



# **Msunduzi Municipality**

**NRW Reduction Program  
2014/15 FY Achievements &  
Planned Activities for 2015/16 FY**



# Background to NRW Reduction Program



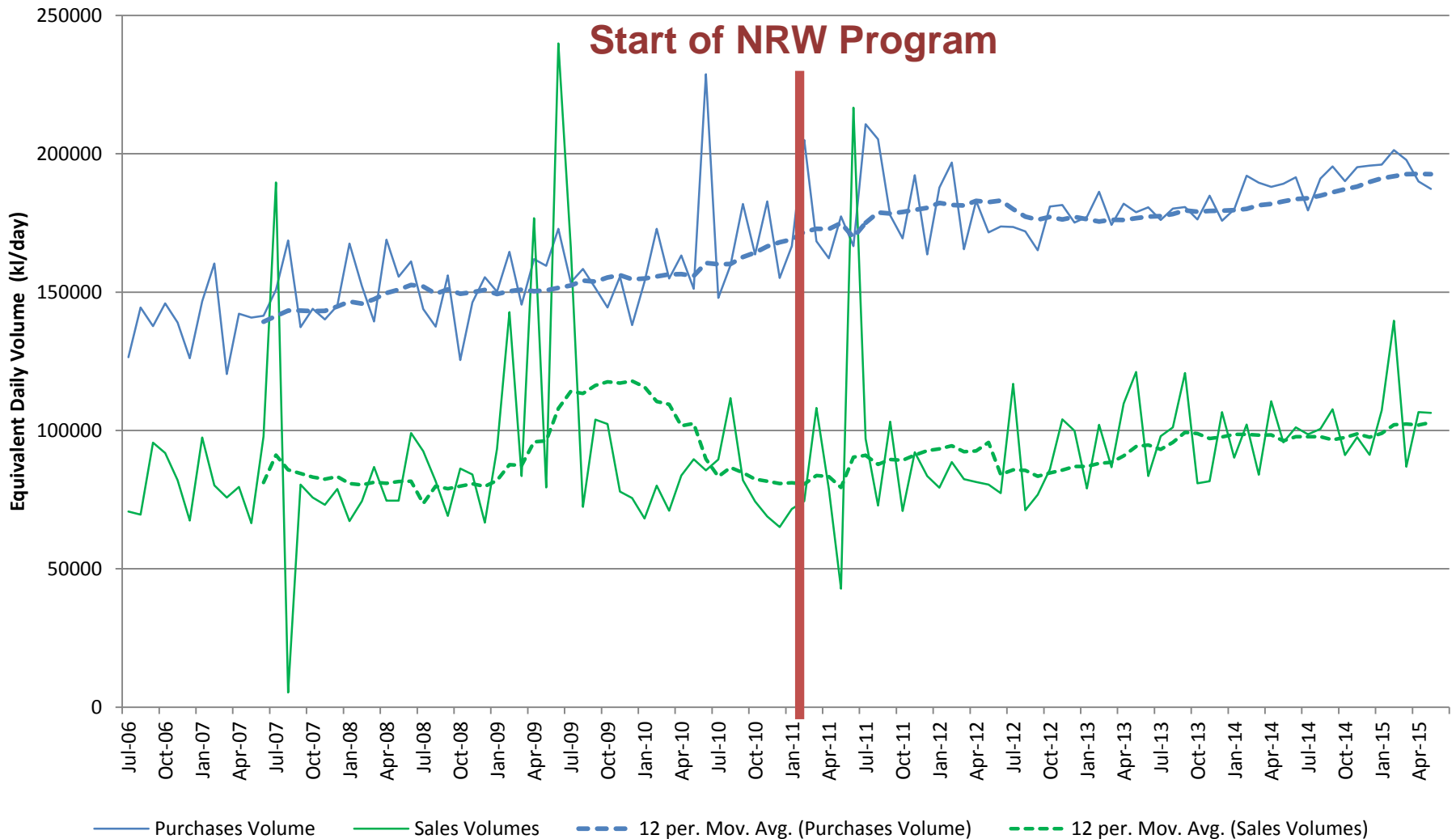
- Msunduzi Municipality has been running a pro-active NRW reduction program since 2010/11 FY;
- The program has been guided by completing prioritised interventions as per their approved Master Plan;
- The program has been funded by MIG, MWIG, ACIP and the Municipality's own sources;
- Over the last two FY's the focus has been shifted from the Master Plan's priorities to rectifying the AG's queries for damaged, malfunctioning or meters that have not being read for 6 months or longer;
- In the 2014/15 FY Vulindlela's Master Plan was also completed (not part of Msunduzi's original Master Plan as Umgeni Water ran the scheme)

