# MONTHLY DASHBOARD FOR A WATER SECURE GAUTENG

October 2024

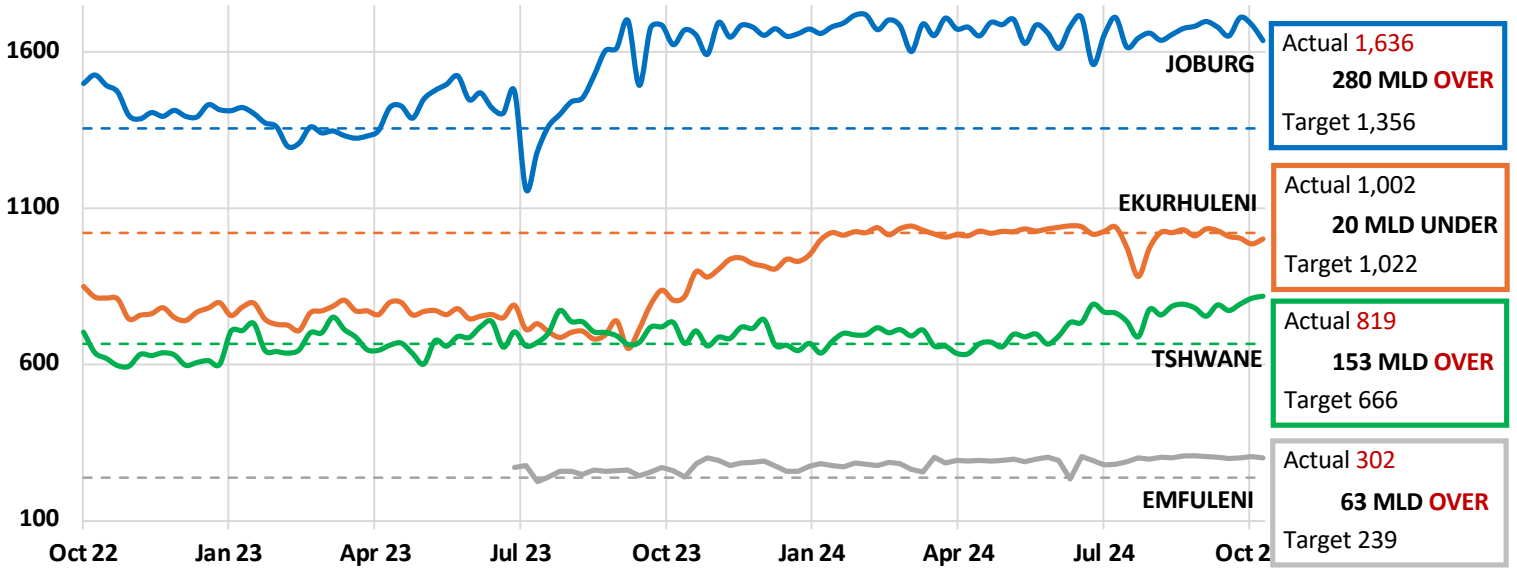
## 1. OVERALL WATER CONSUMPTION: Metros and Emfuleni weekly metering data, smaller municipalities monthly metering data

| | TOTAL RW | Joburg | Ekurhuleni | Tshwane | Emfuleni | Lesedi | Midvaal | Rand West | Merafong | Mogale City |
|---|---|---|---|---|---|---|---|---|---|---|
| This Period Ave Daily Use (MLD) | 4,084 | 1,636 | 1,002 | 819 | 302 | 25 | 40 | 80 | 67 | 112 |
| Previous Ave Daily Use (MLD) | 4,033 | 1,687 | 986 | 812 | 307 | 26 | 38 | 79 | 68 | 106 |
| WUE Target Use (MLD) | 3,604 | 1,356 | 1,022 | 666 | 239 | 23 | 28 | 91 | 86 | 93 |
| DIFFERENCE (MLD) | 429 | 280 | 20 | 153 | 63 | 2 | 12 | 11 | 19 | 19 |
| % From target use | 12% | 21% | -2% | 23% | 26% | 11% | 44% | -12% | -22% | 20% |
| Gross Per capita use (lcd) | 289 | 268 | 246 | 254 | 418 | 256 | 422 | 306 | 341 | 309 |
| Increase/Decrease from previous* | ↑ | ↓ | ↑ | ↑ | ↓ | ↓ | ↑ | ↑ | ↓ | ↑ |

