



## **WATER & SANITATION UNIT**

### **WATER OPERATIONS DEPARTMENT**

#### **REPORT ON:**

# **IMPLEMENTATION OF DAILY WATER RESTRICTION TO THE NORTH REGION DUE TO RESTRICTED SUPPLY FROM DURBAN HEIGHTS WATER TREATMENT WORKS**

16 November 2021 – Revision 1

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## 1.0 INTRODUCTION- CURRENT RESTRICTED WATER SUPPLY STATUS

eThekwini Metro is a Water service authority (WSA) with Umgeni water being the Bulk water services provider. eThekwini source of water is received from 5 storage dams in the Umgeni system viz. Springrove dam, Midmar Dam, Albert Falls dam , Nagel Dam, and Inanda Dam. The Umgeni system storage capacity is sitting at a stable 72% storage volume vs 60.5% in November 2020. eThekwini Metro receives approximately 894ML/d.

According to the Head of eThekwini water and sanitation, the Metro water situation in Durban is stable except for some areas that are known to experience intermittent supply. Supply interruptions in these areas are mainly due to demand exceeding supply. Projects are underway and at various stages to affect the required infrastructure upgrades. The Metro provide a water Tankering services to communities that are affected by water outages.

Lately, water supply interruptions are also experienced because of loadshedding. With Durban being so hilly, a lot of pumping is involved in the provision of water. Not all pump stations are equipped with standby generators. As a result, when loadshedding happens water supply is also affected.

There is currently a 50ML/day reduction in water supply from Umgeni Water, this however does not affect the Bulk Supply Agreement (BSA) . The said reduction is due to the failure of the shaft pumps at Durban Heights Waterworks which is impacting negatively on a system affecting areas such as Umlazi, Phoenix, North of Durban, and Mountain view reservoirs as well as Verulam ,that was already constrained.

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## **2.0 OPERATIONAL INTERVENTIONS CURRENTLY BEING IMPLEMENTED TO ADDRESS CHALLENGES IN THE DURBAN HEIGHTS SYSTEM**

The areas affected by the severe restrictions in the water supplied from the Durban Heights water treatment works are as follows :

<b>Item No</b>	<b>Reservoir Names</b>	<b>Operational Details</b>	<b>Planned Water Interruption Durations (hours)</b>	<b>Area Supplied &amp; Affected</b>
1.	Phoenix 2 Res	Shut reservoir outlet and H/L	20H00pm to 04H00am	Sunford, Hannaford, Phoenix Highway, Longcroft, Longbury, Plaza, Southbury, Eastbury, Groove End, Sastri Park, Caneside, Canehaven, Woodview
2.	Phoenix 4 Res	Shut reservoir outlet and H/L	20H00pm to 04H00am	Westham, Trenance Manor, Ghandi Settlement, Lenham, Fernham, Brookdale Whetstone, Bhambayi, Amoati
3.	Sunningdale Res and Towers Sunningdale Tower North	Shut reservoir outlet & Tower One Leg outlet	20H00pm to 04H00am	Sunningdale, La Lucia, & Mall, Glenashley, Glen anil, Somerset, Umhlanga, La Lucia Ridge
4.	Virginia Reservoir and elevated tower	Shut reservoir outlet	20H00pm to 04H00am	Glen anil, Glenhills & Umhlanga
5.	Ntuzuma 3 Res	Shut reservoir outlet	20H00pm to 04H00am	Inanda A,B & C , Ntuzuma F,G & H and Bester Areas

6.	Ntuzuma 7 Res	Shut reservoir outlet	20H00pm to 04H00am	Ntuzuma A,B,C,D & Richmond Farm
7.	Trenance 1 Res	Shut reservoir outlet	20H00pm to 04H00am	Dawncrest, Oaklands, Surya Heights, Sanna Township, Rietriver, Mountview, Parkgate, Trenance Old Phase
8.	Mountview Res	Shut reservoir outlet	20H00pm to 04H00am	Mountview Area, Brindhavan, Southridge, Glenhaven, Parkgate, Rietriver
9.	Trenance 3 Res & Elevated Tower	Shut reservoir outlet & Tower outlet	20H00pm to 04H00am	Amoati, Trenance Park New & old Phase, Redcliffe, Buffeldraai, Groenburg Estate

### 3.0 SUPPLY AND DEMAND ANALYSIS OF THE SYSTEM

- ❖ Please note that this is a very complex hydraulic water supply system. It depends on elevation for gravitational supply as well as pumping mechanism to be able to supply water to customers and stakeholders
- ❖ It also depends on the supply and demand ( usage) and the behavioural patterns of consumers in terms of the consumption of water supply

- ❖ In light of the above facts, it must be noted the times reflected above is a mere guidance of when a reservoir will be shut off to build up storage capacity.
- ❖ It could sometimes happen that a reservoir might already be empty even prior to the scheduled proposed shut off time and as explained this could be due to excessive demand from that reservoir
- ❖ It is extremely difficult to pinpoint or specify an exact cut off times as this will depend entirely on the reservoir consumption patterns that are trending on that date and time.

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