MONTHLY DASHBOARD FOR A WATER SECURE GAUTENG

January 2025

1. OVERALL WATER CONSUMPTION: Metros, Emfuleni, smaller municipalities monthly metering data shown below

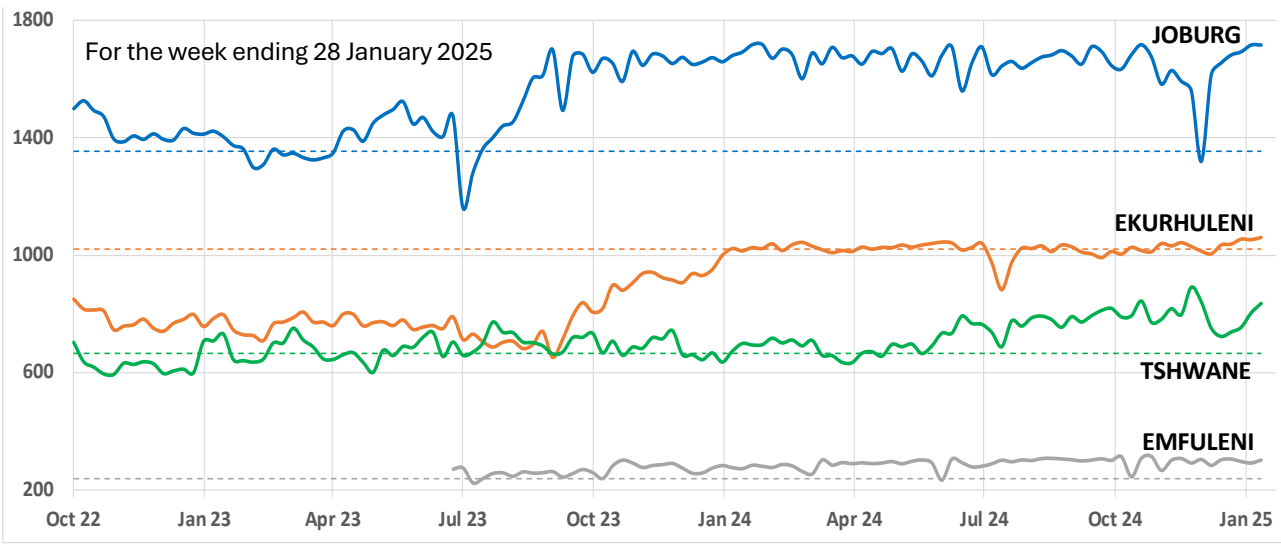
	TOTAL RW	Joburg	Ekurhuleni	Tshwane	Emfuleni	Mogale City	Midvaal	Merafong	Rand West	Lesedi
December Ave Daily Use (MLD)	4,137	1,657	1,024	825	312	113	40	67	80	20
November Ave Daily Use (MLD)	4,200	1,727	1,031	810	313	109	38	68	79	25
October Ave Daily Use (MLD)	4,256	1,806	1,006	804	317	113	40	67	80	24
WUE Target Use (MLD)	3,604	1,356	1,022	666	239	93	28	86	91	23
DIFFERENCE (MLD)	652	301	2	159	73	20	12	20	11	3
% From target use	18%	22%	0%	24%	31%	21%	43%	-23%	-12%	-13%
Gross Per capita use (lcd)	292	272	252	255	432	311	420	337	306	201
Increase/Decrease from previous	↓	↓	↓	↑	↓	↑	↑	↓	↑	↓

*↓ Decrease from last week, but above target ↑ Increase from last week, but in target ↓ Decrease, within target ↑ Increase

- The three metros use ±77% of water produced by Rand Water and 84% of the WUE (Project 1600) target
- Month on month, total water use decreased in December, still exceeding the WEU target by 18% or 652 MLD
- Metros & Emfuleni show *weekly* meter readings from Rand Water in the graph below (updated 28 January 2025), while only monthly readings are taken at the other municipalities

  Source: https://www.randwater.co.za/media/MeterReadings/WeeklyMeterReadings3Metros.pdf