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

- MLD = millions of litres per day, the common measurement of total water use for cities
- WUE = Water use efficiency targets is the target demand that matches the licence conditions of Rand Water. This is shown as target demand in dotted lines on the graph
- The three metros use ±77% of water produced by Rand Water and 84% of the WUE (Project 1600) target
- Rand Water metro data published weekly on their website (updated 14 October 2024)
  Source: https://www.randwater.co.za/media/MeterReadings/WeeklyMeterReadings3Metros.pdf

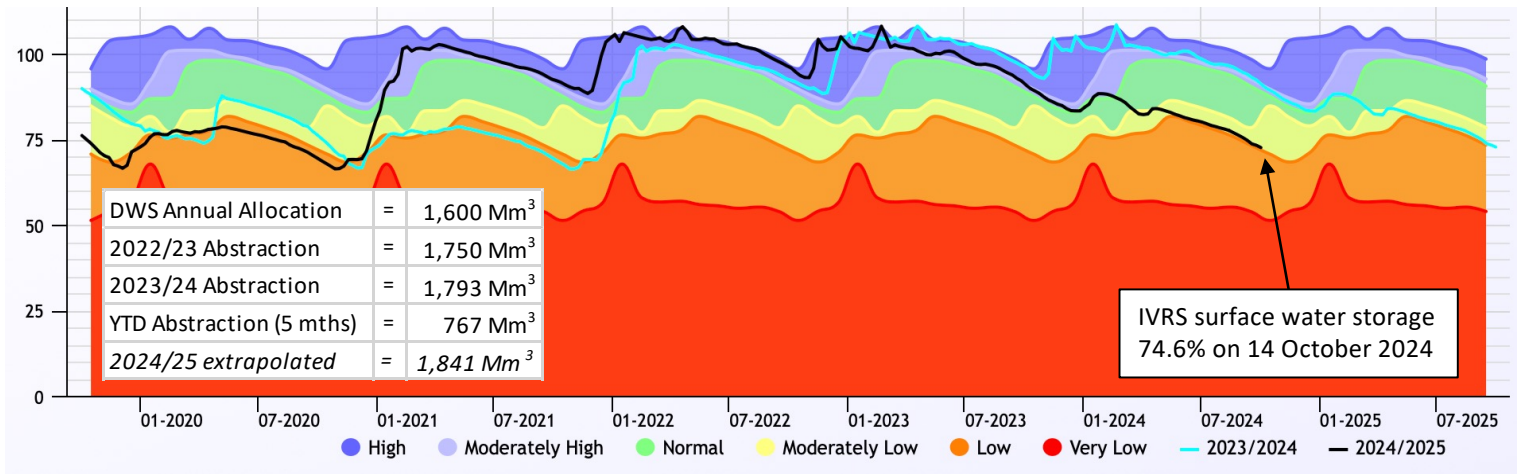
## 2. TREND IN WEEKLY CONSUMPTION / WATER USED FOR JOHANNESBURG, TSHWANE, EKURHULENI METROS & EMFULENI




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. LEAKS REPORTED AND/OR REPAIRED** by October 2024. Annually reported leaks vary between about 40,000 in Tshwane and Ekurhuleni and 100,000 in JHB, translating to ±500 leaks reported in the Gauteng metros daily.

