



**water & sanitation**  
Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA



5th REGIONAL AFRICAN  
**WATER**  
LEAKAGE SUMMIT  
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# METRO WATER USAGE

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## METRO WATER USAGE

### Context and Process

- 8 Metros are home to 40% of South Africa's population.
- They supply about 46% of the country's municipal water.
- The 2004/5 to 2011/12 water balance data was obtained from DWS and WRC, and 2012/13 and 13/14 data came from recent DWS assessments.
- Metro demographics were amended to reflect StatsSA population figures.
- No other changes to pre 2012/13 data were made. (Although some metros have changed historic info, this was not accepted.)
- Results of the Metro data analysis will be compared to MBI metro data and aligned further.

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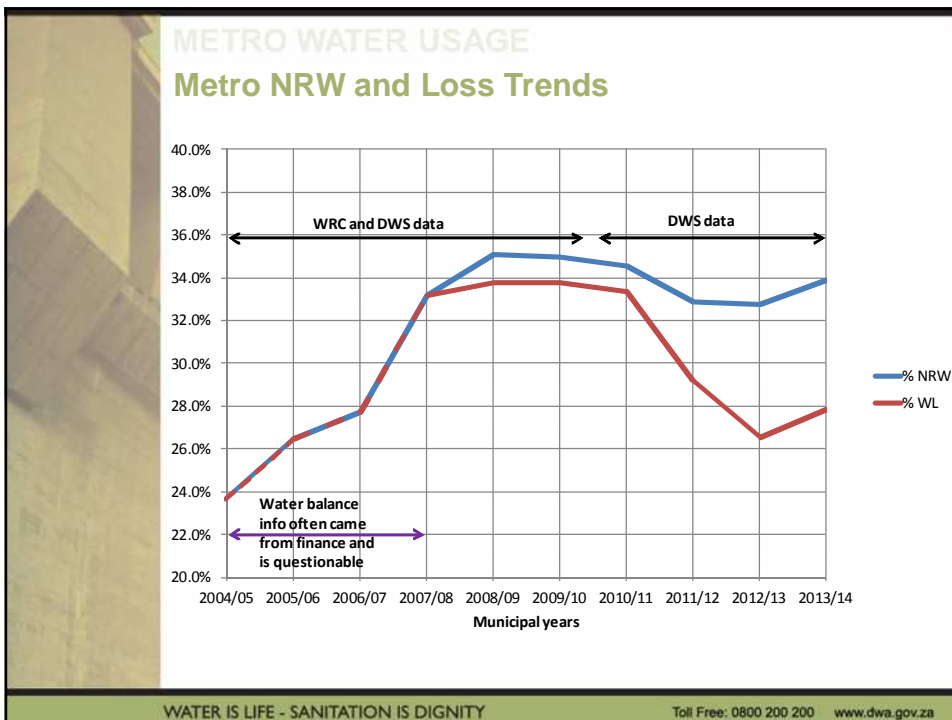
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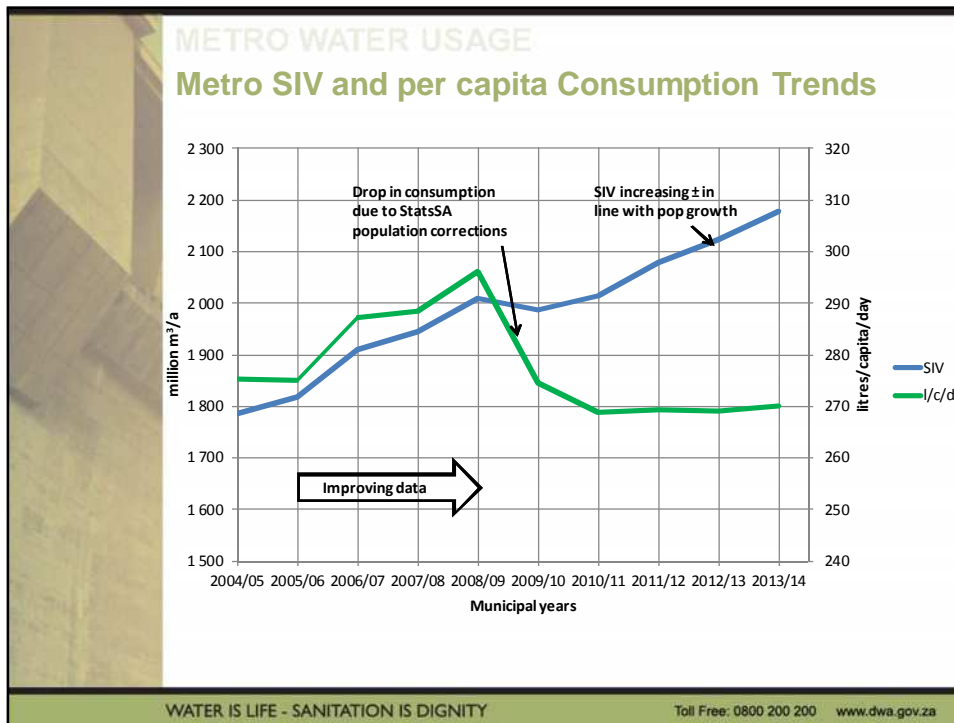
### METRO WATER USAGE

