



## **water & sanitation**

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA



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

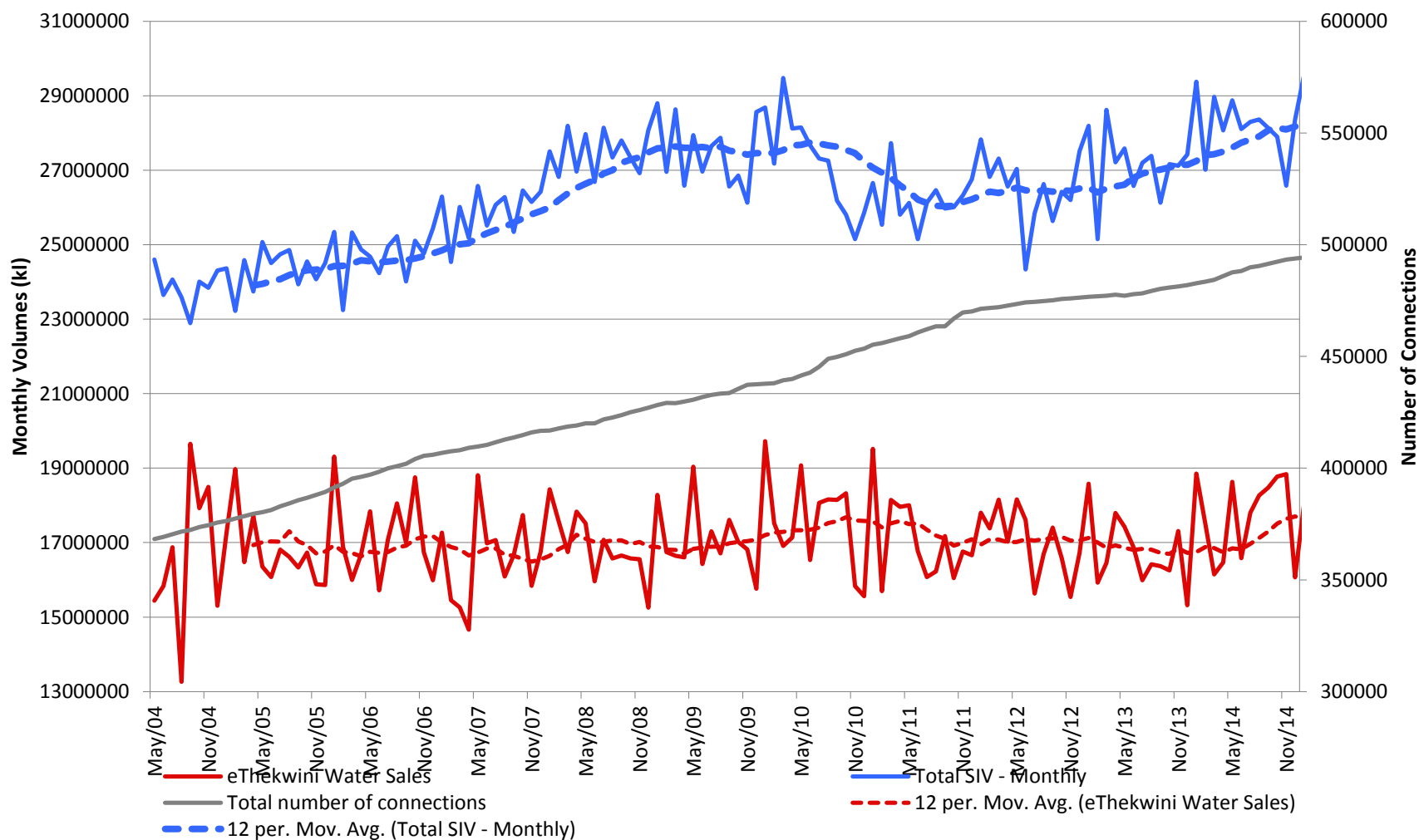
# **eThekweni Water Non-Revenue Water Update**

February 2015

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# eThekweni Sales and Purchases