2. TREND IN WEEKLY CONSUMPTION / WATER USED FOR JOHANNESBURG, TSHWANE, EKURHULENI METROS & EMFULENI



Actual 1,705
349 MLD OVER
Target 1,356

Actual 1,060
38 MLD OVER
Target 1,022

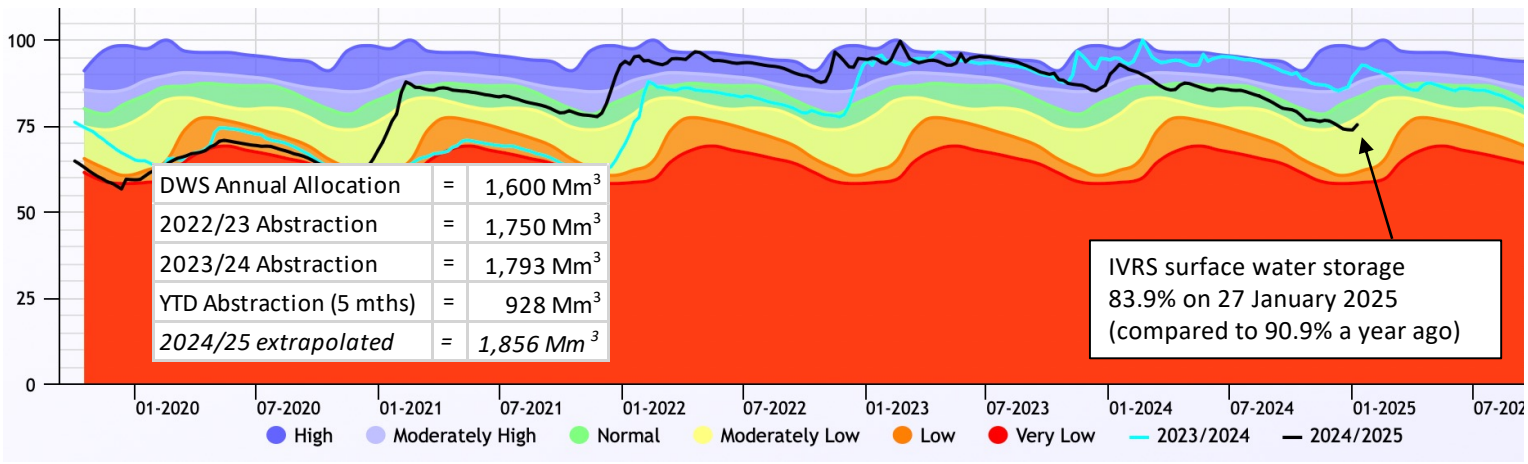
Actual 836
170 MLD OVER
Target 666

Actual 303
64 MLD OVER
Target 239

Source: Rand Water weekly publication.

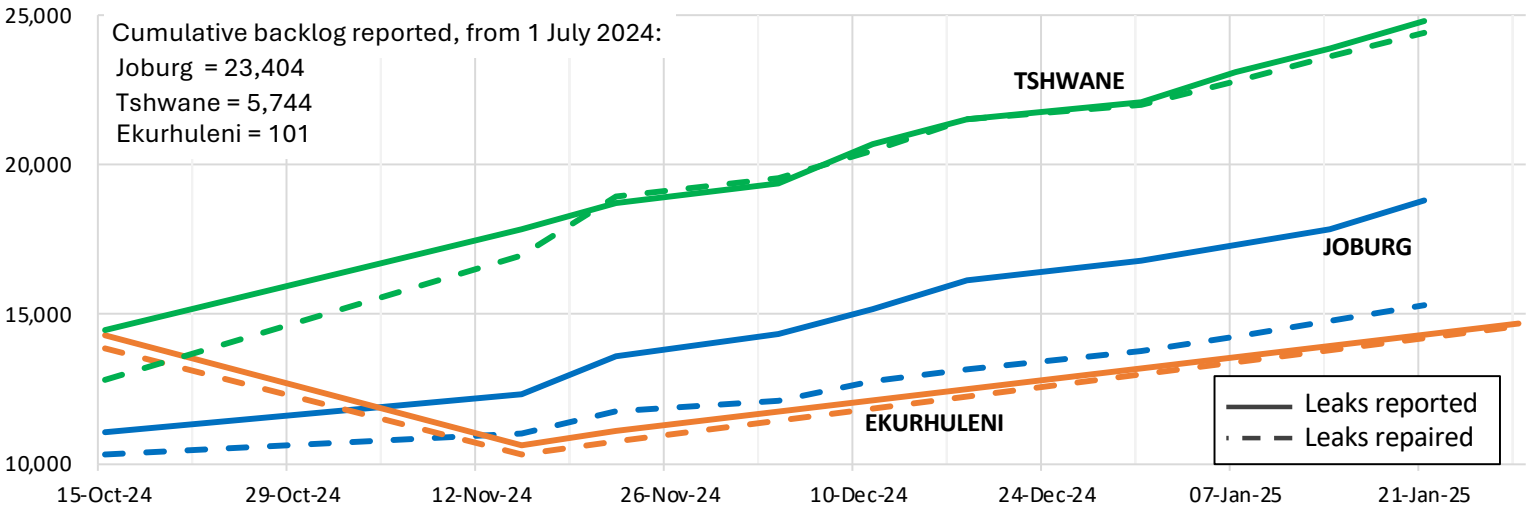
3. IVRS SYSTEM STATUS – 5-year Vaal Major combined surface water storage:

The 5-year Vaal Major system storage is shown as indication that it is tracking lower than in the previous 3 years. Rand Water has imposed Level 1 restrictions. DWS Restrictions are implemented on the IVRS when dam levels are below 60% at the beginning of the hydrological year starting in May of each year. Should over-abstraction continue, and rainfall be lower than normal, the DWS model is likely to indicate that restrictions be imposed in May 2025. Sources: https://www.dws.gov.za/niwis2/SurfaceWaterStorage and https://www.dws.gov.za/Hydrology/Weekly/RiverSystems.aspx?river=IV



WATER LEAKS, OUTAGES AND RESTRICTIONS

4. YTD LEAKS REPORTED AND REPAIRED from October '24 to date. Annually, reported leaks vary between about 40,000 in Tshwane and Ekurhuleni and 100,000 in Joburg, translating to ±500 leaks reported in the Gauteng metros daily. The metros are working towards weekly reporting of leaks to be included in the weekly dashboard – this metric will improve over time.

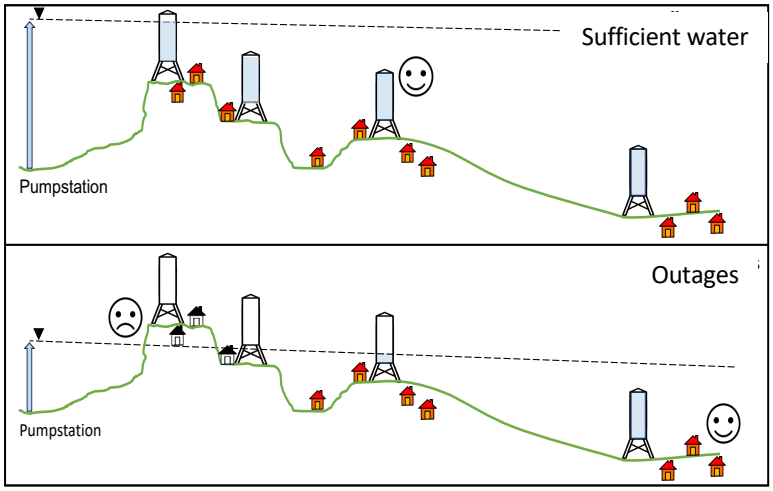


Each metro has a different system of logging, attending to, & closing notifications related to bursts / leaks. A back-office process is required to confirm that work has been done prior to closing works orders. The current systems used for leak reporting and repair need to become more robust, to ensure that duplicate entries and open jobs that have already been completed are closed.

