711	
uPhongolo	Sim East	2026/2027	13	Reticulation				PROJECT 9B: Reticulation to Res S5		11 559 576
uPhongolo	Sim East	>2017	7,8,13,15					PROJECTS 11-24: Bulks & Reticulation to Res S4, S6,S7,S8, S11, P3,	95 352 787	

REGIONAL SCHEME ROLLOUTS

LM	Reg. Scheme	FIN. YEAR	Ward 2016	Infrastructure Type	Size or Number of households	LENGTH or SIZE	Settlement ID	Description or Settlement Name	Cost (Bulks)	Cost (Retics)
uPhongolo	Sim Central	Completed	3	Bulks	250			Regional bulk pipeline from Luphiso reservoir to new regional bulk reservoir at Ombimbini1		
uPhongolo	Sim Central	2022/2023	3	Storage	3ML			New bulk regional reservoir at Ombimbini	9 950 000	
uPhongolo	Sim Central	2023/2024	3	Settlement Reticulation	91		Z722	KWAMBHULU		
uPhongolo	Sim Central	2023/2024	3	Settlement Reticulation	140		Z759	VIMBEMSHINI		
uPhongolo	Sim Central	2023/2024	3	Settlement Reticulation	118		Z462	OMBIMBINI 1		
uPhongolo	Sim Central	2023/2024	3	Settlement Reticulation	96		Z753	NEWSTAND		
uPhongolo	Sim Central	2023/2024	3	Settlement Reticulation	136		Z427	MDIYANE		
uPhongolo	Sim Central	2023/2024	3	Settlement Reticulation	156		Z526	MANZABOMVU 1	TBA	
uPhongolo	Sim Central	2023/2024	3	Settlement Reticulation	175		Z428	NCITINI		
uPhongolo	Sim Central	2023/2024	3	Settlement Reticulation	113		Z421	DUNGAMANZI 2		
uPhongolo	Sim Central	2023/2024	3	Settlement Reticulation	140		Z423	GESI		
uPhongolo	Sim Central	2023/2024	6	Settlement Reticulation	167		Z424	NTABAKAYISHI		
uPhongolo	Sim Central	2023/2024	6	Settlement Reticulation	220		Z429	ALTONA		
uPhongolo	Sim Central	2023/2024	6	Settlement Reticulation	48		Z760	MAGIQWENI		
uPhongolo	Sim Central	2024/2025	3,6	Bulks				Regional bulk to Bongaspoort P/S	221 635 780.20	
uPhongolo	Sim Central	2025/2026	6	Pump Station				Booster Pump Stations at Bongaspoort	59 422 000	
uPhongolo	Sim Central	2026/2027	6	Bulks				Bulk Pipeline to Res 4 at Klipwal	123 130 989	
uPhongolo	Sim Central	2026/2027	6	Storage	1ML			Res 4 at Klipwal	3 000 000	
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	40		Z769	MAFINDOSE		
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	58		Z761	BONGASPOORT		
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	137		Z768	KLIPWAL	TBA	
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	54		Z767	MFENYANE		
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	76		Z762	EZINKETHENI		
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	92		ZBUK63	DLOMODLOMO		
uPhongolo	Sim Central	>2027	6	Bulks				1ML Res 3 at Emabomvu	147 757 186.80	
uPhongolo	Sim Central	>2027	6	Bulks	1ML			Bulk Pipeline to Res 3 at Emabomvu	3 000 000	
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	49		Z527	MFALOVALO		
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	25		ZTAS57	THUSAZANE		
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	43		Z377	EZIBAYEN		
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	44		Z376	EMABOMVU	TBA	
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	26		Z380	KORTNEK		
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	102		Z378	NKOSIENTSHA		
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	66		Z379	MAQANDA		
uPhongolo	Sim Central	>2027	6	Settlement Reticulation	38		Z381	MGWADLU		
uPhongolo	Sim Central	>2027	3	Treatment	18ML			New WTW at abstraction to supply Sim Central	97 333 978	
uPhongolo	Sim East	>2027	11	Abstraction	TBA			Planned upgrading of abstraction works at river	TBA	

Table 11.2: Roll-out of Stand-alone Schemes

INTERMEDIATE STAND-ALONE SCHEMES								
Local Municipality	**Regional Scheme**	**Ward 2016**	**Implementation Year**	**Stand-alone Scheme Name**	**Phase**	**Z-Nr**	**Settlement Name**	**Households Served**
	Hlahlindlela	15	Completed	Bhobozani		Z116	Bhobozani (Ginqa)	238
		15/17	2022/2023	Mhlangeni/Nqulwane		Z119	Mhlangeni	249
		15/17	2022/2023	Mhlangeni/Nqulwane		Z941	Nqulwane	120
	Khambi	4	In Progress	Gluckstad/Bevenson	Phase 1		EIA and Approvals	
		4	2023/2024	Gluckstad/Bevenson	Phase 2	ZNew56	Emaqigwe	22
		4	2023/2024	Gluckstad/Bevenson	Phase 2	ZNew57	Hlongane	28
		4	2023/2024	Gluckstad/Bevenson	Phase 2	ZNew58	Enkaleni	53
		4	2024/2025	Gluckstad/Bevenson	Phase 3	ZNew55	KwaNgada	59
		4	2024/2025	Gluckstad/Bevenson	Phase 3	ZNew54	KwaDevan	48
		4	2025/2026	Gluckstad/Bevenson	Phase 4	ZNN6	Egazini	175
		4	2025/2026	Gluckstad/Bevenson	Phase 4	ZNN7	Kwanyoni	29
		4	2025/2026	Gluckstad/Bevenson	Phase 4	ZNN9	Mfofana	79
		4	2025/2026	Gluckstad/Bevenson	Phase 5	ZMAP126	Mangoe	103
		4	2025/2026	Gluckstad/Bevenson	Phase 5	ZNN14	Emangumbu	81
		4	2026/2027	Gluckstad/Bevenson	Phase 6	ZNN10	Makukula	207
		4	2026/2027	Gluckstad/Bevenson	Phase 6	ZMAP60	KwaSodumo	69
		4	2026/2027	Gluckstad/Bevenson	Phase 6	ZTAS52	Cebekazi	138
		4	2026/2027	Gluckstad/Bevenson	Phase 6	ZNN1	Zwati	146
		4	2026/2027	Gluckstad/Bevenson	Phase 6	ZNN11	Mandunduwe	75
		4	2026/2027	Gluckstad/Bevenson	Phase 6	ZTAS50	Esigangeni 2	58
		4	2026/2027	Gluckstad/Bevenson	Phase 6	ZNN13	KwaSozwane	71
		4	2026/2027	Gluckstad/Bevenson	Phase 8	Z897a	Bethel (Mission)	93
		4	2026/2027	Gluckstad/Bevenson	Phase 8	Z897b	Bethel (Salema)	205
	Nkonjeni	4	2026/2027	Gluckstad/Bevenson	Phase 6	ZMAP59	Masigane	50
Nongoma	Mandhlakazi	2	Planned	Nhlebela		Z251	Ovukneni	141
		3	Completed	Sovana	Phase 1	Z330	Sovana	97
		3	Completed	Sovana	Phase 1	Z327	Macijo	62
		3	Completed	Sovana	Phase 1	Z329	Vesonweni	43
		3	Completed	Sovana	Phase 1	Z331	Machibini	133
		3	Completed	Sovana	Phase 1	Z332	Njonyomane	78
		4	Completed	Henenende		Z211	Khokhwaneni	170
		5	Planned	Nhlebela		Z248	Nhlebela	135
		5	Planned	Nhlebela		Z250	Fakude	110
		5	Planned	Nhlebela		Z268	Ndimhlana	140
		5	Planned	Nhlebela		Z266	Khethankomo	198
		5	Planned	Nhlebela		Z264	New Town	74
		5	Planned	Nhlebela		Z265	Mthincongo	183
		5	Planned	Nhlebela		Z280	Sinqanda	175
		5	Planned	Mphuphuzi		Z247	Mpuphusi	137
		5	Planned	Kwajuba		Z718	Mahlomane	71
		5	Planned	Kwajuba		Z292	Kwajuba	126
		5	Planned	Kwajuba		Z294	Kolubomvu 1	20
		7	Planned	Bhekumthethu		Z956	Egudu	157
		7	Planned	Bhekumthethu		Z957	Nzondwane	40
		7	Planned	Bhekumthethu		Z197	Mpuqwini	206
		7	Planned	Bhekumthethu		Z205	Chinamorgan	45
		7	Planned	Bhekumthethu		Z206	Nkungwini	74
		8	Planned	Bhekumthethu		Z186	Ncemaneni	110
		8	Planned	Bhekumthethu		Z196	Bhekumthetho 2	305
		8	Planned	Bhekumthethu		Z207	Nkonjeni	185
		20	Completed	Henenende		Z630	Vilane	267

INTERMEDIATE STAND-ALONE SCHEMES								
Local Municipality	**Regional Scheme**	**Ward 2016**	**Implementation Year**	**Stand-alone Scheme Name**	**Phase**	**Z-Nr**	**Settlement Name**	**Households Served**
Nongoma	Usuthu	4	Completed	Henenende		Z823	Mbonjeni	54
		4	Completed	Henenende		Z218	Henenende	295
		10	Completed	Zombodhe		Z575	Kwahelibheshu	15
		10	Completed	Zombodhe		ZBUK56	Nombanjana	65
		10	Completed	Zombodhe		ZNN26	Engongoma	21
		10	Completed	Enzobo		Z572	Qule	22
		11	Completed	Enzobo		Z155	Eziqhumeni	114
		11	Completed	Enzobo		Z156	Entwala	54
		11	Completed	Enzobo		Z157	Nqala	79
		11	Completed	Enzobo		Z158	Entuthukweni	125
		11	Completed	Enzobo		Z159	Elanjeni/Msasanani	174
		11	Completed	Enzobo		ZBA4	Sidakeni 2	27
		11	Completed	Enzobo		ZBA5	Khanjaneni	53
		11	Completed	Enzobo		ZNN22	Ebungwini	121
		11	Completed	Enzobo		Z570	Kwazungu	175
		11	Completed	Enzobo		ZNN23	Emhemeni	62
		11	Completed	Enzobo		Z568	Mbamba	51
		11	Completed	Enzobo		Z567	Othinsangu	115
		11	Completed	Enzobo		ZNN27	Hlathidumayo	80
		11	Completed	Enzobo		ZBA2	Singangeni	73
		11	Completed	Enzobo		Z154	Zampilo	37
		11	Completed	Enzobo		Z153	Mcibilindini	47
		11	Completed	Enzobo		Z151	Mhlabaneni	60
		11	Completed	Enzobo		ZBA1	Kwavumela	76
		11	Completed	Enzobo		Z152	Masokaneni	160
		12	Completed	Kwankulu		Z347	Manhlanhla	169
		13	Completed	Kwankulu		ZMAP17	Emgodi 2	87
		13	Completed	Kwankulu		Z350	Kwamfemfeni	117
		13	Completed	Kwankulu		Z372	Ingundwane	19
		13	Completed	Kwankulu		Z351	Kwankulu	97
		13	Completed	Kwankulu		Z353	Hlambanyathi 1	87
		14	Completed	Esikhumbeni	Phase 1	Z549a	KwaMusi	312
		14	Completed	Esikhumbeni	Phase 1	Z549b	KwaMahashi	39
		14	Completed	Esikhumbeni	Phase 1	Z551b	KwaBoy 2	17
		14	Completed	Esikhumbeni	Phase 1	Z551a	Dayeni	104
		14	Completed	Esikhumbeni	Phase 2	ZMAP29	Mbhukudu	116
		14	Completed	Esikhumbeni	Phase 2	Z555	Ezimpakaneni	164
		14	Completed	Esikhumbeni	Phase 2	Z552	Shisuthu	143
		14	Completed	Esikhumbeni	Phase 2	Z553	Nsimbini	137
		14	Completed	Esphiva	Phase 3	Z550	Onyango	156
		17	Completed	Nongoma Ward 17		Z659	Thokazi	142
		17	Completed	Nongoma Ward 17		ZKAY1	Esiweni	25
		17	Completed	Nongoma Ward 17		ZKAY7	Msasaneni	35
		17	Completed	Nongoma Ward 17		ZMAP34	Phoqukhalo	23
		17	Completed	Nongoma Ward 17		Z660	Mjiza	157
		17	Completed	Nongoma Ward 17		Z658	Mbengo	73
		17	Completed	Nongoma Ward 17		ZKAY8	Echibini	9
		18	Completed	Nongoma Ward 17		ZKAY6	Magedlana B	57
		20	Completed	Henenende		Z224	Qathaqatheni	121
		20	Completed	Henenende		Z223	Ebukhalini	68

INTERMEDIATE STAND-ALONE SCHEMES								
Local Municipality	Regional Scheme	Ward 2016	Implementation Year	Stand-alone Scheme Name	Phase	Z-Nr	Settlement Name	Households Served
Ulundi	Nkonjeni	14	Planned	Nkonjeni East	Phase 3	Z403	Tshiyazane	81
		14	Planned	Nkonjeni East	Phase 3	Z404	Bhongisilwane	32
		14	Planned	Nkonjeni East	Phase 4	Z413	Njomelwane	318
		14	Completed	Sqobelo		Z407	Ezinyosini	203
		14	Completed	Sqobelo		Z782	Sqobelo	70
		14	Completed	P700 (Dindi)		Z412	Zilulwane	99
		14	Completed	Nkonjeni East	Phase 1	Z410	Ganwini	146
		15	Planned	Nkonjeni East	Phase 4	Z416	Zenzele	88
		15	Planned	Nkonjeni East	Phase 4	Z166	Ngqolothi	193
		24	Completed	Nkonjeni East	Phase 1	Z411	Dindi	243
		24	Completed	Nkonjeni East	Phase 2	ZNew100	Eskhaleni Kwankosi	13
		24	Completed	Nkonjeni East	Phase 2	ZTAS13	England	80
		24	Planned	Nkonjeni East	Phase 3	ZTAS17	Nkonjane	213
		24	Planned	Nkonjeni East	Phase 3	ZTAS16	Kwathuthu	19
		24	Planned	Hlopenkulu		ZMAP109	Ezisasaneni	26
		24	Planned	Hlopenkulu		ZMAP108	Basamlilo	66
		24	Planned	Hlopenkulu		Z758	Ekujulukeni	269
		24	Planned	Hlopenkulu		ZTAS18	Ezimfeneni	67
		24	Planned	Hlopenkulu		Z813	Enguqe	178
		24	Planned	Hlopenkulu		Z820b	Sibanisakhe	64
		24	Planned	Hlopenkulu		Z398	Ekatini	42
		24	Planned	Hlopenkulu		Z820a	Hlophekhulu	80
		24	Planned	Hlopenkulu		Z820c	Gijima	85
		24	Planned	Hlopenkulu		ZTAS19	Ezikhumbeni	99
	Usuthu	1	2025/2026	Ceza	Phase 10	Z26	Obhedeni	36
		2	In Progress	Ceza	Phase 9	Z10b	Kwamasane	31
		2	In Progress	Ceza	Phase 9	Z16	Mndaweni	78
		2	In Progress	Ceza	Phase 9	Z14	Nsimbi	129
		2	In Progress	Ceza	Phase 9	Z15	Phethu	78
		2	In Progress	Ceza	Phase 9	Z9	Mgxotshwa	14
		2	In Progress	Ceza	Phase 9	Z10a	Brush/Nsukangihlale	355
		2	2025/2026	Ceza	Phase 10	Z19	Nomponjwana	64
		2	2025/2026	Ceza	Phase 10	ZMAP116	Ezinxagwini	49
		2	2025/2026	Ceza	Phase 10	Z25	Siyekela	100
		2	2025/2026	Ceza	Phase 10	ZRN6	Ezimqaqeni	49
		2	2025/2026	Ceza	Phase 10	ZRN1	Ezihlaqeni	40
		2	2025/2026	Ceza	Phase 10	ZMAP115	Nhlohlala	118
		2	2025/2026	Ceza	Phase 10	ZMAP114	Sikhalampama	80
		2	2025/2026	Ceza	Phase 10	Z24	Edlakude	81
		2	2025/2026	Ceza	Phase 10	Z17	Nhlonga	132
		3	Completed	Godlankomo		ZRN4	Godlankomo	322
		3	Completed	Ceza	Phase 1		Weir B, Rising Main & WTW	
		3	Completed	Ceza	Phase 3	Z436	Isihululu	157
		3	Completed	Ceza	Phase 3	Z437a	Mguluze	64
		3	Completed	Ceza	Phase 3	Z437b	Nsukahlale	186
		3	Completed	Ceza	Phase 4	Z443	Nomdidwa	87
		3	Completed	Ceza	Phase 4	Z441	Mkhulwana	84
		3	Completed	Ceza	Phase 4	ZMD9	Ngobodo	89
		3	Completed	Ceza	Phase 4	Z438b	Dayingubu	189
		3	Completed	Ceza	Phase 4	Z438a	Nhlatwini	26
		3	Completed	Ceza	Phase 4	Z440	Magayiseni	56
		3	Completed	Ceza	Phase 4	Z439	Dakaneni	105
		3	Completed	Ceza	Phase 4	ZNew51	Eziqhwageni	52
		3	Completed	Ceza	Phase 8		Weir A & Bulks	
		4	2024/2025	Ceza	Phase 5	Z448	Ezembeni 1	281
		4	2024/2025	Ceza	Phase 5	ZMD10	Chibini	226
		4	2026/2027	Ceza	Phase 7	Z446	Esidakeni 2	578
		4	2026/2027	Ceza	Phase 7	Z442	Ngubaneni	113

