



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

KWAZULU NATAL

SDG 6

Regional Bi-Annual Progress Report

December 2021

EXECUTIVE SUMMARY

The Sustainable Development Goals (SDGs) are a universal call to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

The SDG contains 17 goals to be attained by 2030. These goals reflect a flexible global vision, recognising that each country faces specific challenges to achieve sustainable development.

The SDGs include a dedicated water goal, Goal 6, with the objective to ensure availability of, and sustainable management of water and sanitation for all. However, water is also reflected and or implied in various other goals. The Department of Water and Sanitation (DWS) is responsible for delivering Goal 6 by 2030.

The report provide a status quo on SDG6 at provincial level of the Department of Water and Sanitation focus on the SDG6 goals focusing on the following key areas:

- ✓ *Situational Analysis of the Province*
- ✓ *Alignment with Target Gap Reports*
- ✓ *Projects being implemented towards the Target*
- ✓ *Gaps Identified by the Region*
- ✓ *Activities being implemented in support*
- ✓ *Data management requirements*
- ✓ *Interaction with Task Teams –Targets and Cross Cutting)*
- ✓ Overall Progress towards reaching the 2030 Goals in the Province
- ✓ Support needed from the SDGWG

For KwaZulu Natal (KZN), meeting between the management of the KZN Provincial Office and SDG6 targets team leaders is required to set up a KZN structure for SDG6 reporting and coordination at Regional Office. This will ensure each directorate has a clear role and responsibility in tracking and reporting activities required for SDG6 report and monitoring the set target in terms of performance.

SDG 6 KZN REGIONAL BI-ANNUAL PROGRESS REPORT DECEMBER 2021

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1. BACKGROUND

The Sustainable Development Goals (SDGs) are a universal call to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. The SDGs, which are closely aligned to our own National Development Plan, will be our yardstick to measure our progress globally and, more so, locally, to gauge the extent to which we as a country have been able to deliver on the dreams and ideals of our people of a “better life for all”.

The SDG contains 17 goals to be attained by 2030. These goals reflect a flexible global vision, recognising that each country faces specific challenges to achieve sustainable development.

The SDGs include a dedicated water goal, Goal 6, with the objective to ensure availability of, and sustainable management of water and sanitation for all. However, water is also reflected and or implied in various other goals. Department of Water and Sanitation (DWS) is responsible for delivering Goal 6 by 2030.

2. REGIONAL STRUCTURE / TEAM TO IMPLEMENT SDG 6

Currently, no existing structure allocated to SDG6 within the Regional Office. Only representative from previously planning and Information Directorate currently Water Resource Support is reporting to the SDG6 at National Office represented by the Director.

Effective M&E of the SDG Indicators to effectively inform the implementation of these interventions will be critical.

3. SITUATIONAL ANALYSIS OF THE PROVINCE

The KwaZulu-Natal province, also referred to as KZN or the Garden Province due to its diversity vegetation, is located on the east coast of South Africa, with Pietermaritzburg as its capital. Map 1 illustrate that the Province shares borders Swaziland and Mozambique in the North, Mpumalanga in the North-West, Free State and Lesotho in the West and the Eastern Cape in the South. During 2006 the Umzimkhulu Sub-district within the Eastern Cape was incorporated into KwaZulu-Natal and the Matatiele Sub-district of KwaZulu-Natal became part of the Eastern Cape.

The geographical area of KZN province is 94361km². Durban is the province's largest city and the coastline of KwaZulu-Natal. Map 1 indicates that the province is dotted with small towns, many of which serve as seasonal recreational hubs. The climate of the coastal area ranges between humid subtropical without dry season,

humid subtropical with dry winter and subtropical highland with dry winter (Koopan Climate, 2019). As one moves further north up the coast towards the border of Mozambique, the climate becomes almost purely tropical. Superb beaches of world-class quality are to be found along virtually every part of South Africa's eastern seaboard with some of the least developed gems found in the far southern and far northern ends of the province's extents.



Figure 1: Map showing KZN Province and District Municipalities.

In summary: KZN Demographics and Water Capacity – Demand vs. Supply.

Water Demand

- 11.1 million people in 2.876 m households
- 51 LMs, 10 DMs, 1 Metro
- 2 Provincial Growth Points (eThekweni and Richards Bay).

Water Capacity

- 19 Major dams
- 172 Water Treatment Works

- 145 Wastewater Treatment Works

Water Institutions

- 14 Water Service Authorities
- 2 Water Boards, 1 Bulk Municipal Water Utility
- 14 WSAs also retail WSPs
- 1 Concessionaire (Siza water -reticulation WSP)

4. PROGRESS REPORT (PER TARGET)

4.1. SDG 6.1 – Safe drinking water for all

KZN Province houses a total of approximately 2 564 421 households. Overall, the majority of the households, 2 007 585 which is 78.3% of the households in KZN have access to water. The minority of households, a total of 556 837 (21.7%), in the province do not have access to water, of these households 6.3% of these is as a result of deficient infrastructure while the rest, 15.4% have no infrastructure in their communities.

District Municipality	PERCENTAGE HOUSEHOLD WATER ACCESS			
	Water Access	No Water Access (Dysfunctional Infrastructure)	No Water Access (No Infrastructure)	No Access to Reliable Water Supply
	(COGTA KZN 2020 Study)			(Umgeni Water UAP Phase III 2020 Study)
Amajuba	81.4%	6.8%	11.8%	31%
Harry Gwala	75.0%	9.0%	16.0%	44%
Ilembe	33.7%	35.4%	29.5%	19%
King Cetshwayo	72.7%	3.6%	23.7%	32%
Umgungundlovu	78.8%	10.6%	10.6%	20%
Umkhanyakude	41.3%	40.5%	18.8%	60%
Umzinyathi	60.6%	2.4%	28.1%	49%
uThukela	90.2%	2.9%	6.9%	17%
Zululand	81.9%	5.5%	10.7%	23%
Ugu	82.1%	0.0%	17.9%	37%

Table 1: Percentage Household Water Access.

District Municipality	PERCENTAGE HOUSEHOLD WATER ACCESS				
	Infrastructure Water Access			Rudimentary Water Connections	No Water Access (No Infrastructure)
	Yard Connections	RDP Water Connections	Dysfunctional Infrastructure		
Amajuba	Infrastructure Water Access: 77.0%			No Water Access: 23.0%	
	49.7%	22.5%	4.8%	13.2%	9.8%
Harry Gwala	Infrastructure Water Access: 58.0%			No Water Access: 42.0%	
	18.6%	24.4%	15.0%	20.9%	21.1%
iLembe	Infrastructure Water Access: 82.5%			No Water Access: 17.5%	
	42.8%	17.3%	22.5%	4.4%	13.1%
King Cetshwayo	Infrastructure Water Access: 76.4%			No Water Access: 23.6%	
	42.5%	29.5%	8.0%	4.5%	15.5%
uMgungundlovu	Infrastructure Water Access: 85.9%			No Water Access: 14.1%	
	37.0%	15.6%	33.3%	5.9%	8.1%
uMkhanyakude	Infrastructure Water Access: 71.0%			No Water Access: 29.0%	
	17.8%	12.1%	41.2%	9.8%	19.2%
uMzinyathi	Infrastructure Water Access: 57.1%			No Water Access: 42.9%	
	34.3%	18.9%	3.9%	10.5%	32.4%
uThukela	Infrastructure Water Access: 75.0%			No Water Access: 25.0%	
	24.4%	46.5%	18.6%	4.1%	6.4%
Zululand	Infrastructure Water Access: 78.5%			No Water Access: 21.5%	
	51.5%	21.1%	5.9%	11.8%	9.6%
Ugu	Infrastructure Water Access: 52.1%			No Water Access: 47.9%	
	23.2%	28.9%	0.0%	33.3%	14.6%
eThekweni	Infrastructure Water Access: 91.7%			No Water Access: 8.3%	
	82.3%	9.4%	0.0%	7.7%	0.6%
KZN Totals:	Infrastructure Water Access: 78.8%			No Water Access: 21.2%	
	50.4%	19.0%	11.5%	9.4%	9.7%

Source: COGTA KZN, 2020, Access to Water to Ward Level, 2020

* As of 30 November 2020 – the values in this table were still subject to final verification by the WSA's.

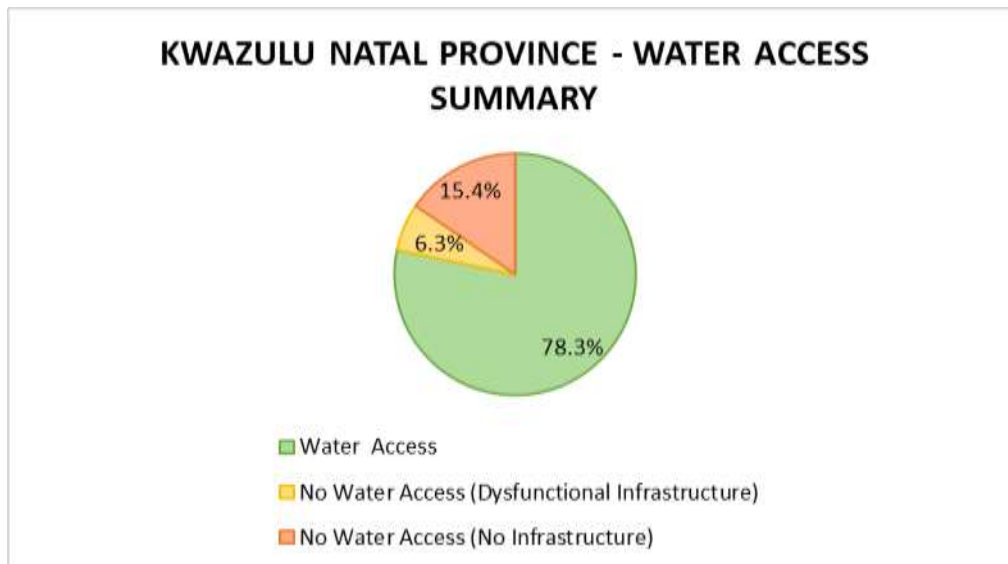


Figure 2: KZN water access summary

HOUSEHOLD ACCESS AT LM LEVEL AT LOCAL MUNICIPALITY LEVEL.

