



**water & sanitation**

Department:  
Water and Sanitation  
**REPUBLIC OF SOUTH AFRICA**

# SONA 2023 IMPLICATIONS FOR THE DEPARTMENT OF WATER AND SANITATION

21 FEBRUARY 2023

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# SONA 2023 COMMITMENTS RELATED TO WATER AND SANITATION

- *“The reliable supply of water is essential for the well-being of people and the growth of our economy. To ensure water security now and into the future, the Department of Water and Sanitation is leading the process of investing in major infrastructure projects across the country.*
- *The reliable supply of water is essential for the well-being of people and the growth of our economy. To ensure water security now and into the future, the Department of Water and Sanitation is leading the process of investing in major infrastructure projects across the country.*
- *After being delayed for several years, full-scale construction works for the Lesotho Highlands Phase Two project will commence this year. The Lesotho Highlands project is critical for ensuring security of water supply to Gauteng, Free State, Mpumalanga, North West and Northern Cape.*
- *Several decades after it was first proposed and nine years after a sod-turning ceremony was held, the first phase of the Umzimvubu Water Project will start in the next financial year. This phase, which involves construction of the Ntabelanga Dam, irrigation infrastructure and the distribution of water to communities, will be financed by government. The next phase will be the construction of the Lalini Dam which will include a hydro power station.*
- *Major projects to increase the capacity of the Clanwilliam Dam, Hazelmere Dam and the Tzaneen Dam will improve the supply of water to the West Coast, eThekweni and the eastern part of Limpopo.*
- *Last year, we announced a comprehensive turnaround plan to streamline the process for water use license applications, which is vital to enable greater investment. Since then, we have cleared the backlog of water use licenses and reduced the turnaround time for applications to 90 days.”*

# CONTENTS

1. Major national water resource infrastructure projects
2. Major water services projects
3. Streamlining the process for water use license applications
4. Interventions and actions taken by DWS to manage the flood events

## Annexures

- ANNEXURE A – Additional information on major water resource infrastructure projects in the planning phase
- ANNEXURE B - Additional major water resource infrastructure projects in the implementation phase
- ANNEXURE C - Additional water services projects
- ANNEXURE D - KZN Storm damage recovery progress report

# 1. MAJOR NATIONAL WATER RESOURCE INFRASTRUCTURE PROJECTS

# 1.1 MAJOR WATER RESOURCE DEVELOPMENT PROGRAMME FOR PROJECTS THAT ARE CURRENTLY IN THE PLANNING PHASE (1)

Project Name	Province	Water Resource Development Stage/ Phase						Estimated Capital Cost
		Reconnaissance Phase	Pre-feasibility Phase	Feasibility Phase	Decision support Phase	Design/ Tender Phase	Implementation/ Construction Phase	
1.Mangaung Water Augmentation Project: Xhariep Pipeline	FS	Completed	Completed	2023/24	2024/25	2025-2026	2027/28	R 9 Billion
2.Lower Orange River Water Project: Vioolsdrift/Noordoewer Dam (NVD)	NC	Completed	Completed	2023/24 (technical feasibility done - Bridging study needed to finalise planning work including EIA)	2024/25	2025-2026	2025/2030	R 10 Billion (depending on dam size – RSA will contribute 50%)
3.Clanwilliam Dam Raising Project: Conveyance Infrastructure	WC	Completed	Completed	2024/25 (technical feasibility done – EIA is being initiated)	2025/26	2026-2027	2027-2033 (to be done in phases)	R 2,5 billion
4.Algoa Water Supply System Augmentation: Coerney Balancing Dam:	EC	Completed	Completed	2023/24 (technical feasibility done - EIA in progress)	2023/24	2024-2025	2025-2028	R 520 million

## MAJOR WATER RESOURCE DEVELOPMENT PROGRAMME FOR PROJECTS THAT ARE CURRENTLY IN THE PLANNING PHASE (2)

Project Name	Province	Water Resource Development Stage/ Phase						Estimated Capital Cost
		Reconnaissance Phase	Pre-feasibility Phase	Feasibility Phase	Decision support Phase	Design/ Tender Phase	Implementation /Construction Phase	
5.Breede-Berg (Michell's Pass) Water Transfer Scheme	WC	Completed	Completed	2023/24	2025/26	2026-2028	2028-2030	R 5 Billion
6.Crocodile East Water Project – Mbombela Dam	MP	Completed	2023/24	2024/25	2025/26	2025-2027	2025-2030	R2,5 Billion
7.Development of Water Supply System for Musina area: Mutale Dam and/or Musina Off-Channel Storage Dam and Associated Works	LP	Completed	2023/24	2024/25	2025/26	2025-2027	2025-2030	*R10 billion
8.Mfolozi Water Project Phase 1: Raising of Klipfontein Dam	KZN	Completed	2023/24	2024/25	2025/26	2024-2027	2027-2030	R500 million

Note: more information on national water resource infrastructure projects in the planning phase is contained in Annexure A.

## 1.2 WATER RESOURCE INFRASTRUCTURE PROJECTS MENTIONED IN THE SONA (MAJOR WATER RESOURCE INFRASTRUCTURE PROJECTS IN IMPLEMENTATION PHASE)

1. Lesotho Highlands Water Project
2. Umzimvubu Dam Project
3. Raising of the Clanwilliam Dam wall
4. Hazelmere Dam
5. Tzaneen Dam

Note: Other major water resource infrastructure projects in implementation phase that were not mentioned in the SONA are included in this presentation as Annexure B.

# LESOTHO HIGHLANDS WATER PROJECT – PHASE 2

- Phase 2 of the Lesotho Highlands Water Project (LHWP 2) is being implemented to augment the Integrated Vaal River System (IVRS) which supplies Gauteng and surrounding areas.
- Once completed, the LHWP 2 will transfer up to 485 million m<sup>3</sup>/a of water from the upper reaches of the Orange (Senqu) River in Lesotho through the existing conveyance infrastructure to the Vaal Dam in South Africa.
- The main components of LHWP 2 are a new Polihali Dam and a tunnel connecting Polihali and Katse dams.



# STATUS OF MAIN WORKS CONTRACTS

No.	Project Item	Time Frame	Target completion
1	Construction of Polihali Dam	Awarded 26 Oct 22 Commence construction 23 Nov 22	Dec 2027
2	Construction of Polihali to Katse Transfer Tunnel	Awarded 24 Oct 22 Commence construction 5 Dec 22	April 2027
3	Senqu Bridge Construction	Awarded Jul 2022 Commence construction 5 Dec 22	Jan 26

## FUTURE CONTRACTS TO BE AWARDED

No.	Project Item	Time Frame	Target completion
1	Polihali Commercial Centre Construction	Award 14 Oct 22	Feb 24
2	Khubelu / Mabunyaneng Bridge Construction	Award 01 Jun 23	May 25
3	Construction of Feeder Roads	Award 8 Jun 24	Jul 26

# MZIMVUBU WATER PROJECT (1)

- National Treasury and DWS have agreed that the project will be funded from the fiscus, using existing grant allocations, DWS augmentation funds, and additional budgets to be requested by DWS through the budgeting process. DWS has undertaken a technical review to reconfigure the project to improve the affordability metrics.
- For 2022/23 and 2023/24, the DWS will reprioritize internal funds to continue funding advanced works/access roads and to start construction of Ntabelanga Dam. In parallel, DWS will make submissions to NT for funding in subsequent financial years.
- The reconfiguration of the project ensures that affordability metrics are achieved. DWS is submitting funding requests for NT for 2024 MTEF. The original budget has been reduced from R17 933 000 000 to R8 081 000 000 (in terms of 2017 cost)
- This entails deferring Stage 4 (building of Lalini dam and hydropower station), as well as the new Central Water Treatment Works (the existing WTWs will be upgraded instead) and other non-priority components. The major savings emanate from reconfiguring the bulk distribution water supply network.
- There are at least 3 existing schemes overlapping with the footprint of the proposed Ntabelanga Bulk Distribution Scheme. This offers the opportunity to amend the scope from a greenfield to a brownfield project, necessitating the integration of upgrades with new interconnecting infrastructure. The three District Municipalities will fast-track their planning in this regard.
- The DWS is engaging ESKOM to explore options of testing the commercial market to invest in Lalini with ESKOM and/or Local Government as off-takers of the electricity.

# MZIMVUBU WATER PROJECT (2)

## Project Description

The Project aims to develop a conjunctive scheme comprising two multi-purpose dams and associated bulk water distribution infrastructure for domestic and irrigation water supply as well as hydropower generation. The project is intended to stimulate socio-economic development in the area and the Eastern Cape Province as a whole. Phase project approach has been adopted due to implementation readiness and funding constraints, namely:

- Stage 1: Advanced Infrastructure.
- Stage 2: Ntabelanga Dam and WTW.
- Stage 3: Bulk Distribution System.
- Stage 4: Lalini Dam Irrigation, Hydropower and Delivery tunnel.



## Funding and timeframes

- Stage 1 to be completed on-budget
- Stage 2 to be commenced in 2023/24 on-budget after which National Treasury will amend allocation as per the project funding requirements
- Stage 3 is to be subjected to a bridging study to merge water supply project plans of District Municipalities with the Mzimvubu Project. To be funded through Grant Allocation (MIG and RBIG).
- Stage 4; Deferred. But to be considered for implementation by Eskom through private partnerships.

## Project Progress & Target Dates

- Phase 1 (Advance Works; Access Road) – 60%; Expected date of Completion – June 2023

# MZIMVUBU ADDITIONAL FUNDING AND TIMEFRAMES

Fin Year	Stage 1	Stage 2	Stage 3	Stage 3 b	Stage 4	Total
	(R'000)	(R'000)	(R'000)	(R '000)	(R'000)	(R'000)
	Phase 1				Phase 2	
	Advance works / Access Roads	Ntabelanga Dam	Bulk Water Supply and Reticulation	Bulk Irrigation Water Supply	Lalini Dam and Hydro-power	
2023/24	115 000	138 321	250 000	0	0	503 321
2024/25	0	934 597	545 250	185 750	0	1 665 597
2025/26	0	1 422 061	720 250	397 250	0	2 539 561
2026/27	0	129 741	850 000	335 000	0	1 314 741
2027/28	0	0	1 057 500	0	0	1 057 500
2028/29	0	0	880 300	0	0	880 300
2029/30	0	0	596 700	0	0	596 700
<b>Total</b>		<b>2 624 720</b>	<b>4 900 000</b>	<b>918 000</b>	<b>0</b>	<b>8 557 720</b>
<b>Possible Funding Sources</b>	DWS Budget (Confirmed)	DWS Budget (Being applied for)	Grant Funding (MIG & RBIG)	DWS Budget (Being applied for)	Blended Finance or Off-take agreement	

# RAISING OF CLANWILLIAM DAM WALL

## Project Description

- The project aims to provide additional water to improve the assurance of water supply for agriculture, provide for water allocations to resource-poor farmers on the West Coast (Western Cape), and address dam safety aspects, at an estimated cost of R3 920 000 000.
- The scope of the work includes the raising of the existing dam wall by 13 meters, the relocation of a section of the N7 directly affected by the raised dam wall, and the raising of the secondary provincial roads affected by the Full Supply Level (FSL) in the dam basin.
- This will increase the capacity of the dam by  $70 \times 10^6 \text{ m}^3$  (57.4% increase in capacity)



**Estimated Project  
Completion: April 2028**

## Project Progress & Targets

- Full Construction on the site to recommence was originally targeted for mid-February 2023, however, 4 major bids are being finalized and new full-site operations are anticipated by end March 2023
- Some of the current preparatory work underway are excavations, geotechnical exploration, diversion of outlet works, sealing of the radial gates, and plant batching preparation.
- A construction management framework contract is in the process of being procured, with a target of being finalized by April 2023. This will enable the Construction Unit to procure for the remainder of this project in line with the new Infrastructure Procurement Strategy and to improve expenditure as per the BFI allocation approval.

