



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA



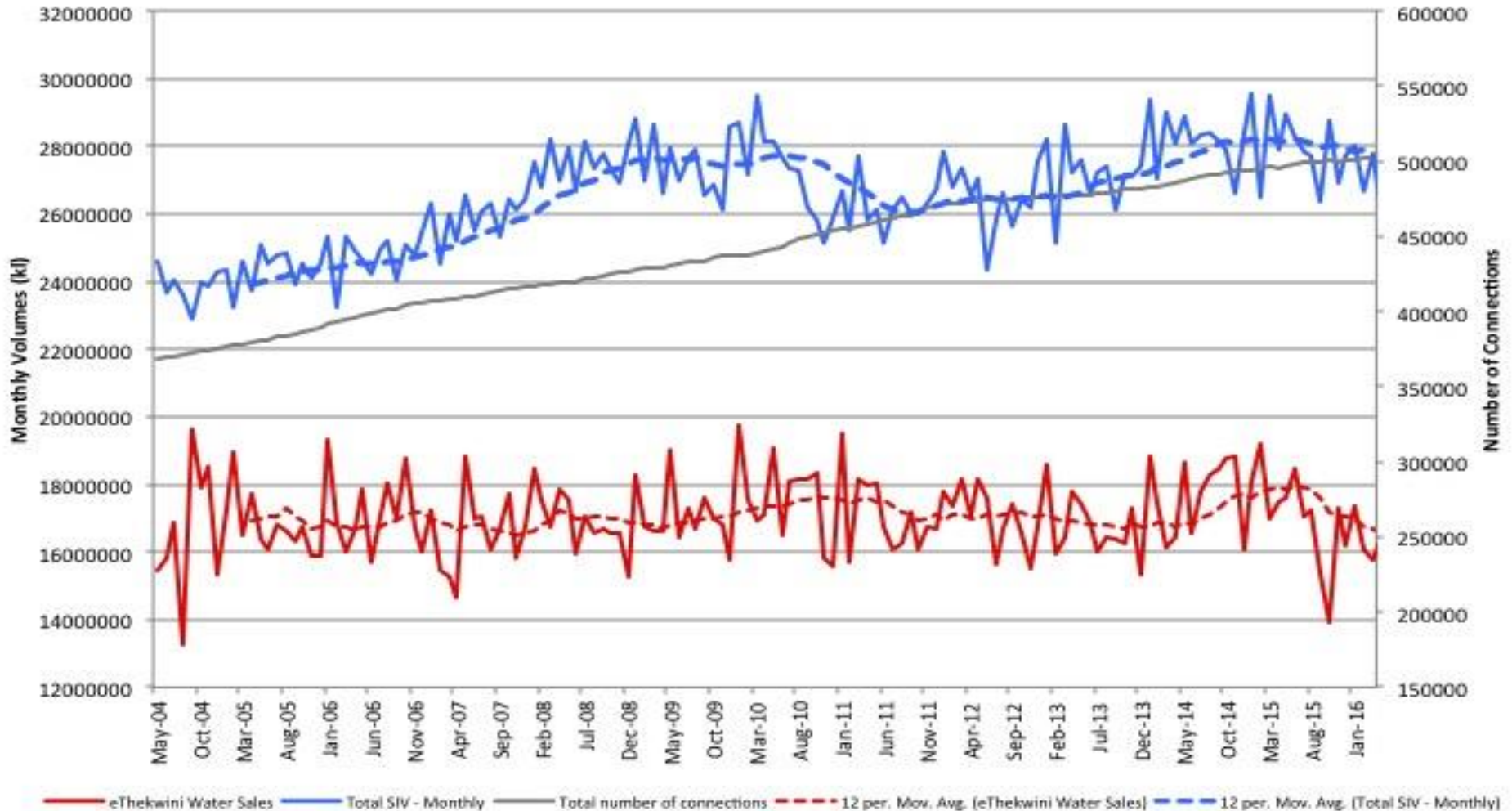
**Continuation of the Reconciliation Strategy of the KZN Coastal
Metro Areas – Phase 2**

eThekweni Water Non-Revenue Water Update

January 2017
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eThekweni Sales and Purchases

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



Comparison of Water Balance Components for the eThekweni Supply System : 2004/05 to 2015/16