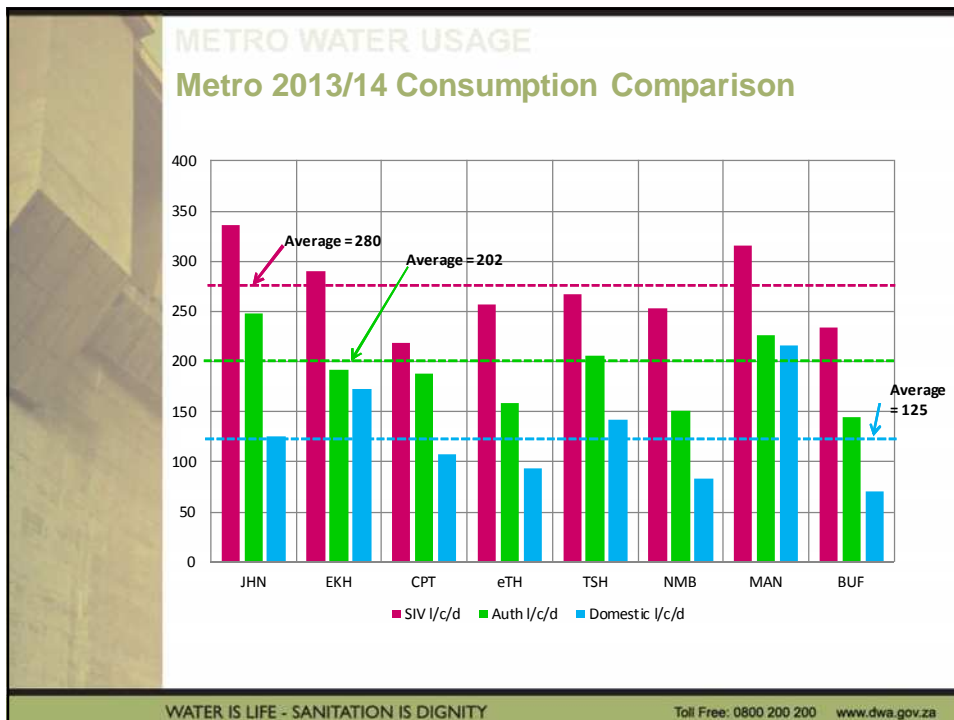
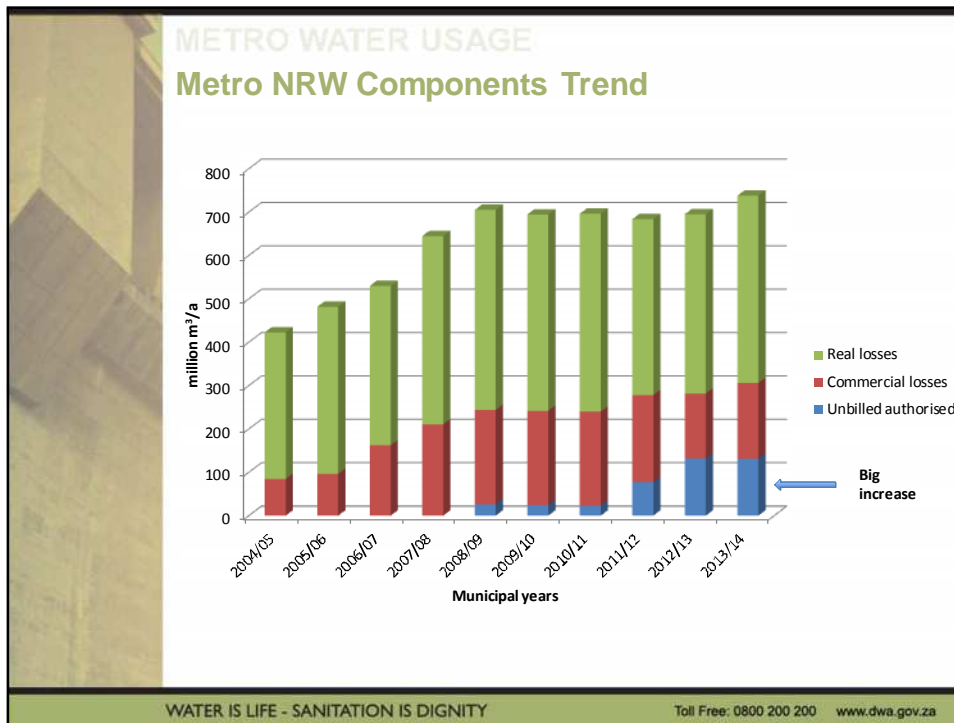
#### Some Abbreviations