# RAISING OF HAZELMERE DAM



## Project Description

- The project for the Raising of Hazelmore Dam is aimed to augment the water supply to the KZN North Coast by raising the dam wall by 7 meters to increase the yield of the dam for medium-term supply.
- The scope of the work includes the construction of a piano key weir on the spillway, the installation of rock anchors, foundation grouting, and other minor works.
- The dam wall increased from 85.98m to 93.00m, resulting in an increase from  $23.9 \times 10^6 \text{ m}^3$  to  $43.6 \times 10^6 \text{ m}^3$  (82.4% increase in storage capacity)
- This project is being completed at a cost of R795 000 000.

## Project Progress

- The project progressed to 96%, after which it was subjected to a long delay due to contractual matters, that was resolved in between.
- This implies that Overall Project Progress is 99.7%.
- Functional Completion expected at the end of February '23
- The Adjudicator ruled on 10 Feb '23 in favour of the Department. Out of R36,246,164 original claims, the Department is now only required to pay R1,926,362

# RAISING OF TZANEEN DAM

## Project Description

- This project is aimed at augmenting the water supply in the Greater Letaba River Catchment of Limpopo Province by raising the dam wall by 3 meters to increase the yield of the dam to address water shortages.
- The scope of the work includes the demolition of the top of the existing spillway, the construction of a labyrinth spillway and other minor works
- Estimated Total Cost at Completion: R 555 167 500



## Project Progress

- The demolition of the original spillway is completed and this account for 10% project progress.
- The previous IA (Lepelle Northern Water) was replaced with DBSA.
- DBSA finalized the appointment of the APP (approved professional required to do dam design work).
- The APP (PSP) finalized the Embankment Strengthening Design and submitted the application for a License to Construct to the Dam Safety Office in December 2022 and was issued on 10 February 2023.
- Construction unit is on-site and ready to commence with construction; planned start date is 1 April 2023 with the estimated date of completion being March 2025

## 2. MAJOR WATER SERVICES PROJECTS



# EASTERN CAPE

1. NMBM: NOOITGEDACHT
2. MAKANA
3. MBIZANA

# NOOITGEDACHT COEGA LOW LEVEL SUPPLY SCHEME (NCLLS) Phase 3

**NOOITGEDACHT COEGA LOW LEVEL SUPPLY SCHEME (NCLLS) phase three** entails the construction of a flash mixer, two flocculation channels and settling tanks, six new filters (increasing the capacity of the **WTW's with 70MI/day to 210MI/day**) with clear well below, upgrading of filter pumps, blowers and electrical system, interlinking pipework, upgrading of SCADA and telemetry system, construction of a **45MI reservoir at Olifantskop, AC Mitigation and Cathodic protection** of bulk steel pipelines and rehabilitation of Grassridge to Chelsea pipeline. Funding for this third and final phase is provided by National Treasury and administrated by DWS (R534 million).

- Commissioning of the project on 23 February 2023
- First Water was delivered on the 31 March 2022
- The progress on the 45MI reservoir is 100%.
- The progress on the 70MI/day WTW's is 99.99%
- The progress on the pipeline is 100%
- Commissioning was done on 29 September 2022 after which practical completion certificate was provided.
- The project is practically complete and the contractor is busy with the snag list before final completion certificate can be provided.
- The PSP and contractor is also busy optimizing the process flow to get maximum production from the plant.
- Once the above is completed and a Happy letter is received from the NMBM, handover will take place and a final completion certificate will be provided.

# MAKANA : JAMES KLEYNHANS WTW PROJECT

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## Project Description

- The scope of the project includes the augmentation of the existing 10 Mℓ/day James Kleynhans WTW by the construction of an additional 10 Mℓ/day WTW, along with associated works required to meet the bulk potable water needs for the Bulk Water Supply. Implementing Agent: Amatola Water

## Project Scope:

Phase 1: Augmentation of the James Kleynhans Water Treatment Works : **Completed**

Phase 2: Augmentation of the James Kleynhans Water Treatment Works (in Progress)

Phase 3: Upgrading of Existing Pumping Main (Integrated to

Phase 4: Upgrading Existing (old) James Kleynhans Water Treatment Works

## Projected cost to completion

The total approved project cost = **R 237,5 million**

The proposed revised project cost = **R 413,9 million**

## Progress/Issues:

- Work of phase 3 and 4 which was brought in under phase 2(critical work) will be attended to once the Phase 2 work have been completed. This was agreed and accepted by IA.
- Project Phase 2 currently on 82% .
- The Contractor for phase of the project was terminated in June 2022 due to poor performance and re-advertisement was done in July 2022, appointment of the new contractor was done in December 2022, Site handover done in January 2023 and completion estimated for October 2023.

# GREATER MBIZANA REGIONAL BULK WATER SCHEME (GMRBWS)

## Greater Mbizana Phases 2 and 3 LUDEKE DAM : Planning

### Implementing agent: Umgeni Water

#### Work package 1 (WP 1) scope of works is finalised:

- Upgrade Nomlacu Water Treatment Plant from 10 Mℓ/day to 20 Mℓ/day
- Raw water pump station
- 1Mℓ Reservoir at Nomlacu WTW

#### Work package 2 (WP 2) scope of works is finalised:

- 4 x Reservoirs
- 2 x Pipelines

#### Work package 3 (WP 3) scope of works is finalised:

This work package comprises the Southern and North-Western Feeder bulk treated water supply system with following components

- 6 x Reservoirs supplying Zones G, L, M, N, P and Q
- 2x Pump stations at KuSiwisa and Ndindini reservoirs
- Pipelines from 355 mm  $\emptyset$  reducing to 250mm  $\emptyset$  (Nomlacu WTW to Nqabeni reservoir and Entsimbini reservoir) and  
250 mm  $\emptyset$  reducing to 160/110 mm  $\emptyset$  (Entsimbini to Mbongweni and Luthuli reservoir)
- Rising mains - 250 mm  $\emptyset$  (Kusiwisa to Ndindini reservoir) and 160 mm  $\emptyset$  (Ndindini to Ntlontslane reservoir)

**The three work-packages are in different phases, with construction to start in May 2023 until June 2025**

# FREE STATE

1. Maluti-A-Phofung
2. Matjhabeng

# Malutu-A-Phofung

The Intervention entails the following projects within the water and sanitation:

1. The Upgrading of Sterkfontein Water Treatment Works (WTW)
2. Refurbishment and Upgrading of the Fika Patso Water Purification Plant (WPP)
3. Upgrading of Intabazwe Rising Main,
4. Bulk water supply to Tshame & Makgolokweng,
5. Upgrading of supply to Phuthaditjhaba & CBD area.
6. Refurbishment of sewer pumpstations,
7. Operation & Maintenance,
8. Refurbishment of the Elands, Kestell, Makwane and Moeding WWTWs,
9. Refurbishment and upgrading of the Phuthaditjhaba, Tshame and Wilge WWTWs
10. Bulk water supply from Uniqwa to Kestell and Tlholong
11. Bulk Interconnecting Pipework: Nuwejaarspruit – Wilge Pipeline
12. Improving Water Revenue and reducing non-revenue water
13. Drilling of 8 Boreholes, Steel Pressure Tower, and Package Plant
14. Tlholong Ext5: Replacement of damaged pipeline and repair of all leaks along network system

Bloem Water was appointed as the IA and have done the following: Appointed 7 PSPs in October/November 2022, Went on Tender for most of the pipe work in January 2023. Most Multi-Phased Project started in November 2022 and will run on a multi-run until March 2027

# MATJHABENG LOCAL MUNICIPALITY

- Matjhabeng Local Municipality is currently facing a crisis as its sewer infrastructure is completely dysfunctional. This contributes to serious pollution to the environment, among those are the poor final effluent being discharged and diverted to the main raw water streams.
- Bloem Water : **Engaged 02 June 2022 & Ministerial Appointment 15/07/2022**
- Bloem Water is appointed as IA for the capital work (refurbishment and upgrading of WWTWs, pumpstation and sewer lines).
- The project is implemented into three(3) Packages.
  - P1- emergency work for unblocking and repair of collapsed lines including pumps.
  - P2- Refurbishment of WWTWs, Pump stations and sewer lines.
  - P3- Upgrading of WWTWs, Pump stations and sewer lines.
- A Water Services Task Team(WSTT) was established to monitor the Sanitation intervention in Matjhabeng LM as per Directive issued to Bloem Water.
- Appointment of the PSP: 03/10/2022, Tender Advertisement 12/08/2022 & closed 06/09/2022 , Multi-Projects Commencement :30/11/2022 and March 2023< Estimated completion varies between 18-24 Months

# GAUTENG

## VAAL INTERVENTION PROJECT (VRSI)



# VAAL INTERVENTION

- The Vaal River Intervention Programme entails the Sedibeng District Municipality and the Emfuleni Local Municipality Sanitation Projects. The objective of the Sedibeng Regional Sanitation Scheme (SRSS) are CAPEX projects by nature:(i) Upgrade the current capacity sewerage of the in Emfuleni Local Municipality; (ii) Increase the capacity of the waste water treatment Plants and (iii) To meet the future demands of the sanitation infrastructure. Major works are;
  - Rietspruit & Sebokeng WWTW Upgrade
- 1. Mechanical services for the water & wastewater treatment plants and electrical services for 44 pump stations and mechanical services for 44 p/s
- 2. – Leeukuil & Meyerton WWTW Upgrade
- Unblocking and biosolids removal contracts have been ongoing since July 2021 to date.
- In August 2022, the refurbishment of 3 Pump Station started and 10 contracts commenced which also assisted with reducing the interventions required and is on going
- The Upgrade Contracts of WWTW are at a design phase with tender Advertise planned for 28 Feb 23, Construction Planned for July 2023 and will run for the next 36-54 months simultaneously)