Assessment of Water Service Delivery

Indicator	Financial Year					
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Total Number of Connections in Municipality	460723	474193	477849	488270	498105	502580
Fi46 NRW by Volume (%)	33.2%	35.4%	37.3%	39.4%	39.7%	40.7%
WR1 Inefficiency of Use (%)	23.9%	26.9%	27.7%	29.1%	29.5%	30.5%
Op29 Infrastructure Leakage Index	6.8	7.2	7.4	8.1	8.2	7.9
Op23 Total Water Losses per Connection (l/conn/day)	631	642	661	714	719	704
Average SIV (kl/day)	861642	870003	881082	911912	926683	892660
Average Water Sales (kl/day)	575829	561881	552407	552949	558647	529627
Real Loss Volume (kl/day)	206571	234412	244232	265633	273801	272414
Unbilled Authorised and Illegal Volume (kl/day)	59088	51991	59585	59585	65568	62326
Total Water Losses (kl/day)	279758	304805	316044	348575	358333	353670
Non-Revenue Water Volume (kl/day)	285813	308122	328675	358963	368036	363033
Illegal Consumption (kl/day)	53033	48674	46955	55356	55865	52963

**** New RMS Billing System implemented as of July 2016**

Low confidence in RMS system data generated to date as the BMC Data received from Treasury is highly unstable and erratic.

Capital budget and programmes

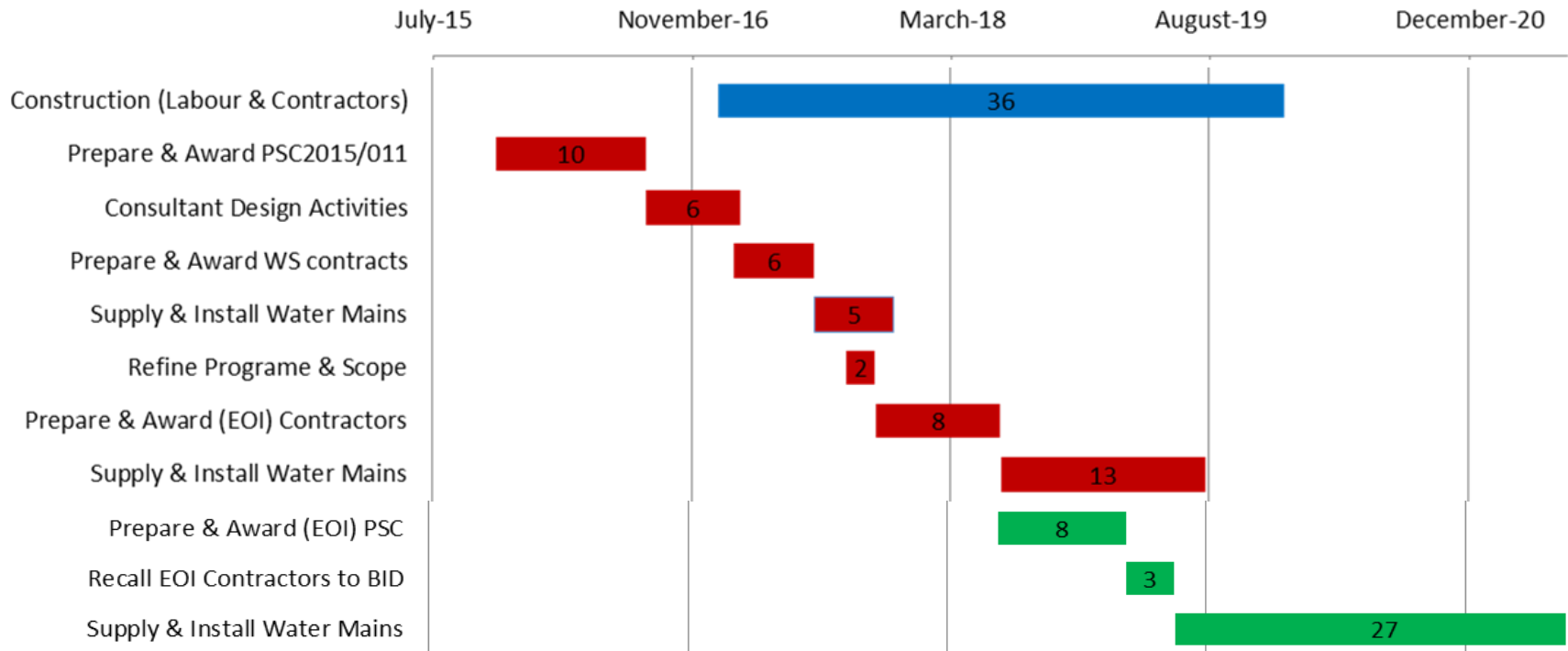
- Over the next three financial years, R151m, R176m and R213m have been allocated for various NRW reduction programmes, demonstrating the commitment of the municipality to reduce NRW.
- Initiatives alone will not address the NRW situation and improvements to both institutional practices and consumer behavior are required to achieve sustainable results