INTERMEDIATE STAND-ALONE SCHEMES

Local Municipality	Regional Scheme	Ward 2016	Implementation Year	Stand-alone Scheme Name	Phase	Z-Nr	Settlement Name	Households Served
Ulundi	Usuthu	5	2024/2025	Ceza	Phase 6	ZNew117	Magagodolo	15
		5	2024/2025	Ceza	Phase 6	Z33	Ntambonde	76
		5	2024/2025	Ceza	Phase 6	Z29	Egqumeni	110
		5	2024/2025	Ceza	Phase 6	Z30	Ndwaleni	48
		5	2024/2025	Ceza	Phase 6	Z27	Nende	15
		5	2024/2025	Ceza	Phase 6	Z28	Ezembeni 2	88
		5	2024/2025	Ceza	Phase 6	ZMAP113	KwaFini	40
		5	Completed	Esikhumbeni	Phase 1	Z83	Kwameke	78
		5	Completed	Esikhumbeni	Phase 1	Z89	Phangole	47
		5	Completed	Esikhumbeni	Phase 1	Z46	Qhudebe	127
		5	Completed	Esikhumbeni	Phase 1	Z82	Sikhumbeni	113
		5	Completed	Esikhumbeni	Phase 2	Z44	Kwadayeni	57
		5	Completed	Esikhumbeni	Phase 2	Z43	Kwasaku	33
		5	Completed	Esikhumbeni	Phase 2	Z45	Odizima	64
		5	Completed	Esikhumbeni	Phase 2	Z42	Okhalweni 1	104
		5	Completed	Esikhumbeni	Phase 2	Z41	Kwampanza	149
		5	Completed	Esikhumbeni	Phase 2	Z40	Esibomvu	124
		5	Completed	Esikhumbeni	Phase 2	ZMAP112	Okhwathe	1
		5	Completed	Esikhumbeni	Phase 2	Z47	Ezimfabeni	166
		5	Completed	Esikhumbeni	Phase 2	Z48	Nsabekkuluma 1	129
		5	Completed	Esikhumbeni	Phase 2	Z49	Emfenyane	71
		5	Completed	Esikhumbeni	Phase 2	ZHR6	Esembeni	267
		6	2024/2025	Ceza	Phase 6	Z32	Mashiyane	162
		6	2024/2025	Ceza	Phase 6	Z31	Dlabane	112
		6	Completed	Esikhumbeni	Phase 2	Z38	Emabeka	65
		6	Completed	Esikhumbeni	Phase 2	Z39	Qwasha (Nongoma)	27
		6	Completed	Esikhumbeni	Phase 2	ZHR7	Nzukasi	170
		6	Completed	Esikhumbeni	Phase 2	ZHR5	Shkulile	82
		7	Completed	Esphiva	Phase 2D	Z670	Nqabeni	84
		7	Completed	Esphiva	Phase 2D	Z674	Bhokweni	214
		7	Completed	Esikhumbeni	Phase 1	Z80	Kwamame	252
		7	Completed	Esphiva	Phase 1A	Z676	Thusini	52
		7	Completed	Esphiva	Phase 1A	Z671	Xasane	175
		7	Completed	Esphiva	Phase 1B	Z672	Bhungwane	123
		7	Completed	Esphiva	Phase 1B	Z679	Esphiva	120
		7	Completed	Esphiva	Phase 2B	Z675	Mpangeleni	76
		7	Completed	Esphiva	Phase 2C	ZMAP93	Qubeni	24
		7	Completed	Esphiva	Phase 2C	Z680	Xolo	219
		7	Completed	Esphiva	Phase 3	Z666	Enqunyaneni / Amaphiva	233
		8	Planned	Esphiva	Phase 4	Z691	Gezizandla	53
		8	Planned	Esphiva	Phase 4	Z692	Ewela 2	96
		8	Planned	Esphiva	Phase 4	Z685	Mganimbobo	105
		8	Planned	Esphiva	Phase 4	ZNew78	Qubenz	7
		8	Completed	Esphiva	Phase 1B	Z684	Mnqakwe	94
		8	Completed	Esphiva	Phase 2A	Z683	Isiphethu	88
		8	Completed	Esphiva	Phase 2A	Z681	Isiguqa 1	31
		8	Completed	Esphiva	Phase 2A	Z682a	Chibini 2	48
		8	Completed	Esphiva	Phase 2B	Z682b	Chibini 1	83
		14	Planned	Esphiva	Phase 4	ZTAS6	Ewela 1	36
		14	Planned	Esphiva	Phase 4	Z701	Mabululwane	74
		14	Planned	Esphiva	Phase 4	Z693	Njojo	107
		14	Planned	Esphiva	Phase 4	Z695	Bhodludaka	47
		14	Planned	Esphiva	Phase 4	Z694	Glula	63
		15	Completed	Lomo		Z686	Makhukwane	192
		15	Completed	Lomo		Z696/Z697/Z7	Lomo	170

Table 11.3: Roll-out of Rudimentary Water Services

RUDIMENTARY ROLLOUTS

	Served/Completed Projects
	Projects currently in progress
	Priority Projects for next financial
	Settlements to be served within next financial year

Local Municipality	Regional Scheme	Ward 2016	Year	Z-Nr	Settlement Name	Cost Estimate	Households	Proposed Intervention	Progress to date
		1	Served	ZNew63	Kwanogalaja	-	3	Functional solar pump	
		1	Served	ZPM17a	Enhlangweni		73	Functional handpump	
		5	Served	ZNew25	Malangweni	-	72	Functional handpump	
		1	In Progress	ZNew45	Madanyini	400 000	29	Spring protections	Recommendation for spring protection
		1	In Progress	ZPM11	Ezakhiweni 1	60 000	17	Resolve solar pump problem	To be equipped with handpump
		1	In Progress	ZPM17b	Mbizo	90 000	23	Repair HPs	ZDM to Repair 3 broken handpumps
		2	In Progress	ZNew46	Emarondweni	420 000	13	Hydrocensus in progress	Land reform, investigate if water can be sourced from farmstead 600m away, alternatively drill 1 borehole.
		2	In Progress	ZNew48	Empumazi	450 000	14	Hydrocensus in progress	
		2	In Progress	ZBUK61	Endinsi	350 000	46		2x springs tested, recommendations for spring protections
		2	In Progress	ZBUK60	Kwafakazi	120 000	85		Springs tested, handed over to COGTA
		3	In Progress	ZHR26	Sgubudu	120 000	170		1x BH drilled. Spring tested. handed over to COGTA
		6	In Progress	ZNew104	Enkwaleni	350 000	18	Additional BH required	1x BH drilled. To be equipped
AbaQulusi	Coronation	6	In Progress	ZNew103	Uitzicht	750 000	29	Hydrocensus in progress	BH tested, handed over to COGTA
		6	In Progress	ZPM6	Mkhuze 2	700 000	78	New sources	2x BH drilled, to be tested and equipped
		7	In Progress	ZHC5	Boomlaer	350 000	40	Hydrocensus in progress	Tested BH, recommendation for alternative source.
		1	2023/2024	ZNew50	Kwantebe	870 000	51	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZNew22	Kwabudula	580 000	29	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZNew20	Kwanmnunse	850 000	51	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZNew40	Kwasithole	1 040 000	77	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZNew21	Makhwela	1 040 000	73	Hydrocensus & Rudimentary water supply	
		3	2023/2024	ZNew32	Mfabantu	520 000	20	Hydrocensus & Rudimentary water supply	
		6	2023/2024	ZNew34	Gobeni	460 000	17	Hydrocensus & Rudimentary water supply	
		6	2023/2024	ZNew33	Mciyo	660 000	29	Hydrocensus & Rudimentary water supply	
		2	2024/2025	ZNew22	Kwabudula	580 000	29	Hydrocensus & Rudimentary water supply	
		2	2024/2025	ZNew20	Kwanmnunse	850 000	51	Hydrocensus & Rudimentary water supply	
		2	2024/2025	ZNew40	Kwasithole	1 040 000	77	Hydrocensus & Rudimentary water supply	
		2	2024/2025	ZNew21	Makhwela	1 040 000	73	Hydrocensus & Rudimentary water supply	
		3	2024/2025	ZNew32	Mfabantu	520 000	20	Hydrocensus & Rudimentary water supply	
		6	2024/2025	ZNew34	Gobeni	460 000	17	Hydrocensus & Rudimentary water supply	
		1	2025/2026	ZNew50	Kwantebe	870 000	51	Hydrocensus & Rudimentary water supply	
		6	2025/2026	ZNew33	Mciyo	660 000	29	Hydrocensus & Rudimentary water supply	

RUDIMENTARY ROLLOUTS

Served/Completed Projects
Projects currently in progress
Priority Projects for next financial
Settlements to be served within next financial year

Local Municipality	Regional Scheme	Ward 2016	Year	Z-Nr	Settlement Name	Cost Estimate	Households	Proposed Interventio n	Progress to date
		7	Served	ZNew107	Shoba 1	-	266		
		8	Served	ZMAP122	Vryheid Dump Site	-	115	Functional Handpump	
		8	Completed	ZNew128	KwaNgethe		45		Served by farm
		8	Completed	ZNew153	Kwatwo		29		Served by farm
		12	Completed	ZNew177	Brakfontein 2		12		Served by farm
		12	Completed	ZNew168	Mabunya		13		Served by farm
		13	Completed	ZNew76	Mpofini		53		Water supplied by smallholding
		7	In Progress	ZNew108	Shoba 2	2 790 000	272	Additional BHs	2x BHs drilled. Handed to COGTA. Only partially served
		7	In Progress	ZNew95	Voorkeur	350 000	63	New source required	2x BHs drilled and tested. Recommendations for HP's
		12	In Progress	ZNew161	Emooi	1 040 000	80		Partially served only.
		12	In Progress	ZNew169	Tintas Drift	830 000	84		Existing BH tested, handed to COGTA
		13	In Progress	ZNew96	Banga	350 000	10		BH drilled, to be equipped
		13	In Progress	ZMAP123	Ema300	350 000	284		BH drilled, to be equipped
		13	In Progress	ZNew93	Eskame	350 000	52		BH drilled, to be equipped
		13	In Progress	ZNew109	Hluma	350 000	45		BH drilled, to be equipped
		14	2022/2023	Z126	Qweqwe 1	750 000	234	Scheme Augmentation: New 250KL reservoir	
		14	2022/2023	Z133	Mvunjane/Simashwini	2 000 000	467	Scheme Augmenetation: 100K Reservoir	
		15	2022/2023	Z125	Esigodini	750 000	525	Scheme Augmentation: New 250KL reservoir	
		7	2023/2024	ZNew111	Emakwateni	940 000	68	Hydrocensus & Rudimentary water supply	
		7	2023/2024	ZNew112	Geluk 1	390 000	9	Hydrocensus & Rudimentary water supply	
		7	2023/2024	ZNew113	Kwalancast	480 000	18	Hydrocensus & Rudimentary water supply	
		7	2023/2024	ZNew90	Ntendeka 2	1 140 000	91	Hydrocensus & Rudimentary water supply	
		7	2023/2024	ZNew94	Zungweni	810 000	48	Hydrocensus & Rudimentary water supply	
		8	2023/2024	ZNew130	Hellberg farms	950 000	67	Hydrocensus & Rudimentary water supply	
		8	2023/2024	ZNew127	KwaBeshu	670 000	32	Hydrocensus & Rudimentary water supply	
		8	2023/2024	ZNew129	KwaBevu	490 000	23	Hydrocensus & Rudimentary water supply	
AbaQulusi	Hlahlindlela	8	2023/2024	ZNew126	Magot	680 000	41	Hydrocensus & Rudimentary water supply	
		9	2023/2024	ZNew154	KwaMatiela	510 000	21	Hydrocensus & Rudimentary water supply	
		9	2023/2024	ZNew125	KwaSavells	530 000	25	Hydrocensus & Rudimentary water supply	
		9	2023/2024	ZNew119	Stillwater	1 130 000	90	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew175	Aardappel	540 000	26	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew163	Brakfontein	520 000	24	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew176	Dubbelrecht	440 000	14	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew160	Enyanyeni	510 000	22	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew178	Fairplay	470 000	19	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew173	Geluk 3	410 000	8	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew171	Grootfontein	660 000	40	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew170	KwaMshomoloza	580 000	28	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew164	Langverwacht	660 000	34	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew165	Mawelawela	580 000	28	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew179	Mdlenevini	620 000	34	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew172	Middelpunt	380 000	8	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew167	Nsengeni	470 000	20	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZNew162	Vamba	600 000	33	Hydrocensus & Rudimentary water supply	
		13	2023/2024	ZNew75	Beafort	890 000	64	Hydrocensus & Rudimentary water supply	
		13	2023/2024	ZNew74	Golden Valley	870 000	60	Hydrocensus & Rudimentary water supply	
		13	2023/2024	ZNew77	Klipfontein	570 000	20	Hydrocensus & Rudimentary water supply	
		13	2023/2024	ZNew110	Kwabanga 1	960 000	68	Hydrocensus & Rudimentary water supply	
		13	2023/2024	ZNew92	Kwabanga 2	780 000	51	Hydrocensus & Rudimentary water supply	
		22	2023/2024	ZNew124	Betel	490 000	22	Hydrocensus & Rudimentary water supply	
		22	2023/2024	ZNew106	Eensgevonden plotte	1 130 000	96	Hydrocensus & Rudimentary water supply	
		22	2023/2024	ZNew122	Fearmdale	980 000	66	Hydrocensus & Rudimentary water supply	
		22	2023/2024	ZNew123	KwaLubeck	490 000	23	Hydrocensus & Rudimentary water supply	
		22	2023/2024	ZNew120	Scheepersnek	640 000	34	Hydrocensus & Rudimentary water supply	
		22	2023/2024	ZNew121	Zaaifontein	510 000	22	Hydrocensus & Rudimentary water supply	

RUDIMENTARY ROLLOUTS

	Served/Completed Projects
	Projects currently in progress
	Priority Projects for next financial
	Settlements to be served within next financial year

Local Municipality	Regional Scheme	Ward 2016	Year	Z-Nr	Settlement Name	Cost Estimate	Households	Proposed Intervention	Progress to date
		7	2024/2025	ZNew90	Ntendeka 2	1 140 000	91	Hydrocensus & Rudimentary water supply	
		7	2024/2025	ZNew94	Zungweni	810 000	48	Hydrocensus & Rudimentary water supply	
		8	2024/2025	ZNew130	Hellberg farms	950 000	67	Hydrocensus & Rudimentary water supply	
		9	2024/2025	ZNew154	KwaMatiela	510 000	21	Hydrocensus & Rudimentary water supply	
		12	2024/2025	ZNew178	Fairplay	470 000	19	Hydrocensus & Rudimentary water supply	
		12	2024/2025	ZNew171	Grootfontein	660 000	40	Hydrocensus & Rudimentary water supply	
		12	2024/2025	ZNew170	KwaMshomoloza	580 000	28	Hydrocensus & Rudimentary water supply	
		12	2024/2025	ZNew167	Nsengeni	470 000	20	Hydrocensus & Rudimentary water supply	
		12	2024/2025	ZNew162	Vamba	600 000	33	Hydrocensus & Rudimentary water supply	
		13	2024/2025	ZNew75	Beafort	890 000	64	Hydrocensus & Rudimentary water supply	
		13	2024/2025	ZNew77	Klipfontein	570 000	20	Hydrocensus & Rudimentary water supply	
		13	2024/2025	ZNew110	Kwabanga 1	960 000	68	Hydrocensus & Rudimentary water supply	
AbaQulusi	Hlahlindlela	22	2024/2025	ZNew106	Eensgevonden plotte	1 130 000	96	Hydrocensus & Rudimentary water supply	
		22	2024/2025	ZNew120	Scheepersnek	640 000	34	Hydrocensus & Rudimentary water supply	
		22	2024/2025	ZNew121	Zaaifontein	510 000	22	Hydrocensus & Rudimentary water supply	
		8	2025/2026	ZNew127	KwaBeshu	670 000	32	Hydrocensus & Rudimentary water supply	
		8	2025/2026	ZNew129	KwaBevu	490 000	23	Hydrocensus & Rudimentary water supply	
		8	2025/2026	ZNew126	Magot	680 000	41	Hydrocensus & Rudimentary water supply	
		9	2025/2026	ZNew125	KwaSavells	530 000	25	Hydrocensus & Rudimentary water supply	
		9	2025/2026	ZNew119	Stillwater	1 130 000	90	Hydrocensus & Rudimentary water supply	
		12	2025/2026	ZNew160	Enyanyeni	510 000	22	Hydrocensus & Rudimentary water supply	
		12	2025/2026	ZNew173	Geluk 3	410 000	8	Hydrocensus & Rudimentary water supply	
		12	2025/2026	ZNew164	Langverwacht	660 000	34	Hydrocensus & Rudimentary water supply	
		12	2025/2026	ZNew165	Mawelawela	580 000	28	Hydrocensus & Rudimentary water supply	
		13	2025/2026	ZNew74	Golden Valley	870 000	60	Hydrocensus & Rudimentary water supply	
		3	Completed	ZNew31	Ndulinde		54		Strong BH to be used for stand-alone scheme in Ndulinde under Khambi RWSS
		2	In Progress	ZNew15	Dlomodlomo	520 000	25		Drilled 3 x BH's (COVID19 project). To equip 2x BH's
		2	In Progress	ZNew18	Kwazondo	400 000	21	Test 2 springs	Drilled 1x BH, level too deep for HP. Tested 2 springs, recommend spring protections.
		3	In Progress	ZMAP127	Bhukubhu	400 000	29	Test 2 springs	Site and drill one borehole
		3	In Progress	ZNew29	Mabova	750 000	32	Drill 1x BH	drilled and tested 1x BH, to be equipped. Tested 2 springs, spring protections recommended.
		13	2025/2026	ZNew92	Kwabanga 2	780 000	51	Hydrocensus & Rudimentary water supply	
		22	2025/2026	ZNew124	Betel	490 000	22	Hydrocensus & Rudimentary water supply	
		22	2025/2026	ZNew123	KwaLubeck	490 000	23	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZMAP62	Ketango	440 000	17	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZMAP63a	Nsonyane	870 000	29	Hydrocensus & Rudimentary water supply	
AbaQulusi	Khambi	2	2023/2024	ZMC13	Ntabazelanga	660 000	27	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZNew16	Kwakopie	420 000	13	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZNew19	Kwathemba	590 000	30	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZNew12	Mphitiphtini	1 640 000	134	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZNew17	Ndulo	390 000	9	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZNew14	Ngongomane	2 140 000	177	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZNew13	Ongcwezeni	1 370 000	185	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZNew11	Thuthukani	450 000	14	Hydrocensus & Rudimentary water supply	
		3	2023/2024	ZNew181	Hlanganani CPA	370 000	6	Hydrocensus & Rudimentary water supply	
		3	2023/2024	ZNew30	Kewulane	1 070 000	81	Hydrocensus & Rudimentary water supply	
		3	2023/2024	ZNew28	Mthumeni	380 000	15	Hydrocensus & Rudimentary water supply	