# KWAZULU NATAL

1. MANDLAKAZI REGIONAL BULK PROJECT
2. UMKHANYAKUDE SECTION 63
3. UGU DISTRICT MUNICIPALITY

# MANDLAKAZI BULK SUPPLY SCHEME PROGRESS-PHASE 5 & 6

## PHASE 5 BULKS – FUNDED BY RBIG

1. Water Treatment Works upgrade to 20MI/day – Completed 2019
2. Upgrade of the Intermediate Pump Station – Completed 2019
3. Upstream Bulks and Raw Water Abstraction – In Progress 28km of Bulk Raw Water from the Jozini Dam to the WTP. Currently Contractor appointed for 3km of Pipeline. Under Planning is the new Abstraction Works as well remaining 25km of Pipeline.
4. Central Bulks from WTP – In Progress Primary Bulks / Reservoirs (Central Zone)-Overall project completion is 97% and Primary Bulks / Reservoirs ( Western Zone) - Overall Construction Completion 41%.Secondary Bulks to Northern, Southern and Western (Hlabisa) zone under design.
5. Downstream Bulks – Under Design : Phase 5.3 ready for Tender, 5.4 90% of Detailed Design complete, 5.6a Detail design completed, 5.6b – At Detail design and 5.7 80% of detailed design.
6. Reticulation – Estimate to roll out 17 Contracts in total that will be funded under WSIG. Prelim Design at 100% and detail design at 50%. 2 Contracts under construction, 7 Contracts at 90% of detailed Design and 8 Contracts between 30-50% of detailed design.

## PHASE 6 BULKS – FUNDED BY RBIG

1. New Bulks Rising Mains and 3 Pump Station to Hlabisa 's Res 12 & 22 – Under Design
2. Construction Phase 6 Multi-Reticulation to go out on Tender in March 2023, Construction to Start in June 2023

# UMKHANYAKUDE INTERVENTION

Minister of Water and Sanitation intervened through Sec 63 of the WSA in uMkhanyakude in December 2021 to prioritize water water provision. The Water Intervention are designed to address Hotspot Areas in:

- uMhlabuyalingana Local Municipality – Priority 1 (Wards 4,6,10,11 and 18).
- Big 5 Hlabisa LM – Refurbishment and Augmentation of Water Supply Scheme in ward (6,7,8,9,and 11).
- Jozini Local Municipality Priority Water Supply to Ward(1-7, 10-18).
- Refurbishment and Augmentation of water supply schemes in wards 6,7,8,9,10,11,12,16,17 and 19 within Mtubatuba Local Municipality.
- Gazini Water Supply Project.

The progress made to date on the intervention to date:

- As at, BPs were done and finalized in June 2022, Scoping and Design done in September 2022, by 22 November 2022 at least 8 PSPs were appointed, 37 Work packages for at least 25 sites have been identified, 10 contractors have been appointed with further 15 will be appointed in 27 February 2023.
- Some sites have started construction in 20 January 2023, however multi-site projects are starting between 5- 10 March 2023 and will run for 12-18 months. Bulk Projects to is under planning and will be commissioned for funding in June 2023, construction to begin in October 2023 and will run for 18-36 months

# UGU DISTRICT MUNICIPALITY

Ugu both a Presidential and Ministerial intervention to restore water and sanitation services in the DM. DWS has the following commitment. Ugu has 4 Projects currently being implemented in the 2022/23 FY. 3 were completed in December 2022.

1. Non-Revenue Reduction Programme
2. Refurbishment and Replacement of Infrastructure in Ugu DM area of supply.
3. Revenue Management Plan.
4. Pipeline Replacement of Infrastructure in the Ugu DM area of supply

➤ Additional 4 Business Plans were submitted and approved in December 2022.

➤ Emergency Borehole Programme

1. Refurbishment of Bulk Meters and chamber valves Across the district
2. Borehole Management System
3. Refurbishment of Mechanical & Electrical (Area South Central, South, North)

- PSPs have been appointed

- DWS confirmed funding in January 2023

- Construction to begin in March 2023 though the use of existing panel of contractors to accelerate work

- Projects to run for 6-12 months on short to medium term.

- Long term projects to commence on November 2023 for multi-year TBC

# LIMPOPO PROVINCE

1. NANDONI-NSAMI BULK PIPELINE
2. GIYANI WATER SERVICES
3. STATUS QUO OF GIYANI WTW REFURBISHMENT (PHASE 1)
4. RETICULATION OF 55 VILLAGES- (PHASE 1)
5. OLIFANTSPOORT /EBENEZER WATER SUPPLY SCHEME

# 1. NANDONI-NSAMI BULK PIPELINE

## Progress summary

- The project entails construction of two (2) bulk water pipelines to provide water to Giyani and the greater Malamulele areas as well as a pump station at the Nandoni WTP to supply water to the raw water pipeline.
- The installation of pipes from Nandoni to Nsami (Giyani) is completed, pressure testing, installation of valves and construction of chambers in progress.
- Temporary connections on river crossings completed in January, whilst construction of permanent structures in progress to be completed by April 2023
- Installation of raw water pumps in progress to be completed in Feb 2023. Mobile pumps are provided to fill the pipeline and test the system whilst installation of permanent pumps is in progress
- First delivery of raw water to Giyani is expected by first week of March 2023 with full project completion expected in April 2023

## 2. GIYANI SECONDARY MAINS

- Implemented by LNW
- The current project scope entails construction of 325km pipeline sectioned in to eight (8) bulk pipelines to provide water to Greater Giyani
- The project is under construction and the overall progress is at 58,1%
- Over 300km of the 325km pipeline installed and 18 of the 65 planned connections to the reservoirs (27.5%) are completed supplying bulk water to the community
- The final completion of the project is planned for July 2023; however, pipelines will be functionalized progressively on completion to supply water to the community

## 4. REFURBISHMENT OF GIYANI WTW FROM 25-30MI/day

- Project entails refurbishment of existing 30MI/d WTW in Giyani to restore operational capacity
- Business plan for the project was approved by the Department-Phase 1 in
- Budget set aside through WSIG in the current financial year (2022/23) to start with implementation
- Appointment of Mopani DM as implementing agent finalized and MoU signed in August 2023
- Procurement of the contractor for Giyani WTW refurbishment was finalized- contractor to commenced with works in January 2023
- The project is expected to be completed in 12 months



## 4. RETICULATION OF 24 VILLAGES (PHASE 1)

### Progress summary

- Project entails construction of reticulation to the 55 villages supplied by the Giyani bulk water project. Project implemented in phases and phase 1 will cover 24 of the 55 villages
- Business plans and technical reports for Phase 1 of the reticulation project (24 of 55 villages) approved by DWS
- Appointment of Mopani DM as implementing agent finalized and MoU signed
- Budget set aside through WSIG in the current financial year (2022/23) to start with implementation
- Contractors for 3 of the 24 villages aligned to the partially completed bulk pipeline are appointed to start with reticulation project- construction is expected to start in January 2023
- Procurement of contractors for reticulation of remaining 21 villages will be completed progressively by January 2023 - currently at Mopani DM BEC
- DWS regional office officials are participating in Mopani bid committees to ensure regularity
- Project is planned to be implemented in 12 months

# OLIFANTSPOORT /EBENEZER WATER SUPPLY SCHEME

- The Multi-year project entails designs, upgrade and refurbishment of the Olifantspoort and Ebenezer Water Supply Schemes (O&E WSS) bulk infrastructure to meet the 2036 water demands impacting areas in Polokwane, Seshego and surroundings
- The scope of the project includes:
  1. WP A: Olifantspoort weir and raw water abstraction works- Raising of the existing weir by 2.8 m and modifications to the existing raw water PS
  2. WP B: Olifantspoort off-channel storage dam and raw water mains
  3. WP C: Refurbishment of the Olifantspoort WTW
  4. WP D: Refurbishment of PS1, PS2 & PS3 pump stations.
  5. WP E: Upgrading of SPECON reservoir
  6. WP F: Duplicate rising main from Olifantspoort WTW(PS1) to SPECON
  7. WP G: Duplicate mains from SPECON to PS 2 & Witkos reservoir
  8. WP H: Duplicate mains from Witkos reservoir to PS 3 & Palmietfontein reservoir
  9. WP I: Refurbishment of the Ebenezer WTW
  10. WP J: Extension of gravity pipeline B to Mankweng reservoir off-take
  11. WP K Rehabilitation of the Megorong & Thakgalang river crossings
  12. WP L: Refurbishment of Ebenezer High Lift Pump Station
  13. WP M: Emergency Bypass 7km Specon Pipeline.
- PSPs Appointed in Multiple-phased Designs completed in October 2022
- Tender Advert in November 2022
- Refurbishment Construction to start in March 2023
- Construction start of Major Upgrade of Ebenezer & Olifants to start in Oct 2023 until June 2025

# MPUMALANGA

1. LOSKOP RBWS PROGRESS-CROSS BOUNDARY SCHEME  
MPUMALANGA AND LIMPOPO
2. LEKWA WATER SERVICES INTERVENTION PROJECTS

# LOSKOP RBWS PROGRESS-CROSS BOUNDARY SCHEME MPUMALANGA AND LIMPOPO

1. 3 out of 5 work packages awarded and established site (WP1,2&3)
2. WP 1 has obtained work permit from Dpt of Labour and have commenced with clearing and pegging. Pipe material ordered and Suppliers promised delivery at end of January (require manufacturing)
3. WP2P obtained work permit and pegging of the pipe route done and pipe material have been ordered and first delivery is expected in January
4. WP3 have established site though work permit not yet approved as additional information is required. Furthermore the Surety Guarantee (R30million) not in place and intention to terminate will be issued to contractor should Surety Guarantee is not provided by 15/12/2022
5. WP4 at appointment stage and expected to commence with establishment in January 2023 and construction started in Mid January 2023
6. WP5 tenders have closed but evaluation and adjudication not yet done and expected to be concluded in January 2023
7. First delivery of water is expected by May 2024 with full project completion expected in November 2024

# LEKWA WATER SERVICES INTERVENTION PROJECTS

The Minister Intervention for Lekwa in 21 July 2022 entailed the provision support in order to ensure that service delivery for communities of Lekwa is improved. The work entailed refurbishments of wastewater treatment works, repair and maintenance of civil services, reduction or leaks to reduce water losses.