District / Local Municipality / Ward	PERCENTAGE HOUSEHOLD WATER ACCESS		
	Water Access	No Water Access (Dysfunctional Infrastructure)	No Water Access (No Infrastructure)
AMAJUBA DM	82.2%	6.3%	11.5%
Dannanhusler LM	65.2%	12.0%	22.8%
Emadlangeni LM	84.2%	6.9%	9.0%
Newcastle LM	97.4%	0.0%	2.6%
HARRY GWALA DM	68.2%	5.2%	26.6%
Umzimkhulu LM	63.3%	10.3%	23.4%
Ubuhlebezwe LM	66.3%	10.3%	23.4%
Greater Kokstad LM	97.1%	0.0%	2.9%
Dr Nkozana Dlamini-Zuma LM	60.4%	1.7%	37.9%
ILEMBE DM	49.7%	30.3%	20.0%
KwaDakuza LM	69.5%	24.7%	5.8%
Mandeni LM	76.5%	3.2%	20.4%
Maphumulo LM	0.0%	45.5%	55.5%
Ndwedwe LM	0.0%	70.0%	30.0%
KING CETSHWAYO DM	74.8%	4.9%	20.2%
uMfolozi LM	68.9%	4.0%	27.0%
uMlalazi LM	49.3%	3.3%	47.5%
Mthonjaneni LM	72.6%	0.0%	27.4%
Nkandla LM	69.2%	0.0%	30.8%
uMhlatuze LM	92.1%	7.9%	0.0%
UMGUNGUNDOLOVU DM	84.7%	5.9%	9.4%
uMshwathi LM	78.8%	17.7%	3.4%
uMngeni LM	92.3%	2.6%	5.2%
Richmond LM	88.7%	0.0%	11.3%
Mkhambathini LM	59.4%	12.4%	28.2%
Mpofana LM	100.0%	0.0%	0.0%
Impendle LM	89.1%	2.8%	8.1%
Msunduzi LM			

District / Local Municipality / Ward	PERCENTAGE HOUSEHOLD WATER ACCESS		
	Water Access	No Water Access (Dysfunctional Infrastructure)	No Water Access (No Infrastructure)
UMKHANYAKUDE DM	40.5%	40.4%	19.1%
Umhlabuyalingana LM	51.3%	28.4%	20.4%
Jozini LM	35.9%	43.4%	20.6%
Mtubatuba LM	51.2%	40.9%	7.9%
Big 5 Hlabisa LM	18.4%	50.6%	31.0%
UMZINYATHI DM	40.8%	24.2%	35.0%
Endumeni LM	20.7%	0.0%	79.3%
Nquthu LM	40.5%	59.5%	0.0%
Msinga LM	38.9%	33.6%	27.5%
Umvoti LM	39.7%	3.8%	56.5%
UTHUKELA DM	89.5%	4.1%	6.4%
Alfred Duma LM	86.5%	8.0%	5.5%
Inkosi Langalibalela LM	95.4%	0.0%	4.6%
Okhahlamba LM	89.4%	0.0%	10.6%
ZULULAND DM	84.5%	5.8%	9.7%
eDumbe LM	83.3%	4.9%	11.8%
uPhongolo LM	95.9%	1.6%	2.5%
Abaqulusi LM	84.6%	3.2%	12.1%
Nongoma LM	74.2%	10.1%	15.7%
Ulundi LM	84.5	9.0%	6.4%
UGU DM	78.3%	0.0%	21.7%
Umdoni LM	85.8%	0.0%	14.2%
Umzumbe ML	67.0%	0.0%	33.0%
Ray Nkonyeni LM	93.4%	0.0%	6.6%
Umuziwabantu LM	67.0%	0.0%	33.0%

Table 2: Household Access at Lm Level at Local Municipality Level.

Projects being implemented towards the Target: Project under Planning (At Various Stages) - To Be completed Within the Next 3- 10 Years.

Project classification	Projects	Project period	Comments
Regional Bulk Infrastructure Projects	Mandlakazi BWS Phase 5 (60%) Estimated cost: R873.1m Exp. : R508.8m	Oct 2008 – June 24	People benefit: 153 236 Supply to Hlabisa (UKDM) current
	Middledrift BWS (51%) Estimated cost: R209m Exp. : R153,3m	May 2011- Jan 25	People benefit: 177 576
	Greater Mthonjaneni BWS (65%) Estimated cost: R1.2b Exp. : R812.7m	Aug 2007- Jun 2025	People benefit: 99 612 2 pump stations complete in Oct 2021 KCDM applied for AFA
	Greater Mpofana BWS (87%) Estimated cost: R954m Exp. : R909m	Apr 2013– Nov 26	People benefit: 181 590 Umgeni water IA
	Mshwathi BWS (50%) Estimated cost: R2.3b Exp. : R1.1b	Jan 13 – Dec 2026	People benefit: 362 682 Umgeni water IA uMgungundlovu & Ilembe DM benefit Phase 1-3 complete
Regional Bulk Infrastructure Projects	Nongoma BWS (90%) Estimated cost: R822m Exp: R 764.2m	Dec 2008 – June 22	People benefit: 153 236
	Greytown BWS (92%) Estimated cost: R523.4mil Exp.: R502.2mil	Aug 2011- June 22*	People benefit: 27 824 Community demands delayed project with over 18 months. Umzinyathi has committed R40m to complete project
	Driefontein BWS (80%) Estimated cost: R536mil Exp.:R397m	2011- Jul 22	People benefit: 204 306
	Ngcebo BWS (71%) Estimated cost: R1.1b Exp.: R785.7m	June 2011- June 23	People benefit: 585 900 RBIG component complete Ilembe DM to use co-funding to complete economic component

	Greater Bulwer BWS (80%) Estimated cost: R339.6 Transferred: R353m	2011 – Jun 23	People benefit: 113 256 WSA has applied for AFA to adjust budget
	Maphumulo BWS (70%) Estimated cost: R694.9mil Exp.: R491.4mil	Mar 2016- June 24	People benefit: 113 256 Umgeni water IA

Table 3: Project under Planning (At Various Stages) - To be completed Within the Next 3- 10 Years.

COMMENTS ON RBIG PROJECTS

Greytown BWS in uMzinyathi DM

- The RBIG commitment ceiling for this project has been reached. As from the 2021/22 financial year, the municipality is expected to complete the project with co-funding.
- The first portion of the pipeline contract from Craigeburn Dam to Greytown WTW was stopped by local community since March 2017. (Housing, roads, water, livestock dams etc.)
- After protracted IGR interventions, CoGTA reports that the community issues have been resolved.
- The municipality has undertaken to budget R40 million for 2021/22 from own funds to fund the project to completion, and has provided an implementation plan and cash flow projections.

Greater Bulwer BWS in Harry Gwala DM

- RBIG commitment ceiling has been reached.
- The municipality submitted an application for additional funding to DWS to complete the project.
- The municipality also applied for MIG funding which was approved by CoGTA.

Greater Mthonjaneni BWS in King Cetshwayo DM

- RBIG commitment ceiling has been reached.
- The municipality submitted a business plan to request for additional funds to complete the project.

Ngcebo BWS in iLembe DM

- RBIG commitment ceiling has been reached.
- All the infrastructure constructed to date is fully operational and supplies water to communities.
- The WSA will complete the planned scope using co-funding from private developers which were to be invested in the project.

- The municipality has submitted a close out report for the infrastructure installed using RBIG funding so that the project could be closed off in DWS books.

4.1.2. FUTURE DEMAND PROJECTIONS - Water Demand 2050.

WSA	Pop 2020	Pop 2050	Demand 2020	Demand 2050
Amajuba	163 276	226 669	29	46,9
City of Umhlatuze	390 069	540 039	284,4	500
Harry Gwala	701 995	866 253	128,6	170,9
Ilembe	720 714	985 941	147	218,4
King Cetswayo	585 377	735 658	115,4	141,2
Newcastle	434 174	602 747	116,7	171
The Mzunduzi Local Municipality	690 521	1 011 813	200,2	298,2
Ugu	757 428	1 436 358	194,7	323,1
Umgungundlovu	829 910	1 216 058	188,9	284,2
Umkhanyakude	743 170	922 979	137,6	177,2
Umzinyathi	587 974	821 303	115,3	166,7
Uthukela	718 568	823 645	142,5	180
Zululand	955 450	1 154 149	191,8	239,6
Kwazulu-Natal	8 278 626	11 343 613	1 992,20	2 917,30

Table 4: Future Demand Projections - Water Demand 2050.