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Local Municipality	Regional Scheme	Ward 2016	Year	Z-Nr	Settlement Name	Cost Estimate	Households	Proposed Intervention	Progress to date
		4	In Progress	ZMAP55	Weltevreden 2	60 000	55	Equip existing BH	Equip existing artesian borehole with tank, overflow to livestock.
		4	In Progress	ZNew66	KwaPaul	350 000	6	Drill 1x BH	Site and drill one borehole
		4	In Progress	ZNew67	Thabankulu	350 000	32	Drill 1x BH	Drilled 1x BH, to be equipped
		5	In Progress	ZNew82	KwaJohn 2	350 000	21	Drill 1x BH	Drilled 1x BH, to be equipped
		5	In Progress	ZMAP75	Mbogozi	900 000	131	Investigate 3x springs	Handed over to COGTA
		4	2023/2024	ZNN21	eMkhweleni	800 000	53	Hydrocensus & Rudimentary water supply	
		4	2023/2024	ZNew70	Berlin	380 000	8	Hydrocensus & Rudimentary water supply	
		4	2023/2024	ZNew60	Dagane	660 000	39	Hydrocensus & Rudimentary water supply	
		4	2023/2024	ZNew68	Elim	460 000	15	Hydrocensus & Rudimentary water supply	
		4	2023/2024	ZNew64	Emgageni	1 900 000	146	Hydrocensus & Rudimentary water supply	
		4	2023/2024	ZNew62	Enqothweni	980 000	78	Hydrocensus & Rudimentary water supply	
		4	2023/2024	ZNew69	Entabeni 1	410 000	8	Hydrocensus & Rudimentary water supply	
		4	2023/2024	ZNew53	Kwamahashi	590 000	30	Hydrocensus & Rudimentary water supply	
		4	2023/2024	ZNew65	Kwaschoeman	490 000	11	Hydrocensus & Rudimentary water supply	
		4	2023/2024	ZNew61	Leeunek 1	510 000	24	Hydrocensus & Rudimentary water supply	
		4	2023/2024	ZMAP126	Mangoe	1 250 000	103	Hydrocensus & Rudimentary water supply	
		4	2023/2024	ZNew59	Siyaphambile	650 000	33	Hydrocensus & Rudimentary water supply	
		5	2023/2024	ZNew81	Ekamvu	560 000	26	Hydrocensus & Rudimentary water supply	
		5	2023/2024	ZNew131	Lenjane 2	730 000	26	Hydrocensus & Rudimentary water supply	
		13	2023/2024	ZNew72	Ishoba 1	1 310 000	131	Hydrocensus & Rudimentary water supply	
AbaQulusi	Khambi	13	2023/2024	ZNew73	Leeunek 2	420 000	12	Hydrocensus & Rudimentary water supply	
		2	2024/2025	ZNew19	Kwathemba	590 000	30	Hydrocensus & Rudimentary water supply	
		2	2024/2025	ZNew12	Mphitiphtini	1 640 000	134	Hydrocensus & Rudimentary water supply	
		2	2024/2025	ZNew17	Ndulo	390 000	9	Hydrocensus & Rudimentary water supply	
		2	2024/2025	ZNew13	Ongcwezeni	1 370 000	185	Hydrocensus & Rudimentary water supply	
		3	2024/2025	ZNew181	Hlanganani CPA	370 000	6	Hydrocensus & Rudimentary water supply	
		3	2024/2025	ZNew30	Kewulane	1 070 000	81	Hydrocensus & Rudimentary water supply	
		3	2024/2025	ZNew28	Mthumeni	380 000	15	Hydrocensus & Rudimentary water supply	
		4	2024/2025	ZMAP126	Mangoe	1 250 000	103	Hydrocensus & Rudimentary water supply	
		5	2024/2025	ZNew131	Lenjane 2	730 000	26	Hydrocensus & Rudimentary water supply	
		2	2025/2026	ZNew14	Ngongomane	2 140 000	177	Hydrocensus & Rudimentary water supply	
		2	2025/2026	ZNew11	Thuthukani	450 000	14	Hydrocensus & Rudimentary water supply	
		4	2025/2026	ZNew62	Enqothweni	980 000	78	Hydrocensus & Rudimentary water supply	
		4	2025/2026	ZNew69	Entabeni 1	410 000	8	Hydrocensus & Rudimentary water supply	
		4	2025/2026	ZNew53	Kwamahashi	590 000	30	Hydrocensus & Rudimentary water supply	
		4	2025/2026	ZNew65	Kwaschoeman	490 000	11	Hydrocensus & Rudimentary water supply	
		4	2025/2026	ZNew61	Leeunek 1	510 000	24	Hydrocensus & Rudimentary water supply	
		4	2025/2026	ZNew59	Siyaphambile	650 000	33	Hydrocensus & Rudimentary water supply	
		5	2025/2026	ZNew81	Ekamvu	560 000	26	Hydrocensus & Rudimentary water supply	
		13	2025/2026	ZNew73	Leeunek 2	420 000	12	Hydrocensus & Rudimentary water supply	

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		7	2023/2024	ZPM35	Baqulusini 5	450 000	15	Hydrocensus & Rudimentary water supply	
		7	2023/2024	ZTAS56	Palmietfontein (Rondspring 137, Kwambhedleni)	550 000	24	Hydrocensus & Rudimentary water supply	
	Coronation	7	2023/2024	ZNew149	Gweje	1 170 000	87	Hydrocensus & Rudimentary water supply	
		7	2023/2024	ZNew146	Makhwabe	370 000	9	Hydrocensus & Rudimentary water supply	
		7	In Progress	ZNew150	Mqwabe	350 000	28	Drill 1x BH	1x BH drilled, to be tested.
		7	In Progress	ZNew6	KwaManzi	300 000	26	Investigate spring	Handed to COGTA
		7	In Progress	ZMAP4	Mthashana	350 000	44	Additional BH required	Handed to COGTA
		7	2025/2026	ZNew149	Gweje	1 170 000	87	Hydrocensus & Rudimentary water supply	
		7	2025/2026	ZNew146	Makhwabe	370 000	9	Hydrocensus & Rudimentary water supply	
	Hlahlindlela	1	2023/2024	ZNew4	Bivanyana	710 000	38	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew132	Khambula mission	890 000	60	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew133	Penvaan	1 300 000	100	Hydrocensus & Rudimentary water supply	
		7	2023/2024	ZNew152	Sefamanzi	790 000	47	Hydrocensus & Rudimentary water supply	
		7	2023/2024	ZNew148	Zungwini	490 000	23	Hydrocensus & Rudimentary water supply	
		7	Served	ZMAP6	Koudbad / Welverdiend		36		
		1	In Progress	ZNew141	Bazangoma	1 500 000	107	Drill 4x BHs, test existing	Drilled 2x BH's. Tested 1x existing BH, to be equipped
		3	In Progress	ZNew3	Mandakane	700 000	403	Drill 2x BHs	BH's to be drilled for water supply
		2	2022/2023	Z788	Manosuthu	2 500 000	2126	Scheme Augmentation: Boreholes & Rising main	
		1	2024/2025	ZNew133	Penvaan	1 300 000	100	Hydrocensus & Rudimentary water supply	
		7	2024/2025	ZNew152	Sefamanzi	790 000	47	Hydrocensus & Rudimentary water supply	
		7	2024/2025	ZNew148	Zungwini	490 000	23	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZMAP71	Bella Vista	830 000	53	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZMAP1	Rooipoort	850 000	57	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew143	Brecher	730 000	43	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew135	Eloyi	790 000	49	Hydrocensus & Rudimentary water supply	
eDumbe		1	2023/2024	ZNew155	Ematafuleni	530 000	22	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew9	Esitikini	560 000	26	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew139	Hloko	1 100 000	67	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew10	Knoopaan	1 680 000	128	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew140	KwaBhema	850 000	57	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew134	Kwalembe	900 000	61	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew142	Loti	660 000	36	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew136	Mkhupane	540 000	26	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew137	Ntshakwe	550 000	25	Hydrocensus & Rudimentary water supply	
	Sim West	1	2023/2024	ZMAP120	Schikhoek (Land Reform)	870 000	62	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZMAP121	Tholwethu (Land Reform)	1 070 000	73	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew144	Titane	690 000	36	Hydrocensus & Rudimentary water supply	
		7	2023/2024	ZNew151	Ndabezitha	460 000	13	Hydrocensus & Rudimentary water supply	
		7	2023/2024	ZNew5	Nzenze	550 000	80	Hydrocensus & Rudimentary water supply	
		8	2023/2024	ZNew8	Nhlungwane	1 450 000	116	Hydrocensus & Rudimentary water supply	
		1	2024/2025	ZNew139	Hloko	1 100 000	67	Hydrocensus & Rudimentary water supply	
		1	2024/2025	ZNew140	KwaBhema	850 000	57	Hydrocensus & Rudimentary water supply	
		1	2024/2025	ZNew134	Kwalembe	900 000	61	Hydrocensus & Rudimentary water supply	
		1	2024/2025	ZNew142	Loti	660 000	36	Hydrocensus & Rudimentary water supply	
		1	2024/2025	ZNew136	Mkhupane	540 000	26	Hydrocensus & Rudimentary water supply	
		1	2024/2025	ZNew137	Ntshakwe	550 000	25	Hydrocensus & Rudimentary water supply	
		1	2024/2025	ZMAP120	Schikhoek (Land Reform)	870 000	62	Hydrocensus & Rudimentary water supply	
		1	2024/2025	ZMAP121	Tholwethu (Land Reform)	1 070 000	73	Hydrocensus & Rudimentary water supply	
		1	2024/2025	ZNew144	Titane	690 000	36	Hydrocensus & Rudimentary water supply	
		7	2024/2025	ZNew151	Ndabezitha	460 000	13	Hydrocensus & Rudimentary water supply	
		7	2024/2025	ZNew5	Nzenze	550 000	80	Hydrocensus & Rudimentary water supply	
		1	2025/2026	ZNew10	Knoopaan	1 680 000	128	Hydrocensus & Rudimentary water supply	
		8	2025/2026	ZNew8	Nhlungwane	1 450 000	116	Hydrocensus & Rudimentary water supply	

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Local Municipality	Regional Scheme	Ward 2016	Year	Z-Nr	Settlement Name	Cost Estimate	Households	Proposed Intervention	Progress to date
		2	Served	Z234	Kwankweme		58	Handpump	
		2	Unsuccessful	ZMAP38	Ntenjane	710 000	41	Only Water Tankers	Hydrocensus completed. No source. River/Stream water or Tanker delivery from ZDM.
		5	Completed	Z247	Mpuphusi	60 000	137		Repair Generator, no drilling
		2	In Progress	ZMAP39	Dungamanzi 1	350 000	62	Drill 1x BH	1x BH drilled, to be equipped
		2	In Progress	ZBUK21	Enkanyezini	1 050 000	57	Drill 3x BHs	Hydrocensus completed. No source. River sand abstraction or fetch water from river. ZDM at times supply with Tankers. Three Boreholes required. One should be placed at Mgadula - S - 27^0 51' 52,7" 31^0 49' 11.3"
		7	In Progress	Z954	Bhidi	350 000	74	Drill 1x BH	One Borehole not equipped due to water quality. Can be equipped for other water uses. One existing borehole BUK113 at position S - 27^0 51' 52,7" 31^0 49' 11.3" equipped with a Mono T7 Handpump working. Area further south not served. One borehole required at coordinates presented. Only partially served
Nongoma	Mandhlakazi	7	In Progress	Z204	Sibanyaneni	1 050 111	129	Drill 3x BHs	Hydrocensus completed. 3 boreholes found in the area. One borehole KZDM461 is equipped with a India Mac 2 handpump, working but reported to dry up. 2nd borehole B204A is vandalised. Used to be equipped with a Mono T7 Handpump. Replacement borehole required. Borehole KZDM462 is not equipped due to water quality. 3 boreholes are required in this area, one to be drilled on the north eastern side cloes to the river where about 12 houses are located. 2nd borehole to be drilled around S- 27^0 54' 40,6" E - 31^0 51' 50,2". The 3rd borehole should be placed far south at S - 27^0 55' 27,9" E - 31^0 51' 46,6"
		20	In Progress	Z227	Manqashaneni	1 050 000	116	Drill 3x BHs	BH-BUK154 no longer existing and was replaced by BMA101 that is equipped with a Mono T7 Handpump, working. Borehole KZDM83 no longer existing. BMA113 cased and far away from the community. KZDM23 HANDPUMP BROKEN. 3 boreholes are proposed at coordinates presented. Hydrocensus also carried out on the adjacent Community - Ekubungazeleni Z226
		1	2023/2024	ZMAP20	Mhlanjeni	510 000	16	Hydrocensus & Rudimentary water supply	
		3	2023/2024	ZMAP22	Mkhuze 1	320 000	1	Hydrocensus & Rudimentary water supply	
		2	2023/2024	Z236	Esixeni	530 000	22	Hydrocensus & Rudimentary water supply	
		2	2023/2024	ZBUK11	Vusu Musi	1 090 000	70	Hydrocensus & Rudimentary water supply	
		3	2023/2024	Z333	Esqelwini	340 000	3	Hydrocensus & Rudimentary water supply	
		3	2023/2024	ZBUK25	Magendene	550 000	25	Hydrocensus & Rudimentary water supply	
		7	2023/2024	Z198b	Dongothule	2 070 000	69	Hydrocensus & Rudimentary water supply	
		7	2023/2024	ZBUK23	Mgolokotho	610 000	27	Hydrocensus & Rudimentary water supply	
		18	2023/2024	ZBUK24	Meyame	440 000	15	Hydrocensus & Rudimentary water supply	
		18	2023/2024	Z243	Zibusele	1 710 000	145	Hydrocensus & Rudimentary water supply	Only partially served.

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		13	Served	ZMAP28	Mahayoyo	-	228	Regional scheme water supply	
		4	In Progress	Z362	Emaqeleni 3	350 000	23	Drill 1x BH	There is a water pipe that comes from a water tank. The water comes from a spring uphill that is not reliable during winter. A borehole must be drilled and equipped within the community.
		12	In Progress	Z338	Esigoqobeni	980 000	63	Drill 1x BH	Piped scheme from the Okhukhu mine. One stand pipe at position S - 28^0 09' 57,5" E - 31^0 40' 34.7" Shceme not reliable. Borehole to be sited and drilled around S - 280 10' 17,9" E - 310 40' 45.9". where part of the community is far away from the standpipe. There is a cased borehole that is likely to have been filled with stones.
		12	In Progress	ZKAY4	Emayeni 1	350 000	50	Drill 1x BH	No source of water in the area for this community. Site and drill one borehole around coordinates supplied
		12	In Progress	Z342	Emayeni 2	350 000	83	Drill 1x BH	There is an existing motorised borehole just below the clinic at position S - 28^0 06' 36.5" E - 31^0 40' 19.9"that supplies the community. The borehole has breakdown challenges and at times run out diesel for some time hence community not adequately served. To site and drill one borehole in the area around the supplied coordinates
		12	In Progress	Z340	Esidakeni 1	350 000	58	Drill 1x BH	Piped scheme from the Okhukhu mine. One stand pipe at position S - 280 09' 24,0" E - 310 42' 09.0" Shceme not reliable. One Borehole to be sited and drilled around S - 280 09' 19,3" E - 310 42' 28.0" where part of the community a far away from the standpipe. Only partially served.
Nongoma	Usuthu	12	In Progress	Z339	Ngwabe	700 000	78	Drill 2x BHs	Piped scheme from Okhukhu Mine. A stand pipe close to the school. Othe households far form the standpipe. A cased borehole at position S - 28^0 09' 57.6" E - 31^0 41' 54.6" filled with stones. Two boreholes required at around the presented coordinates
		13	In Progress	Z359	Embokodweni	1 120 000	75	Protect spring & refurbish reticulation	Community benefiting from an unprotected spring at position - S - 28^0 01' 30.10" E - 31^0 38' 41.20". Test pump and equip borehole at position S - 28^0 01' 30.1" E- 31^0 38' 41.2" . Protect the spring and replace leaking pipes from spring to the Jojo tanks - Flow rate = 600 l/hr (about 14kl/day)
		21	In Progress	Z607	Mangomhlophe	700 000	300	Hydrocensus in progress	Investigation in Progress
		11	2023/2024	Z147	Ngolotshe	3 710 000	316	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZMAP15	Dum-Dum	680 000	35	Hydrocensus & Rudimentary water supply	
		12	2023/2024	Z349	Isizinda A	410 000	9	Hydrocensus & Rudimentary water supply	
		12	2023/2024	Z341	Isizinda B	1 620 000	117	Hydrocensus & Rudimentary water supply	
		12	2023/2024	Z373	Nhloyane	410 000	10	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZMAP13	Nqalu	780 000	46	Hydrocensus & Rudimentary water supply	
		21	2023/2024	Z614	Mayini / Ntonga	2 380 000	205	Hydrocensus & Rudimentary water supply	
		21	2023/2024	Z597	Semangadini	1 250 000	87	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZAM12	Ezingolaneni	610 000	26	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZMAP16	KwaLuphonjwana	1 650 000	124	Hydrocensus & Rudimentary water supply	
		12	2023/2024	Z346	KwaQuqu	350 000	10	Hydrocensus & Rudimentary water supply	
		12	2023/2024	Z374	Ngalonde	1 350 000	94	Hydrocensus & Rudimentary water supply	
		12	2023/2024	ZAM11	Nzama	1 300 000	96	Hydrocensus & Rudimentary water supply	
		21	2023/2024	Z598	Mpunzana	2 190 000	194	Hydrocensus & Rudimentary water supply	
		4	2023/2024	Z362	Emaqeleni 2	370 000	10	Hydrocensus & Rudimentary water supply	
		11	2023/2024	ZMAP9	Doncaneni	950 000	56	Hydrocensus & Rudimentary water supply	