- 19 projects were identified as priority projects, however 1 project (backup power) had to been withdrawn due to concerns raised by Municipality relating to operations (diesel)
- Some of the projects identified relate to Operation and Maintenance of water and sanitation infrastructure, as such the Department engaged National Treasury for repurposing of RBIG from Capex to Opex and approval was obtained
- Scoping report for all the projects have been compiled and approved
- WSIG Business plans, were developed, completed and signed in September 2022
- Tenders were issued for all the projects 19 work packages in October 2022
- Evaluation under way until end of February 2023
- Construction to Commerce in April 2023 and running for Multi-year on a 12-18 months periods

# NORTH WEST

1. BRITS BULK WATER SUPPLY
2. DINOKANA
3. PILANSBERG PHASE 2 AND 3

# UPGRADING OF THE BRITS WATER TREATMENT WORKS

During the past 5 years, this Brits plant has been struggling to meet the demand while deteriorating raw water qualities have placed an additional burden on the plant in trying to produce a final water quality adhering to SANS241 Class I standards. To provide additional water 75 373 households in the Madibeng Local Municipality.

## Scope:

Refurbishment of the Brits Water Treatment Works specifically focus on the improvement of the water quality and quantity to restore the plant from deteriorating ,bring it to origin capacity of 60MI/day .

Phase :intention is to upgrade the Brits plant from a 60 MI/day to an 80 MI/day, upgrading of the process trail to enable the plant to treat deteriorating water quality and quantity

## The project is being implemented in phases:

- Phase 1: Refurbishment of the Brits Water Treatment Works- **Completed**
- Phase 2: Upgrading of the raw water pump station (mechanical & electrical works)- **Completed**
- Phase 3: Upgrading of the Brits WTW from a 60 MI/day to a 80 MI/day including process trail. **(in Progress)**
- Phase 4: Upgrading of the raw water pipeline and the distribution pipeline to the command reservoirs **(in Progress)**.

The Project started 2014 in Mutli-year funding and is due for completing in June 2023

# DINOKANA PROGRESS REPORT

The scope of work includes drilling and refurbishment of boreholes, installation of storage tanks, extension of reticulation lines and installation of communal standpipes in Dinokana. The scope will also cover authorisation of unauthorised connections.

- **Part 1** of the project will have impact to 21 468 people and 5 367 households. The sections within Dinokana are as follows: Ward 09 (Puana & Boroathamadi), Ward 10 (Mmamosane, Ga-Seane & Ga-Raa Molefi), Ward 11 (Marwala, Go-Mokgatlha Ching, Kgabalatsane, Mmamosane Upper, Part of Go-Mokgatlha, Seferella & Boswelakgomo), Ward 12 (Lepelle, Kgopung, Letlhabile & Mandela)
- **Part 2** consist of 14 630 people and 3 659 households. The sections within Dinokana are as follows: Ward 09 (Ratsara, Maramaga, Gopane & Rakoko), Ward 10 (Ga-Sekhutlo), Ward 11 (Goora Molebatsi, Thubang, Pookate & Matshogo), Ward 12 (Matsogo, Perdevlei & Mandela).

Part 1\_Progress: PSP Appointed, Construction to Start in April 2023

Part 2\_ Long-term entails the implementation of Dinokana eye water scheme by augmenting WTW, command reservoirs and reticulation. Work under planning and to be implemented by Magalies Water in the 3<sup>rd</sup> Quarter of 2023 to run for 18-36 months



# PILANESBERG SOUTH PHASE 2 BWSS MAFENYA TO TLHABANE RESERVOIR

**Location:** North West, Rustenburg Local Municipality

## **Project description:**

- The project entails construction of a 30Mℓ Tlhabane Reservoir
- A pump station at Mafenya and
- A pipeline that takes water from the existing 50Mℓ reservoir to Tlhabane reservoir.

Pilanesberg Phase 2 BWSS is composed of two parts which are

## **Project Scope:**

1. Construction of a 30 Mℓ Tlhabane Reservoir (Completed)
2. Construction of a pump station at Mafenya Reservoir (On-gOING)
3. Construction of a 28km pipeline that connects Mafenya and the new Tlhabane reservoir (Estimated completion- March 2024)

Project has a projected impact of at least 65 000 households under Moses Kotane Municipality, Rustenburg Municipality, Kgetleng Munciality

The project is a multi-year and multi-phased projects that started in 2016 will run until 2026.

# 3. PROCESSING OF WATER USE LICENCES

# ERADICATION OF WULA BACKLOGS

- The DWS achieved a significant progress in clearing although it did not finalise all WULA backlogs by 30 June 2022.
- As of 30 June 2022, the Department had reduced the WULA backlogs from 998 to 186 (reduced the backlogs by 81 %).
- The outstanding backlogs were finalized on 10 Feb 2023

REGION /CMA	BASELINE (SONA)- 1 FEB - 22	FIN. YEAR START- 14 APR -22	(SONA TARGET) -30 JUN-22	22 DEC 2022	10 FEB 2023
EC	26	17	6	0	0
FS	38	11	5	0	0
NC	97	61	6	0	0
GP	76	69	45	0	0
KZN	90	58	4	0	0
LP	58	34	4	0	0
NW	80	47	8	3	0
MP	118	63	13	0	0
IUCMA	44	12	0	0	0
WC	353	303	95	2	0
BGCMA	18	7	0	0	0
<b>Total</b>	<b>998</b>	<b>682</b>	<b>186</b>	<b>05</b>	<b>0</b>

# PROGRESS TOWARDS FINALISING LICENSE APPLICATIONS WITHIN 90 DAYS

- The Department is currently finalizing 70% of the water use applications within 90 days.
- The Department is aiming to come close to achieving the processing of 100% of applications within 90 days in the 2023/24 financial year. This will be achieved through increasing the capacity of the regional offices to process applications:
  - Additional posts created on the organizational structure
  - Positions were advertised in January 2023. Recruitment process to be finalized by March / April 2023.
- A number of interventions have been progressively rolled out towards ensuring that license applications are finalized within 90 days.
  - The next slide reports on the progress on implementing the performance improvements initiatives.

# PROGRESS ON IMPLEMENTING PERFORMANCE IMPROVEMENT INTERVENTIONS

INTERVENTION	STATUS	DEADLINE
Establishment of Water Use Authorization Components (revised DWS organizational structure)	Complete	
Filling of vacant posts	In progress	31 March 2023
Enhance the E-WULAAS to include performance monitoring and escalation system	Complete	
Implement a comprehensive training programme for DWS officials	Complete	
Improve the quality of licence conditions (revision and rollout of new templates)	Complete	
Develop and implement a template to source of a summary of application and reports from the applicant	Complete	
Publishing of WULA information requirements in E-WULAAS	In progress	31 March 2023

## **CONCLUSIONS REGARDING IMPROVING WATER USE LICENSING PROCESSES**

- The Department managed to clear the WULA backlogs announced during the SONA announcement in February 2022.
- The Department has been progressively implementing a number of continuous improvement interventions to ensure that the processing of license applications within the 90 days period is significantly improved from the 2023/24 financial year.
- This include the appointment of additional dedicated technical human resources in the Regions

## 4. Interventions and actions taken by DWS to manage the flood events

- Since early 2023, South Africa has experienced flood incidents which have caused devastating impact in Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga and the North West provinces
- The occurrence of flood incidents has been classified as a national disaster on 13 February 2023 using Section 23 (1)(b) of the Disaster Management Act, 2002 (Act 52 of 2002)
- Dam management
  - The Department is operating all the large state dams according to its operating rules for flood conditions which generally implies that discharges are increased according to recorded inflows due to higher run-off.
  - This allows dams to be used to attenuate peak floods, however, this capability decreases when high flow conditions are prolonged. This then implies that spillway discharges are dictated by the peak flow conditions.
  - In such instances, the Department liaises with local authorities to warn downstream communities.
- For damaged municipal water and sanitation infrastructure:
  - DWS officials have been deployed on the ground to do flood damage assessments.
  - DWS will support affected municipalities in terms of participating during the JOC's providing technical assistance.

**Note: Information on the Department's ongoing role in the reconstruction of flood damage from the April 2022 floods in KZN is provided in Annexure D.**

# Thank you





# **ANNEXURE A: ADDITIONAL INFORMATION ON MAJOR NATIONAL WATER RESOURCE INFRASTRUCTURE PROJECTS IN THE PLANNING PHASE**

# 1. MANGAUNG WATER AUGMENTATION PROJECT: XHARIEP PIPELINE

## PROJECT DESCRIPTION:

The proposed Xhariep Pipeline is required for augmentation of the Greater Bloemfontein Water Supply System supplying water to Bloemfontein, ThabaNchu and Botshabelo and surrounding smaller urban centres. The pipeline draws up to 60 million m<sup>3</sup> per annum from Gariep Dam

## STATUS:

The Technical Feasibility Study commenced in Nov 2022.

PROVINCE: Free State

## JOBS IMPACT:

Opportunities for job creation to be determined.

## PROJECTED COST TO COMPLETION:

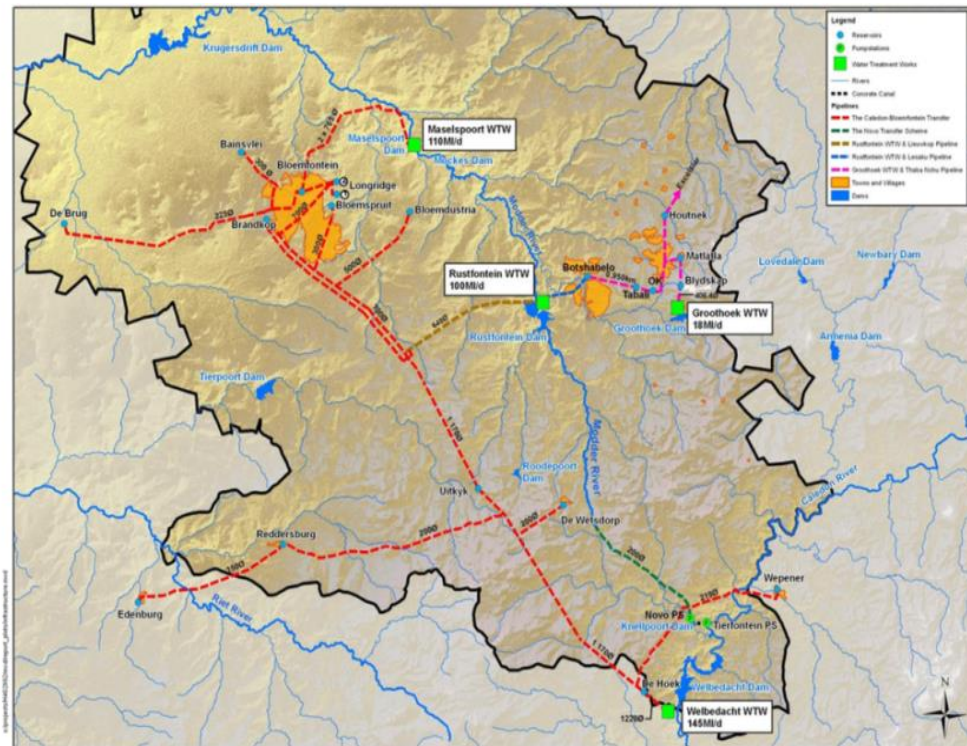
Construction cost is estimated to be R9 billion.