eThekweni WD/WCM Projects

Project No	Description of the project (Total Project Value > R 100 Million)
PSC 2012/004	The Provision Of Consulting Services For The Reduction Of Non-Revenue Water In The Southern Operational Area (Phase 2) ~ R 25.6 Million
PSC 2012/005	The Provision Of Consulting Services For The Reduction Of Non-Revenue Water In The Northern Operational Area (Phase 2) ~ R 17.6 Million
PSC 2012/006	The Provision Of Consulting Services For The Reduction Of Non-Revenue Water In The Western Operational Area (Phase 2) ~ R 16.5 Million
WS6613	Installation Of Consumer Water Meters In Rural Areas Of eThekweni Municipality Phase 1 ~ R 7 Million
WS6609	The Construction Of PRV, Water Meter And Dirt Box Chambers And Ancillary Works For South And Central Operational Areas ~ R 6.7 Million
PSC2014/009	The Provision Of Consulting Services For The Design And Construction Supervision Of Industrial, Commercial And Institutional (ICI) Meter Upgrades And Informal Area Metering Within eThekweni Municipality ~ R 25.8 Million
WS6713	Upgrade To Industrial, Commercial And Institutional (ICI) Water Meter Installations In The eThekweni Municipality Phase 4 ~ R 17.9 Million
WS6692	The Installation Of Bulk Meters To Informal Settlements Proving And Preparation Of Pipework For The Installation Of Bulk Meters In eThekweni Municipality ~ R 9.5 Million

eThekweni Mains Replacement

Project Name	Approved FY 2017/18 Rm	Approved FY 2018/19 Rm	Proposed FY 2019/20 Rm	Proposed FY 2020/21 Rm	Gantt Chart Color Scheme
Relays & Extension	32.000	33.000	36.000	39.000	Blue
Replacement of Water Pipes	50.000	96.228	300.000	300.000	Red Green



eThekweni Pressure Reduction

Three professional services contracts have recently been advertised to complete Phase One of the pressure reduction programme (approximate value R 66 million) over the next 3 years

This will reduce the AZP to 46m

2015/2016 FY Pressure reduction output

- Total No PRVs installations designed and installed = 118
- Total Installed = 43 *

*Shortage of Control Valves – Procurement constraints (*New 70% Local Content Regulation*)
Suppliers unable to meet the min requirements

Internal Customer Services Department

- The installation of new connections in Housing Projects
- The installation of Meters in Informal Settlements (including Community Ablution Meters)
- The Investigation of Properties/Connections with Zero/Unchanging Consumption for more than 90 days
- Data Cleansing and the investigation of Unmetered Properties/Connections
- Metering of historically unmetered properties in Housing Projects

Internal Water Operations Department

- Reactive leak repair through 24 hour call centre
- Active Leak Detection and repairs
- Maintenance of PRV's
- Monitoring of reservoir demand and reaction thereto
- Trunk main maintenance and repair
- Assessment of PC Trunk mains to be followed by rehabilitation or replacement
- Active maintenance of reticulation network

Concluding Comments

- SIV has been taken back to 2008 levels
- Much work is to be done to regularise unmetered consumers
 - This will lower the NRW% but not the SIV
- SIV is still predicted to still climb
- New schemes will be required regardless of the gains from the NRW reduction programmes
- Delays to new schemes will have a negative impact on the existing infrastructure, consumers, municipal revenue and the economy