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		8	Served	Z931	Mahlabathini	-	210	Handpump	
		13	Served	ZHC3	Witpoort	480 000	17	Handpump	
		14	Served	Z413	Njomelwane	-	318	Handpump	
		20	Served	Z795	KwaMvula	-	141	Handpump	
		20	Served	Z745	Kwagqikazi	1 750 000	326	Handpump	Two boreholes ZDM/SCN218 and ZDM/SCN219 not equipped. Existing borehole at position S - 28^0 17' 55.7: E - 31^0 27' 57.8" equipped with a MonoT7 working. Most of the households no access to water. 5 areas have been identified for siting and drilling boreholes as per the presented coordinates.
		20	Served	Z402a	Kwavilakazi 2	1 050 000	122	Handpump	Piped water scheme that hasn't worked effeciently. The scheme reportedly last worked over two years ago. Two boreholes have been drilled in the area. ZDM/SCN263 is equipped with Mono T5 Handpump that is not working. An existing borehole at position 28^0 18' 12,5" e - 31^0 30' 45.8" equipped with a Mono T7 handpump working but far away from the community. Three areas have been identified for borehole siting and drilling.
		9	In Progress	ZNew79	Manaba	1 400 000	10	Drill 4x BHs	No source in the area. 4 Boreholes proposed in the area
		13	In Progress	ZNew115	KwaHenie	1 750 000	178	Drill 5x BHs	No source. Scattered community. Several BH's required
		24	In Progress	Z813	Enguqe	5 340 000	178	Hydrocensus in progress	Investigation in Progress
		24	In Progress	ZTAS18	Ezimfeneni	2 010 000	67	Hydrocensus in progress	Investigation in Progress
		8	2022/2023		Donsamahoho	1 000 000		Scheme extension	
		8	2022/2023		eWela 2	350 000		Drill & equip borehole	
		8	2022/2023		Mganimbobo	350 000		Drill & equip borehole	
		14	2022/2023		eWela 1	350 001		Drill & equip borehole	
		16	2022/2023	Z479	Emakhosini	20 000 000	330	Scheme Augmenetation: Borehole, Rising Main and Reservoir	
		23	2022/2023	Z939	Denny Dalton	2 000 000	40	Scheme Augmentation	
		13	2023/2024	Z927	Kwabombo	330 000	3	Hydrocensus & Rudimentary water supply	
		13	2023/2024	ZTAS10	Mandeva	490 000	20	Hydrocensus & Rudimentary water supply	
		13	2023/2024	ZMAP96	Mbombo	650 000	34	Hydrocensus & Rudimentary water supply	
		16	2023/2024	ZMAP90	Nzololo	1 200 000	62	Equip BH & rising main	
Ulundi	Nkonjeni	13	2023/2024	ZMAP95	Mzinqathi	550 000	25	Hydrocensus & Rudimentary water supply	
		13	2023/2024	ZAM9a	Thkelana 1	580 000	27	Hydrocensus & Rudimentary water supply	
		13	2023/2024	ZAM9b	Tukelana 2	330 000	1	Hydrocensus & Rudimentary water supply	
		15	2023/2024	Z707	Ntabankulu	430 000	4	Hydrocensus & Rudimentary water supply	
		24	2023/2024	ZMAP108	Basamlilo	1 980 000	66	Hydrocensus & Rudimentary water supply	Only partially served
		24	2023/2024	ZTAS19	Ezikhumbeni	2 970 000	99	Hydrocensus & Rudimentary water supply	
		24	2023/2024	ZMAP109	Ezisasaneni	780 000	26	Hydrocensus & Rudimentary water supply	
		13	2023/2024	ZAM5	Ensileni	400 000	9	Hydrocensus & Rudimentary water supply	
		15	2023/2024	ZMAP92	Nsingizane 2	420 000	11	Hydrocensus & Rudimentary water supply	
		21	2023/2024	ZMAP102	Kwamadumela	540 000	19	Hydrocensus & Rudimentary water supply	
		13	2023/2024	ZNew87	Maduna	460 000	16	Hydrocensus & Rudimentary water supply	
		13	2023/2024	ZNew114	Nhlazatshe	550 000	48	Hydrocensus & Rudimentary water supply	
		16	2023/2024	ZNew80	Mandevu 1	340 000	4	Hydrocensus & Rudimentary water supply	
		16	2023/2024	ZNew24	Nyashana	350 000	5	Hydrocensus & Rudimentary water supply	
		16	2023/2024	ZNew23	Qanuatho	400 000	9	Hydrocensus & Rudimentary water supply	
		21	2023/2024	ZNew101	Dorsfontein	350 000	2	Hydrocensus & Rudimentary water supply	
		24	2023/2024	ZNew99	Isandlwana	380 000	5	Hydrocensus & Rudimentary water supply	
		13	2024/2025	ZNew87	Maduna	460 000	16	Hydrocensus & Rudimentary water supply	
		13	2024/2025	ZNew114	Nhlazatshe	550 000	48	Hydrocensus & Rudimentary water supply	
		16	2024/2025	ZNew24	Nyashana	350 000	5	Hydrocensus & Rudimentary water supply	
		16	2024/2025	ZNew23	Qanuatho	400 000	9	Hydrocensus & Rudimentary water supply	
		16	2025/2026	ZNew80	Mandevu 1	340 000	4	Hydrocensus & Rudimentary water supply	
		21	2025/2026	ZNew101	Dorsfontein	350 000	2	Hydrocensus & Rudimentary water supply	
		24	2025/2026	ZNew99	Isandlwana	380 000	5	Hydrocensus & Rudimentary water supply	

RUDIMENTARY ROLLOUTS

	Served/Completed Projects
	Projects currently in progress
	Priority Projects for next financial
	Settlements to be served within next financial year

Local Municipality	Regional Scheme	Ward 2016	Year	Z-Nr	Settlement Name	Cost Estimate	Households	Proposed Intervention	Progress to date
		14	Served	Z706	Mbanda	-	37	Served by Esphiva scheme	
		15	In Progress	Z688	Makhalathini	2 480 000	218	Hydrocensus in progress	Investigation in Progress
		5	In Progress	ZMAP111	Hluthy	700 000	30	Drill 2x BHs	No source in the area. Community get water from Umfolozi River. Two boreholes are proposed at Hluthy Hlaza and Hluthy Dlaiya
Ulundi	Usuthu	6	In Progress	Z32	Mashiyane	700 000	162	Drill 2x BHs	Hydrocensus Completed - There are three boreholes in the area and a semi protected spring on the Dlabeni side at position - 28^0 02' 09,0" E - 31^0 22' 50,1". The spring serve part of the Community but mostly meant for the Dlabane Community. Borehole 1 at 28^0 02' 31,6" E - 31^0 23' 24,0" is Equipped with a Mono T7 Handpump working. Borehole 2 - ZDM/SCN273 is not equipped. Borehole 3 at 28^0 02' 40,6" E - 31^0 23' 12,0" is equipped with a Mono T7 Handpump that is working. Two boreholes are required around the presented coordinates
		7	2022/2023	Z674	oBhokweni	10 000 000	214	Reticulation	
		14	2023/2024	Z705	Mshayazafe	500 000	21	Hydrocensus & Rudimentary water supply	
		15	2023/2024	ZMAP110	Mgubameni	520 000	25	Hydrocensus & Rudimentary water supply	
		15	2023/2024	Z689	Obinda	590 000	15	Hydrocensus & Rudimentary water supply	
		15	2023/2024	Z698	Pholela	1 580 000	130	Hydrocensus & Rudimentary water supply	
		14	2023/2024	ZNew102	Kwamswane	590 000	23	Hydrocensus & Rudimentary water supply	
		14	2024/2025	ZNew102	Kwamswane	590 000	23	Hydrocensus & Rudimentary water supply	
		1	In Progress	ZNew37	Kwaslevu	710 000	37	Drill 2x BHs	2x BH's drilled, one collapsed. Other BH handed to COGTA, to be equipped
	Coronation	1	2023/2024	ZNew41	Kwamshikashika	620 000	32	Hydrocensus & Rudimentary water supply	
		1	2023/2024	ZNew42	Kwaphatha	600 000	28	Hydrocensus & Rudimentary water supply	
		1	2025/2026	ZNew42	Kwaphatha	600 000	28	Hydrocensus & Rudimentary water supply	
		1	In Progress	ZNew43	Morreson	1 190 000	85		Drilled 1x BH, too deep for HP. Alternative source needed.
		1	2022/2023	Z936	Magudu	10 000 000	151	Scheme Augmentation	
		1	2023/2024	ZMAP52	Hhinihhini	490 000	18	Hydrocensus & Rudimentary water supply	
	Mkhuze	1	2023/2024	ZNew36	Emganwini	600 000	28	Hydrocensus & Rudimentary water supply	
uPhongolo		1	2023/2024	ZNew44	Emkhayeni	1 420 000	100	Hydrocensus & Rudimentary water supply	
		14	2023/2024	ZNew157	Ngulwane	600 000	35	Hydrocensus & Rudimentary water supply	
		1	2025/2026	ZNew36	Emganwini	600 000	28	Hydrocensus & Rudimentary water supply	
		1	2025/2026	ZNew44	Emkhayeni	1 420 000	100	Hydrocensus & Rudimentary water supply	
	Sim Central	6	Served	ZBUK63	Dlomodlomo 1	-	95	Handpump	
	Sim East	7	Served	Z496	Sivule	350 000	195		Served by Regional Scheme
		1	In Progress	ZNew118	Eskhaleni	350 000	69	Drill BH	1x BH drilled, tested 1x spring. To equip BH
		1	2023/2024	ZMAP32	Kwampondo	920 000	61	Hydrocensus & Rudimentary water supply	
	Usuthu	1	2023/2024	ZHC25	Mpalaza	1 180 000	93	Hydrocensus & Rudimentary water supply	
		1	2024/2025	ZNew35	Embangeni	770 000	49	Hydrocensus & Rudimentary water supply	

Table 11.4: Roll-out of New Rural Sanitation Services

NEW RURAL SANITATION ROLLOUTS						
Municipality	**Sanitation Year**	**Ward 2020**	**Z_Number**	**Settlement Name**	**HH 2020**	**Cost**
Abaqulusi Local Municipality	2022/2023	2	ZNew47	Kwamadamu	149	2 980 000
		4	TBA	TBA	154	3 080 000
		13	TBA	TBA	84	1 680 000
		15	TBA	Thelezeni	45	900 000
		15	TBA	St. Paul	45	900 000
		15	TBA	Sigodi	45	900 000
		15	TBA	Ntshibantshiba	45	900 000
		15	TBA	Bhobozane	45	900 000
		15	TBA	Mdengenduku	45	900 000
		17	Z941	Emadwaleni 1	127	2 540 000
	2023/2024	2	ZNew46	Emarondweni	12	240 000
		2	ZNew48	Empumazi	16	320 000
		2	ZNew49	Kwamsezane	62	1 240 000
		2	ZNew40	Kwasithole	84	1 680 000
		2	ZNew15	Dlomodlomo	33	660 000
		2	ZNew22	Kwabudula	30	600 000
		2	ZNew16	Kwakopie	16	320 000
		2	ZNew20	Kwanmnunse	61	1 220 000
		2	ZNew19	Kwathemba	35	700 000
		2	ZNew18	Kwazondo	23	460 000
		2	ZNew21	Makhwela	94	1 880 000
		2	ZMAP65	Mkuze	13	260 000
		2	ZNew17	Ndulo	9	180 000
		2	ZNew14	Ngongomane	208	4 160 000
		2	ZNew13	Ongcwezeni	190	3 800 000
		3	ZNew29	Mabova	33	660 000
		5	Z960	Boschoek (Bhokwe) Low-cost Housing	1000	14 000 000
		15	Z119	Mhlangeni	270	5 400 000
	2024/2025	5	ZNew83	Shikila	331	6 620 000
		13	ZNew86	Triangle store	1059	21 180 000
	2025/2026	6	ZNew104	Enkwaleni	18	360 000
		6	ZNew34	Gobeni	19	380 000
		6	ZNew33	Mciyo	37	740 000
		6	ZNew103	Uitzicht	33	660 000
		7	ZNew107	Shoba 1	512	10 240 000
		7	ZNew108	Shoba 2	382	7 640 000
		23	ZNew97	KwaBoy 3	67	1 340 000
	2026/2027	2	ZNew12	Mphitiphtini	146	2 920 000
		2	ZNew11	Thuthukani	17	340 000
		3	ZNew27	Hlanewana	44	880 000
		3	ZNew181	Hlanganani CPA	4	80 000
		3	ZNew30	Kewulane	88	1 760 000
		3	ZNew32	Mfabantu	20	400 000
		3	ZNew28	Mthumeni	14	280 000
		3	ZNew31	Ndulinde	119	2 380 000
		3	ZNew26	Shawelwo	75	1 500 000
		4	ZNew64	Emgageni	157	3 140 000
		4	ZNew53	Kwamahashi	33	660 000
	>2027	4	ZNew70	Berlin	10	200 000
		4	ZNew52	Boschoek	18	360 000
		4	ZNew60	Dagane	48	960 000
		4	ZNew68	Elim	16	320 000
		4	ZNew56	Emaqigwe	26	520 000
		4	ZNew58	Enkaleni	57	1 140 000
		4	ZNew62	Enqothweni	83	1 660 000
		4	ZNew69	Entabeni 1	9	180 000
		4	ZNew57	Hlongane	38	760 000
		4	ZNew54	KwaDevan	58	1 160 000
		4	ZNew55	KwaNgada	62	1 240 000
		4	ZNew66	KwaPaul	9	180 000
		4	ZNew65	Kwaschoeman	17	340 000
		4	ZNew61	Leeunek 1	31	620 000
		4	ZNew71	Lenjane 1	70	1 400 000

NEW RURAL SANITATION ROLLOUTS						
Municipality	**Sanitation Year**	**Ward 2020**	**Z_Number**	**Settlement Name**	**HH 2020**	**Cost**
Abaqulusi Local Municipality	>2027	4	ZNew59	Siyaphambile	38	760 000
		4	ZNew67	Thabankulu	38	760 000
		5	ZNew81	Ekamvu	20	400 000
		5	ZNew82	KwaJohn 2	22	440 000
		5	ZNew116	KwaMdaga	104	2 080 000
		5	ZNew131	Lenjane 2	26	520 000
		7	ZNew89	Bozuzu	30	600 000
		7	ZNew111	Emakwateni	95	1 900 000
		7	ZNew105	Entabeni 2	81	1 620 000
		7	ZNew112	Geluk 1	14	280 000
		7	ZNew130	Hellberg farms	80	1 600 000
		7	ZNew129	KwaBevu	26	520 000
		7	ZNew91	Kwabozuzu	23	460 000
		7	ZNew113	Kwalancast	19	380 000
		7	ZNew128	KwaNgethe	47	940 000
		7	ZNew153	Kwatwo	29	580 000
		7	ZNew126	Magot	45	900 000
		7	ZNew88	Mtenteka	59	1 180 000
		7	ZNew90	Ntendeka 2	111	2 220 000
		7	ZNew95	Voorkeur	84	1 680 000
		7	ZNew94	Zungweni	62	1 240 000
		8	ZMAP122	Vryheid Dump Site	130	2 600 000
		9	ZNew154	KwaMatiela	21	420 000
		9	ZNew125	KwaSavells	26	520 000
		9	ZNew119	Stillwater	100	2 000 000
		12	ZNew163	Brakfontein	33	660 000
		12	ZNew177	Brakfontein 2	12	240 000
		12	ZNew174	Driefontein	30	600 000
		12	ZNew176	Dubbelrecht	14	280 000
		12	ZNew161	Emooi	92	1 840 000
		12	ZNew160	Enyanyeni	24	480 000
		12	ZNew173	Geluk 3	8	160 000
		12	ZNew171	Grootfontein	51	1 020 000
		12	ZNew166	Jimane/Driekwart	174	3 480 000
		12	ZNew164	Langverwacht	39	780 000
		12	ZNew168	Mabunya	14	280 000
		12	ZNew172	Middelpunt	10	200 000
		12	ZNew169	Tintas Drift	163	3 260 000
		12	ZNew162	Vamba	33	660 000
		13	ZNew96	Banga	10	200 000
		13	ZNew75	Beafort	79	1 580 000
		13	ZMAP123	Ema300	285	5 700 000
		13	ZNew93	Eskame	61	1 220 000
		13	ZNew74	Golden Valley	74	1 480 000
		13	ZNew109	Hluma	46	920 000
		13	ZNew72	Ishoba 1	153	3 060 000
		13	ZNew85	Ishoba 2	28	560 000
		13	ZNew77	Klipfontein	20	400 000
		13	ZNew110	Kwabanga 1	85	1 700 000
		13	ZNew92	Kwabanga 2	66	1 320 000
		13	ZNew73	Leeunek 2	14	280 000
		13	ZNew84	Ma'Romenie	155	3 100 000
		13	ZNew76	Mpofini	40	800 000
		22	ZNew124	Betel	26	520 000
		22	ZNew106	Eensgevonden plotte	115	2 300 000
		22	ZNew122	Fearmdale	70	1 400 000
		22	ZNew123	KwaLubeck	25	500 000
		22	ZNew120	Scheepersnek	41	820 000
		22	ZNew121	Zaaifontein	28	560 000