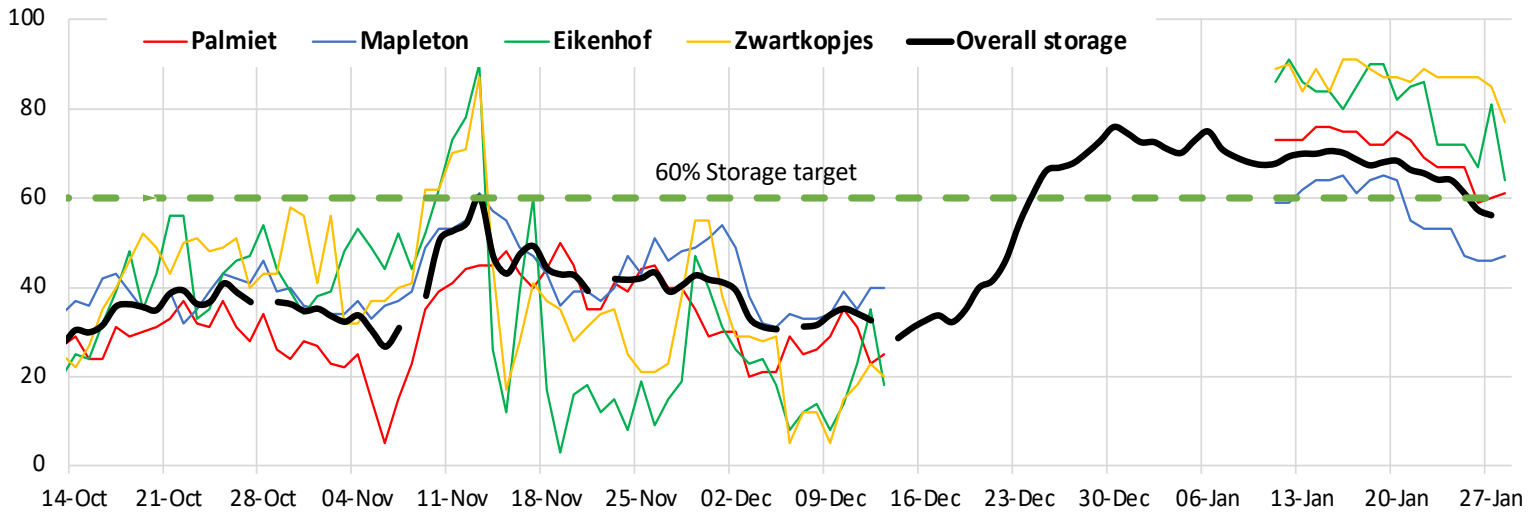
5. WATER OUTAGES: Water is distributed through a complex system of reservoirs, towers and networks. Outages are usually reported by reservoir.

When a sufficient volume of water is pumped into the system, all reservoirs can be filled, and all households have water. When there are breakdowns or excessive use, and there is too little water in the system, low pressure and intermittent supply is sometimes experienced, especially in high-lying suburbs.

Often, it is a struggle to stabilise reservoir levels as water drawn from the reservoir is more than the volume that can be supplied to the reservoir by the bulk supply. Usually, levels recover overnight when demand is lower, but responsible water use by everybody will lessen the burden on all areas.