# 2014/15 FY IWA Water Balance

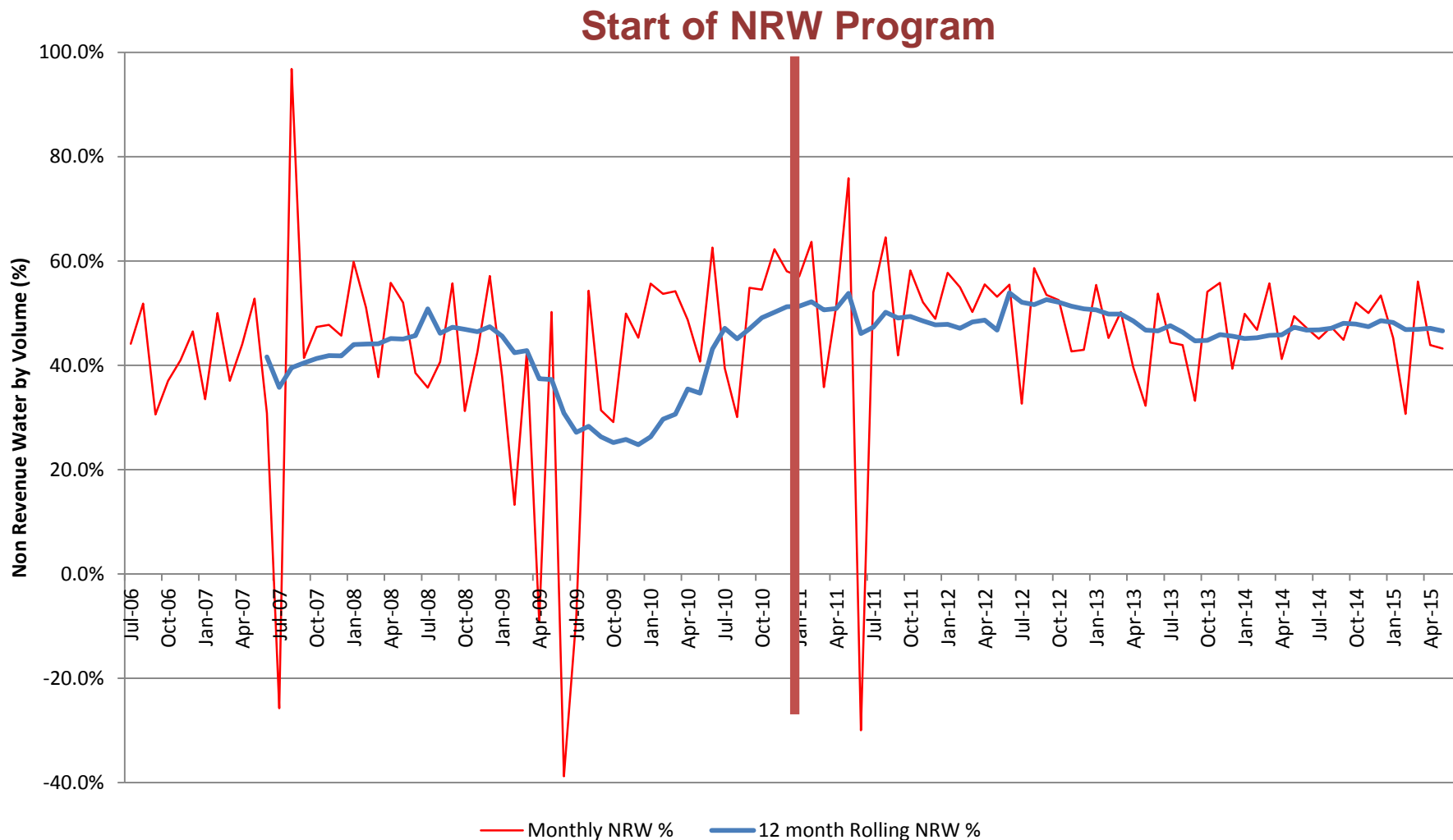


<b>System input volume</b>  <b>70 387 564 m<sup>3</sup>/year</b>	<b>Authorised consumption</b>  <b>47 149 727 m<sup>3</sup>/year</b>	<b>Billed authorised consumption</b>  <b>37 414 729 m<sup>3</sup>/year</b>	<b>Billed metered consumption</b> <b>37 414 729</b>	<b>Revenue water</b>  <b>37 414 729 m<sup>3</sup>/year</b>
			<b>Billed unmetered consumption</b>	
		<b>Unbilled authorised consumption</b>  <b>9 734 998 m<sup>3</sup>/year</b>	<b>Unbilled, metered consumption</b>	<b>Non-revenue water</b>  <b>32 972 835 m<sup>3</sup>/year</b>
			<b>Unbilled unmetered consumption</b> <b>9 734 998</b>	
	<b>Total Water Losses</b> <b>23 237 837 m<sup>3</sup>/year</b>	<b>Apparent losses</b>  <b>6 041 838 m<sup>3</sup>/year</b>	<b>Illegal connections</b> <b>4 732 322</b>	
			<b>Metering inaccuracies</b> <b>1,309,515</b>	
		<b>Real losses</b> <b>17 195 999 m<sup>3</sup>/year</b>	<b>Mains leaks</b>	
			<b>Reservoir overflows</b>	
			<b>Service connection leaks</b>	

# SIV and BMC Trends for 10 FYs



# Resultant NRW (%) Trend for 10 FYs



# Summary of 2014/15 FY Achievements



- 31 PRVs and their zones audited and maintained;
- 300 magnetic tops installed for zone discretion;
- 31 existing PRV installation's bulk meters were replaced; and/or chambers modified;
- 4 new PMZs created for finer control in the CBD;
- 3 041km of leak detection completed;
- 3 136 leaks found and repaired;
- 198 bulk consumer meters replaced/upgraded;
- 2 578 damaged domestic meters were replaced;
- 17 reservoir outlets installed and commissioned;
- Telemetry upgrades for 6 reservoirs completed;
- Various burst pipe, bridge crossings were repaired/replaced;
- Various low pressure pockets corrected and/or rezoned;

**All completed with a budget of R26.8million (ex-VAT)**

# Overview for the 2015/16 FY Budget and Contracts



## Budget

- Budget allocated from MWIG – R15million (ex-VAT);