NEW RURAL SANITATION ROLLOUTS						
Municipality	**Sanitation Year**	**Ward 2020**	**Z_Number**	**Settlement Name**	**HH 2020**	**Cost**
eDumbe Local Municipality	2022/2023	5	TBA	TBA	118	2 360 000
		7	TBA	TBA	126	2 520 000
	2023/2024	7	ZNew146	Makhwabe	9	180 000
		7	ZNew147	Mazezeni	40	800 000
		7	ZNew152	Sefamanzi	50	1 000 000
		7	ZNew148	Zungwini	27	540 000
		7	ZNew149	Gweje	111	2 220 000
		7	ZNew150	Mqwabe	37	740 000
	2024/2025	7	ZNew156	Doornkloof	43	860 000
		7	ZNew145	Matshekazi	180	3 600 000
	2025/2026	1	ZMAP120	Schikhoek (Land Reform)	70	1 400 000
		9	ZNew134	Kwalembe	67	1 340 000
	2026/2027	1	ZNew143	Brecher	43	860 000
		4	ZNew182	Bilanyoni New Stands	20	400 000
		9	ZMAP121	Tholwethu (Land Reform	73	1 460 000
		9	ZNew144	Titane	32	640 000
	>2027	1	ZNew139	Hloko	66	1 320 000
		1	ZNew140	KwaBhema	65	1 300 000
		1	ZNew137	Ntshakwe	31	620 000
		1	ZNew138	Ntshakwe (Mhlamone)	169	3 380 000
Nongoma Local Municipality	2022/2023	3	Z331	Machibini	148	2 960 000
		3	ZBUK25	Magendene	26	520 000
		3	Z336	Mapambeni	135	2 700 000
		3	Z332	Njonyomane	95	1 900 000
		3	Z329	Vesonweni	50	1 000 000
		5	Z247	Mpuphusi	150	3 000 000
		5	Z269	Toyisa Langalesizwe	185	3 700 000
	2023/2024	4	Z192	Makholweni	61	1 220 000
		4	Z190	Manyoni 1	237	4 740 000
		4	Z193	Sindaba	90	1 800 000
		9	Z215	Mfankomo	94	1 880 000
		9	Z214	Mhlwehlwe	73	1 460 000
		11	ZNN23	Emhemeni	65	1 300 000
		23	ZNew159	Sikheleni B	96	1 920 000
	2024/2025	10	Z569	Kwandwandwe	148	2 960 000
		11	ZNN27	Hlathidumayo	79	1 580 000
		11	Z570	Kwazungu	176	3 520 000
		11	Z567	Othinsangu	119	2 380 000
		12	ZAM12	Ezingolaneni	27	540 000
		12	Z349	Isizinda A	10	200 000
		12	Z375	Macekaneni	98	1 960 000
		12	Z373	Nhloyane	10	200 000
		12	ZMAP13	Nqalu	54	1 080 000
	2025/2026	6	Z170	Ekuvukeni	191	3 820 000
		6	Z171	Ndololwane	63	1 260 000
		10	Z164	Esweni	92	1 840 000
		10	Z165	Hlathi	146	2 920 000
		10	ZMAP18	Nokhesheni	19	380 000
		12	ZMAP16	KwaLuphonjwana	121	2 420 000
		12	ZMAP14	Ndlazini	75	1 500 000
	2026/2027	10	Z168	Magutshwa	120	2 400 000
		13	Z362	Emaqeleni 2	25	500 000
		13	Z362	Emaqeleni 3	25	500 000
		13	Z359	Embokodweni	77	1 540 000
		13	Z360	Engwelezane	29	580 000
		13	Z374	Ngalonde	96	1 920 000
		14	Z554	Badlaneni	150	3 000 000
		14	Z560	Khalweni	52	1 040 000
		14	Z559	Newgoli	111	2 220 000
		23	Z361	Mashenge	55	1 100 000

NEW RURAL SANITATION ROLLOUTS						
Municipality	**Sanitation Year**	**Ward 2020**	**Z_Number**	**Settlement Name**	**HH 2020**	**Cost**
Nongoma Local Municipality	>2027	3	Z314	Emathlomane	56	1 120 000
		3	Z322	Esigodiphola 1	72	1 440 000
		3	Z291	Geqa	55	1 100 000
		3	Z317	Hlushwaneni	108	2 160 000
		3	Z316	Mduda	111	2 220 000
		3	Z321	Mgxanyini	131	2 620 000
		3	Z313	Mngamunde	30	600 000
		3	Z303	Mthonjaneni	123	2 460 000
		3	Z304	Ntweni 1	84	1 680 000
		3	ZBUK29	Shalashala	69	1 380 000
		3	Z290	Zidwadweni	93	1 860 000
		6	Z194/Z195/Z187	Esidinsi	665	13 300 000
		11	ZMAP9	Doncaneni	75	1 500 000
		11	Z156	Entwala	61	1 220 000
		11	Z155	Eziqhumeni	142	2 840 000
		11	ZBA1	Kwavumela	88	1 760 000
		11	Z152	Masokaneni	180	3 600 000
		11	Z153	Mcibilindini	54	1 080 000
		11	Z151	Mhlabaneni	71	1 420 000
		11	Z147	Ngolotshe	340	6 800 000
		11	Z157	Nqala	95	1 900 000
		11	Z154	Zampilo	41	820 000
		17	ZKAY8	Echibini	13	260 000
		17	Z641	Efefe	150	3 000 000
		17	Z644a	Kwanomehle	29	580 000
		17	Z645	Majomela	438	8 760 000
		17	Z644b	Maqoma	157	3 140 000
		17	Z642	Obhuqwini	126	2 520 000
		22	Z294	Kolubomvu 1	20	400 000
		22	Z292	Kwajuba	136	2 720 000
		22	Z718	Mahlomane	78	1 560 000
Ulundi Local Municipality	2022/2023	All	Community	Public Amenities -	250	5 000 000
		All	Community	Public Amenities - Babanango	250	5 000 000
		16	ZMAP119	Hlengile	51	1 020 000
		16	ZMAP87	Nsingizane 1	38	760 000
		16	ZNew24	Nyashana	4	80 000
		16	ZMAP88	Qaba	6	120 000
		16	ZBUK49	Uitzight 203	17	340 000
	2023/2024	16	ZMAP117	Mhlathuze	45	900 000
		16	ZNew183	Ntinini	81	1 620 000
	2024/2025	16	ZBUK51	Langfontein	146	2 920 000
	2025/2026	16	ZMAP82	Mombeni	27	540 000
		16	ZMAP118	Ngenetsheni	14	280 000
		16	ZMAP90	Nzololo-Maganda	60	1 200 000
	2026/2027	15	ZMAP110	Mgubameni	26	520 000
		16	ZMAP100	Dingaanstad	61	1 220 000
		16	ZNew23	Qanuatho	9	180 000
		21	ZNew101	Dorsfontein	2	40 000
		24	ZNew100	Eskhaleni Kwankosi	13	260 000
		24	ZNew99	Isandlwana	4	80 000
	>2027	9	ZNew79	Manaba	12	240 000
		11	ZNew98	Kwamhlongo	10	200 000
		13	ZNew115	KwaHenie	204	4 080 000
		13	ZNew87	Maduna	18	360 000
		13	ZNew114	Nhlazatshe	57	1 140 000
		15	Z689	Obinda	12	240 000
		15	Z710/Z711	Okhukhu Phansikwentab	80	1 600 000
		16	ZNew80	Mandevu 1	3	60 000

NEW RURAL SANITATION ROLLOUTS						
Municipality	**Sanitation Year**	**Ward 2020**	**Z_Number**	**Settlement Name**	**HH 2020**	**Cost**
UPhongolo Local Municipality	2022/2023	1	TBA	TBA	108	2 160 000
	2023/2024	3	Z753	Newstand	118	2 360 000
		6	Z527	Mfaluvalo	69	1 380 000
		6	ZTAS57	Thusazane	39	780 000
		6	Z768	Klipwal	179	3 580 000
		6	Z767	Mfenyane	82	1 640 000
	2024/2025	6	ZBUK63	Dlomodlomo 1	86	1 720 000
		12	Z463	Kwesimhlope (Manyande	145	2 900 000
	2025/2026	12	Z460	Manyandeni	265	5 300 000
	2026/2027	12	Z464	Gabela (Manyandeni)	119	2 380 000
		12	Z789	Kwazibhedlu	32	640 000
		12	Z486	Nyawoshane	122	2 440 000
	>2027	1	ZHR3	Dwarsrand	116	2 320 000
		1	ZNew35	Embangeni	56	1 120 000
		1	ZNew36	Emganwini	39	780 000
		1	ZNew44	Emkhayeni	96	1 920 000
		1	ZNew39	Emthunzini	39	780 000
		1	ZNew118	Eskhaleni	92	1 840 000
		1	ZMAP52	Hhinihhini	14	280 000
		1	ZMAP33	Kwamhlanga	52	1 040 000
		1	ZMAP32	Kwampondo	71	1 420 000
		1	ZNew41	Kwamshikashika	29	580 000
		1	ZNew42	Kwaphatha	33	660 000
		1	ZNew37	Kwaslevu	45	900 000
		1	ZJD1	Kwasotsha	21	420 000
		1	Z936	Magudu	168	3 360 000
		1	ZTAS51	Manzamhlophe	130	2 600 000
		1	ZNew43	Morreson	92	1 840 000
		1	ZMAP31	Mpakama	292	5 840 000
		1	ZHC25	Mpalaza	100	2 000 000
		1	ZNew38	Mthaniya	43	860 000
		1	ZMAP81	Nyaliza	88	1 760 000
		1	ZTAS58	Sithole	43	860 000