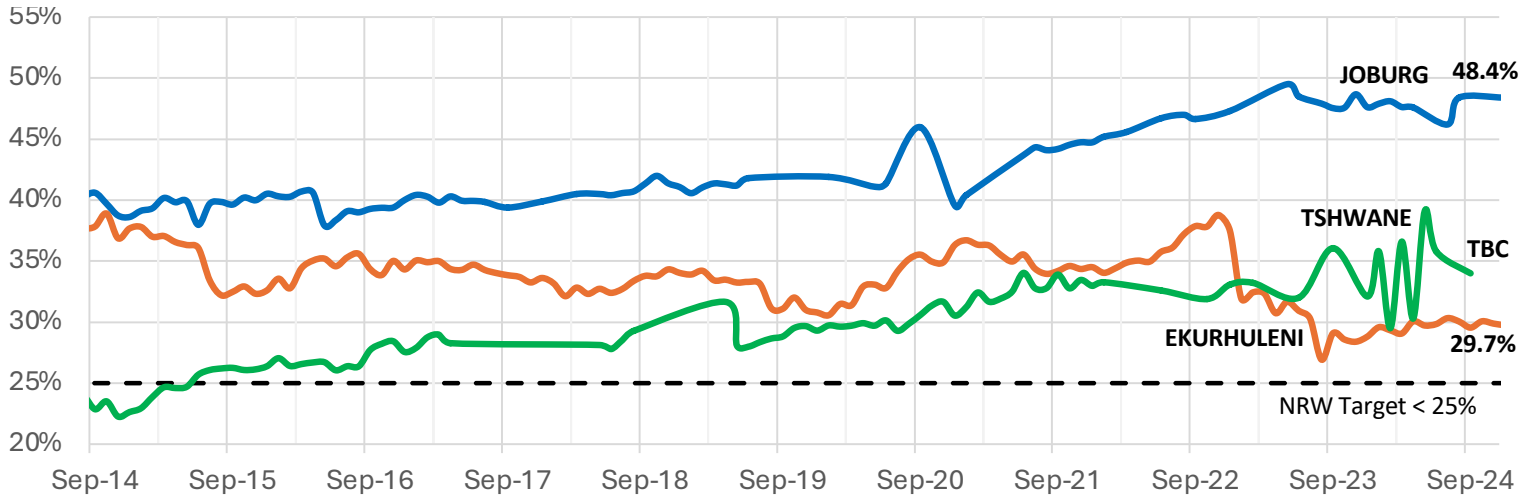


6. RESERVOIR STORAGE LEVELS: The graph indicates the percentage of water storage in the four main strategic Rand Water reservoir systems feeding into Gauteng since mid-October 2024. Palmiet comprises 59% of the total storage volume, Mapleton 23%, Eikenhof 11% and Zwartkopjes 7%. The overall target reservoir storage level is 60%, at which point the system has sufficient pressure to feed the entire area. When overall storage exceeds 60%, water outages are less likely. With many business shutting down for the holidays, storage levels exceeded 60% between 24 December and 25 January. With hot, dry weather and economic activity, overall storage has again dipped below 60% resulting in lower pressures and increased outages.

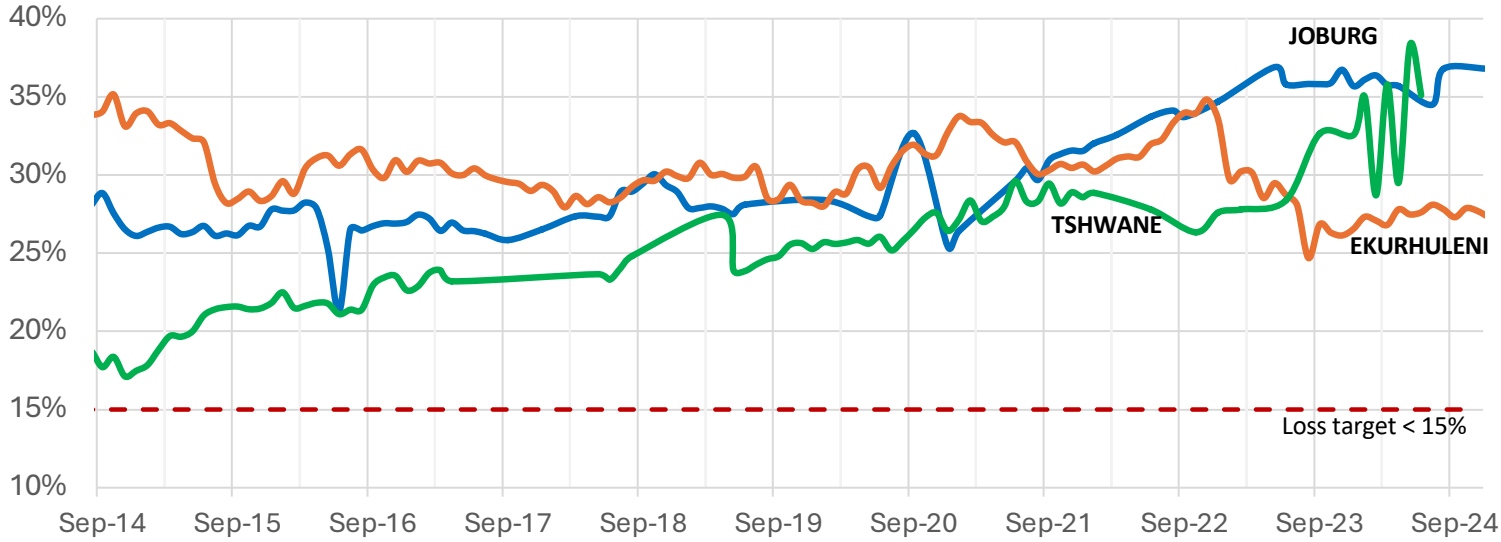


METROS WATER MANAGEMENT

7. NON-REVENUE WATER (NRW) 10-year TREND: This is the volume of potable water distributed for which the municipality receives no income*. The target for municipalities in SA is <25% but the actual NRW is much higher. Ekurhuleni has made progress to below 30%, while Joburg has remained at 48.4%. Tshwane currently calculates NRW every 3 months, and has not finalised NRW for the year to December 2024. An update will be provided when this becomes available.
Rand Water as a bulk supplier has far lower NRW, 5.47% for the three months to Dec 2024.



8. REAL OR PHYSICAL LOSSES 10-year TREND: This is the volume of water that runs to waste without any user using it. This includes leaks on mains, leaks and overflows on storage infrastructure and on service connections *outside private property boundaries.* While NRW management includes financial losses, Real losses impact directly on the volume of water that is used. The target is < 15%, shown below. Rand Water also has far lower avoidable losses, 4% for the three months to Dec 2024.