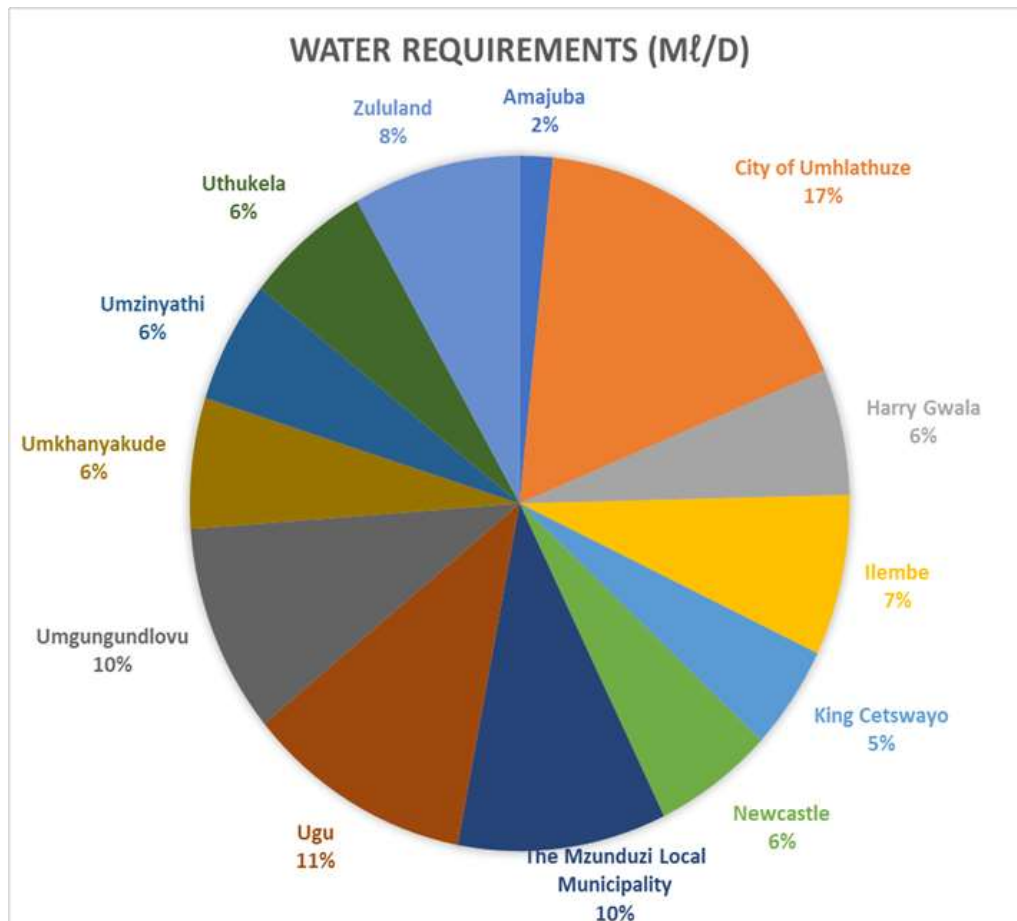


Figure 3: Water Requirements per district Municipality.

4.1.3 KZN HOTSPOTS

DISTRICT	CHALLENGES	INTERVENTION	PROGRESS
1. Ugu District Municipality	<p>Umzinto and Mthwalume WW</p> <ul style="list-style-type: none"> Raw water resource (Mthwalume river) system yield is limited and unable to support the current demand. Demand exceed installed capacity Water Losses in Reticulation 	<ul style="list-style-type: none"> Implementation of Lower Mkhomazi Bulk Water Supply Scheme (LUBWSS) to increase available capacity from the South Coast Pipeline. SCP Phase 2b Extension from Keslo to Malangeni/ Umdoni System Operating rules; Augmentation from South Coast Pipeline and Mpambanyoni augmentation of EJ Smith Dam WCWDM management measures undertaken with Ugu DM to mitigate supply shortage in the short to medium term 	<ul style="list-style-type: none"> LUBWSS at Final stages of detailed design. Earthworks contract at tender stage for Phase 2 Planned advertising for tenders is: WTP – June/Jul 2021. Pipeline & Reservoir – Jul/Aug 2021. Expected date of completion Dec 2024 South Coast phase 2B pipeline in construction South Coast Phase 3 going for pre-feasibility (to be supplied by Lower Umkhomazi)
Ugu District Municipality	Water tankers burnt down during the riots - affecting areas supplied by water tankers	Awaiting assessment from DM and communication of required assistance	Harding WTW is operational at present, and Harding was predominantly supplied by water tankers during a time when the WTW was not producing sufficient water due to very low dam levels. Dam has recovered slightly.
	<p>Harding/Weza WW</p> <ul style="list-style-type: none"> Supply inadequate to meet demand in the area. 	UW implementing Emergency Raw Water Pipeline Weza to Harding Dam.	Procurement process concluded and awarded. Expected completion in July 2022.
	<p>UMzimkhulu/Bhobho yi WW</p> <ul style="list-style-type: none"> Demand Exceeds Installed Capacity Water Losses Operational Efficiency 	<ul style="list-style-type: none"> Long Term – Implementation of Cwabeni Dam UW Technical Assistance. Water Conservation and Demand Management in Reticulation 	<ul style="list-style-type: none"> Concluding the implementation agreements for the Cwabeni Dam. Primary and Secondary Bulk System Condition Assessments carried out. Infrastructure Upgrade, refurbishments and renewal projects identified. UW Superintendent/ Process Controller secondment to Bhoboyi WW's

UMzinyathi DM	Wards 2 and 17 Msinga LM	Lack of water supply infrastructure. Areas supplied by tankers	<p>For Wards 2 and 17 of Msinga LM, the Msinga Bulk Water Supply Scheme will cover them in 2020, with a budget of R33mill.</p> <p>For Ward 10 of Msinga LM, the KwaKopi Water Supply Scheme will cover them in 2020, with a budget of R10mill.</p> <p>Schemes still being planned (feasibility) for Wards 15, 16 & 18. WSIG</p>
	uMsinga LM-Ward 1to 18	The following Areas have no infrastructure	Study for permanent water solution is needed. Possible request for hand-pump boreholes. Option at converting windmills to permanent or reticulate or extend to possible network with standing pipes. 4 projects funded under WSIG
	Endumeni LM	No water Source available and the only current supply is water tankering most of these farm where handed through a programme by Department of Rural Development during the period where farms were handed over at fullstood without considering water factor for Human Consumption	Study for permanent water solution is needed. DM request for hand-pump boreholes. Option at converting windmills to permanent or reticulate or extend to possible network with standing pipes.
	Nquthu LM-Ward 12 Vant's Drift	All electrical panels need to be replaced including both the low lift and High Lift Pumps and Motors as this point is only carrying 80% of water supply covering most villages in Nquthu other villages covered by the scheme are; Zola, Magongoloza, Mabalane, Maduladula Section 1 and 2, Mapotswane, Paterseni, Mpathe, MPhondi, Mabuza, Qhamane, Kwa – Fikile, Mhlungwane and Magabeni from fase 3	<p>Study for permanent water solution is needed.</p> <p>DM request for hand-pump boreholes. Option at converting windmills to permanent or reticulate or extend to possible network with standing pipes.</p>

UThukela DM	Ekuvukeni	Intermittent water supply and sewerage overflows	MEC CoGTA intervened. Umgeni Water appointed to take over bulk treatment works. Reliability of supply has improved. UW and UTDM mutual separation agreement.
	Tugela Ferry and Keates Drift water schemes	Load shedding and insufficient storage to mitigate load shedding	A new 6ML/d plant has been built at Tugela Ferry and CoGTA intervening in this regard Eskom challenges.
	Mthembu West Area (Mashuka, Jolwane and Mbabane)	Illegal connections and lack of infrastructure. To upgrade water supply infrastructure for the area	Dedicated source for the area or upgrade the Mthembu west water supply scheme. Consultant appointed to investigate options.

Table 5: KZN Hotspots

4.2. SDG 6.2 – Equitable sanitation for all

Sanitation situational analysis for households and institutional per province

Figure 4 below demonstrate that KZN province is divided into 10 district municipalities; Amajuba, Harry Gwala, iLembe, King Cetshwayo, Ugu, uMgungundlovu, uMkhanyakude, uMzinyathi, uThukela and Zululand. The province has 14 municipalities that have a status of providing water and sanitation services in terms of Municipal Systems Act (Act 32 of 2000) and are called Water Services Authorities namely:

- Amajuba District Municipality
- EThekweni Metropolitan Municipality
- Harry Gwala District Municipality
- ILembe District Municipality
- King Cetshwayo District Municipality
- Newcastle Local Municipality
- Msunduzi Local Municipality
- Ugu District Municipality
- UMgungundlovu District Municipality
- UMhlathuzi Local Municipality
- UMkhanyakude District Municipality

- UMzinyathi District Municipality
- uThukela District Municipality
- Zululand District Municipality