- Budget allocated from MIG – R16million (ex-VAT);

## Tenders awarded and active for current FY

- Leak detection contractor appointed (Oct 14 – 3 years);
- PSP appointed (Oct 2013 – 3 years)
- Advanced controller supplier awarded (Aug 14 – 2 years);
- Domestic replacement plumbers appointed (Jun 15 – 3 years)

## Tenders required for current FY

- Vulindlela Civils upgrade (currently BAC stage) – Nov 15;
- Bulk consumer meter replacement contractor (currently advertising) – Jan 16.



# Overview of 2015/16 FY Planned Activities



- 23 new PRV zones or PMZs created and commissioned;
- 19 advanced PRV controllers installed and commissioned;
- 6 existing PRV installation's bulk meters to be replaced and/or chambers modified;
- 2 500km of leak detection completed;
- 150 bulk consumer meters replaced/upgraded;
- 1 500 damaged domestic meters replaced;
- 1 500 new domestic meters installed in unmetered areas;
- 300 bulk meters installed on standpipes
- 30 bulk meters installed feeding low cost housing schemes;
- Telemetry upgrades for 5 reservoirs completed;
- Targeted mains replacement program to begin;
- Reduce Total Water Losses to under 30%.



# Overview of 2015/16 FY Progress to Date – Aug 2015



- 18 new PRV zones have been designed;
- 3 existing PRV installation's bulk meters have been replaced and/or chambers modified (50%);
- 1 053km of leak detection completed (42%);
- 56 bulk consumer meters replaced/upgraded (36%);
- 1 259 damaged domestic meters were replaced (84%);
- 1 500 new domestic meters installed in unmetered areas (0%);
- 300 bulk meters installed on standpipes (0%);
- 30 bulk meters installed feeding low cost housing schemes (23%);
- Telemetry upgrades for 5 reservoirs completed (0%);
- Targeted mains replacement program to begin (4%).

**Thank you**



**Any Questions?**