

# **WATER AND ROADS STATUS UPDATE**

## **PRESENTED BY:**

## **ASANDA GIDANA**

**Stakeholder Engagement: 09 June 2023**

# ROADS PROGRAMME

# Road Network Serving the Makana LM

- The road network within the Makana Local Municipal Area falls under the jurisdiction of three (3) authorities, namely:
- South African National Roads Agency Limited (SANRAL), who is responsible for National Route N2 and R67, which traverses the area.
- Eastern Cape Department of Transport, who is responsible for provincial trunk, main, district and
- Makana Local Municipality, who is responsible for all municipal roads.
- The road network within the Makana Local Municipal Area, together with the relevant road authority,

Road Authority	Length (km)
SANRAL	139.70
Eastern Cape Department of Transport	1 370.09
Makana Local Municipality	287.67
<b>Total</b>	<b>1 797.46</b>

# Road Network in the Makana Municipal Area

- The total road network within the Makana Local Municipal Area and under the jurisdiction of the municipality comprises of approximately 287.67km, of which approximately 163.85km (or approximately 57%) are Paved roads.
- **Road network under the jurisdiction of the Makana Local Municipality:**

Road Type	Category	Length (km)
Tar	Paved	149.77
Block	Paved	13.85
Concrete	Paved	0.23
Gravel	Unpaved	103.78
In Situ / Earth	Unpaved	0.56
Tracks	Unpaved	8.28
	Inaccessible	11.22

# Budget Allocation

- Internal budget for 22/23 financial year was R2 500 000 and 23/24 is R 3 120 000
- Projects that are underway:

Project Name	Source of Funding	Amount	Status/Comment
Rehabilitation of M street and Albert Street. Upgrading of Van Behrens Street (Ring Road)	Department of Transport (SBDM)	R 50 000 000 (R10 000 000 Allocation to date)	M and Albert St – readvertised for Consultants on 04/05, to close on 23/05. Ring Road – advertised for Contractor on 17/05, to close on 19/06.
Upgrading of Ncame	Municipal Infrastructure Grant	R 21 606 990 (R9 541 742- Expenditure to date)	Progress at 55%. Consultant appointed to resuscitate the project. Contractor(s) to be appointed in June '23.
Upgrading of Makana Way Phase 1	Municipal Infrastructure Grant	R 22 250 252	Planning Stage – Consultant busy with designed. Contractor to be appointed in August '23

# Maintenance Programme

- Pothole patching is ongoing, focusing on Main routes as well as Festival hotspots.
- Grading programme will resuscitate on the week of 19<sup>th</sup> June, as the grader is currently on repairs. The programme will prioritize main routes.
- Cleaning of verges are cleaned alongside with pothole patching.

# WATER PROGRAMME

# Overview of water supply at Makhanda

- Makhanda Local Municipality has two independent raw water sources for its bulk supply: (i) Glen Melville dam (now at 90%) on the eastern side and (ii) Settlers (70%) which is a feeder dam to Howiesonspoort dam (100%) on the western side of the town.
- The western dams serving Makhanda has now recovered from drought
- The town has two water treatment plants (WTW) to meet the current demand of 18 Ml/d
  - Waainek (WTW) or Western system (8 Ml/d)
  - James Kleynhans (JKWTW) or Eastern system (10Ml/d).
- Transfer line from Botha's Hill to Western reservoirs, to augment the supply



# The Western/ Waainek System

- The Waainek Water Treatment Works WTW has a capacity of 8Ml\ld and mainly serves the town area (including surrounding private schools, prison, military base, hospitals and Rhodes University – mainly high lying areas)
- The plant is currently not operational due to inability to abstract water from the HowiesonsPoort Dam.
- **Blockages in the pipelines** between the dam wall and the pumpstation are obstructing the water flow, resulting into suction, such that no pumping is currently possible.
- Pump has been diagnosed, on and off site, and was found to be operational.
- Divers are on site, to investigate the problem. They are currently removing all foreign matters like debris and rusted metals. They are also unblocking all unblocking all the valves underwater.
- Pump is being aligned, after off site diagnosis.
- Once the blockages are all cleared, operations will resume.

# The Eastern/James Kleynhans System:

- The JKWTW has an existing capacity of 10Mℓ/day plant and is mainly serving Joza, Fingo, Tanti and Coloured areas. There are also Western areas like Oatlands North, Upper Sunnyside and parts of Rhodes University that are connected into the transfer line.
- The shortage and/or the non-availability of treated water on the Western side compels the Makana LM to optimally push this treatment plant to deliver above design capacity of 10Mℓ/day to 12 or 13Mℓ/day, and facilitate transfer of water to the western side of Makhandha.
- It is for this reason that the JKWTW is being upgraded from a 10 Mℓ/day to a 20 Mℓ/day plant.
- This project is being funded by the Department of Water and Sanitation through the Regional Bulk Infrastructure (RBIG) programme at a total cost of R393,090,217 and Amatola Water Board is the Implementing Agent - implemented in different phases.