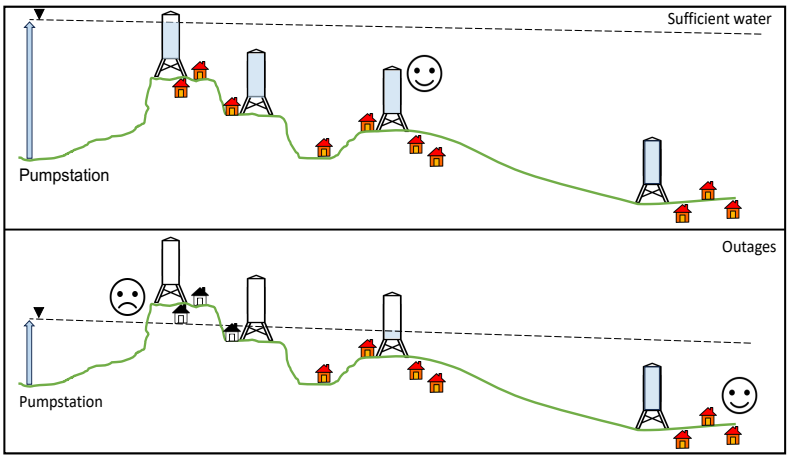
| | Joburg | Ekurhuleni | Tshwane |
|---|---|---|---|
| Backlog from 2023/24 | 7 | 0 | 3,964 |
| Leaks reported in period Jul to Oct 2024 | 11,045 | 14,297 | 14,454 |
| Leaks repaired in period Jul to Oct 2024 | 10,292 | 13,877 | 12,815 |
| Current leaks backlog | 753 | 420 | 5,603 |

- Each metro has a different system of logging, attending to, and closing notifications related to bursts and leaks. A back-office process is required to confirm that work has been done satisfactorily prior to closing works orders in all cases.
- Municipal reporting by financial year allows for carry over of backlogs from the previous year.
- The current system used for leak reporting and repair needs to be made more robust, with many duplicate entries and open jobs that have already been completed. System improvements are required to develop trends of leak fixing progress

**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, 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 demand from the reservoir is higher 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 high-lying areas.




*To find out which reservoir supplies your area, click on your city:*

https://www.johannesburgwater.co.za/johannesburg-water-reservoirs-3/
*link for CoE to be shared as soon as available*
*link for CoT to be shared as soon as available*