PROJECT ROLLOUT MAPS

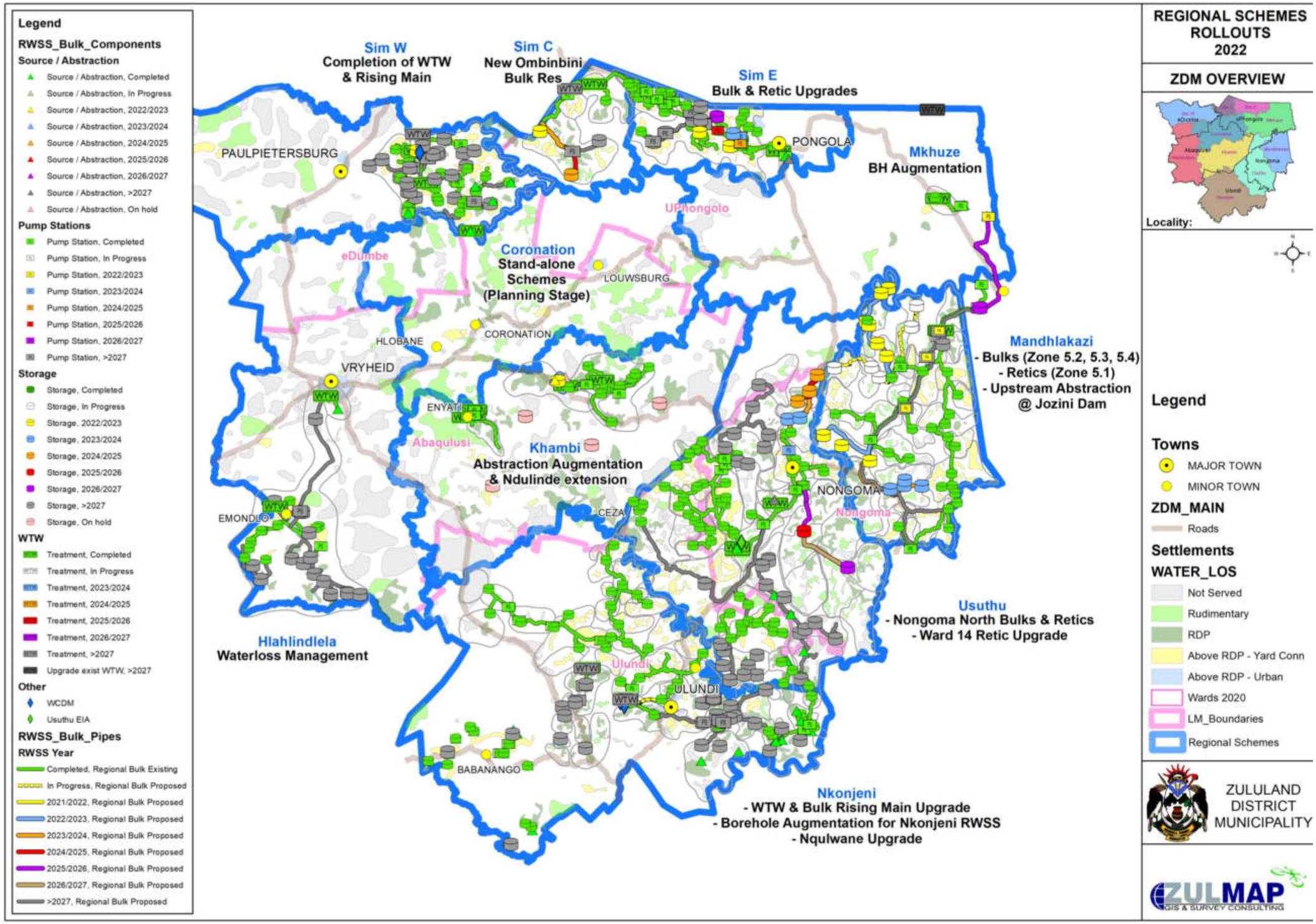
11.1 Regional Water Supply Schemes

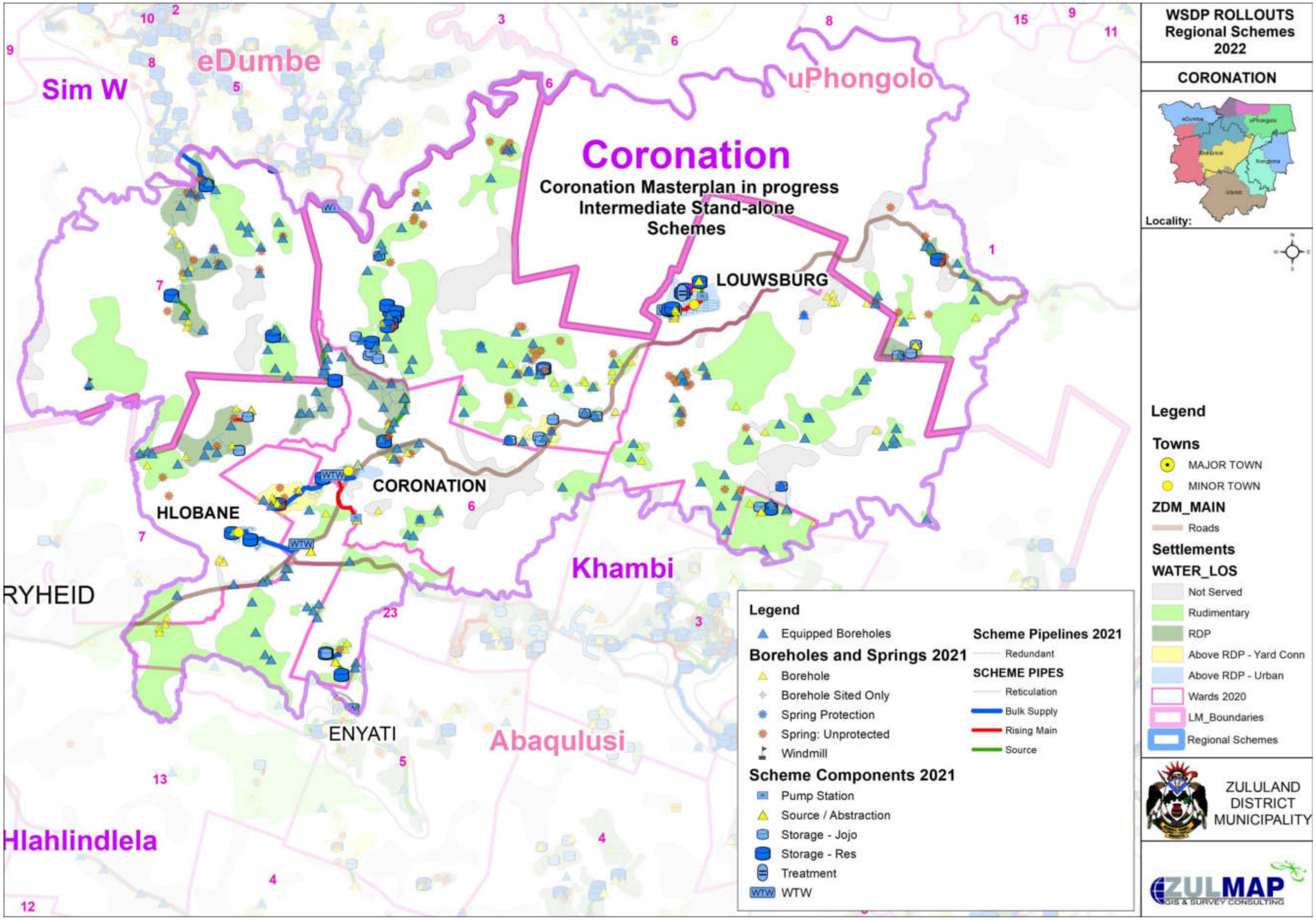
11.2 Intermediate Stand-alone Schemes

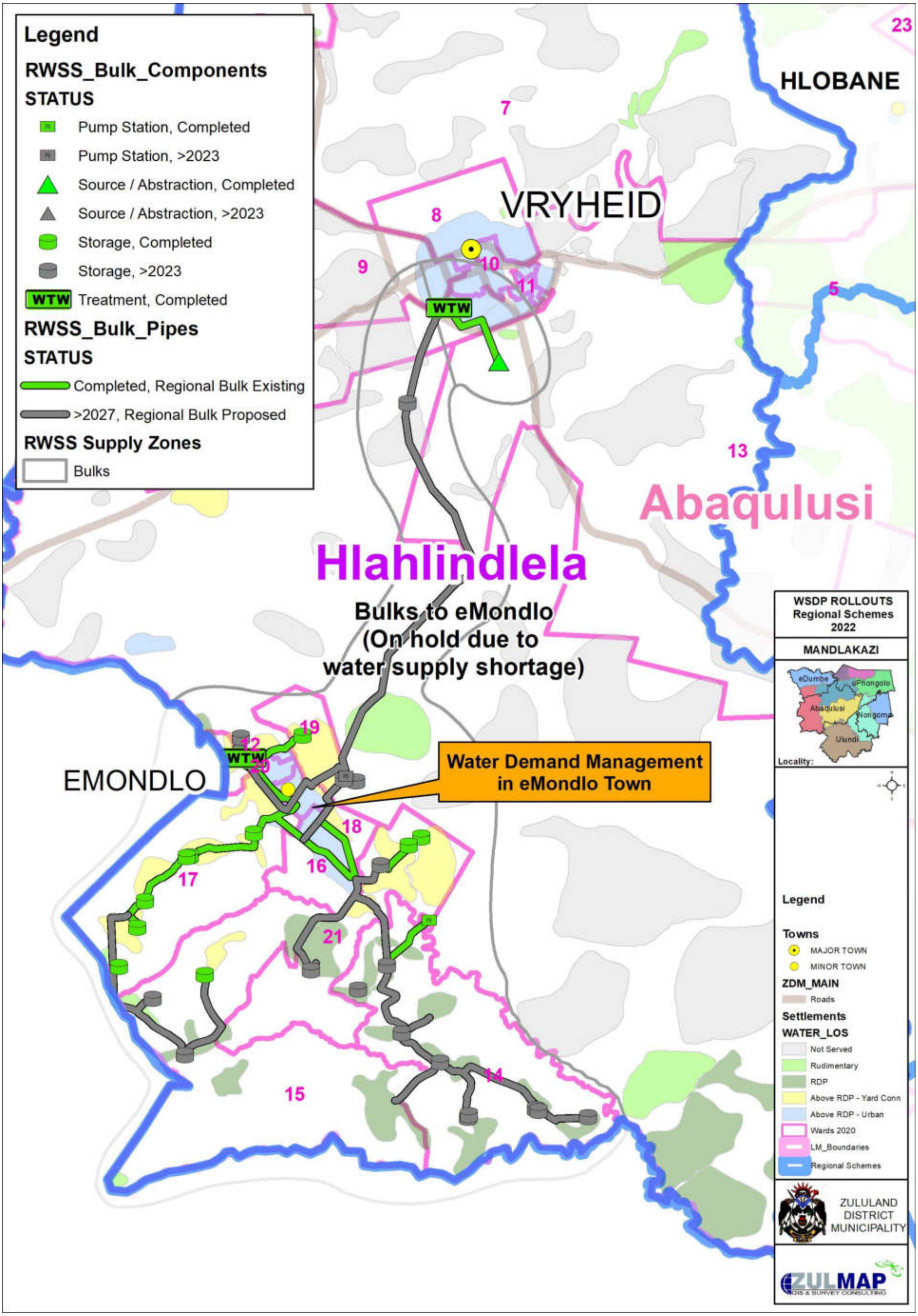
11.3 Rudimentary Water Supply

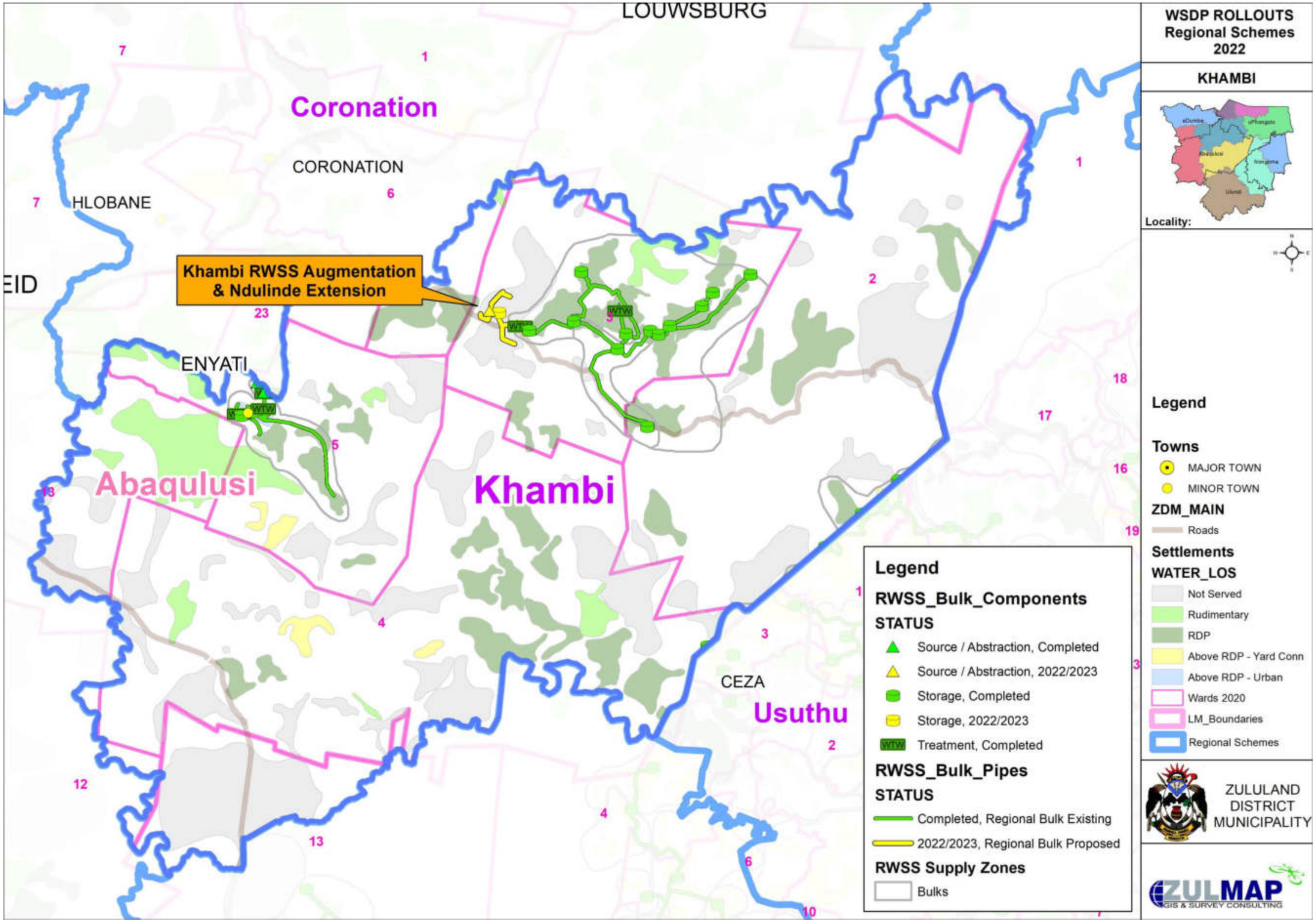
11.4 Sanitation Rollouts

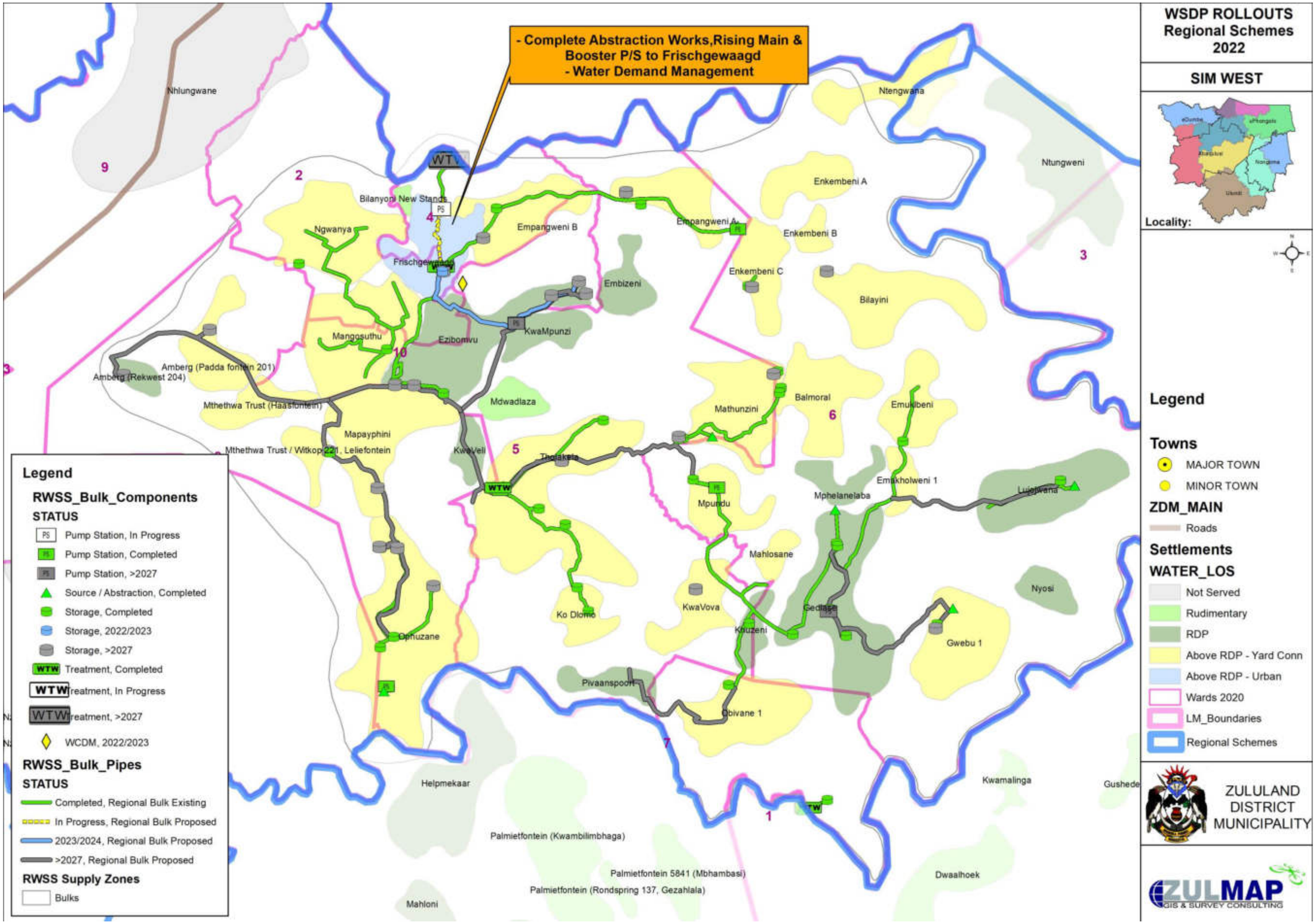
Map 11.1: Roll-out of regional water services in the district

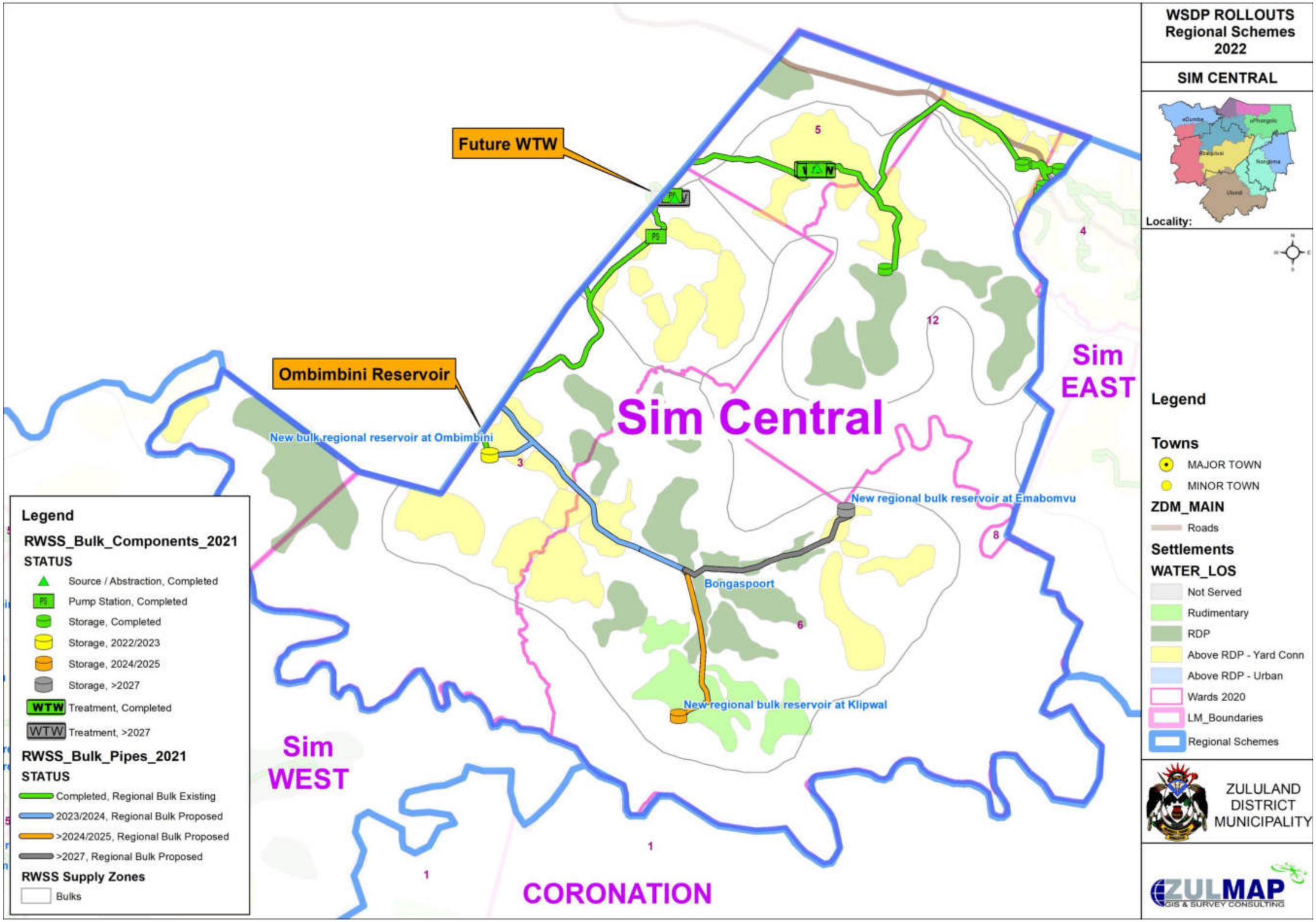


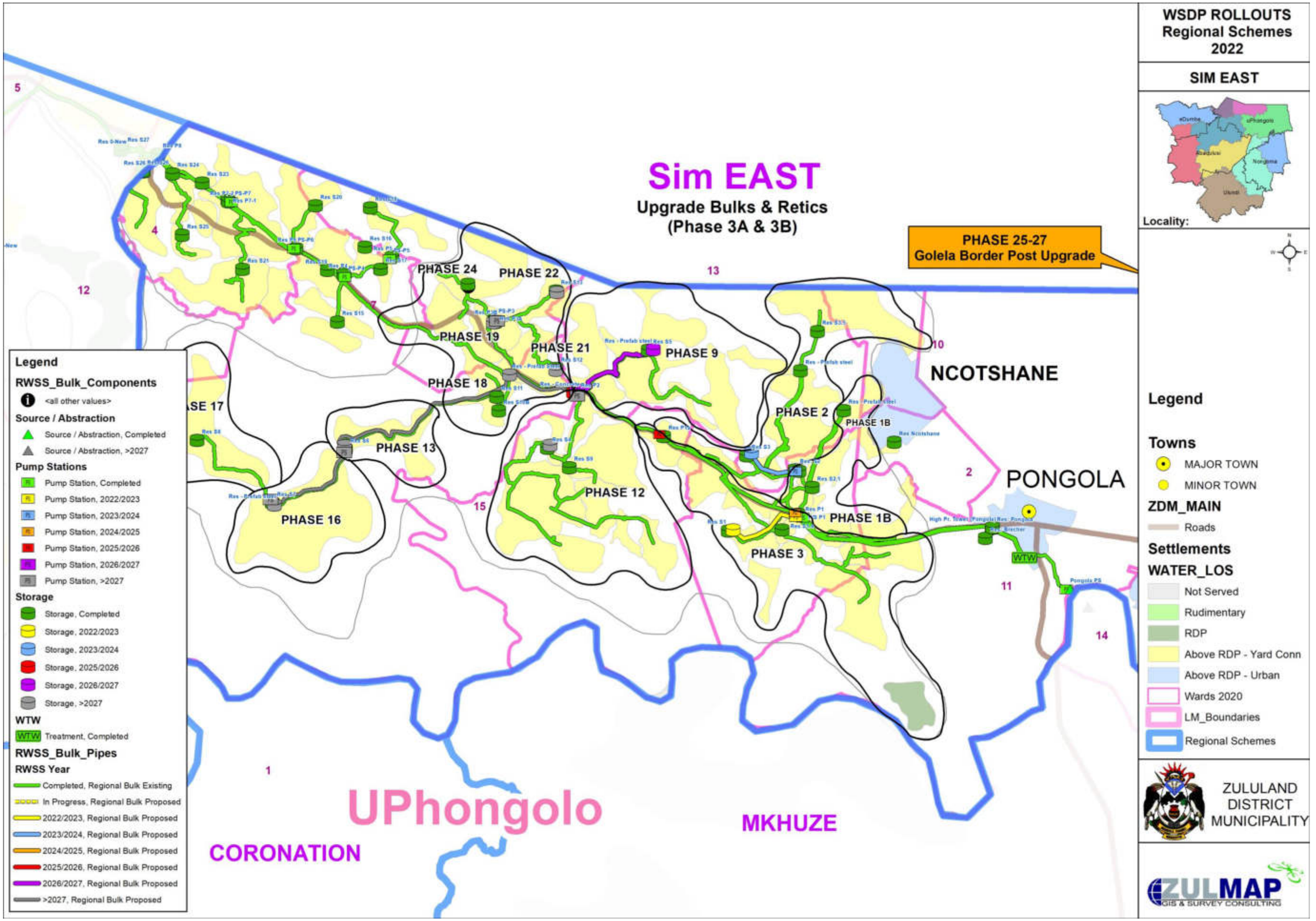

WSDP ROLLOUTS
Regional Schemes
2022
CORONATION
Locality:
Sim W
eDumbe
uPhongolo
Coronation
Coronation Masterplan in progress
Intermediate Stand-alone
Schemes
LOUWSBURG
CORONATION
HLOBANE
RYHEID
Khambi
ENYATI
Abaqulusi
Hlahlindlela
Legend
Towns
MAJOR TOWN
MINOR TOWN
ZDM_MAIN
Roads
Settlements
WATER_LOS
Not Served
Rudimentary
RDP
Above RDP - Yard Conn
Above RDP - Urban
Wards 2020
LM_Boundaries
Regional Schemes
Legend
Equipped Boreholes
Boreholes and Springs 2021
Borehole
Borehole Sited Only
Spring Protection
Spring: Unprotected
Windmill
Scheme Components 2021
Pump Station
Source / Abstraction
Storage - Jojo
Storage - Res
Treatment
WTW
Scheme Pipelines 2021
Redundant
SCHEME PIPES
Reticulation
Bulk Supply
Rising Main
Source
ZULULAND
DISTRICT
MUNICIPALITY
ZULMAP
GIS & SURVEY CONSULTING