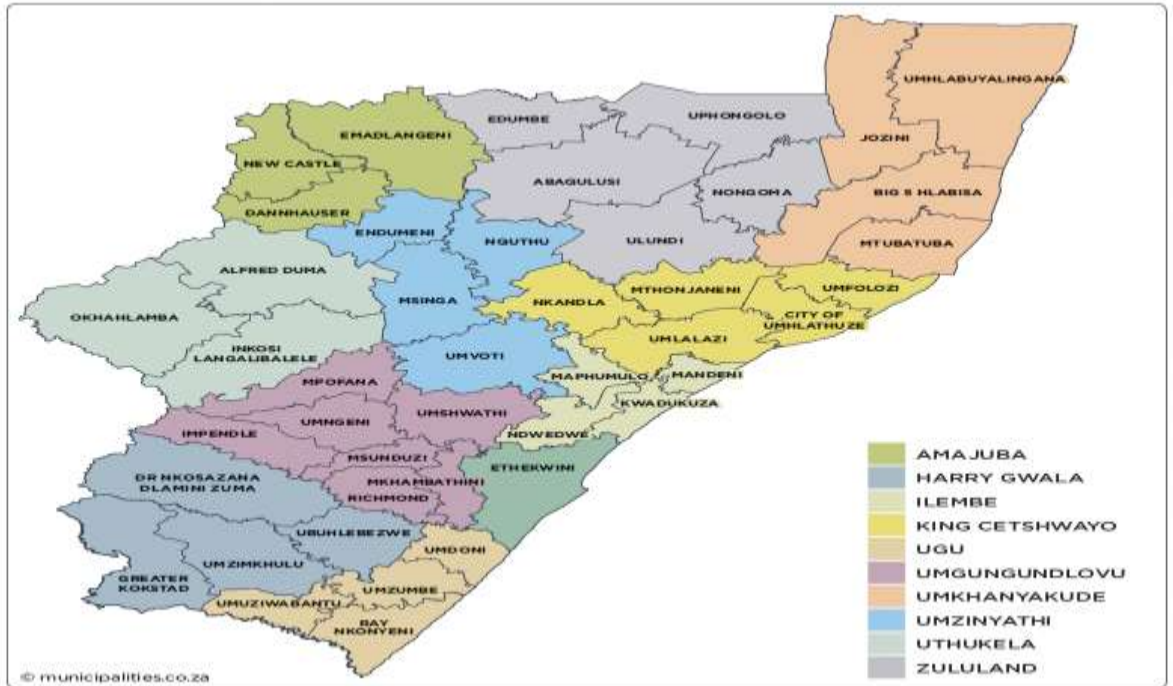


Figure 4: Map showing KZN Municipalities.

4.2.1. ACCESS TO SANITATION PER WSA

As the country is working towards achieving the set SDG and NDP target by 2030 it is expected that WSAs should have provided access to sanitation to at least above 85% households at this stage. The status of sanitation delivery in KZN province per WSA is illustrated in figure 5 (DWS, 2019). The information has been processed from DWS Water Services Knowledge System.

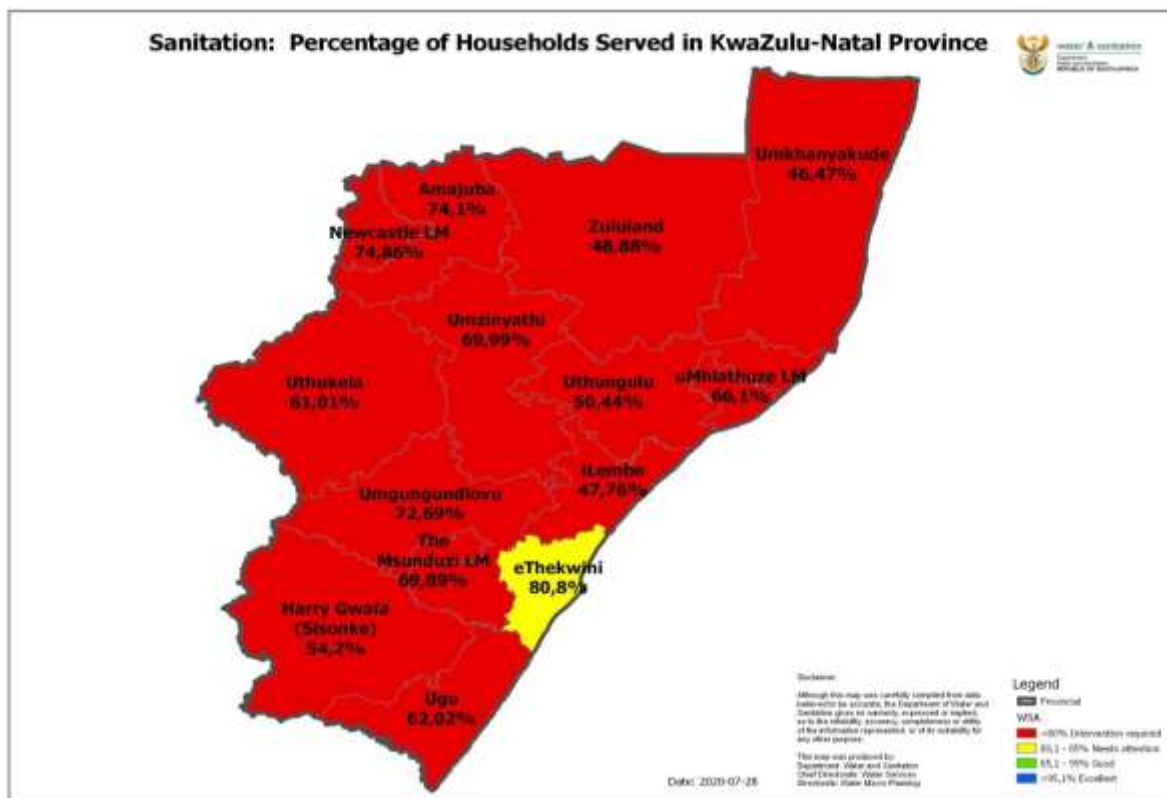


Figure 5: demonstrate the performance of WSAs in sanitation service delivery DWS, 2019.

4.2.2. KZN STATUS OF MUNICIPAL WASTE WATER TREATMENT WORKS.

WSA	Number of WWTW	Design Capacity (Ml/d)	Average Inflow (Ml/d)	Operational Performance / Capacity (%)	Number of Critical WWTW
Amajuba DM	3	5	2.08	41.6%	1
eThekweni Metro	27	711.84	454.25	64%	0
iLembe DM	13	34.95	25.8	73.9%	2
Newcastle LM	5	53.2	33.2	62.3%	0
Harry DM	9	17.38	16.12	93%	7
uGu DM	20	31.9	22.13	69%	8
uMgungundlovu DM	6	13.2	10.74	81.4%	0
uMhlatuze LM	5	39.1	18.2	46.5%	0
uMsunduzi LM	2	100.5	73.22	73%	0
uMkhanyakude DM	11	6.35	4.95	77.95%	4
uMzinyathi LM	8	18.7	16.18	86.5%	1
uThukela DM	9	54.35	41.66	76.65%	5
King Cetshwayo DM	13	9.0	7.2	80%	4
Zululand DM	14	29.94	19.19	64%	4
Total (14)	145	1125.41	755.66	67%	36

Table 6: KZN Status of Municipal Waste Water Treatment Works.

4.2.3. CRITICAL WASTE WATER TREATMENT WORKS STATUS:

UGu District Municipality

WWTW	Technology	Capacity/flow		Ops / Design Capacity (%)	Status	Recommended Work to Be done	Cost R 000.00		
		(MI/d)	(MI/d)				Required	Avail	Shortfall
Mzinto	Conventional activated sludge process	2.5	1.8	32%	Anaerobic digester No.1 sludge pipelines require replacement. Mechanical screen is not operational. Primary, Secondary and Tertiary Mechanical Equipment required upgrade	Aged Major mechanical, civil and electrical equipment refurbishment are required for all wastewater treatment works Installation of Perimeter fencing and Security facilities The municipality is experiencing a number of service delivery challenges due to a number of issues such as vandalism, staff sabotage and community unrest as a result various intervention by both Provincial & National	10 000 000.00	nil	10 000 000
KwaMbonwa	Conventional activated sludge process	0.1	0.08	80%	Dysfunctional due to faulty mechanical equipment; poor process controlling. Installation of Secondary and Tertiary Mechanical and Electrical Equipment. Construction of Secondary Sludge Treatment facility		4 000 000	nil	4 000 000
Pennington	Conventional activated sludge process	2.0	0.8	40%	Dysfunctional aerators require upgrade. Clarifier require refurbishment. Construction of Secondary Sludge Treatment facility chlorinators & sludge return pumps to be overhauled.		9 000 000	nil	9 000 000
Red Desert	Conventional activated sludge process	0.6	0.45	75%	Aerators requires upgrade, Maturation ponds require Refurbishment. Inlet head of works and bar screen require upgrade.		3 500 000	nil	3 500 000
Scottburgh	Conventional activated sludge process	2.25	2.25	100%	Dysfunctional, grit separator PSTs, digesters, aeration, clarification & disinfection require refurbishment. Primary, Secondary and Tertiary Mechanical and Electrical Equipment require replacement.		9 600 000	nil	9 600 000
Edenwils	Conventional activated sludge process	0.2	0.2	100%	Primary, Secondary and Tertiary Mechanical and Electrical Equipment require upgrade. Dedicated Eskom Power Supply Installation.		5 000 000	nil	5 000 000

Table 7: Critical waste water treatment works status_ UGu District Municipality

UMkhanyakude District Municipality

WWTW	Technology	Capacity/Flow		Ops / Design Capacity (%)	Status	Recommended Work to Be done	Cost R 000.00		
		(MI/d)	(MI/d)				Required	Avail	Shortfall
KwaMsane	Oxidation Ponds	1.0	0.8	80%	Dysfunctional, poor process controlling skills, process units not functional	Implement quality monitoring; develop & implement refurbish & maintenance program; skilling of staff	2 100	0	2 100
Manguzi	Aeration ponds	0.3	0.2	66%	Dysfunctional, poor process controlling skills, process units not functional	Repair electrical cables; aerator's motor replacement; disinfection facility, pond lining & desludging; fencing; skilling of staff	8 300	0	8 300
Mtubatuba	Activated Sludge	2.0	1.5	75%	Functional with poor process controlling, lack of maintenance	Implement quality monitoring; develop & implement refurbish & maintenance program; skilling of staff	2 100	0	2 100
St. Lucia	Oxidation Ponds	1.0	0.9	90%	Dysfunctional, poor process controlling skills, process units not functional	Implement quality monitoring; develop & implement refurbish & maintenance program; skilling of staff, pond lining & desludging & disinfection facility	10 300	0	10 300