9. PROGRESS ON METRO NRW REDUCTION INTERVENTIONS: Each of the metros have strategies how to reduce NRW and losses. Expected savings are for the current year (ending 30 June). Performance based contracts can reduce NRW more rapidly as savings in non-revenue water can be applied to cover the cost of such contracts. Metros are currently doing feasibility studies to quantify the long-term investment required to reduce NRW and the water loss savings that could be achieved.

Current NRW Reducing Initiatives	JHB	EKU	TSH
Leaking reservoir / tower infrastructure repair	x	x	
Repair / replacement of Zonal bulk meters	x	x	
Active/Passive leak detection	x	x	x
New pressure management zones and MNF	x	x	x
Retrofitting and removal of wasteful devices	x	x	
By-Law enforcement	x	x	
Water pipe replacement	x	x	x
Meter replacement	x	x	x
EXPECTED SAVING (MLD)	**102**	**15**	**5**

***NRW** = Unbilled authorised use + Water losses
Where Unbilled authorised use, includes:

- Unbilled metered use (e.g. municipal own use, supply to communal taps in informal settlements) and
- Unbilled, unmetered use (e.g. fire-fighting, flushing of mains and sewers, deemed/flat-rate consumption)

And Water losses = Apparent losses + Real losses
Where Apparent losses include:

- Metering inaccuracies (old meters under-read actual use)
- Unauthorised consumption (illegal connections and water theft)

INFORMATION AND CONTACTS

JOBURG:

For information on water outages and to report leaks:

- *https://www.johannesburgwater.co.za/emergencies/*

Or call: 0860-JOBURG

Or find outage updates on X:
JHB: https://x.com/JHBWater

Check for underground leaks by reading your meter regularly:
https://joburg.org.za/services_/Pages/City%20Services/Water%20and%20Sanitation/Water%20and%20Sanitation%20Links/Reading-your-own-meter.aspx

Reading your utility bill and compare to water meter reading:
https://joburg.org.za/services_/Documents/Customer%20Service%202020/How%20To%20Read%20Your%20Municipal%20Bill%20Explained.pdf

EKURHULENI:

For information on water outages:

- *https://www.ekurhuleni.gov.za/eku24-7-news/*
- *On Twitter (X): @City_Ekurhuleni and @CoE_Call_Centre*
- *On Facebook: City of Ekurhuleni*

Report leaks at:

- *0860 54 3000*
- *My COE App*
- *On Twitter (X): @CoE_Call_Centre*

Resources for how to use water sparingly:

- *https://www.ekurhuleni.gov.za/eku24-7-news/*
- *On Twitter (X): @City_Ekurhuleni*
- *On Facebook: City of Ekurhuleni*

Utility bill information

- *https://siyakhokha.ekurhuleni.gov.za/*
- *My CoE app*
- *https://www.ekurhuleni.gov.za/wp-content/uploads/2022/10/A3-Step-By-Step-Guide-To-Submitting-Your-Meter-Readings.pdf*
- *https://www.ekurhuleni.gov.za/press-releases/utility-services/protect-your-water-meter-you-will-pay-for-negligent-damage-or-tampering/*

TSHWANE:

For information on water outages and to report leaks:
https://www.tshwane.gov.za/?page_id=953

Or call: 080 111 1556
Or whatsappL 087 153 1001

Or find outage updates on X:
CoT: https://x.com/CityTshwane

Resources for how to use water sparingly:

- *https://waterwise.co.za/site/home.html*
- *https://www.dws.gov.za/campaigns/WaterUseEfficiency/ToolKit.aspx*
- *https://joburg.org.za/Campaigns/Pages/Campaigns/Save water/Savewater.aspx*
- *https://www.tshwane.gov.za/?p=52404*

Seasonal weather forecast:

South Africa Weather Services publishes quarterly climate outlook report:
https://www.weathersa.co.za/Documents/SeasonalForecast/SCOLF202410_01112024121600.pdf

The prediction is for above normal rainfall in summer rainfall regions and above normal temperatures across the country.

Links to pertinent news articles:

Tunnel closure:
https://www.dws.gov.za/Communications/PressReleases/2024/MS%20-%20The%20South%20African%20and%20Lesotho%20Governments%20all%20set%20for%20the%20closure%20of%20the%20Lesotho%20Highlands%20Water%20Project%20Tunnel%20tomorrow.pdf

New Links to water outages & quality issues:

https://watercan.org.za/nowatermap/