



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA



Continuation of the Reconciliation Strategy of the KZN Coastal
Metro Areas – Phase 2

eThekweni Water Non-Revenue Water Update

August 2016
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Defunct Targets – (September 2015)



NRW Targets - Excluding Deemed Consumption

| Year | Baseline | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
|-------------------------------------|----------|---------|---------|---------|---------|---------|
| Number of Connections | 498105 | 507071 | 530894 | 548387 | 570161 | 570161 |
| System Input Volume (kl/day) | 926683 | 912000 | 910550 | 930594 | 941761 | 953062 |
| Billed Metered Consumption (kl/day) | 558646 | 590646 | 622646 | 654646 | 686646 | 715000 |
| NRW % | 39,7% | 35,2% | 32,3% | 29,7% | 27,1% | 25,0% |
| NRW % Change | | 4,5% | 2,9% | 2,6% | 2,6% | 2,1% |

Impact of Drought and Drought Response

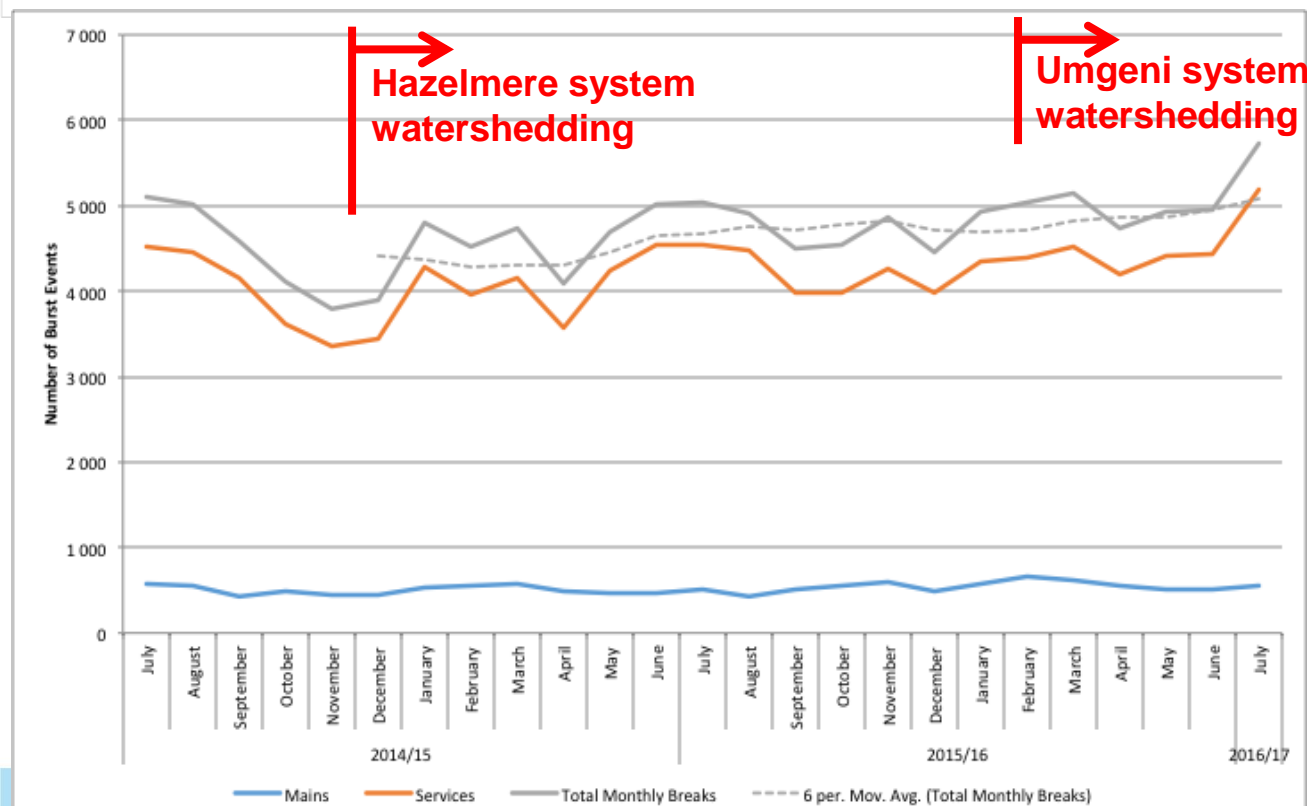
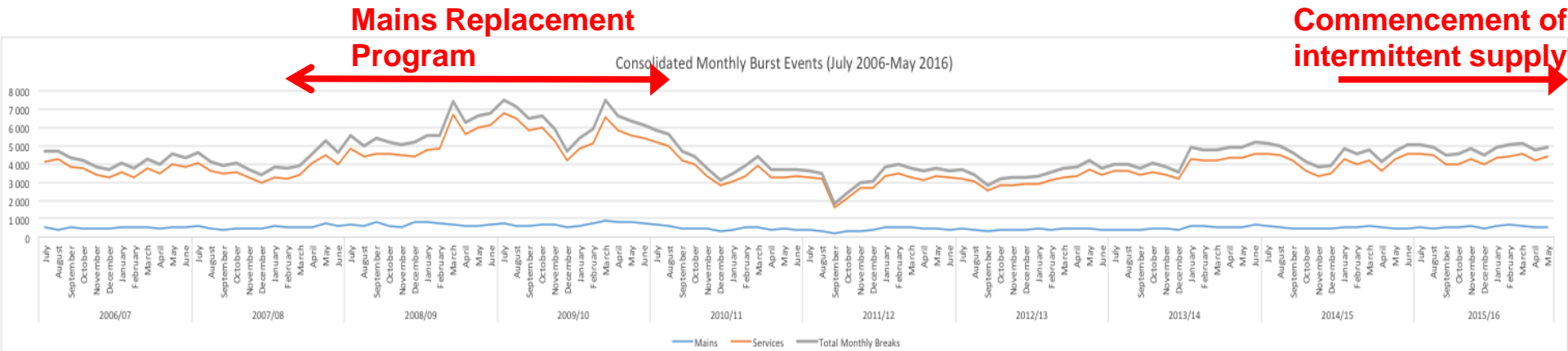
As a rule, it is virtually impossible to reduce % NRW during a drought as this specific KPM relies on increased billing (not decreased consumption as a result of water conservation measures) to make an impact.