Table 8: Critical waste water treatment works status_ UMkhanyakude District Municipality

Amajuba District Municipality

WWTW	Technology	Capacity (Ml/d)	Flow (Ml/d)	Ops / Design Capacity (%)	Status	Recommended Work to Be done	Cost R 000.00		
							Required	Avail	Shortfall
Durnacol	Activated Sludge & Bio filter	2.0	0.8	40%	Small inflow due to blockages along the reticulation lines; poor process controlling; lack of maintenance	DM in a process to address blocked sewer network but plans to upgrade plant	18 706	0	18 706
Franklin	Aeration Ponds	0.18	0.175	97%	Dysfunctional, no electrical power, poor process controlling, sewer blockages along sewer lines; facility poorly fenced	MIG BP submitted recently to address these challenges	R16 269 MIG	16 269	0
Riverside	Oxidation Ponds	1.4	0.36	26%	System fairly functional; influent discharged directly into the facultative pond;	Facility needs pre-treatment unit; the 7 ponds no longer have freeboard and are full to the rim; system needs refurbishment	59 675	0	59 675
St. Apollinaris	Oxidation Ponds	0.09	0.08	89%	Dysfunctional, maturation ponds and dosing system not operational	Proper lining and desludging required; disinfection system replacement; small laboratory office, space for staff.	30 000	0	30 000
Underberg	Activated sludge	0.24	0.12	50%	Dysfunctional, poor process controlling skills, process units not functional	The plant will be decommissioned since the new Underberg plant has been commissioned	-	-	-

Table 9: Critical waste water treatment works status_ Amajuba District Municipality

Table 10: ILembe District Municipality

WWTW	Technology	Capacity (Ml/d)	Flow (Ml/d)	Ops / Design Capacity (%)	Status	Recommended Work to Be done	Cost R 000.00		
							Required	Avail	Shortfall
Mandeni	Activated Sludge. & Oxidation Pond	1.3	1.1	85%	Dysfunctional, most of the process units damaged; vandalism; poor process controlling; ponds poorly managed.	Ponds require desludging. Refurbish chlorine and separate MCC room, operators room, safety shower room and fence. Install mechanical screen, inflow meter, Back up power generators Install railings on open channels	R25m	R0.00	R25m
Tugela	Activated Sludge. & Oxidation Pond	1.3	0.8		Dysfunctional, Refurbish sludge pumps, refurbish chlorine dosing system; poor process controlling; ponds are full and require desludging.	Desludging of ponds, build operator's safety shower room Refurbish ablution facilities, Install mechanical screens and inflow meter, Back up power generators	R25m	R0.00	R25m
Vukile	Evaporation ponds	1	0.7		Functional but polluting the environment	Require lining of ponds	R1.5m	R0.00	R1.5m
Sundumbill	Activated Sludge, Bio Filter & Oxidation Pond	12ML	10ML		Functional but strained due to ageing infrastructure, high industrial inflow.	New regional WWTW	Proposed MIG funding R200M	R0.00	R200M
Mphumulo Hospital	Activated Sludge. & Oxidation Pond	1.5m3	1.5m3	100%	Functional but require refurbishment	Install mechanical screens, Fence, Build Operator room, procure power back up generator.	R3m	R0.00	R3m
Stanger	Activated Sludge Process	10.0	6.0	60%	Partially functional, vandalism of some process units; no backup power, poor process controlling, sewer blockages along sewer lines; facility poorly fenced	Repair vandalism of theft cables. Long term to build new regional works	Proposed MIG funding R200M	R0.00	R200M
Sheffield		6ML	6.0	100%	Plant has reached its capacity	Upgrade to 12 ML	Proposed MIG funding R200M	R0.00	R200M

King Cetshwayo District Municipality

WWTW	Technology	Capacity (MI/d)	Flow (MI/d)	Ops / Design Capacity (%)	Status	Recommended Work to Be done	Cost R 000.00		
							Required	Avail	Shortfall
Ocean View	Activated sludge	0.5	0.5	100%	Replacement of the existing Vitro Clay (VC) sewerage reticulation networks with new PVC sewerage reticulation networks.	<p>There is a currently running Sewer project (MIG) with 5 phases.</p> <p>Phase 1. Upgrade of Eshowe town reticulation and main outfall sewer pipes. (under construction)</p> <p>Phase 2. Construction of 5ML BNR WWTW which will be upgraded to 10ML in future (under Design/planning)</p> <p>Phase 3. Construction of outfall sewer lines and pump station to the new WWTW</p> <p>Phase 4-5 Outfalls sewers and sewer reticulation to areas without waterborne sewer</p> <p>Overall project cost including taking it to 10ML for future R574m</p> <p>Phase 1 – 80% complete</p>	R 574,000	R 268,000 (MIG Approval)	R306,000
Mpushini	Oxidation Ponds	0.7	0.7	60%					
King Dinizulu	Oxidation Ponds with aerators	1.5	1.5	60%					
WWTW	Technology	Capacity (MI/d)	Flow (MI/d)	Ops / Design Capacity (%)	Status	Recommended Work to Be done	Cost R 000.00		
							Required	Avail	Shortfall
Mthunzini	Activated Sludge	1.5	1.5	100%	Functional, poor process controlling skills, process units not functional	<p>The old plant will be decommissioned & the new 6 MI/d facility to be constructed in a phased approach.</p> <p>The first phase is the construction of a 2.5 Mt WWTW. The construction to be spread over two phases: 1st phase - 1.5 Mt plant, 2nd phase - additional 1 Mt; (R 407,453,601 required for Plant and sewer mains upgrade); planning complete, WULA approval still outstanding</p>	R217,332 (for first phase of 2.5ML/day, excluding sewer mains)	MIG Approval in 2019 for planning - R9,8m)	R207,526
Mbongolwane	Oxidation Ponds	0.2	0.14	70%	The wastewater treatment plant is not in good condition due to a number budget constraints	Desludging of ponds	R9 500	R0	R9 500
Nkandla	Oxidation Ponds	0.8	0.5	63%	Dysfunctional, maturation ponds and dosing system not operational. All ponds need desludging	Busy with preliminary refurbishment assessment & potential upgrade processes; desludging of ponds	R17 000 (to desludge the ponds)	R0	R17 000

Table 11: Critical waste water treatment works status_ King Cetshwayo District Municipality

UThukela District Municipality

WWTW	Technology	Capacity (MI/d)	Flow (MI/d)	Ops / Design Capacity (%)	Status	Recommended Work to Be done	Cost R 000.00		
							Required	Avail	Shortfall
Bergville	Activated Sludge Process	0.4	0.4	100%	Dysfunctional	Refurbishment to restore functionality to align with DWS directive issued	207 000 (MIG) over 3 years		
Estcourt	Activated sludge	12.0	9.0	90%					
Weenen	Oxidation ponds	0.1	0.01	10%					
Wembezi	Oxidation ponds	1.25	1.25	100%					
Winterton	Activated Sludge	2.0	0.5	25%					

WWTW	Technology	Capacity (MI/d)	Flow (MI/d)	Ops / Design Capacity (%)	Status	Recommended Work to Be done	Cost R 000.00		
							Required	Avail	Shortfall
Tugela Ferry	Aeration Oxidation Pond	0.5	0.2	40%	Dysfunctional, poor process controlling skills, process units not functional	Sewer pump-station intermittent failure; aerator's motor replacement; disinfection facility, pond lining & desludging; fencing; skilling of staff	1 953	0	1 953

Table 12: Critical waste water treatment works status_ UThukela District Municipality

Zululand District Municipality

WWTW	Technology	Capacity (MI/d)	Flow (MI/d)	Ops / Design Capacity (%)	Status	Recommended Work to Be done	Cost R 000.00		
							Required	Avail	Shortfall
Coronation	Bio-filtration system	2.0	2.0	100%	Dysfunctional, poor process controlling skills, process units not functional	Flow meter replacement; Repair inlet walls & jetting of pipes; Replace bearings on biofilters; Repair damaged biofilter walls; 4 x Gorman Rupp T4A3S pumps refurbished; recirculate effluent in first maturation pond & desludge; repair fencing around the plant & repair damaged sludge bed walls	MIG BP was approved for R 2 000 in 2020		
Emondlo	Activated sludge	4.0	3.6	90%	Final effluent pipeline blocked & spilling to the street; no treatment & disinfection taking place	Refurbishment, rehabilitation & upgrade of existing plant to improve its functionality	MISA & KZNCOGTA funding the project R37 500		
Hlobane	Activated Sludge	3.0	0.23	7.6%					
Klipfontein	Activated sludge	12.0	4.0	33%	Dysfunctional, poor process controlling skills, process units not functional	Refurbish 4 aerators gearboxes and motors, & Refurbish 2 x reactor submersible feed pumps	MIG BP was approved for R 450 in 2020		

Table 13: Critical waste water treatment works status_ Zululand District Municipality

4.2.4. SANITATION PROJECTS MIG

There are 12 Districts and 2 Local Municipalities that submitted their sanitation projects for 2020/2021 financial year for MIG Funding.