**6. WATER RESTRICTIONS:** With the increase in temperatures and low rainfall, the system is under strain.

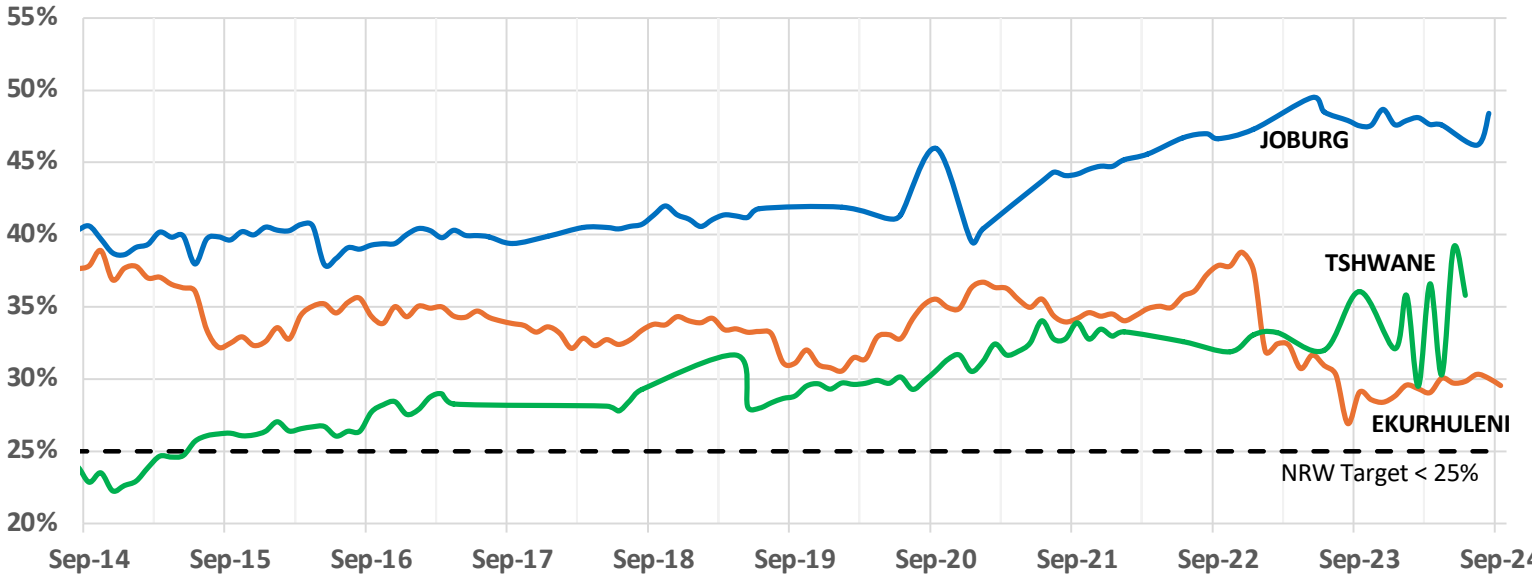
| | RAND WATER | JOBURG |
|---|---|---|
| **Restriction level** | Level 1 (17 September 2024) | Level 1 (13 October 2024) |
| **Tariff** | No change | No change |
| **Water conservation measures**<br><br>*See also p4: Resources to use water sparingly* | Support of metros:<br>• No watering of gardens between 06:00 to 20:00<br>• No washing of paving with clean water<br>• Suggest limiting showers to 3 minutes | • No watering of gardens between 06:00 to 18:00<br>• All consumers are prohibited from using a hose-pipe to clean paved areas and driveways with municipal water.<br>• Enforced annually from Sept though March |

| | EKURHULENI | TSHWANE |
|---|---|---|
| **Restriction level** | Alert Level 1 (19 September 2024) | Level 1 (2 October 2024) |
| **Tariff** | No change | No change |
| **Water conservation measures**<br><br>*See also p4: Resources to use water sparingly* | • Do not water or irrigate gardens with a hosepipe or sprinkler system between 06:00 and 18:00.<br>• Do not use a hosepipe to clean driveways or patios.<br>• Do not wash vehicles with a hosepipe.<br>• Do not fill or top up swimming pools or water features. | • Do not water or irrigate gardens with a hosepipe or sprinkler system between 06:00 and 18:00.<br>• Do not use a hosepipe to clean driveways or patios.<br>• Do not wash vehicles with a hosepipe.<br>• Do not fill or top up swimming pools or water features. |