## PROJECT SCOPE:

Treatment works, pump stations and pipeline to transfer water from Gariep Dam on the Orange River to the Greater Mangaung Metropolitan and surrounding urban centres.

## PROJECT SCHEDULE:

- Technical Feasibility Study completion in 2023/24
- EIA Study completion in 2024/25
- Detailed design completion in 2025/26
- Construction completion in 2027/28



## RELATED ISSUES/ CHALLENGES:

- Mangaung and Bloem Water undertook some planning investigations independently of each other and independently of DWS.
- This work needs to be confirmed and aligned with national perspective in the ongoing Xhariep Pipeline Feasibility Study.
- DWS assisting the PSP to obtain information from previous studies for the ongoing Xhariep Pipeline Feasibility Study. This is unexpectedly proving to be a challenge.

## 2. Lower Orange River Project: Noordoewer / Vioolsdrift Dam (NVD)

### PROJECT DESCRIPTION:

The proposed Noordoewer/Vioolsdrift Dam is a re-regulating dam on the Lower Orange River on the common border with Namibia. Releases from the upstream Vanderkloof Dam travel a long distance to reach the river mouth and a significant amount of water is lost to transmission losses along the way. Over the years, it has been difficult to synchronize the releases with downstream requirements due to the long distances over which water flows. Flow re-regulation is required to release water for the downstream users at a time the water is needed. The project is a joint undertaking between RSA and Namibia.

### STATUS:

A Technical Feasibility Study was completed in 2020. Procurement for a PSP to undertake a Bridging Feasibility Study and EIA Study is underway jointly coordinated with Namibia under the auspices of the Permanent Water Commission (PWC).

### PROVINCE:

RSA: Northern Cape, Namibia: Karas Region.

### JOBS IMPACT:

Direct construction jobs are to be determined in the Bridging Study.

### PROJECTED COST:

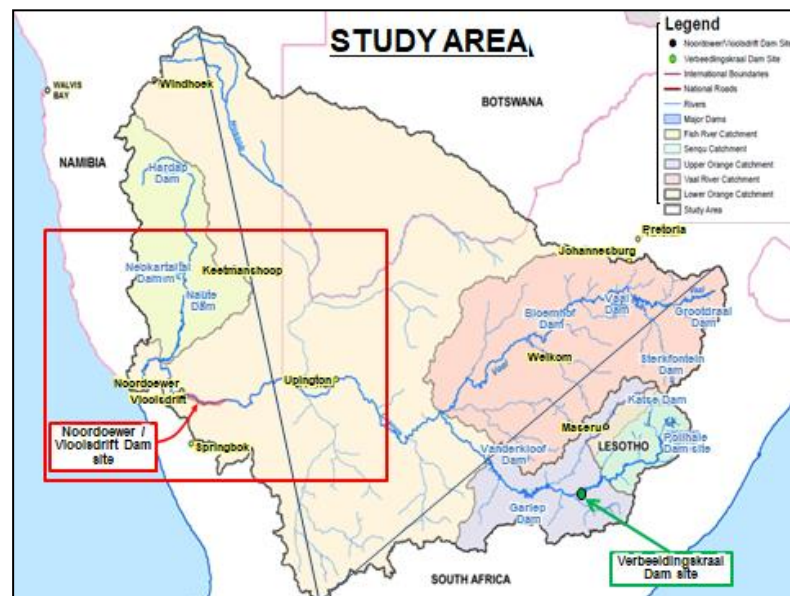
Construction cost is estimated to be around R10 billion, depending on dam size finally selected. RSA to contribute about 50% of total cost.

### PROJECT SCOPE:

Vioolsdrift Dam required to replace the yield lost through LHWP II, to compensate for the impact from the implementation of the Reserve, to re-regulate flows to the estuary and to provide additional system yield.

### PROJECT SCHEDULE:

- Bridging Feasibility Study completion 2024/25.
- EIA Study completion in 2024/25.
- Detailed design completion in 2025/26.
- Construction completion in 2029/30.



### PROGRESS:

- Technical Feasibility Study was completed in May 2020.
- Negotiations with Namibia underway to define scope of work and funding arrangement for Bridging Feasibility Study.
- Project was listed as a priority project by SADC PIDA-PAP 2.

### RELATED ISSUES/ CHALLENGES:

- PWC to approve scope of work and funding arrangements and commission the Bridging Feasibility Study.
- Donor funding is being solicited.
- Water sharing and operational agreements must be concluded between South Africa and Namibia.
- Further planning work is required, mainly to finalise the technical, legal and institutional aspects and to obtain environmental authorization for the proposed water resource development.

# 3. PROPOSED BULK CONVEYANCE INFRASTRUCTURE FROM THE RAISED CLANWILLIAM DAM

## **PROJECT DESCRIPTION:**

In addition to the ongoing raising of Clanwilliam Dam wall, conveyance infrastructure is required to supply both existing and new irrigation. The proposed bulk conveyance infrastructure is required for upgrading of existing canal system and equitable distribution of the additional water from the raised Clanwilliam Dam to establish emerging farmers (resource poor farmers).

## **Status:**

A Technical Feasibility study is completed. Procurement for the Environmental Impact Assessment (EIA) Study is underway. Development will be done in phases.

**Province:** Western Cape, Clanwilliam

## **Jobs impact:**

Direct construction jobs are estimated to be 1 500 jobs and direct jobs during the operational phase are estimated to be 10 900.

## **Projected cost to completion:**

Construction cost for the bulk conveyance infrastructure from the raised Clanwilliam Dam is estimated to be R2.5 billion.

## **Project Scope:**

- Jan Dissels Scheme close to and the west of Clanwilliam Town and measuring some 462 hectares
- The Right Bank Canal Scheme stretching from Bulshoek Weir to Verdeling (close to Vredendal) and measuring some 2 339 hectares
- The Ebenhaeser Scheme diverts flow from the end of the Vredendal left bank canal section and supplies restitution farms close to the Ebenhaeser Community. The scheme measures some 361 hectares
- Individual farmer abstractions at Clanwilliam (298 ha), Zandrug (1 209 ha), Bulshoek (266 ha), Klawer Phase 1 (412 ha), Klawer Phase 2 (438 ha), and Coastal Area (89 ha).

## **Project Schedule:**

- EIA Study completion expected during 2025/26
- EIA authorisation and funding approval during 2025/26
- Detailed design completion during 2026/27
- Construction completion in 2033.

## **Progress & Challenges:**

- Expropriation of land to establish emerging farmers to be undertaken.
- Joint ventures between commercial farmers and emerging farmers to be considered as a development option.
- Selection criteria for selecting emerging farmers have been developed but the selection process still needs to be conducted.
- Financial and technical support is required for emerging farmers from DWS, Department of Agriculture, Land Reform and Rural Development as well as from WC Department of Agriculture.

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## 4. ALGOA WATER SUPPLY SYSTEM AUGMENTATION: COERNY BALANCING STORAGE DAM

### **PROJECT DESCRIPTION:**

Transferred Orange River water is diverted from Korhaansdrift Weir into the Kirkwood primary canal. The canal discharges into Scheepersvlakte Balancing Dam. The capacity of Scheepersvlakte Dam is not sufficient to meet peak water requirements of the Algoa System. The proposed Coerney Balancing Dam is required to increase assurance of supply to the Nooitgedagt water treatment works that supplies Nelson Mandela Bay Metropolitan.

### **Status:**

The Technical Feasibility Study for the proposed Coerney Dam is completed. An Environmental Impact Assessment (EIA) Study is underway with a completion date of September 2023. The project has been declared by Minister as an emergency project. Detail design is therefore being undertaken in parallel with the planning process

**Province:** Eastern Cape; Kirkwood

### **Jobs impact:**

Direct jobs created during construction of the balancing dam and pipeline are estimated at around 800 jobs.

### **Projected cost to completion:**

Construction cost for the Coerney Dam is estimated to be R520 million

### **Project Scope:**

- Identify and evaluate options to reduce risk of shortfall in water supply to the Nooitgedagt WTW.
- Appraise the recommended option at a feasibility level of detail and ensure its environmental authorisation.
- Undertake a detail design of the recommended option (Coerney Dam).
- Arrange funding and undertake construction of the recommended solution (Coerney Dam)

### **Project Schedule:**

- EIA Study completion in 2023/24
- Detailed design completion in 2024/25
- Construction completion in 2028.

### **Progress & Challenges:**

- EIA Study is underway
- Consent is required from affected landowners. Consent from one of the landowners was a challenge but this has now been resolved. The programme has been delayed because of this
- The Scheepersvlakte farmers, affected by the dam footprint, have expressed interest to participate in the operation of the dam. Appropriate institutional arrangement will need to be developed for approval by DWS.
- Not easy to accelerate tasks as EIA process is regulated by NEMA Act, 1998 (Act No. 107 of 1998)
- Any appeals lodged against the project have the potential to delay implementation of this emergency scheme.



## 5. WESTERN CAPE WATER SUPPLY SYSTEM: BREEDE-BERG (MICHELL'S PASS DIVERSION) TRANSFER SCHEME

### **PROJECT DESCRIPTION:**

The proposed Breede-Berg Water Transfer Scheme (BBTS) is an inter-basin transfer scheme based on diversion of surplus winter water from the upper Breede River and transferring the water to the Klein Berg River from where water is further transferred to the Voëlvlei Dam in the Berg River catchment. The scheme is planned to augment the Western Cape Water Supply System that supplies the City of Cape Town Metropolitan Municipality and surrounding smaller urban centers.

### **Status:**

A Technical Feasibility Study for the proposed project is in progress.

### **Province:**

Western Cape; Breede River and Berg River catchments.

### **Jobs impact:**

Direct construction jobs are to be determined in the feasibility study.

### **Projected cost to completion:**

Construction cost for the BBTS Scheme is estimated to be R5 billion.