Municipality	Progress
1. Zululand DM	Rural Sanitation phase 2 A for R 77 m out standing infill of 5536 toilet to be done
2. Umkhanyakude DM	<ul style="list-style-type: none"> • Refurbishment and upgrade of water works and sewer piper line of uMtubatuba LM construction is 20% at a value of R526 M, • Jozini and uMhlabuyalingana LM VIP toilets sanitation projects construction is 20% value of R 150M, • Jozini low cost housing sewer upgrade R 55 79 182.90m progress 90%, • Thembaletu sanitation projects at a value of R 100M completed, • Ingwavuma VIP toilets practical completion value of R 142M, • uMtubatuba VIP Sanitation practical completion value of R 95 778 068.
3. Umsunduzi LM	<ul style="list-style-type: none"> • Sanitation infrastructure of rehabilitation phase 2AFA practical completion R9m, • Elimination of conservancy tanks in construction 20% at R 221m , • Edendale Ward 16 Sewer Reticulation in Construction 80% R 33 536 363, • Slangspruit.Ambleton Sanitation in construction 40% value R 77m , • Vulindlela household sanitation Ward 10 phase 2 construction 40% value
4. uMgungundlovu DM	• uMgungudlovu District Municipality toilets area in design and Tender for value R 221 723 354
5. King Cetshwayo DM	<ul style="list-style-type: none"> • Ntambanana Rural Sanitation project at 60% value of R 52m • Nkandla VIP sanitation 80% progress value of R 112m, • uMlalazi rural sanitation progress 80% value of R 293m
6. iLembe DM	Grout ville D: Chris Hani and Njekane Sanitation phase 2 40% progress value of R 38m
7. uThukela DM	<ul style="list-style-type: none"> • Ezithendeni Sanitation projects R1.9m Construction, • Bergville Phase 2 R 55.4 m construction works .
8. Amajuba DM	<ul style="list-style-type: none"> • Dannhauser bulk water and sanitation R28.6m construction , • Goedehoop Water and Sanitation R28.2m construction works
9. Newcastle LM	<ul style="list-style-type: none"> • Staffordhill water borne sewerage R 93,4m.Design and tender, • Sanitation services Charlestown R29.8m Construction stage, • Upgrade of Madadeni Waste water treatment work R137.6m Construction stage. • Providing of sanitation services in John town R86m Construction work

Table 14: Sanitation Projects MIG

4.3. SDG 6.3 – Water Quality

KZN STATUS OF MUNICIPAL WASTE WATER TREATMENT WORKS.

WSA	Number of WWTW	Design Capacity (MI/d)	Average Inflow (MI/d)	Operational Performance / Capacity (%)	Number of Critical WWTW
Amajuba DM	3	5	2.08	41.6%	1
eThekweni Metro	27	711.84	454.25	64%	0
iLembe DM	13	34.95	25.8	73.9%	2
Newcastle LM	5	53.2	33.2	62.3%	0
Harry DM	9	17.38	16.12	93%	7
uGu DM	20	31.9	22.13	69%	8
uMgungundlovu DM	6	13.2	10.74	81.4%	0
uMhlatuze LM	5	39.1	18.2	46.5%	0
uMsunduzi LM	2	100.5	73.22	73%	0
uMkhanyakude DM	11	6.35	4.95	77.95%	4
uMzinyathi LM	8	18.7	16.18	86.5%	1
uThukela DM	9	54.35	41.66	76.65%	5
King Cetshwayo DM	13	9.0	7.2	80%	4
Zululand DM	14	29.94	19.19	64%	4
Total (14)	145	1125.41	755.66	67%	36

Table 15: KZN Status of Municipal Waste Water Treatment Works.

Note: The other aspect of water quality is covered with SDG 6.6 – Protecting the Ecosystem.

4.4. SDG 6.4 – Water Use Efficiency

Situational Analysis of the Province

KZN currently has an active Water Demand Water Conservation Forum that meets on a quarterly basis to discuss and share knowledge on water use efficiency matters within KZN. WSAs reports to DWS the water balance status for the WSAs/Municipalities using an approved IWA water balance template.

WCWDM: WATER SUPPLIED, BILLED AND LOSSES.

Description	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Water Supplied (Kl/a)	702 126 261	680 162 777	639 613 455	673 527 102	714 702 503	740 893 168	748 262 742
Billed Authorised Consumption (Kl/a)	378 660 513	360 725 852	366 987 355	392 478 975	406 506 863	363 633 893	384 782 070
Real Losses (Kl/a)	208 841 131	209 374 714	187 127 473	174 339 422	195 755 647	272 726 338	235 138 362
Non-Revenue Water (Kl/a)	323 465 748	319 436 925	272 626 099	281 048 127	308 195 640	377 259 276	363 480 672
NRW by Volume %	46,10%	47,00%	51,64%	49,15%	49,37%	53,39%	51,39%
Inefficiency of Use %	29,70%	30,80%	30,75%	29,30%	26,69%	32,06%	30,52%
ILI	n/a	n/a	5,3	7,7	6,2	8,2	7,8

Table 16: Water supplied, billed, NRW and real losses.

- ✓ NRW % by Volume: deteriorated to 51,4%
- ✓ Inefficiency of Use (leakage): deteriorated to 30.5%
- ✓ Billed Authorised Consumption: improved by 21 148 177 kl
- ✓ Infrastructure leakage Index (ILI) at 7.8 implies that infrastructure leakage is 7.8 times they should be in terms of water leaks.

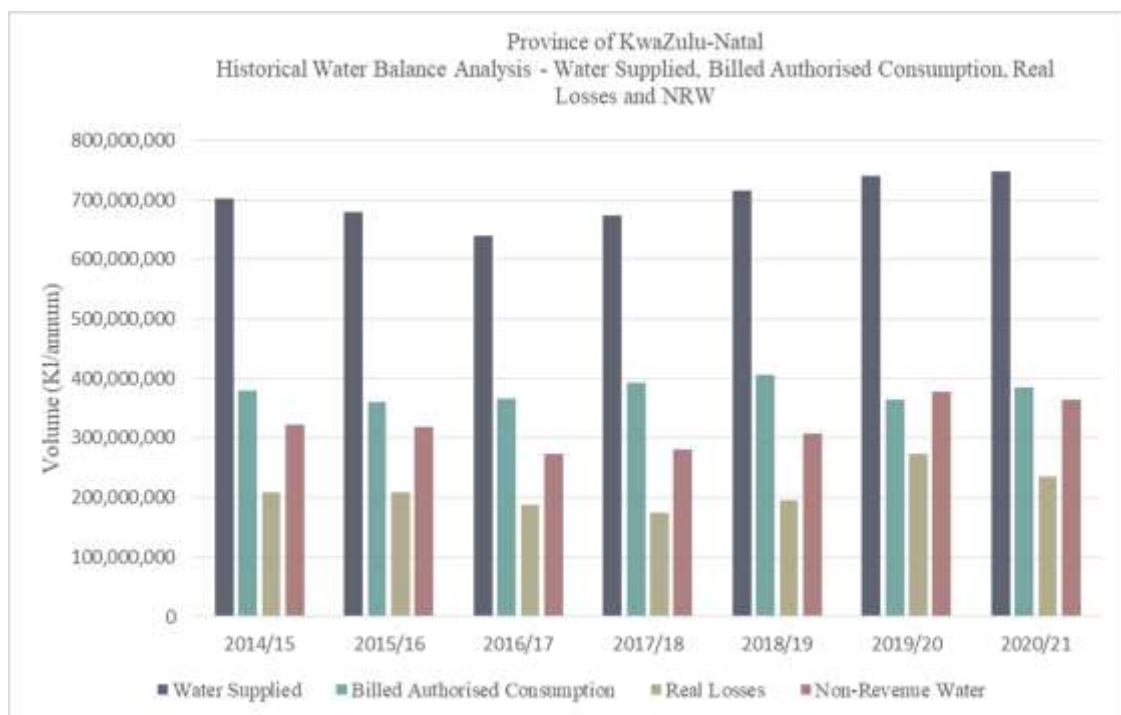


Figure 6: Water supplied, billed, NRW and real losses.

□ Gaps Identified by the Region

- Develop and implementation plan for WCWDM for KZN.
- Develop a monitoring and evaluation tool for implementation plan for WCWDM for KZN.

□ **Activities being implemented in support**

Water Demand and Water Conservation Implementation Plan.

WCWDM Intervention	Institution	Status	Time Frame
Conceptualisation of the WCWDM Implementation Plan	DWS	Done	September 2021
Statues Quo Report on completed Projects/tasks to support implementation Plan	DWS/Umgeni Water	Planning	December 2021
High level Draft report on WSAs Short, Medium and Long term priorities for WCWDM Implementation	DWS/Umgeni Water/WSAs	Planning	March 2022
Appointment of PSP for WCWDM programme to assist with the comprehensive WCWDM Implementation Plan	Umgeni Water	Procurement	March 2022
Development of three (3) Business Plans (for WSAs) for Funding Application	PSP/DWS/Umgeni Water	Procurement	2022
Update on WC/WDM State of the Province Report	PSP/DWS/Umgeni Water/WSAs	Procurement	2022
Comprehensive WCWDM Implementation Plan	PSP/DWS/Umgeni Water/WSAs/COGTA	Procurement for PSP/Planning	2023
On-going Monitoring and Evaluation on the Implementation Plan	DWS/Umgeni Water/WSAs/COGTA	-	2023

Table 17: Water Demand and Water Conservation Implementation Plan.