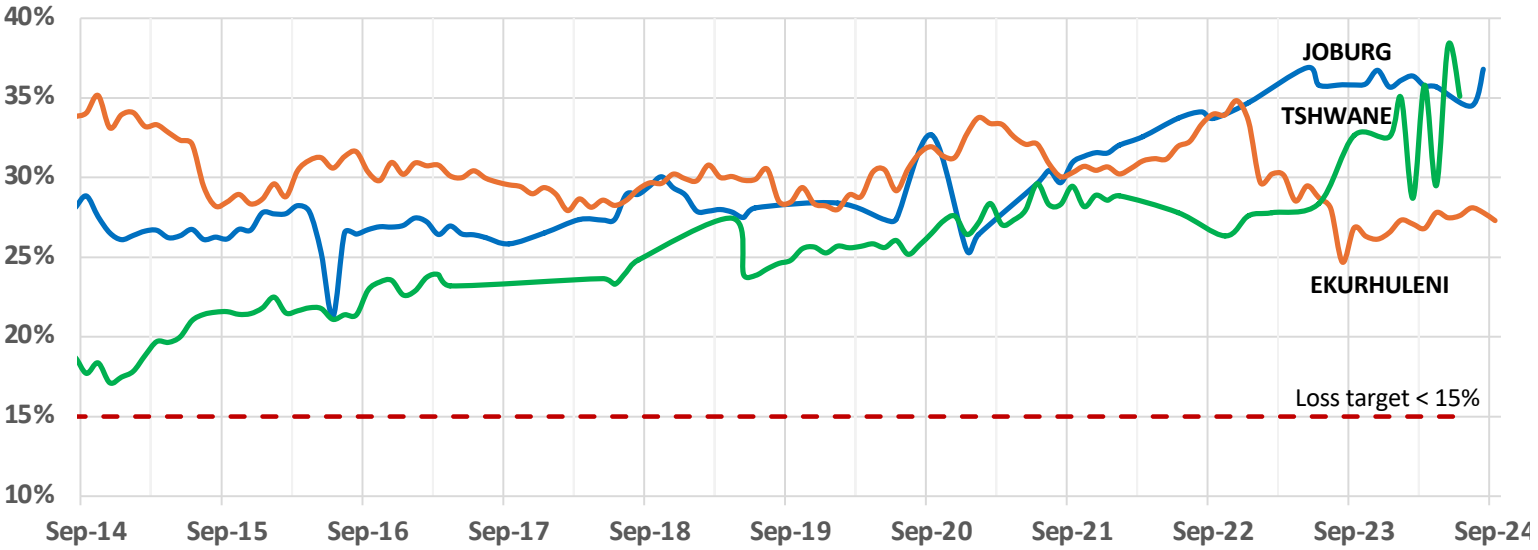
# METROS WATER MANAGEMENT



**7. NON-REVENUE WATER (NRW) 10-year TREND:** This as the volume of water that is pumped but for which the municipality receives no income. The target for municipalities in SA is less than 25% but the actual NRW is much higher – currently 48% in Joburg, 29% in Ekurhuleni and 35% in Tshwane.




**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.




**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. 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



**For information on water outages and to report leaks:**
JHB: https://www.johannesburgwater.co.za/emergencies/
CoE: https://www.ekurhuleni.gov.za/for-me/report-it/
CoT: https://www.tshwane.gov.za/?page_id=953

**Or call:**
JHB: 0860-JOBURG
CoE: 0860 543 000 Or Via My CoE App
CoT: 080 111 1556 or whatsapp 087 153 1001

**Or find outage updates on X:**
JHB: https://x.com/JHBWater
CoE: https://x.com/CoE_Call_Centre
CoT: https://x.com/CityTshwane
Each of the Metros communicate their planned and unplanned water outages through their own communication channels, as soon as they can.

**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/Savewater/Savewater.aspx

https://www.ekurhuleni.gov.za/press-releases/service-delivery/water-sanitation/be-the-change-adopt-water-saving-measures-daily/

https://www.tshwane.gov.za/?p=52404

**Check for underground leaks by reading your meter regularly**

**JHB:**
https://joburg.org.za/services_/Pages/City%20Services/Water%20and%20Sanitation/Water%20and%20Sanitation%20Links/Reading-your-own-meter.aspx
**CoE:**
https://www.ekurhuleni.gov.za/wp-content/uploads/2022/10/A3-Step-By-Step-Guide-To-Submitting-Your-Meter-Readings.pdf or
https://www.ekurhuleni.gov.za/press-releases/utility-services/protect-your-water-meter-you-will-pay-for-negligent-damage-or-tampering/

**Reading your utility bill and compare to water meter reading**

**JHB:**
https://joburg.org.za/services_/Documents/Customer%20Service%202020/How%20To%20Read%20Your%20Municipal%20Bill%20Explained.pdf

**Seasonal weather forecast**:

South Africa Weather Services publishes quarterly climate outlook report:
https://www.weathersa.co.za/Documents/SeasonalForecast/SCOLF202408_31082024224741.pdf

**Links to current 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