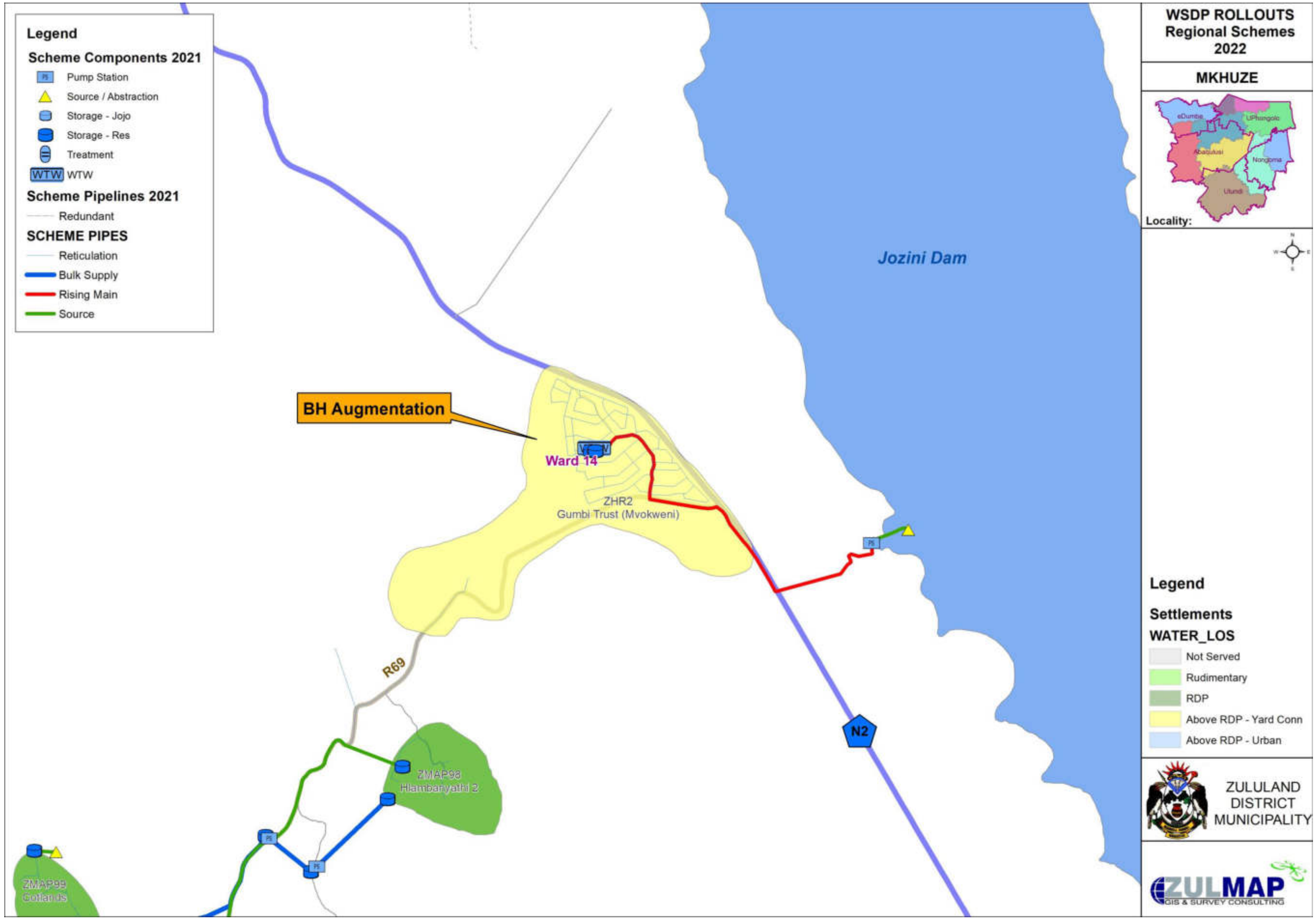

Legend
RWSS_Bulk_Components
STATUS
Pump Station, Completed
Pump Station, >2023
Source / Abstraction, Completed
Source / Abstraction, >2023
Storage, Completed
Storage, >2023
WTW Treatment, Completed
RWSS_Bulk_Pipes
STATUS
Completed, Regional Bulk Existing
>2027, Regional Bulk Proposed
RWSS Supply Zones
Bulks
HLOBANE
VRYHEID
Abaqulusi
Hlahlindlela
Bulks to eMondlo
(On hold due to
water supply shortage)
EMONDLO
Water Demand Management
in eMondlo Town
WTW
WSDP ROLLOUTS
Regional Schemes
2022
MANDLAKAZI
eDumbe
uPhongolo
Abaqulusi
Nongoma
Ulundi
Locality:
Legend
Towns
MAJOR TOWN
MINOR TOWN
ZDM_MAIN
Roads
Settlements
WATER_LOS
Not Served
Rudimentary
RDP
Above RDP - Yard Conn
Above RDP - Urban
Wards 2020
LM_Boundaries
Regional Schemes
ZULULAND
DISTRICT
MUNICIPALITY
ZULMAP
GIS & SURVEY CONSULTING

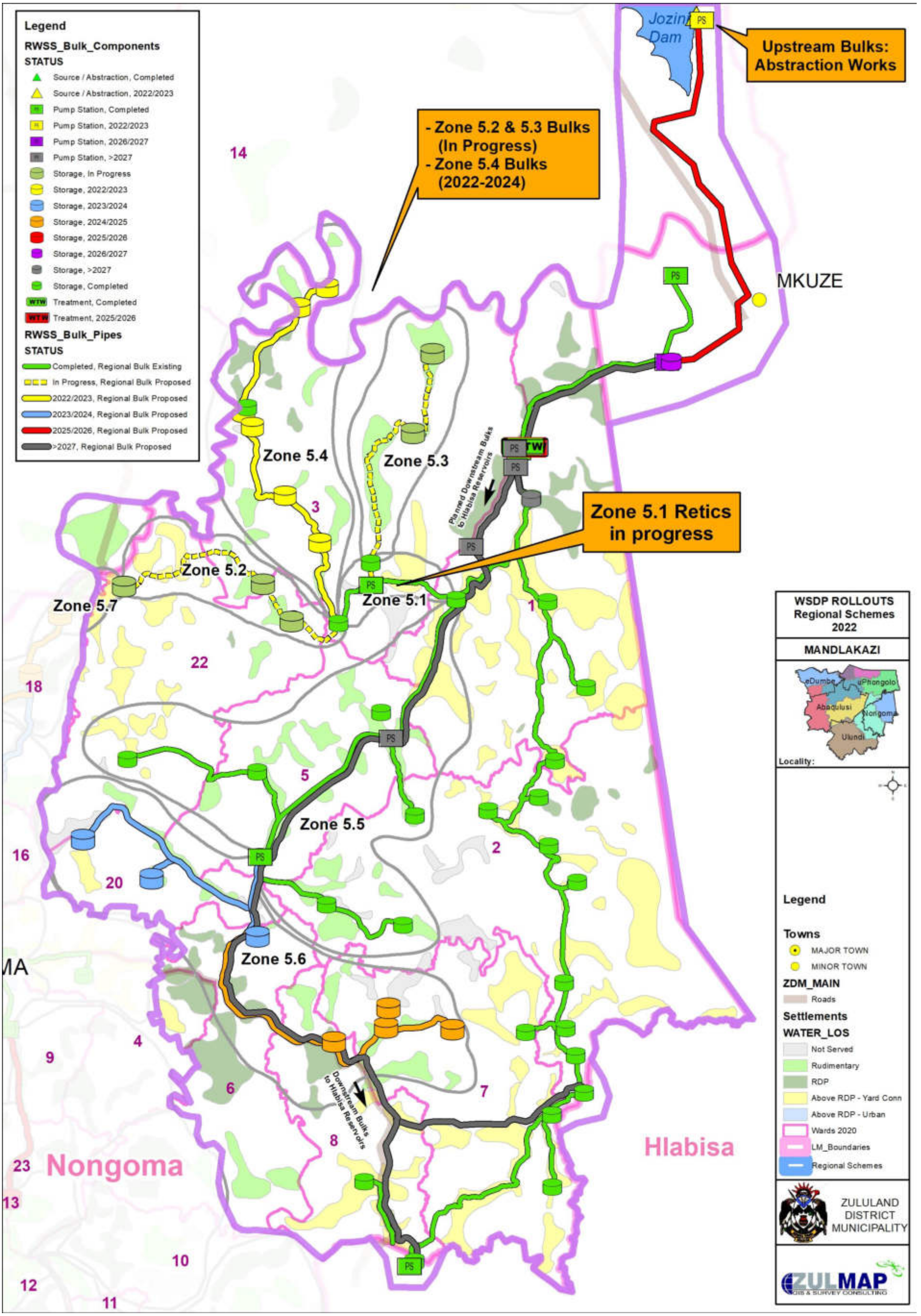

LOUWSBURG
Coronation
CORONATION
HLOBANE
EID
Khambi RWSS Augmentation
& Ndulinde Extension
ENYATI
Abaqulusi
Khambi
CEZA
Usuthu
WSDP ROLLOUTS
Regional Schemes
2022
KHAMBI
Locality:
Legend
Towns
MAJOR TOWN
MINOR TOWN
ZDM_MAIN
Roads
Settlements
WATER_LOS
Not Served
Rudimentary
RDP
Above RDP - Yard Conn
Above RDP - Urban
Wards 2020
LM_Boundaries
Regional Schemes
Legend
RWSS_Bulk_Components
STATUS
Source / Abstraction, Completed
Source / Abstraction, 2022/2023
Storage, Completed
Storage, 2022/2023
Treatment, Completed
RWSS_Bulk_Pipes
STATUS
Completed, Regional Bulk Existing
2022/2023, Regional Bulk Proposed
RWSS Supply Zones
Bulks
ZULULAND
DISTRICT
MUNICIPALITY
ZULMAP
GIS & SURVEY CONSULTING

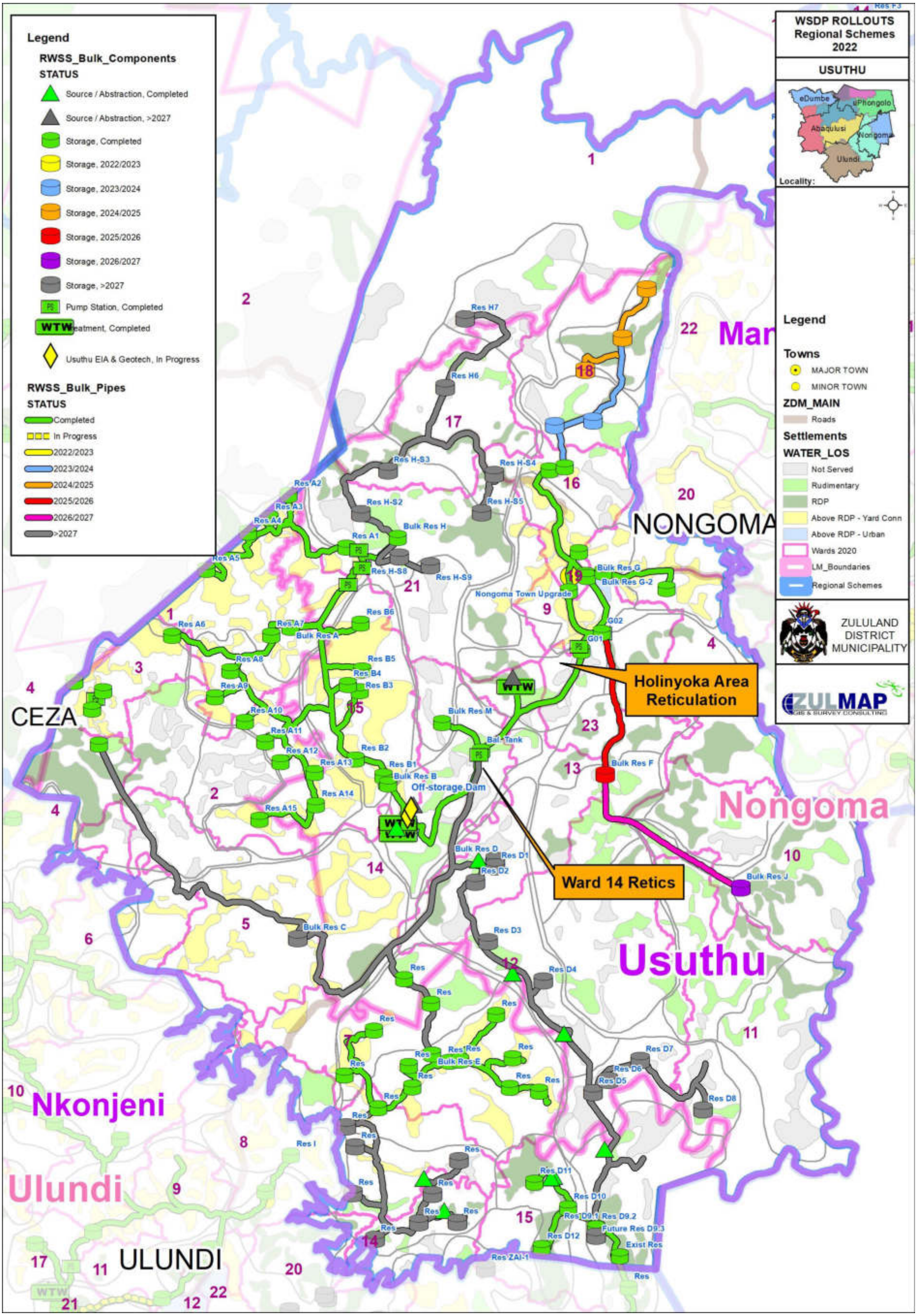

- Complete Abstraction Works,Rising Main & Booster P/S to Frischgewaagd
- Water Demand Management
WSDP ROLLOUTS
Regional Schemes
2022
SIM WEST
Locality:
Legend
Towns
MAJOR TOWN
MINOR TOWN
ZDM_MAIN
Roads
Settlements
WATER_LOS
Not Served
Rudimentary
RDP
Above RDP - Yard Conn
Above RDP - Urban
Wards 2020
LM_Boundaries
Regional Schemes
Legend
RWSS_Bulk_Components
STATUS
Pump Station, In Progress
Pump Station, Completed
Pump Station, >2027
Source / Abstraction, Completed
Storage, Completed
Storage, 2022/2023
Storage, >2027
Treatment, Completed
Treatment, In Progress
Treatment, >2027
WCDM, 2022/2023
RWSS_Bulk_Pipes
STATUS
Completed, Regional Bulk Existing
In Progress, Regional Bulk Proposed
2023/2024, Regional Bulk Proposed
>2027, Regional Bulk Proposed
RWSS Supply Zones
Bulks
ZULULAND DISTRICT MUNICIPALITY
ZULMAP GIS & SURVEY CONSULTING
Nhlungwane
Ntengwana
Ntungweni
Enkembeni A
Enkembeni B
Enkembeni C
Bilayini
Bilanyoni New Stands
Ngwanya
Empangweni B
Empangweni A
Frischgewaagd
Embizeni
KwaMpunzi
Mangosuthu
Ezibomvu
Amberg (Padda fontein 201)
Amberg (Rekwest 204)
Mthethwa Trust (Haasfontein)
Mapayphini
Mthethwa Trust / Witkop 221, Leliefontein
Mdwadlaza
KwaVeli
Thokaksia
Mathunzini
Balmoral
Emukibeni
Emakholweni 1
Mphelanelaba
Mpundu
Mahlosane
KwaVova
Ko Dlomo
Khuzeni
Gedlaze
Gwebu 1
Nyosi
Ophuzane
Pivaanspoort
Obivane 1
Helpmekaar
Palmietfontein (Kwambilimbhaga)
Palmietfontein 5841 (Mbhambasi)
Palmietfontein (Rondspring 137, Gezahlala)
Mahloni
Dwaalhoek
Kwamalinga
Gushede
WTW
PS
TW