# James Kleynhans BWS

- The scoping of the project has been phased into three (3) phases including:
  - Phase1 – Refurbishment of the James Kleynhans WTW
  - Phase2 – Augmentation of the James Kleynhans WTW:
  - Phase 3 – Refurbishment of the old non-practical works
- The scope for Phase 1 includes Construction of sludge ponds; 2 Mℓ Clearwater Reservoir; High-Lift Pumps; Supernatant Pump and associated pipe works.
- The scope for Phase 2 to augment the James Kleynhans WTW includes amongst others; construction of an additional 10 Mℓ/day WTW; 2 x 5Mℓ Sedimentation Tanks; 1,0Mℓ Clear Water Reservoir; refurbishment of the old existing 10Mℓ/day water treatment plant.
- The scope for Phase 3 for the refurbishment of the old non-operational works includes attending to 450mm diameter rising main; chambers in the 9km rising main, construction of a drainage pipework from the clear water pumpstation; perimeter fencing and site paving with landscaping and miscellaneous works.

# Implementation Plan for Phase 2

Description	Planned	Actual
Work Permit (Dept. of Labour)	15 Dec 2022	03 Feb. 2023
Site Establishment	15 Dec 2022	05 Feb. 2023
Commence with Works	30 Jan 2023	05 Feb. 2023
10MI Delivery of Water	30 June 2023	-
Practical Completion	01 Dec 2023	-
Completion of the Works	15 Dec 2023	-
Commencement of Defects Liability Period	16 Dec 2023	-

# Budget Allocation

- Internal budget for 23/24 financial year R12, 5m for Raw Water Purchases and R 2,6m for Operations and Maintenance
- Projects that are underway:

Project Name	Source of Funding	Amount	Status/Comment
Replacement of Asbestos pipes in water networks in Makhanda Phase 3	COGTA-MIG (Makana)	R 23 838 950 (R7 752 571- Expenditure to date)	Phase 3a: 15% Phase 3b: 65%
Waainek Bulk Water Supplier Refurbishment	COGTA-MIG (Makana)	R 4 200 000 (R551 994,50- Expenditure to date)	Contractor(s) appointed to resuscitate the project. Cathodic Protection-Progress at 80%. Civil works: to be awarded in June '23.
WCWDM- Supply and install domestic smart meters	DWS-MIG (Makana)	R 5 000 000	Procurement Stage – to be awarded in June '23

## Interim Measures to ensure water supply to all communities

- Water rationing/shedding, of **one day ON and two days OFF**. Consumers store water for two days in private containers for the period that water is off.
- Reservoirs [east and west] are mainly filled to reasonable levels (70%) and water is then released to all areas, at the same time.
- **There is a delay in filling the network due to the pipeline running empty on Water OFF days. As result, low lying areas receive water while high lying areas struggle to obtain water due to network not getting full as some residents in low lying areas fill water storage tanks, even on the Water ON days.** This makes tankering to these areas a necessity.
- Four tankers assigned to deliver water daily until 18:00 to the following areas:
  - Nompondo, Joza Street, Vellem Street, Ext 5 and Upper Phumlani
  - Upper Fingo, Upper Vukani, Cradock Height, Upper Fort England
  - Settlers Hospital, Upper Hlalani, Eluxolweni, Ext 4,
  - Vergenoeg, Oatlands North and Somerset Heights.

## Recent Water Quality Issues

- Sampling has found E.coli presence in 5 sites, on 15th May 2023.
- Follow-up sampling on 23rd May 2023 still found E.coli present at 5 sites even though it was at much lower quantities.
- Makana LM issued a boil-water notice on 25/05/2023, informing the consumers of their challenges and advising public to boil water or take other precautions to sanitize water before drinking coupled with awareness creation activities.
- The main contributing factors can be attributed to the water rationing in view of the current situation, as well as the non-availability of chlorine gas, with more strength.
- Delivery of chemicals, including chlorine gas took place on 25/05 and has increased the dosage at the WTW, and is doing booster dosing with chlorine granules in the reservoirs before delivering to residents .
- Samples at James Kleynhans WTW found Zero (0) E.coli.
- Re-sampling is currently done on sites that are non-compliance
- Rhodes University, Amatola Water and Environmental Health Practitioners are doing resampling on regular basis.
- Boil Water notice will be withdrawn once all sampling sites are cleared

## Awareness creation and community mobilisation

- DWS embarked on taking corrective action jointly with the Makana Local Municipality to try to mitigate the outbreak of waterborne diseases from 29 May 2023.
- This included running a joint awareness campaign in schools, hospitals, clinics, and taxi ranks to let residents know of the high E.coli bacteria counts in tap samples.
- This intervention was done with a team that had representatives from DWS, Makana LM Officials, Dept of Health, Ward Committee and Ward Councillors.
- The joint awareness covered the following areas: Settlers Hospital; Ext. 7 Clinic; Settlers Day Clinic; Taxi rank; Shoprite Shopping Centre; Archie Mbolekwa Primary School; Kutliso Daniels SS School.
- DWS handed bar soaps, sanitizers and awareness pamphlets to the public.
- DWS is in a process of procuring bleach to add on the support to Makana LM.
- Further samples were taken on 04 June 2023 and result will be available in due course .



# CONCLUSION

- Makana Municipality is striving to do practically possible, to restore safe and reliable services, with the aged and dilapidated infrastructure
- Revenue Generation remains a challenge that restrains self sustainability – resulting to grant dependency.
- Collaborative efforts with strategic partners and sector depts are being explored.



Thank you