### **Project Scope:**

- Diversion weir on the upper Breede River next to Artois Canal diversion.
- Pipeline from the Breede River to Klein Berg River from which water is transferred further to Voëlvlei Dam (Alternative A alignment).
- Boontjies Dam on the Boontjies River to store surplus winter water (Alternative B alignment).
- Upgrading of Papenkuils Pump Station to restore the yield of the Brandvlei Dam affected by the upstream diversion.
- Raising of Voëlvlei Dam wall – Confirmation of capacity required to store the water transfer and determination of height of dam wall raising.
- Klein Berg River Canal – Confirmation of canal capacity as well as capacity of inlet and outlet works. Feasibility design of betterment works.
- Access roads, power supply, land acquisition and servitudes.

### **Project Schedule:**

- Feasibility Study completion in 2023/24.
- EIA and funding approvals in 2025/26.
- Detail design completion in 2027/28.
- Construction completion in 2029/30.

### **Progress & Challenges:**

- Procurement of rainfall data from SAWS has been delayed. In progress.
- Procurement of specialist services (topographical survey, and geotechnical investigations) will need approval of additional funds .
- Procurement of specialist services on this study is affected by the absence of Provisional Sums on the contract. This is being addressed with Supply Chain Management.
- Study has suffered a 9-month delay due to budget shortfall.

# 6. Crocodile (East) Water Project: Construction of a Dam for Mbombela and Surrounds

## **PROJECT DESCRIPTION**

The project entails the development of a new dam and associated works to meet the long-term water requirements of the Crocodile (East) River Catchment, including additional water supply to Mbombela and surrounding areas.

**Province:** Mpumalanga

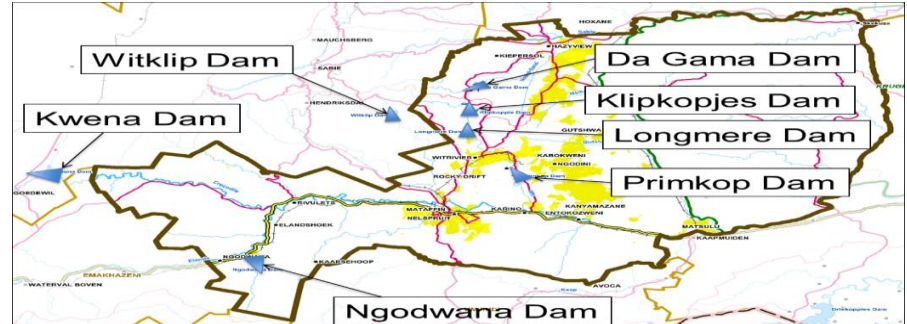
## **Project Scope:**

Three (3) dam sites on the Crocodile River have been recommended by the Mbombela Reconciliation Study for further detailed investigations. These are Boschjeskop Dam on the Nels River, the Mountain View Dam on the Kaap River and Strathmore Dam, an off-channel storage near the confluence of the Kaap and Crocodile Rivers. Mountain View Dam or Strathmore Dam could make more than 50 million m<sup>3</sup>/a of additional water available (after meeting the Ecological Reserve); these dams have been identified as the best options to investigate in a feasibility study.

## **Scope of Works:**

Pre-feasibility Study to confirm the most appropriate dam to be investigated at feasibility a level of detail.

Technical Feasibility Study of the recommended dam site  
Environmental Impact Assessment of the recommended dam site, Decision phase to secure funding and agree on institutional arrangements, Final designs and tendering, Preparatory work and Construction of the recommended dam and the associated works.



## **Project Schedule:**

- Feasibility Studies to start in 2022 to 2024/25
- Environmental Authorisation expected by December 2024
- Record of Implementation Decisions (RID) scheduled for August 2025
- Financial and Institutional Arrangements 2023 to 2025
- Construction 2027 to 2030

## **Status:**

- Procurement of PSP concluded
- Inception meetings for the technical study and the EIA took place

## **Projected cost to completion:**

- Approx. R2.5 billion

## **Progress & Challenges:**

- Agreements between end users and internationally affected parties required
- Approvals of project (environmental, ministerial, etc.)
- Securing project funding
- Agreement on the institutional arrangements for the Project to be decided based on the planning work
- Procurement model for construction to be decided

# 7. Development of Water Supply System for Musina area: Mutale Dam and/or Musina Off-Channel Storage Dam and Associated Works

## PROJECT DESCRIPTION

The proposal entails the development of a dam on the Mutale River (Mutale Dam) and associated works or an Off-Channel Storage Dam Scheme on the Sand and Limpopo Rivers near Musina for the planned industrial and domestic water use expansion in Musina and surrounding areas.

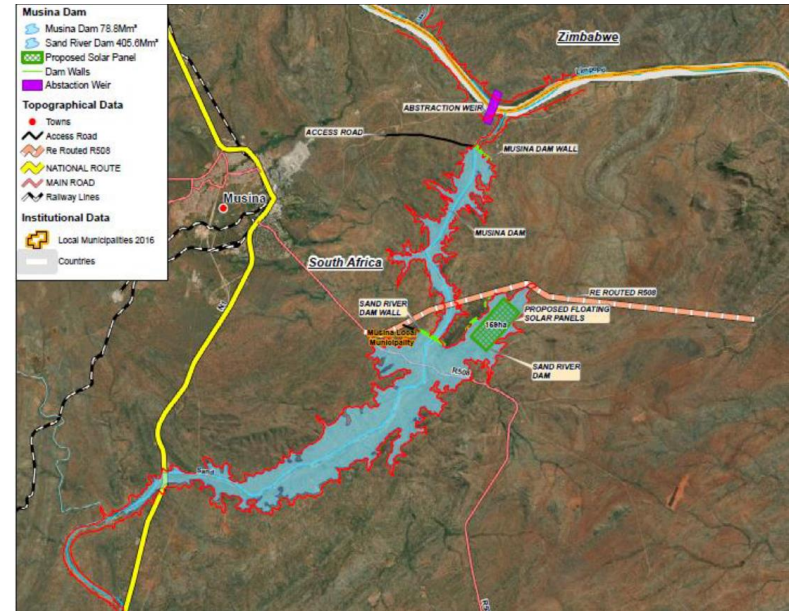
**Province:** Limpopo

### **Project Status:**

Pre-feasibility and feasibility study stage.

### **Scope of Works:**

- Planning work to a feasibility level of detail
- Environmental authorization of the recommended dam
- Institutional and funding arrangements for the project
- Detail Design and tender process
- Construction of the approved project



### **Project Schedule:**

- Pre-Feasibility Study: 2023/24
- Feasibility Study: 2024/25
- Decision Support Stage: 2025/26
- Detail Design/Tender Stage: 2025 – 2027
- Construction : 2025 - 2030

### **Estimated Project Capital Cost:**

R10 Billion



# 8. Mfolozi Water Project Phase 1: Raising of Klipfontein Dam

## PROJECT DESCRIPTION

Water resources development project (new dam) to meet the long-term water requirements of the Mfolozi River Catchment. The Mfolozi River consists of two main tributaries, the Black and White Mfolozi, both of which rise on the eastern escarpment of the Drakensberg Mountain range and flow eastward across the Zululand coastal plain before discharging into the Indian Ocean. The mean annual runoff (MAR) from the Mfolozi River is estimated to be 962 million m<sup>3</sup>/a. It is therefore anticipated that there is scope to raise Klipfontein Dam to increase water availability to the users.

**Province:** KwaZulu-Natal

## Project Scope:

The water resources of the Mfolozi River catchment are mostly undeveloped. The Klipfontein Dam, with a capacity of 18 million m<sup>3</sup>, is situated in the upper reaches of the White Mfolozi River near Vryheid. This water resource, together with the smaller Bloemveld and Grootgewaagd dams, provide water to the town of Vryheid and the surrounding area. Klipfontein Dam also supplies water for irrigation and they supplement water supply to Ulundi. The proposed development entails planning, design and construction activities for the raising of Klipfontein Dam and construction of associated works.

## Scope of Works:

- Feasibility Study to confirm the most appropriate dam to be investigated at feasibility a level of detail.
- Environmental Impact Assessment of the recommended dam site.
- Compiling of final designs and scope of work for contractor to raise the Klipfontein Dam
- In order to expedite the implementation of the project, planning and design is proposed to be under one contract which will be overseen by Planning and Infrastructure Development Units of DWS.



## Project Schedule:

- Pre-Feasibility Study: 2023/24
- Feasibility Study: 2024/25
- Environmental Authorisation expected by 2025
- Record of Implementation Decisions (RID) scheduled for August 2025
- Financial and Institutional Arrangements by 2026
- Construction: 2025-2027

## Status:

- Drafting of ToR for the appointment to appoint an Engineering Consultancy to undertake feasibility planning and detail design in progress

## Projected cost to completion:

- Approx. R500 million

## Progress & Challenges: 57

- Procurement processes need to be fast tracked
- Supporting personnel

# ANNEXURE B

## ADDITIONAL MAJOR WATER RESOURCE INFRASTRUCTURE PROJECTS IN THE IMPLEMENTATION PHASE

## ADDITIONAL STRATEGIC PROJECTS UNDER IMPLEMENTATION

Project	Description	Status	Est. Budget	Next Step
<b>Coerney Dam</b> <i>(Eastern Cape)</i>	<p>The purpose of the dam is to provide a balancing facility for water supply to the Nooitgedagt Water Treatment Works (WTW), which supplies potable water to the Nelson Mandela Bay Municipality (NMBM) supply area.</p> <p>This project is necessary to reduce the risk of failure of water supply to Nelson Mandela Bay Municipality (NMBM).</p> <p>The Coerney Dam project has been declared as an Emergency Works by the Minister. The project comprises the proposed Coerney Dam and associated conveyance infrastructure.</p> <p>The Kirkwood canal supplies water to the Lower Sundays River Government Water Scheme (LSRGWS).</p> <p>The Dam will be filled via a new supply pipeline from the Kirkwood canal.</p> <ul style="list-style-type: none"> <li>• A new intake structure is proposed upstream of the existing weir near Scheepersvlakte Dam.</li> <li>• The Coerney Dam will supply the Nooitgedagt WTW under gravity via a new connecting pipeline.</li> </ul>	Advertised for external PSP Bid close: 31/01/2023 Expected appointment of PSP: 31/03/2023	R645 970 Estimated by escalating feasibility rates.	Detail Design by external PSP.