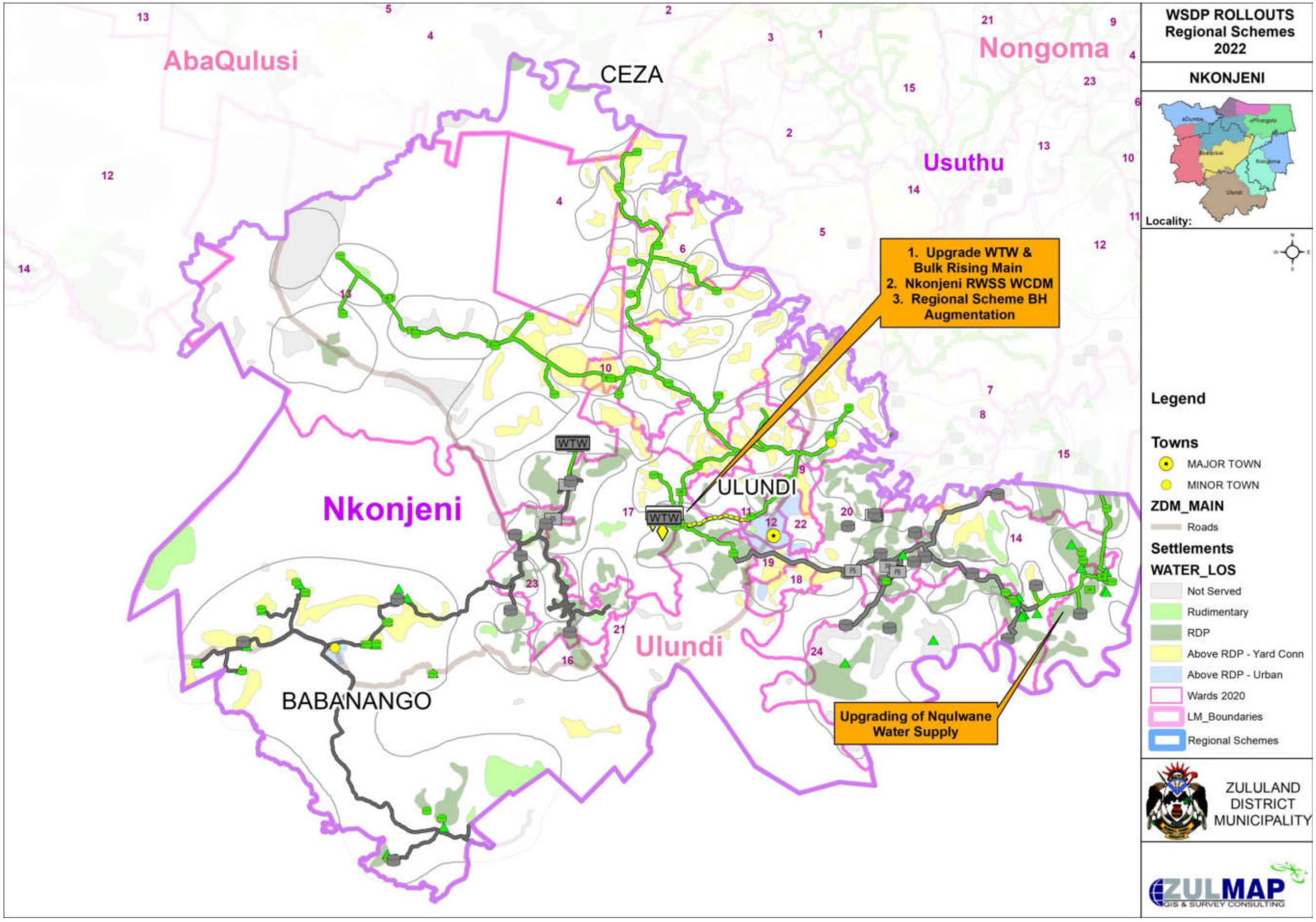

WSDP ROLLOUTS
Regional Schemes
2022
SIM CENTRAL
Locality:
Future WTW
Ombimbini Reservoir
New bulk regional reservoir at Ombimbini
New regional bulk reservoir at Emabomvu
Bongaspoort
New regional bulk reservoir at Klipwal
Sim Central
Sim EAST
Sim WEST
CORONATION
5
4
12
3
8
6
1
1
Legend
RWSS_Bulk_Components_2021
STATUS
Source / Abstraction, Completed
Pump Station, Completed
Storage, Completed
Storage, 2022/2023
Storage, 2024/2025
Storage, >2027
WTW Treatment, Completed
WTW Treatment, >2027
RWSS_Bulk_Pipes_2021
STATUS
Completed, Regional Bulk Existing
2023/2024, Regional Bulk Proposed
>2024/2025, Regional Bulk Proposed
>2027, Regional Bulk Proposed
RWSS Supply Zones
Bulks
Legend
Towns
MAJOR TOWN
MINOR TOWN
ZDM_MAIN
Roads
Settlements
WATER_LOS
Not Served
Rudimentary
RDP
Above RDP - Yard Conn
Above RDP - Urban
Wards 2020
LM_Boundaries
Regional Schemes
ZULULAND
DISTRICT
MUNICIPALITY
ZULMAP
GIS & SURVEY CONSULTING


WSDP ROLLOUTS
Regional Schemes
2022
SIM EAST
Locality:
Sim EAST
Upgrade Bulks & Retics
(Phase 3A & 3B)
PHASE 25-27
Golela Border Post Upgrade
PHASE 24
PHASE 22
PHASE 19
PHASE 21
PHASE 9
PHASE 18
PHASE 13
PHASE 12
PHASE 16
PHASE 2
PHASE 1B
PHASE 1B
PHASE 3
NCOTSHANE
PONGOLA
UPhongolo
CORONATION
MKHUZE
Legend
RWSS_Bulk_Components
<all other values>
Source / Abstraction
Source / Abstraction, Completed
Source / Abstraction, >2027
Pump Stations
Pump Station, Completed
Pump Station, 2022/2023
Pump Station, 2023/2024
Pump Station, 2024/2025
Pump Station, 2025/2026
Pump Station, 2026/2027
Pump Station, >2027
Storage
Storage, Completed
Storage, 2022/2023
Storage, 2023/2024
Storage, 2025/2026
Storage, 2026/2027
Storage, >2027
WTW
Treatment, Completed
RWSS_Bulk_Pipes
RWSS Year
Completed, Regional Bulk Existing
In Progress, Regional Bulk Proposed
2022/2023, Regional Bulk Proposed
2023/2024, Regional Bulk Proposed
2024/2025, Regional Bulk Proposed
2025/2026, Regional Bulk Proposed
2026/2027, Regional Bulk Proposed
>2027, Regional Bulk Proposed
Legend
Towns
MAJOR TOWN
MINOR TOWN
ZDM_MAIN
Roads
Settlements
WATER_LOS
Not Served
Rudimentary
RDP
Above RDP - Yard Conn
Above RDP - Urban
Wards 2020
LM_Boundaries
Regional Schemes
ZULULAND
DISTRICT
MUNICIPALITY
ZULMAP
GIS & SURVEY CONSULTING

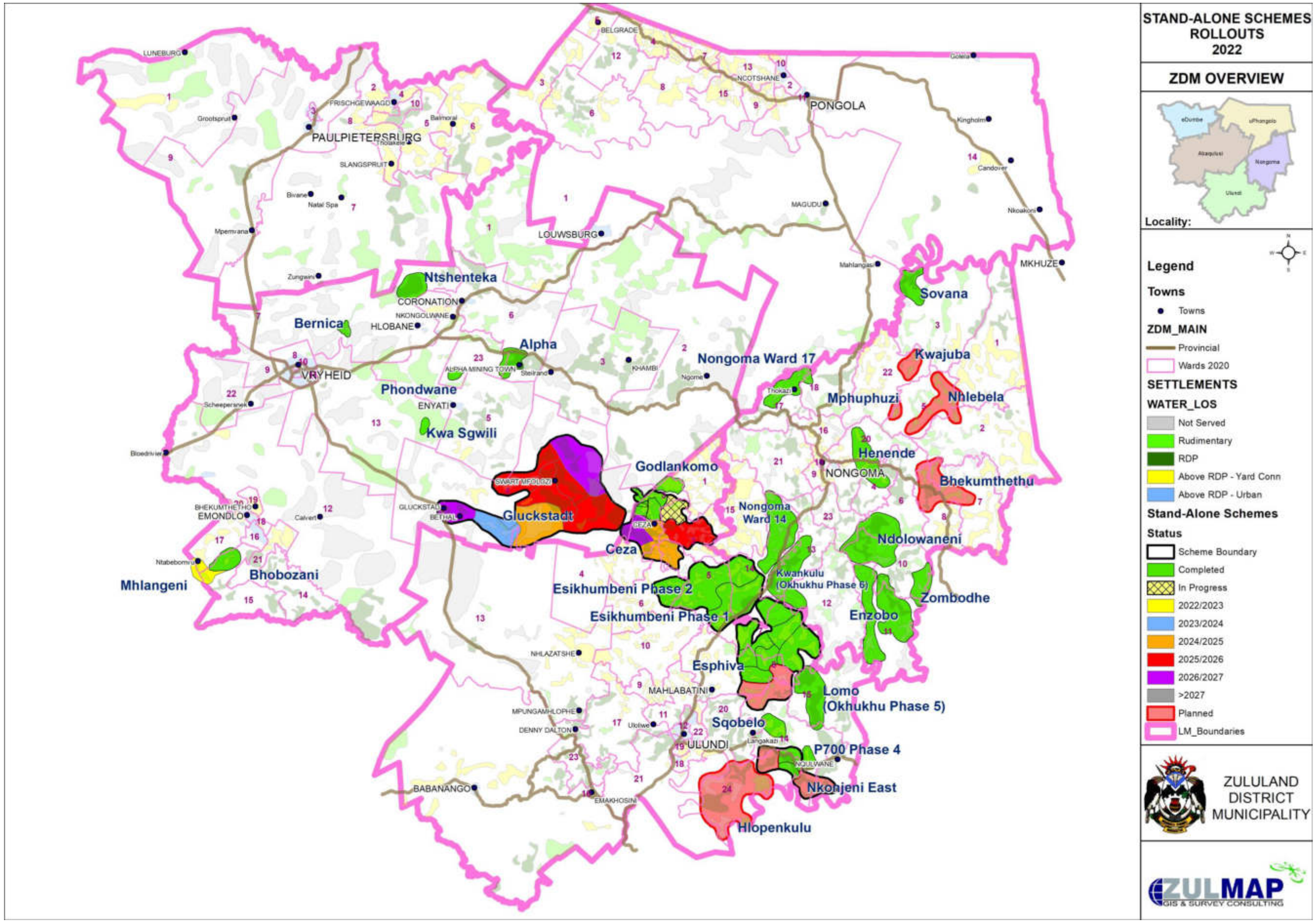

Legend
Scheme Components 2021
Pump Station
Source / Abstraction
Storage - Jojo
Storage - Res
Treatment
WTW
WTW
Scheme Pipelines 2021
Redundant
SCHEME PIPES
Reticulation
Bulk Supply
Rising Main
Source
BH Augmentation
Ward 14
ZHR2
Gumbi Trust (Mvokweni)
Jozini Dam
R69
N2
ZMAP98
Hlambanyathi 2
ZMAP99
Cotlands
WSDP ROLLOUTS
Regional Schemes
2022
MKHUZE
eDumbe
uPhongolo
Abaqulusi
Nongoma
Ulundi
Locality:
Legend
Settlements
WATER_LOS
Not Served
Rudimentary
RDP
Above RDP - Yard Conn
Above RDP - Urban
ZULULAND
DISTRICT
MUNICIPALITY
ZULMAP
GIS & SURVEY CONSULTING


Legend
RWSS_Bulk_Components
STATUS
Source / Abstraction, Completed
Source / Abstraction, 2022/2023
Pump Station, Completed
Pump Station, 2022/2023
Pump Station, 2026/2027
Pump Station, >2027
Storage, In Progress
Storage, 2022/2023
Storage, 2023/2024
Storage, 2024/2025
Storage, 2025/2026
Storage, 2026/2027
Storage, >2027
Storage, Completed
Treatment, Completed
Treatment, 2025/2026
RWSS_Bulk_Pipes
STATUS
Completed, Regional Bulk Existing
In Progress, Regional Bulk Proposed
2022/2023, Regional Bulk Proposed
2023/2024, Regional Bulk Proposed
2025/2026, Regional Bulk Proposed
>2027, Regional Bulk Proposed
Upstream Bulks: Abstraction Works
- Zone 5.2 & 5.3 Bulks (In Progress)
- Zone 5.4 Bulks (2022-2024)
Zone 5.1 Retics in progress
MKUZE
Zone 5.1
Zone 5.2
Zone 5.3
Zone 5.4
Zone 5.5
Zone 5.6
Zone 5.7
Planned Downstream Bulks to Hlabisa Reservoirs
Downstream Bulks to Hlabisa Reservoirs
Nongoma
Hlabisa
PS
WTW
14
3
22
18
5
16
20
1
2
9
4
6
7
8
23
13
10
12
11
WSDP ROLLOUTS
Regional Schemes
2022
MANDLAKAZI
eDumbe
uPhongolo
Abaqulusi
Nongoma
Ulundi
Locality:
Legend
Towns
MAJOR TOWN
MINOR TOWN
ZDM_MAIN
Roads
Settlements
WATER_LOS
Not Served
Rudimentary
RDP
Above RDP - Yard Conn
Above RDP - Urban
Wards 2020
LM_Boundaries
Regional Schemes
ZULULAND DISTRICT MUNICIPALITY
ZULMAP
GIS & SURVEY CONSULTING

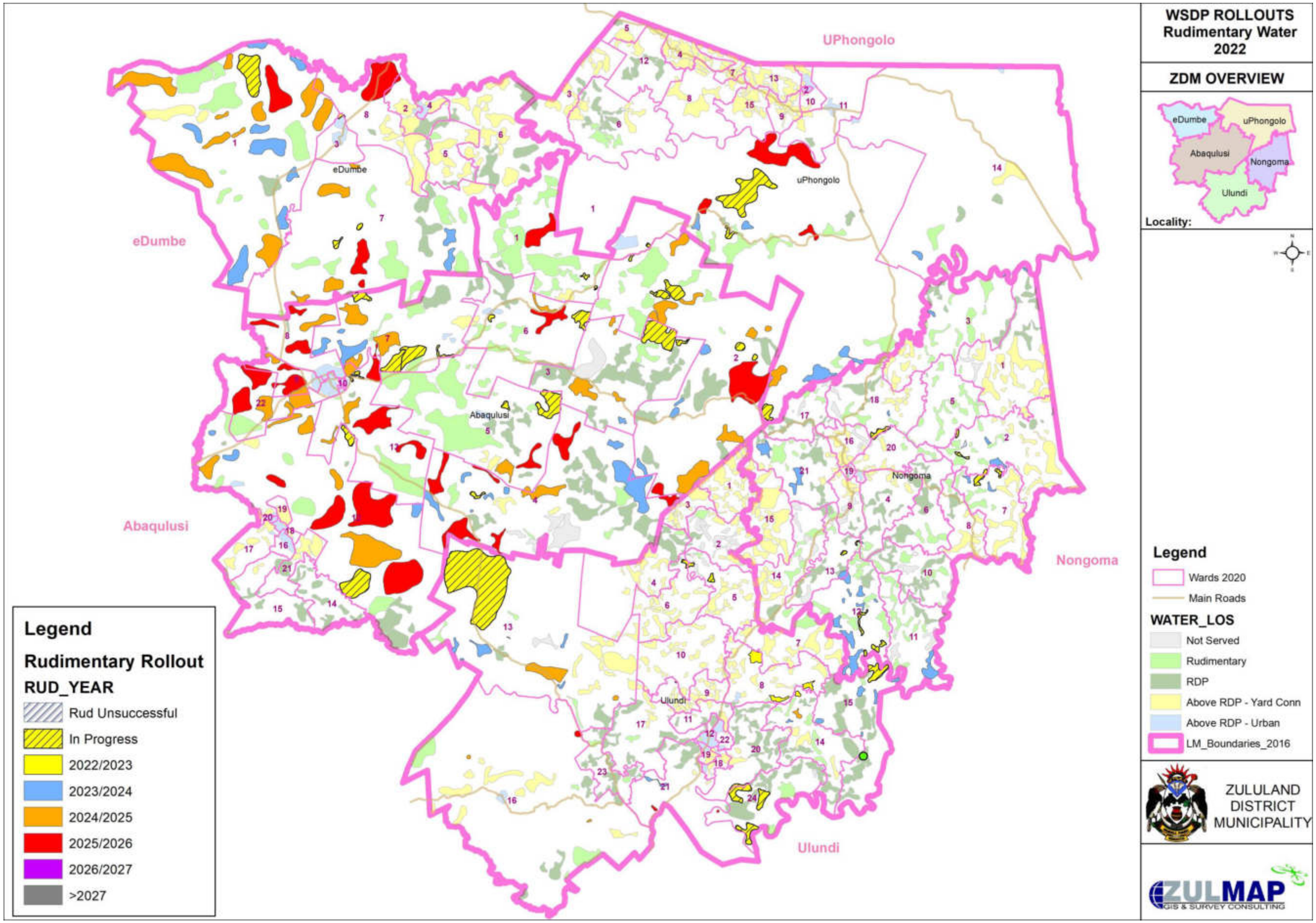

Legend
RWSS_Bulk_Components
STATUS
Source / Abstraction, Completed
Source / Abstraction, >2027
Storage, Completed
Storage, 2022/2023
Storage, 2023/2024
Storage, 2024/2025
Storage, 2025/2026
Storage, 2026/2027
Storage, >2027
Pump Station, Completed
WTW eatment, Completed
Usuthu EIA & Geotech, In Progress
RWSS_Bulk_Pipes
STATUS
Completed
In Progress
2022/2023
2023/2024
2024/2025
2025/2026
2026/2027
>2027
WSDP ROLLOUTS
Regional Schemes
2022
USUTHU
eDumbe
uPhongolo
Abaqulusi
Nongoma
Ulundi
Locality:
Legend
Towns
MAJOR TOWN
MINOR TOWN
ZDM_MAIN
Roads
Settlements
WATER_LOS
Not Served
Rudimentary
RDP
Above RDP - Yard Conn
Above RDP - Urban
Wards 2020
LM_Boundaries
Regional Schemes
ZULULAND
DISTRICT
MUNICIPALITY
ZULMAP
Holinyoka Area
Reticulation
Ward 14 Retics
CEZA
NONGOMA
Nongoma
Usuthu
Nkonjeni
Ulundi
ULUNDI
Res H7
Res H6
Res H-S3
Res H-S4
Res H-S2
Res H-S5
Bulk Res H
Res A1
Res A2
Res A3
Res A4
Res A5
Res H-S8
Res H-S9
Res A6
Res A7
Bulk Res A
Res B6
Res A8
Res B5
Res B4
Res A9
Res B3
Res A10
Res A11
Res A12
Res B2
Res A13
Res B1
Bulk Res B
Off-storage Dam
Res A14
Res A15
Bulk Res M
Bal Tank
Bulk Res G
Bulk Res G-2
Nongoma Town Upgrade
G02
G01
Bulk Res F
Bulk Res J
Bulk Res D
Res D1
Res D2
Bulk Res C
Res D3
Res D4
Bulk Res E
Res D7
Res D6
Res D5
Res D8
Res D11
Res D10
Res D9.1
Res D9.2
Future Res D9.3
Exist Res
Res D12
Res ZAI-1
Res I


AbaQulusi
CEZA
Nongoma
Usuthu
Nkonjeni
ULUNDI
Ulundi
BABANANGO
WTW
WTW
1. Upgrade WTW & Bulk Rising Main
2. Nkonjeni RWSS WCDM
3. Regional Scheme BH Augmentation
Upgrading of Nqulwane Water Supply
WSDP ROLLOUTS
Regional Schemes
2022
NKONJENI
Locality:
Legend
Towns
MAJOR TOWN
MINOR TOWN
ZDM_MAIN
Roads
Settlements
WATER_LOS
Not Served
Rudimentary
RDP
Above RDP - Yard Conn
Above RDP - Urban
Wards 2020
LM_Boundaries
Regional Schemes
ZULULAND DISTRICT MUNICIPALITY
ZULMAP
GIS & SURVEY CONSULTING

Map 11.2: Identified Stand-alone Schemes



Map 11.3: Rudimentary water supply rollouts



Map 11.4: Roll-out of rural sanitation services in the district