□ **Data management requirements**

Data management requirements is being addressed by the KZN WCWDM forum which is formed by key stakeholders including WSAs, DWS, Umgeni Water, COGTA and Private Sector together with DWS National Office. Data is submitted using the IWA Water Balance spreadsheet.

	WATER BALANCE SUBMISSION STATUS : 2021 - 2022														
	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	Mag-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21
EtheKwini	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
uMsunduzi	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
uMgungundlovu	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
Harry Gwala	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
Ugu	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
Ilembu	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
uThukela	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
uMzinyathi	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
Newcastle	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
Amajuba	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
Zululand	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
uMhlatuze	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
uMkhanyakude	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
King Cetshwayo	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte	Submitte
		Outstanding		Submitted											

Table 18: Water Balance Submission Status (2021-2022).

4.5. SDG 6.5 – Integrated Water Resource Management

KZN Water availability overview

KZN is home to strategic water source areas along the escarpment including the Northern Drakensberg.

The Province of KZN gets its water from the from four (4) main river systems, namely the Mgeni, Mdloti, Mvoti and the Thukela River System.

Although SA has an average annual rainfall of less than 500 mm, which is well below the world average of 850 mm, the province of KZN receives variable rainfall (an average of 823 mm) with varied climate - Run-off varies from 17-205 million cubic meter/annum).

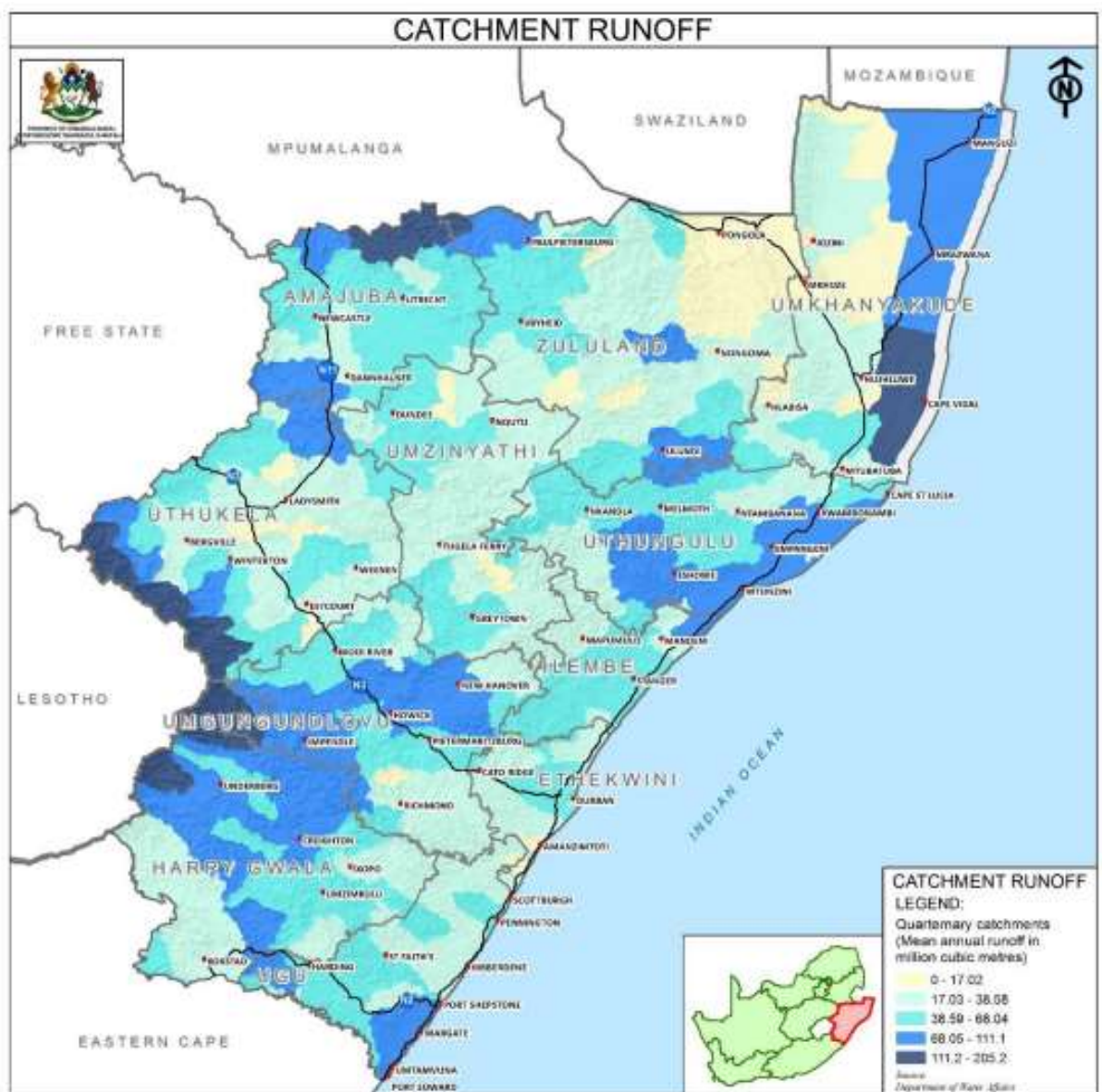


Figure 7: KZN Catchment run off

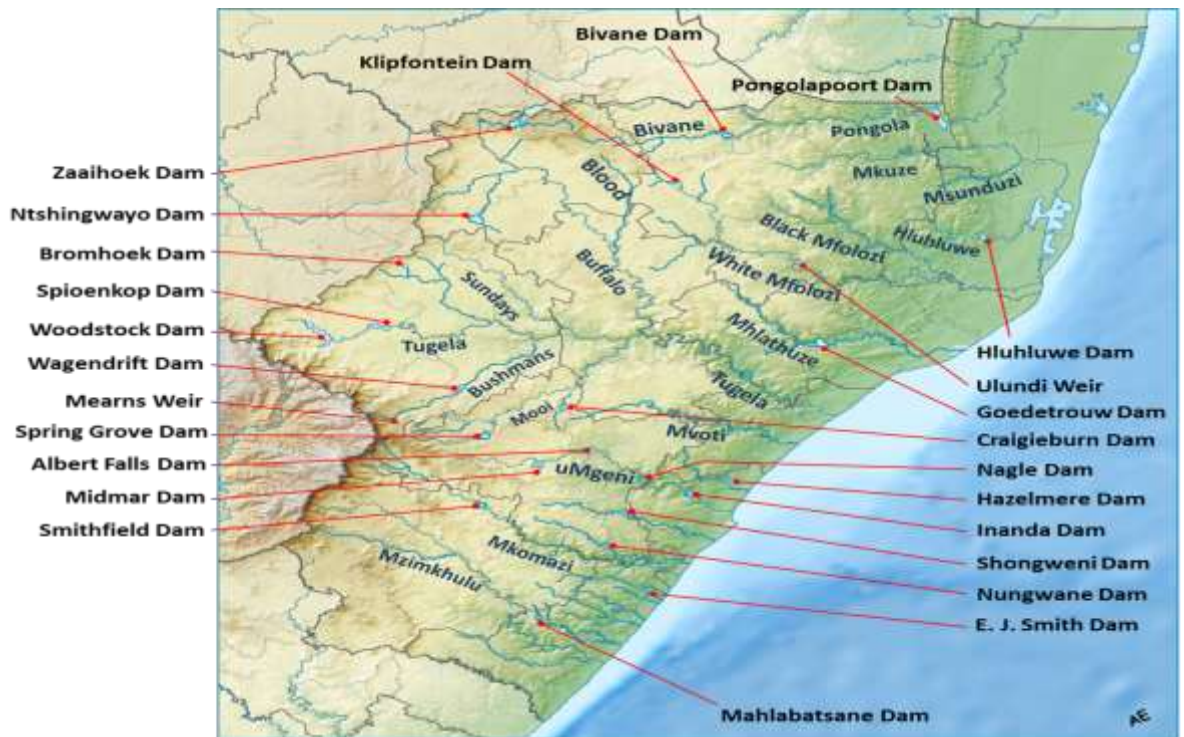


Figure 8: Major Dams in KwaZulu Natal

District Municipality	Publicly owned Dams		Privately owned Dams		Total No. of Dams
	No.	% of Total	No.	% of Total	
Amajuba District	9	13,64 %	57	86,36 %	66
Harry Gwala District	16	8,25 %	178	91,75 %	194
iLembe District	3	12,00 %	22	88,00 %	25
King Cetshwayo District	8	18,05 %	34	81,95 %	42
Ugu District	9	15,52 %	49	84,48 %	58
uMgungundlovu District	20	5,06 %	375	94,94 %	395
uMkhanyakude District	TBC	- %	TBC	- %	TBC
uMzinyathi District	3	15,79 %	16	84,21 %	19
uThukela District	11	9,09 %	121	90,91 %	132
Zululand District	13	16,67 %	65	83,33 %	78
TOTAL:	92	9,14 %	917	90,86 %	1009