## eThekweni Water and Sanitation Monthly Volumes and Connections May 2004 to January 2015

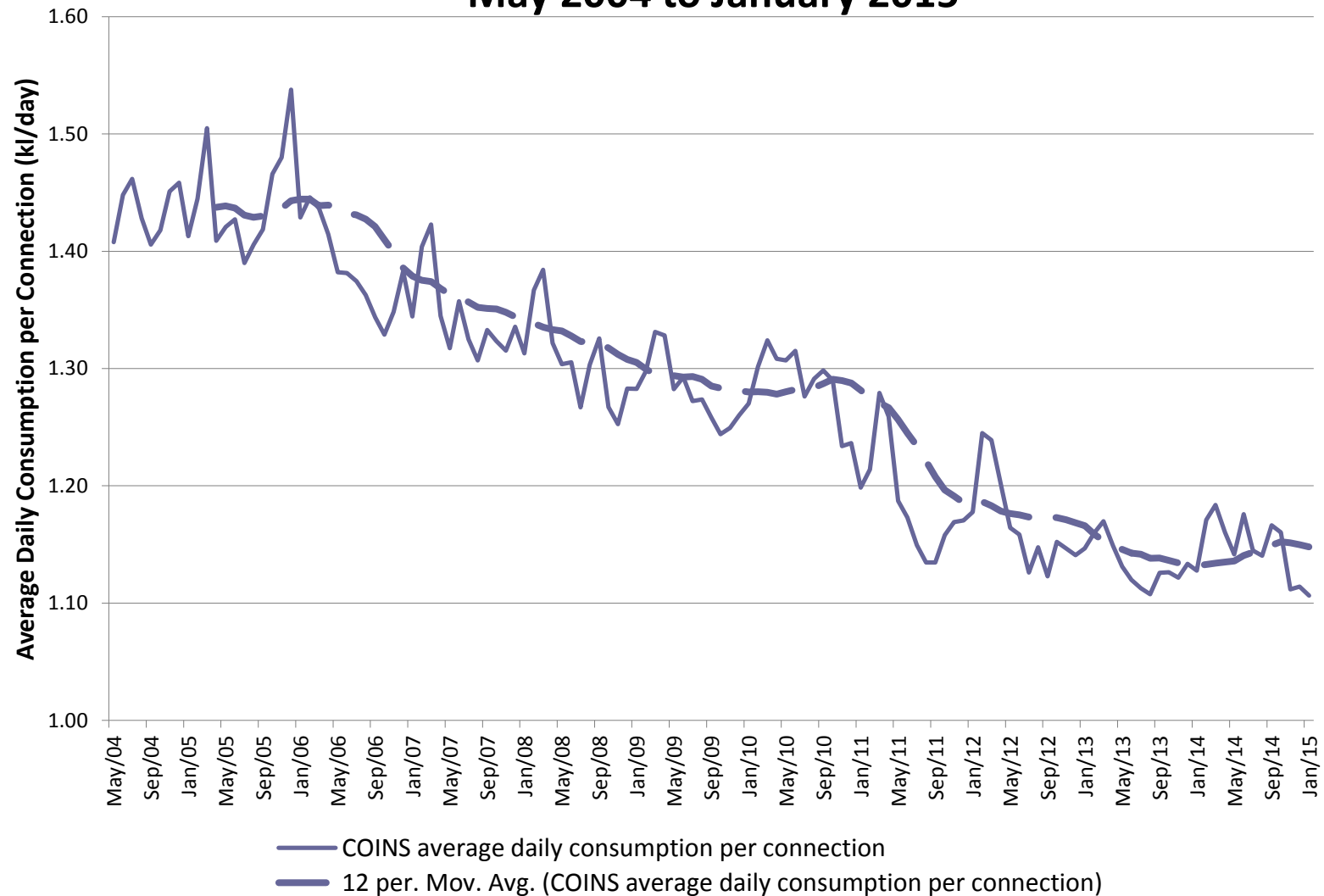


# NRW Capital Budgets

	Project Number	2014/15	2015/16	2016/17
Water loss	X3289	R 65 000 000	R 55 000 000	R 65 000 000
Reservoir and district meters	X5189	R 4 500 000	R 5 000 000	R 5 000 000
Prv Installation	X5906	R 40 000 000	R 40 000 000	R 45 000 000
Advanced Control on Prv's	X6216	R 4 500 000	R 4 500 000	R 4 500 000
Custody Transfer Meter Upgrade	X6217	R 900 000	R 1 000 000	R 1 000 000
Domestic meters - Installation	X4628	R 15 000 000	R 9 000 000	R 15 000 000
Blue Area Project (Flow limiter upgrades)	X6302	R 15 000 000	R 15 000 000	R 25 000 000
Bulk sales meters	X4254	R 5 000 000	R 5 000 000	R 31 700 000
<b>Total</b>		<b>R 149 900 000</b>	<b>R 134 500 000</b>	<b>R 192 200 000</b>
Water Meters (Material)		R 9 000 000	R 10 000 000	R 10 000 000
Replacement of Water Pipes	X4889	R 30 000 000	R 30 000 000	R 30 000 000

# EWS Water Sales

**COINS Average Daily Consumption per Connection Trends  
May 2004 to January 2015**



# eThekweni NRW Targets

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
System Input Volume (kl/day)	909 516	897 864	908 532	919 559	930 952	942 720
Billed Metered Consumption (kl/day)	552 949	602 000	627 000	653 000	680 000	707 000
Number of Registered Service Connections	480 270	497 521	513 934	530 894	548 894	570 161
Average Zone Operating Pressure (m)	55.0	54.0	52.0	50.0	48.0	45.0
Infrastructure Leakage Index (ILI)	8.4	7.6	7.2	6.8	6.5	6.3
Inefficiency of Use %	29.1	27.0	25.0	23.0	21.0	19.0
NRW by Volume %	39.2	35.0	33.0	30.0	27.5	25.0

***Infrastructure Leakage Index (ILI)***

**6,3**

***Leakage Performance Category***

**B1**

***Growth in System Input Volume per annum***

**< 1,3%**

***Inefficiency of Use of Water Resources***

**19,0 %**

***Non-Revenue Water by Volume***

**25,0 %**

***No Drop Assessment Score***

**90,0**

# eThekweni Challenges

- **Natural Rate of Rise of Leakage across entire network**
- **Uncontrolled and unplanned densification of both rural and urban areas**
- **Load shedding**
- **Rising occurrences of intermittent water supply**
- **Illegal connections**
- **Tampering and theft**



# Challenges

- **Behaviour of consumers in low income areas (new Metro Housing projects, rural areas)**
- **Human resource management / Loss of institutional memory**

# Training

- **Up-skilling EWS personnel, particularly Ops, has been identified as a major and important aspect moving forward**
- **12 Module Comprehensive training funded by DWS is being rolled out to key Branches**



# Summary

- The EWS programme has suffered a number of setbacks of the last 3 years, but good rainfall has averted a crisis
- NRW is a complex challenge for us and all utilities
- **Unless improvement to social behaviour is obtained targets will not be reached**
- NRW is being tackled on many fronts
- Increased capex and opex is required for interventions
- The explosion of uncontrolled development in the rural areas is a concern
- The construction of Smithfield Dam must be commenced and brought forward to 2021 if possible.

# Thank you