## ADDITIONAL STRATEGIC PROJECTS UNDER IMPLEMENTATION

Project	Description	Status	Est. Budget	Next Step
<b>Zalu Dam</b> <i>(Eastern Cape)</i>	<p>The Zalu Dam project involves the construction of a storage dam with a yield of 6.85 million m<sup>3</sup>/a on the Xura River at the Zalu site approximately 10km north-west of the town of Lusikisiki, and water distribution infrastructure to supply water for domestic use and irrigation to the town of Lusikisiki and surrounding villages.</p>	<p>Design Stage (65%)                      Geotechnical Investigation Tender closed on the 27/01/2023.                      investigation team expected to be appointed by the 24/03/2023</p>	R 957 894 737	<p>Geotechnical Investigation to be conducted to provided crucial information to proceed with the design work.</p>
<b>Foxwood Dam</b> <i>(Eastern Cape)</i>	<p>The project involves the construction of a new composite concrete gravity and earth embankment dam on the Koonap River and associated infrastructure to augment the water supply to Adelaide and bulk water supply for irrigation to resource poor farmers. The dam capacity of 55 million m<sup>3</sup>, with a dam wall of a maximum height of 48 m.</p>	Pre-Design Stage	R 2 169 298 246	<p>Internal Engineering Services appointed as design engineers.</p> <p>DWS was approached by potential private funders, interested to partner, but details are yet to be discussed.</p> <p>No internal capacity to perform the design work from Engineering Services. External Service providers are to be invited through Bid Document by 31/03/2023</p>

# ANNEXURE C

## ADDITIONAL WATER SERVICES PROJECTS

# EASTERN CAPE

- NGQAMAKHWE RWSS
- NDLAMBE BWS PROJECT
- BUCKET ERADICATION PROJECT

# NGQAMAKHWE RWSS PHASE 5A PROJECT

## Project Description

- To develop the most appropriate regional water supply for Ngqamakhwe, Butterworth, Centane and villages.
- To provide bulk water infrastructure to supply approx 78,000 people in 120 rural villages (wards 13-20 of Mngquma Municipality) with domestic water.
- Project Scope:
  - Phase 5A
  - 1 x Pump Station opposite the Tsomo WTW
  - 1 x Electrical and Mechanical pump installation
  - 1 x Suction Reservoir at the new Pump Station
  - 17 km 66 KVA Eskom power supply
  - 18.5 km rising main, 700 mm diameter steel pipeline
  - Phase 5B
  - 7.5 ML Concrete Reservoir
  - 23 km Gravity Bulk line, 450 mm diameter
  - 3 x Pipe Road crossings
  - 6 x River/ Donga

## Expenditure / Progress:

- 2022/23 FY Budget allocation – R207 million, revised to R80 million
- Accumulated expenditure – R 30 551 639,99

## Progress/Issues:

- Phase 5A: Overall progress was 14% when the DWS CU was terminated.
- 9,4 km/9 452m length of pipes have been manufactured and remain stored at the Supplier yard.
- About 6,12 km/6120 m of pipes are ready for delivery while the balance is undergoing coating and final checks.
- The PSPs for Phase 5B & 5C have been appointed in January 2022 and are currently busy with the detailed designs.
- The proposal of acquiring land rights for the pipeline route through a process of approaching the high court has been submitted to ADM by the PSP
- Connected issues:
  - ADM started the re tender process after the termination of DWS CU for Ngqamakhwe RWSS Phase 5A. The re-tender process which closed on 05 September 2022 was cancelled before the evaluation due to incorrect CIDB grading advertisement.
  - ADM re started the new tender process and will be closing on the 30 January 2023.
  - The appointment is anticipated before the end of February 2023

# STATUS QUO OF WORK PACKAGE (PHASE 5A) - NGQAMAKHWE

Project Milestones	Work Package 1 Planned Milestones	Work Package 1 Progress
Re Tender	29/11/2022	<b>Done</b>
Tender closing	30/01/2023	<b>Bids closing on 30/01/2023</b>
Pre – qualification	1-8/02/2023	<b>Pre-qualification of bidders still to be done</b>
BEC Meeting	10-14/02/2023	Not done yet
BAC Meeting	15/02/2023	Not done yet
Issuing of the Contractor's Appointment letter	17/02/ 2023	Not done yet
Contractual Obligations (14 Days)	17/02 - 03/03/2023	Not done yet
Application for Construction Work Permit (Maximum of 30 Days) and Mobilization Period	17/02 – 17/03/2023	Not done yet
Site Establishment	18/03/2023	Not done yet
Project Commencement (Construction Activities)	19/03/2023	Not done yet
<b>Practical Completion</b>	28/08/2025	Not done yet



# NDLAMBE BWS PROJECT

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## Project Description

The development of the Central Belt borehole field near Port Alfred, which includes the establishment and commissioning of the boreholes , the raw water pipeline from the field to Port Alfred, The construction and commissioning of the 5 Ml/day Port Alfred RO-plant and 16 Ml reservoir, including the brine sea outfall pipeline, the construction of 2Ml reservoirs in Cannon Rocks and Alexandria and construction and commissioning of two pump stations in Cannon Rocks and Fishkraal, and the construction of new pipelines between Cannon Rocks and Fishkraal and between Fishkraal and Alexandria

## Projected cost to completion

Projected cost to completion: R879 million (entire Ndlambe BWS)

Allocation for Quick wins: R370,426 million

New budget is still to be determined due to escalation and damages to the plant.

## Target for completion

Latest estimated completion date: end 2023 calendar year

# NDLAMBE BWS PROJECT PROGRESS

Milestone	Description	Progress
Contract 1	quick wins: ground water supply from the central belt for Port Alfred: civil works	100% complete
Contract 2	Port Alfred Brine Pipeline - Civil Works	100% complete
Contract 3	Port Alfred 16MI Reservoir & RO-Plant – Civil Works	
Contract 4	Pipe Material Contract	100% complete
Contract 5	Water Supply from Cannon Rocks to Alexandria: Structural Works	100% complete
Contract 6	Water Supply Cannon Rocks to Alexandria – Civil AW2011/14	99% constructed
Contract 7	Water Supply Cannon Rocks to Alexandria – Civil AW2012/15	99 % constructed, still to be tested and commissioned
Contract 8	Port Alfred RO-Plant – Mechanical & Electrical Works	99% complete not commissioned wait for pipelines
Contract 9	Port Alfred RO-Plant – Mechanical & Electrical Works	71% complete (Contractor terminated contract)
Contract 10	Port Alfred Sea Outfall – Marine Works	100% complete

# NDLAMBE BWS PROJECT PROGRESS

Milestone	Description	Progress
Contract 1	quick wins: ground water supply from the central belt for Port Alfred: civil works	100% complete
Contract 2	Port Alfred Brine Pipeline - Civil Works	100% complete
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Contract 6	Water Supply Cannon Rocks to Alexandria – Civil AW2011/14	99% constructed
Contract 7	Water Supply Cannon Rocks to Alexandria – Civil AW2012/15	99 % constructed, still to be tested and commissioned
Contract 8	Port Alfred RO-Plant – Mechanical & Electrical Works	99% complete not commissioned wait for pipelines
Contract 9	Port Alfred RO-Plant – Mechanical & Electrical Works	71% complete (Contractor terminated contract)
Contract 10	Port Alfred Sea Outfall – Marine Works	100% complete

# NORTHERN CAPE

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- DANIELSKUIL WWTW

# 1. Danielskuil WWTW

<b>Feasibility study</b>	: Danielskuil wastewater treatment works
<b>Province</b>	: Northern Cape
<b>District Municipality</b>	: ZFM District Municipality
<b>Local Municipality</b>	: Kgatelopele Local Municipality
<b>Project Location</b>	: Danielskuil
<b>Description of Scheme</b>	: To address the insufficient capacity of the Waste Water Treatment Works (WWTW) and bulk sewer system
<b>Project Ref. No.</b>	: NCR051-Danielskuil WWTW
<b>Feasibility Study Date</b>	: 17 November 2022
<b>Date received by DWS</b>	: 17 November 2022
<b>Number of people to be served</b>	: 17 594
<b>Number of households</b>	: 4 256
<b>Total cost of scheme</b>	: R 247 015 397,84 Incl. VAT
<b>Cost per household</b>	: R 58 039

## PROGRESS ON PLANNING FOR DANIESKUIL WWTW - NC

DANIESKUIL WWTW - NC		
Project Milestones	Work Package 1 Planned Milestones	Work Package 1 Progress
• Feasibility Study (FS)	• Approval of FS	Approved Dec 2022
• Implementation readiness Study (IRS)	• Approval of IRS	December 2023
• Environmental Impact Assessment (EIA)	• Records of Decision	Not yet done
• Land Agreement	• Servitude agreements	Not yet done
• Water Services Development Plan (WSDP)	• WSDP	Not yet done
• Water Conservation and Demand Management Plan	• WC&WDM Plan	Not yet done
• Co –funding confirmation	• Funding agreement	Not yet done
• WULA – Water Use Licence Application	• WULA	Not yet done
• Operations and Maintenance Plan	O&M Plan	Not yet done
• Funding to finalize IRS	Budget R8m	Submission processed requesting funds

# BUCKET ERADICATION PROJECT

- A total of 7 Projects in the Free State and 1 project in the Northern Cape Province remain to be completed with a total of 10 798 bucket toilets
- Contractors are appointed for all projects in Free State and the DWS is striving for all of these to be completed by end March 2023
- Appointment of the contractor is pending for one project in the Northern Cape (Campbell)
- Generally slow progress on site, challenges include interference of the SMME's demanding a stake in the project, unexpected very high water tables, changes to the designs mid-construction, local labour disputes, procurement for goods and services for Construction Unit.
- DDG: WSSM intervened and convened a meeting with contractors for on the 11/10/2022 and on the 07/11/2022. At the meetings the contractors were requested to develop acceleration plans to ensure completion of the projects by March 2023 (except Campbell).
- The latest Green Drop Scores for the WWTWs are as follows: Arlington – 53%, Petrus Steyn – 33%, Reitz – 46%, Clocolan – 24%, Ficksburg -14%, Senekal – 35%, Dealesville – 46%.
- This shows the WWTW are performing poorly and would require targeted interventions towards gradual improvement. BEP projects will not be able to flush until such time as the WWTW are attended to, so as to accommodate the additional load from the households where the buckets are eradicated.