EWS's primary drought response measures:

- the installation of consumer restrictor washers;**
- the lowering of pressure at ± 600 prv's;**
- water shedding through the shutting down of storage reservoirs during off-peak periods;**
- communication messages to increase awareness and change behavior;**
- Forced repair at targeted dwellings.**

Note: Fines have not been imposed

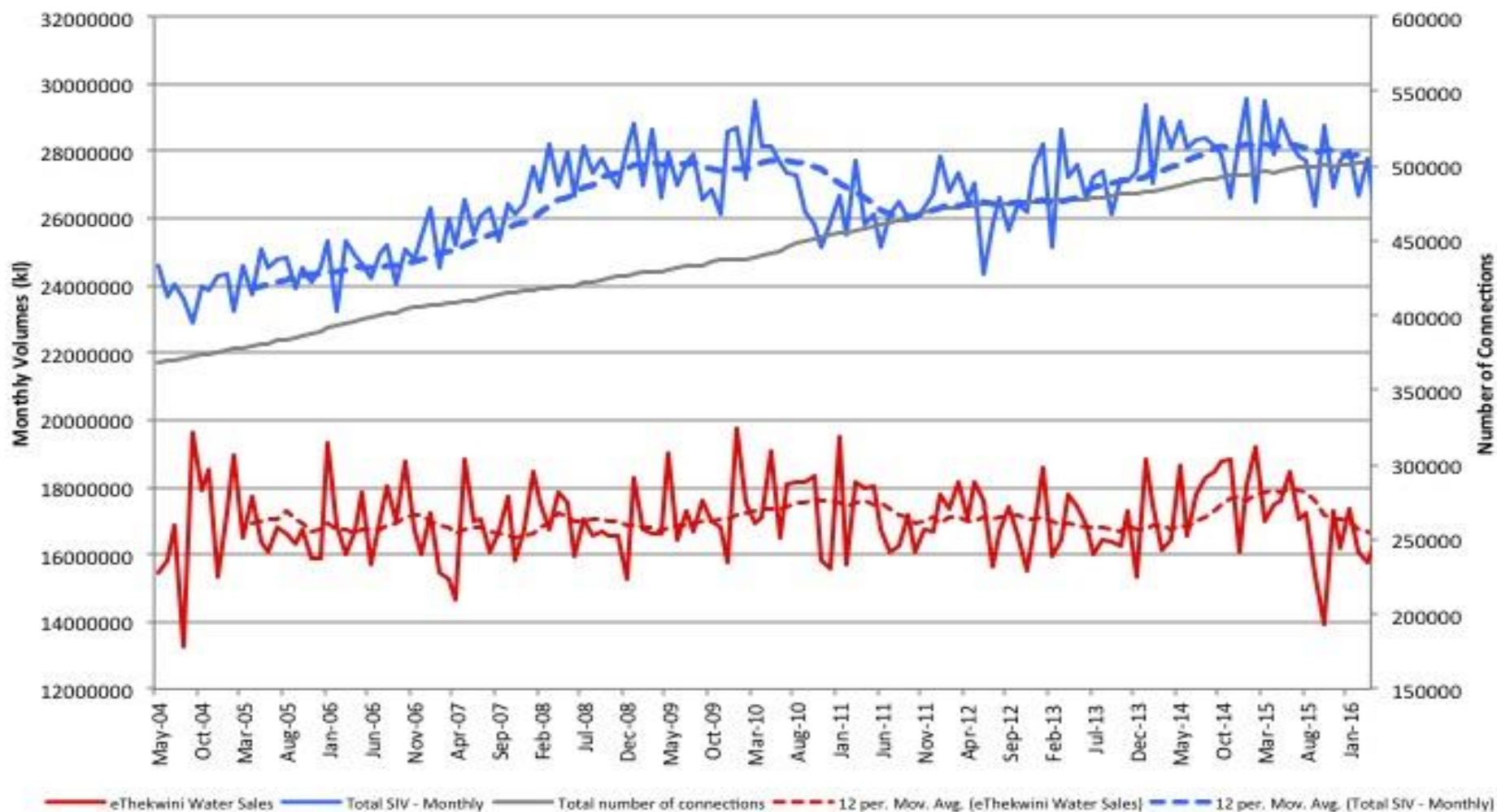
Impact of Drought and Drought Response



Leaks and bursts have increased by approximately 10% as a result of intermittent supply !

eThekweni Sales and Purchases

eThekweni Water and Sanitation
Monthly Volumes and Connections May 2004 to June 2016



5-year NRW Reduction Intervention Program

Target Water Balance Y+5:

| | Baseline Volume (kl/day) | 3-year Target Volume (kl/day) | Targeted Volume Reduction (kl/day) | KPI's |
|---------------------------------|--------------------------------|--|---|-------|
| Water Supplied | 891 204 | 880 602 | -10 602 | |
| Billed Authorised Consumption | 529 158 | 610 000 | 80 842 | |
| Non-Revenue Water | 362 046 | 270 602 | -91 444 | |
| Unbilled Authorised Consumption | 37 572 | 15 000 | -22 572 | |
| Real Losses | 274 204 | 214 602 | -59 601 | |
| Apparent Losses | 50 270 | 41 000 | -9 270 | |
| NRW by Volume % baseline | | | | 40.6% |
| NRW by Volume % target | | | | 30.7% |

A reduction to 30.7% NRW is theoretically possible -
if all requirements are provided and put in place
Note that the biggest change is in the BAC not SIV

System Input Volume

- Current budget for NRW reduction is R138m and the total for 3 years is R531m
- 5 Year strategic NRW reduction plan is being redrafted due to influence of drought
- As the large aqueduct projects curtail, EWS will continue with AC pipe replacement at a projected rate of R300m pa. Professional Services Contract advert has closed and is going to Bid Spec Committee
- EWS is spending R3.2bn on new aqueducts but they will be underutilised unless the uMkhomazi scheme is approved to full fill the growing demand
- The pressure reduction initiative will be competed in approximately 4 years

Intermittent Supply

The impact of intermittent supply is now being experienced by the majority of eThekweni consumers

- ❖ Impact on residential as well as commercial consumers
- ❖ Damage to Infrastructure
 - ❖ (Water mains are not designed for this!)
- ❖ Increase in real losses
- ❖ Damage to meters
- ❖ Decrease in sales and revenue
- ❖ Quality of water is also under threat

➤ Once the drought breaks, a considerable effort will be required to normalize the situation

Thank you