Table 19: Dams in District Municipalities across the Province

DAM LEVELS FOR 2020 VS 2021

Dam Name	River Name	FSC in							Percentage
		10 ⁶ m ³	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	2021vs 2020
Midmar	Mgeni	235.4	99.24	98.11	95.18	92.09	90.49	88.68	-1.7
Nagle	Mgeni	23.26	88.7	87.58	81.34	92.7	90.03	94.21	18.4
Albert Falls	Mgeni	288.4	55.56	54.42	51.98	48.89	48.95	48.07	19.6
Inanda	Mgeni	237.4	97.95	94.57	91.43	86.38	85.05	83.18	6.7
Hazelmere	Mdloti	17.66	51.23	46.86	42.04	36.14	34.77	35.07	-2.9
Spioenkop	Tugela	270.4	100.05	99.9	97.73	95.5	96.76	96.47	16.6
Driel Barrage	Tugela	8.694	99.7	99.37	110.24	96.71	99.03	100.05	10.7
Woodstock	Tugela	373.5	97.14	92.11	83.36	75.49	78.19	83.01	7.6
Craigie Burn	Mnyamvubu	22.46	100.55	100.36	97.33	94.35	99.35	99.81	37.6
Mearns	Mooi	5.163	71.34	104.18	53.36	83.46	87.96	90.3	28.0
Spring Grove	Mooi	139.2	99.57	93.02	89.35	82.19	78.58	76.57	41.7
Ntshingwayo	Ngagane	194.6	79.11	76.73	74.26	71.84	70.72	67.98	2.7
Zaaihoek	Slang	184.3	78.66	78.44	78.44	75.34	75.34	75.34	21.9
Wagendrift	Boesmans	55.9	100.55	99.71	98.05	90.2	90.7	95.6	14.7
Goedertrouw	Mhlatuze	301.26	74.4	73.72	72.23	70.58	70.86	71.34	20.3
Klipfontein	Wit Mfolozi	18.08	98.53	95.95	89.69	82.53	77.1	65.49	23.4
Hluhluwe	Hluhluwe	25.89	95.83	93.24	89.9	86.97	85.13	83.12	16.0
Pongolapoort	Phongolo	2,267	55.87	55.19	54.39	53.63	52.96	53	13.4
Total Capacity in 10 ⁶ m ³		4,669	3,351	3,286	3,186	3,074	3,059	3,061	
Percentage		100	71.8	70.4	68.2	65.8	65.5	65.6	13.7

Table 20: Dam levels November 2021.

KZN Status of Water Resources Projects

Project name	Name of WSA	Implementing agent	Estimated project cost	Project Progress	Impact	Estimated completion date
Mkhomazi BWS	eThekweni/multiple WSA	TCTA & Umgeni water	R24bn	<ul style="list-style-type: none"> • EIA completed • TCTA financial Modelling • Reluctance to sign offtake agreements • UW design prep 	Water Security Increase Tariff	Est 2030
Lower Mkomazi OCD	Ugu DM	Umgeni Water	R3.2 billion	Construction started 2021	Water Security Upper south coast/Ugu DM	June 2025
Cwabeni OCD	Ugu DM	Umgeni Water	R1bn	Project Prep stage (Funding model & Agreements)	Water Security Ugu DM	Nov 2026
Steven Dlamini Dam	Harry Gwala DM	Umgeni Water	R1.2bn	As above	Water Security HGDM/eThekwini	tbc
TOTAL						

Table 21: KZN Status of Water Resources Projects

KZN Water Resources Projects at construction Phase.

Project name	Name of WSA	Implementing agent	Estimated project cost	Project Progress	Impact	Estimated completion date
Raising Of Hazelmere dam wall	iLembe DM	DWS	R574m	96% Construction	Water Security iLembe	August 2022
Goedetrouw Emergency Scheme	King Cetshawayo DM	Mhlathuze Water	R660m	60% Construction stage MW to complete	Water Security KCDM	Dec 2022
TOTAL						

Table 22: KZN Water Resources Projects at construction Phase.

Comments on Raising of Hazelmere dam wall- 96% complete

- Phased impoundment was achieved in January 2017 and the water level is maintained below the 88 masl level.
- The Piano Key Weir construction is complete.
- The grouting curtain is 100% complete.
- To date, 73 anchors have been installed and stressed. The 10 remaining anchors cannot be stressed until the load cell installations are complete.
- The SLAs for the PSP and the ECO for the completion of the works have been signed.
- National Treasury did not support the request for the increased deviation amount for the completion of the project.
- 13 of 15 households are relocated to temporary housing.
- Engagements with eThekweni Metro on the construction of the resettlement housing are ongoing.

Richards Bay short listed interventions

- Bulk industrial WC/WDM
- Urban WC/WDM
- Rainwater harvesting
- Limiting supply from over-abstracted coastal lakes
- Thukela-Mhlathuze Transfer Scheme
- Coastal pipeline from the lower Thukela River
- Mfolozi River: Kwesibomvu Dam transfer scheme
- Mfolozi River off-channel dam transfer scheme
- Raising Goedertrouw Dam
- Dam on the Nseleni River
- Groundwater schemes
- Arboretum Effluent Reuse Scheme
- Desalination of seawater

4.6. SDG 6.6 – Protecting the Ecosystem

The Regional office is currently monitoring the Water Resources using the following indicators as per 2021/22 APP.

No	Type of Monitoring Programme	Number of Stations Monitored	Responsible Directorate
1	Hydrological sites (Gauging Station)	144	Water Resource Support
2	Groundwater quality sites	70	
3	Groundwater level sites	71	
4	Waste Discharge sampling Points	200	Proto CMA
5	Surface Water Monitoring Points	215	
6	River Health Monitoring Programme	18	

Table 23: monitoring programme within DWS KZN

Projects being implemented towards the Target

- Determination of Classes and Resource Quality Objectives in the Thukela Catchment.
- WSDOR-EPA: Study Management Project which comprises of Annual Operating Analysis Schedule (Mgeni and Mhlathuze) and Pongolapoortdam Operating Analysis

Gaps Identified by the Region

- Monitoring of RQOs for the Pongola to UMzimkhulu Water Management Area.

Activities being implemented in support

- KwaZulu-Natal Integrated Regional Water Monitoring Committee quarterly Meeting.

Data management requirements

Data management requirements is being addressed by the DAM strategy, Water Monitoring Plan established and working with the Integrated Regional Water Monitoring Committee.

4.7. SDG 6.a – International Cooperation

KZN provincial Office is not directly involved with International Cooperation except the support to the National Office of DWS when required and hence no feedback on the key reporting items below:

4.8. SDG6.b - Community Participation

Number of meetings were held by DWS through various platforms in 2021 to engage the public on what DWS is doing in different areas within the province. This is led by the IGR within the province. Major activities late in 2021 was the engagement with different Amakhosi (Chiefs) in KZN by the Ministry, Regional Office as well as the National Office of the Department.

There is still a huge gap in reporting activities within SDG6.b and this will be improved once there is formal coordination within the province.

5. OVERALL PROGRESS TOWARDS REACHING THE 2030 GOALS IN THE PROVINCE

Currently since there is no existing structure in KZN to track SDG6 indicators, no targets were set against 2030 goals except those in the APP that the Regional Office is monitoring in terms of performance.

6. SUPPORT NEEDED FROM THE SDGWG

Meeting between the Management of KZN Provincial Office and SDG6 targets team leaders is required to set up a KZN structure for SDG6 reporting and coordination at Regional Offices. This will ensure each directorate has a clear role and responsibility in tracking and reporting activities required for SDG6 report and monitoring the set target in terms of performance.

7. CHALLENGES AND PROPOSALS SOLUTIONS

Challenge	Proposal
1. Mkhomazi Water Project	Planned meeting with minister to be convened to discuss Off take agreements, Impact on tariff on users.
2. Stephen Dlamini Dam	Harry Gwala request to Rescind Directive to Umgeni water
3. Raising of Hazelmere Dam Wall-	DWS must complete the balance of 4% work which is long overdue and impacting of storage of water. PSP appointed
4. Goedetrouw/Tugela Emergency Transfer	Directive issued to Mhlathuze water to complete project. Draft IA Agreement developed for approval.
5. Richards bay Desalination Plant	Transfer agreement to CoU in circulation for approval

Challenge	Proposal
6. Revenue Management	Province and HO to accelerate debt recovery/collection of +- R2b owed to DWS.
7. Poor state of WWTW/Pollution	Implementation of BG/BG system under way. Improve regulator function. Align MIG and other grants with Master Plan
8. Establishment of CMA	Finalise the CMA process
9. State of LG: Poor O&M , failing infrastructure and sanitation Services	Support package to LG to complete water projects. Implementation of KZN Water Master
10. Misalignment of projects execution- Resource development, bulk distribution and reticulation	Alignment of planning with KZN Provincial Water Master Plan and implementation of bulk and reticulation concurrently
11. Poor performance of service providers-Contractors leading incomplete projects	Engage Implementing Agents (WSA) to appoint capable contractors to implement the projects
12. Community and labour unrest impacting on project implementation progress- high expectations Implementation of 30% local beneficiation	Political intervention required where necessary
13. Unauthorized connections (including on bulk infrastructure) and infrastructure vandalism	

8. CONCLUSION

Currently, there is no existing formal structure responsible for SDG6 within the Regional Office.

Meeting between the management of the KZN Provincial Office and SDG6 targets team leaders is required to set up a KZN structure for SDG6 reporting and coordination at Regional Offices. This will ensure each directorate has a clear role and responsibility in tracking and reporting activities required for SDG6 report and monitoring the set target in terms of performance. The meetings which were proposed as inception meetings were postponed twice mainly due to the unavailability of relevant officials and limited confirmation to attend the meetings.