# ANNEXURE D

## KZN STORM DAMAGE RECOVERY PROGRESS REPORT





# UMGENI WATER AQUEDUCTS

- Kwa-Zulu Natal received in the region of 200mm-400mm of rain in a 24 hour period over the dates of 11<sup>th</sup> and 12<sup>th</sup> of April 2022
- Equivalent to 4 x monthly average
- Second round of flooding during 21/22 May 2022 which also resulted in further damage
- Umgeni Water aqueducts conveying raw water to Durban Heights Water Treatment works washed away in several places reducing the water supply to the works to by 260 MI/day

BREAK	AQUEDUCT 1	AQUEDUCT 2	SIPHON/ COMMENT	BREAK LENGTH (m)
1	X	X	7/ Upstream of Inanda Dam	2*50m
2	X	X	7/ Near Inanda rising Main X-connection	2*50m
3A	X	X	8 / Inanda flats	2*40m
3B	X	X	8 / Inanda flats	2*50m
3C	X	X	8 / Inanda flats	2*65m
4 A/B/C	X	X	9 / Molweni Tunnel outlet, severe erosion	2* 1000m

# NAGLE QUEDUCTS 1 & 2 STATUS QUO

- During repairs water pumped from Inanda reducing the deficit to approx. 70 Ml/day
- The planned commissioning date of 22 December for Nagle Aqueduct No.01 was successfully achieved
- 93 Ml/day is currently being conveyed to Durban Heights through Aqueduct No.01
- Commissioning of June 2023 for Aqueduct No.02 is on track
- Inanda Dam pump station is scheduled to be recommissioned by the end of February 2023

# TONGAAT WATER TREATMENT PLANT

- Tongaat WTP Design capacity 21 ML/day, was producing 16ML/day
- Commissioned 26 October 2022



WATER IS LIFE - SANITATION IS DIGNITY



# CURRENT STATUS OF TONGAAT WTW

Tongaat WTW producing water and quality standards met

- Commissioning challenges experienced
  - Hambanathi area demand higher than pre flood and, thus restoration of the existing pump didn't meet the required demand resulting in some areas not getting water. Decision made to install 2<sup>nd</sup> pump and run in parallel. Commissioned on 17 Jan 2023 and everyone getting water
  - Pumping to Belvedere/Emona Pipeline - Emona off take experienced numerous bursts as the pipeline was old. New pipeline has been laid and commissioned
  - Tongaat South experiencing interruptions due to various burst on that trunk main. Plan is to relay this trunk main in future.
  - Mamba ridge reservoir being supplied from Hazelmere.





# OVERALL PROGRESS ON WASTEWATER PUMPSTATIONS

STATUS OF PUMPS FOR WASTEWATER PUMPSTATIONS					
REGIONS	No. Pumpstations	No. of Pumps catered for	No. of Pumps Working	No. of Pumps not working	Percentage of Pumps not working in Region
CENTRAL	62	158	82	64	41%
NORTH	75	159	85	74	47%
WEST	51	99	71	25	16%
SOUTH	64	145	67	70	44%
	252				

NUMBER OF PUMPSTATIONS VANDALISED		
REGIONS	No. Pumpstations	NUMBER OF PUMPSTATIONS VANDALISED
CENTRAL	62	15
NORTH	75	6
WEST	51	3
SOUTH	64	4
		28

NUMBER OF PUMPSTATIONS IMPACTING BEACHES		
REGIONS	No. Pumpstations	NUMBER OF PUMPSTATIONS IMPACTING BEACHES
CENTRAL	62	1
NORTH	75	0
WEST	51	0
SOUTH	64	0
		1

WATER IS LIFE - SANITATION IS DIGNITY



# WATER QUALITY - SWIMMING BEACHES

**\* Based on water quality results from 06 February 2023**

## Open

## Closed

<b>North</b>	<b>Central</b>	<b>South/Bluff</b>
Westbrook	Point	Ansteys
Umdloti Main	Ushaka Beach	Brighton Beach
Bronze beach	Addington	Toti Main
Umhlanga Main	South Beach	Umgababa
	Wedge Beach	
	North Beach	
	Bay of Plenty	
	Battery Beach	

<b>Central</b>	<b>South/Bluff</b>
Country Club	Reunion Beach
Thekwini Beach	Warner Beach
Laguna	Toti Pipeline
	Winkelspruit





# ENFORCEMENT ACTIONS

AREAS	INTERVENTIONS	COMMENTS
eThekweni Metro	A Directive issued on 13 May 2022	This was related to all flood damage to infrastructure
	9 Non-compliance Notices issued	These were related to on-going pollution of the water resources
	82 Complaints received and attended to	These indicate the unsatisfactory response to the issues by the municipality

- DWS is still receiving a number of complaints – which indicates that there are many issues still not resolved.
- DWS has engaged the Department of Justice and Constitutional Development (DJ&CD) for a court order to enforce the Directive issued to the eThekweni Metro. The matter will be set down on 15 March 2023 as the Municipality is intending to oppose.

# DISASTER FUNDING

MIG and WSIG grant reprioritization approved:

King Cetshwayo (R13.2m MIG, R6.7m WSIG)

Zululand DMs (R25m WSIG)

Uthukela DM – (R15.3m MIG)

Province	Municipalities	Allocation R'000	Implementation period	Expenditure R'000 as at 11/02/2023	% Spent	Balance R'000	Extension request
KZN	1. Msunduzi	R620	Jul-Dec 2022	R253	41%	R366	No
	2. Mkhambathini	R8 200	Jul-Dec 2022	R8 200	100%	R0	No
	3. iLembe	R19 500	Jul-Dec 2022	R18 674	96%	R848	Yes
	4. Inkosi	R48 393	Jul-Dec 2022	R29 500	61%	R19 449	Yes
	5. uGu	R2 000	Jul-Dec 2022	R1 980	99%	R20	No
	6. Ray Nkonyeni	R8 100	Jul-Dec 2022	R7 252	90%	R847	No
	7. Alfred Duma	R14 354	Aug 22-Jan 2023	R7 203	50%	R7 210	yes
	8. Kwa-Dukuza	R109 103	Aug 22-Jan 2023	R17 423	16%	R91 619	Yes
	9. Ray Nkonyeni	R11 000	Aug 22-Jan 2023	R8 459	76%	R2 540	No
	10.e-Thekwini	R185 000	Sep 22-Feb 2023	R35 541	19%	R149 459	No
<b>Total</b>	<b>9</b>	<b>R406 270</b>		<b>R134 485</b>	<b>32%</b>	<b>R272 358</b>	



# RECOVERY & REHAB FUNDING APPLICATIONS

<b>KwaZulu Natal</b>	
- Ethekwini Metro	1 534 785
- uMhlathuze DM	34 966
- King Cetshwayo DM	4 500
- Inkosi Langalibalele LM	76 950
- Alfred Duma LM	22 000
- Umgungundlovu DM	10 100
- Ilembe DM	14 549
- KwaDukuza LM	1 271 098
<b>KZN Sub Total</b>	<b>2 968 948</b>

Only approx. R400m of Ethekwini allocation is for sanitation projects

# CONCLUSIONS: KZN FLOOD DAMAGE

- Most water services have been restored - current supply challenged mainly due to electricity loadshedding
- Restoration of Aqueduct No 2 is on schedule for June 23
- Sanitation services restoration behind
- Significant delays with insurance claims – assessments may take 12 – 18 months impacting on WWTW restoration
- Some improvements in beach water quality due to progress with pumpstations and reticulation
- Problems have been experienced with reporting on disaster grants
- Require water and sanitation projects to be prioritised in the R&R grants

# INFRASTRUCTURE FUND (IF) ASSISTANCE

The IF is assisting the Department with funding applications for large projects through the Budget Facility for Infrastructure (BFI):

## 1. uMkhomazi Water Project

This KZN project (estimated at R23.243 billion) involves the construction of:

- The Smithfield Dam (251 million m<sup>3</sup>) in the uMkhomazi River near Bulwer;
- A conveyance infrastructure (incl. a balancing dam, 32 km tunnel) from the Smithfield Dam to the water treatment works (600MI/d) in the uMlaza River valley, and
- A gravity pipeline to the Umgeni Water bulk distribution system

uMWP-1 is designed to deliver an additional 214 million m<sup>3</sup> into the Mgeni Water Supply System to increase the assurance of water supply, to a system yield of 600MI/d.

The raw water component of the project is implemented by TCTA and the potable water component is implemented by Umgeni Water.

## Progress

- Following engagements with National Treasury, TCTA collaborated with the Infrastructure Fund to prepare a request for fiscal funding to the Budget Facility for Infrastructure (BFI). The request was submitted to the A BFI application resulting in a proposal of a 25% grant from the fiscus and a 25% interest-free loan from the Infrastructure Fund. This application was successful.
- TCTA (as implementing agent) is proceeding with project preparation work

# INFRASTRUCTURE FUND (IF) ASSISTANCE

## 2. Olifant Management Model (OMM)

- The purpose of the Olifants River Water Resources Development Project Phase 2 (ORWRDP-2) is to develop the infrastructure required in the Middle Olifants River (in the areas of Sekhukhune and Mogalakwena Districts of Limpopo) to meet the water demands in the area.
- This Includes the building of 2 dams (De Hoop and Flag Bashilo dams), and the construction of bulk pipelines and pump stations as part of the conveyance system.
- After extensive negotiations with the Mining Sector the scope was expanded to include potable water systems to benefit communities located adjacent to the pipeline, and will see the Government funding 50% (and the Commercial sector funding 50%) of the estimated R25 billion project cost.

### Progress

- Phases 1, 2a, and 2c:100% completed
- Mining Sector commenced (Oct '22) with the Southern Extension; Construction is underway and will be completed in October '23 with Phase 1.
- Agreements are finalized and Water Use License amendment approved.
- All technical information provided to IF as requested to finalize the application). The aim is to submit to the next BFI window (end of May '23; Adjustment Period)
- Having meetings with District Municipalities to finalize the potable water projects implementation and funding arrangements.
- LWUA is in process of capacitating the Project Management Office and working with PSP (Design Engineer) on implementation schedules.
- Working with ESKOM to reintroduce Phase 2I onto the programme (hydro-electricity plan upstream of De Hoop Dam)

# INFRASTRUCTURE FUND (IF) ASSISTANCE

## 3. Vaal Gamagara Water Project

- Phase 1 of this project entailed the functional replacement of the existing 75 km steel pipeline with a new pipeline to provide assurance of current and future demands by all users.
- The main water users in the area include the various mines, municipalities, agricultural sector and Transnet
- Households to benefit is  $\pm 5\ 958$
- Phase 2 (R10 billion) consists of the replacement of pipelines, development of well-sites, refurbishment of rising mains, upgrading and refurbishment of WTW and pump stations (where determined to be necessary). The agreement reached with the Mining Leadership Forum (MLF) is that Government will fund 44% of the cost and the Commercial sector 56%, as well as that the project will include water service infrastructure to communities adjacent to the pipe-line.

### Progress

**Phase 1:** Construction progress: 100%

### Phase 2 :

- Preliminary design reports completed.
- The mining forum members agreed to avail up to R2bn for phase 2 as front-loading of the capital raising fee. (To date raised more than R300 million; in Bloem Water account)
- Both parties (DWS & MLF) agreed that a special purpose vehicle will be established for the implementation of phase 2 and the funds of both parties will be transferred to the Special Purpose Vehicle.
- PSC (DWS, MLF, Bloem Water and DBSA) in place and active; DBSA considered as Special Purpose Vehicle.
- Upon finalization of project preparation, an application will be submitted with the assistance of the IF to fund the 44% over the project period (5 years)