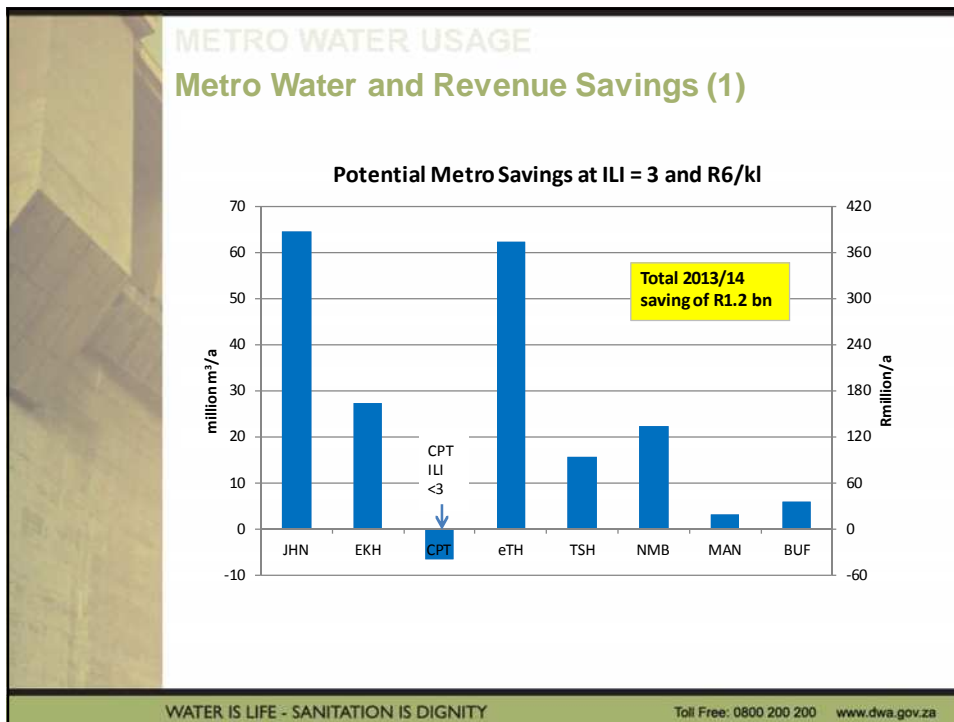
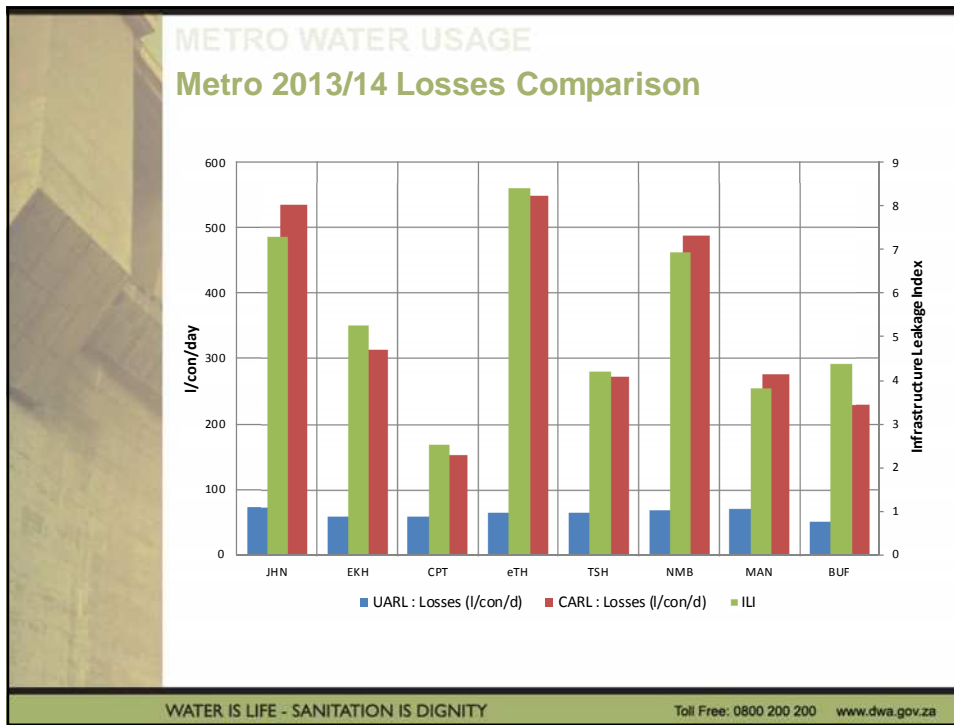
Abbreviations	NRW	Non-revenue water
	WL	Water losses (real/physical + apparent/commercial)
	UARL	Unavoidable annual real losses
	CARL	Current annual real losses
	ILI = CARL/UARL	Infrastructure leakage index

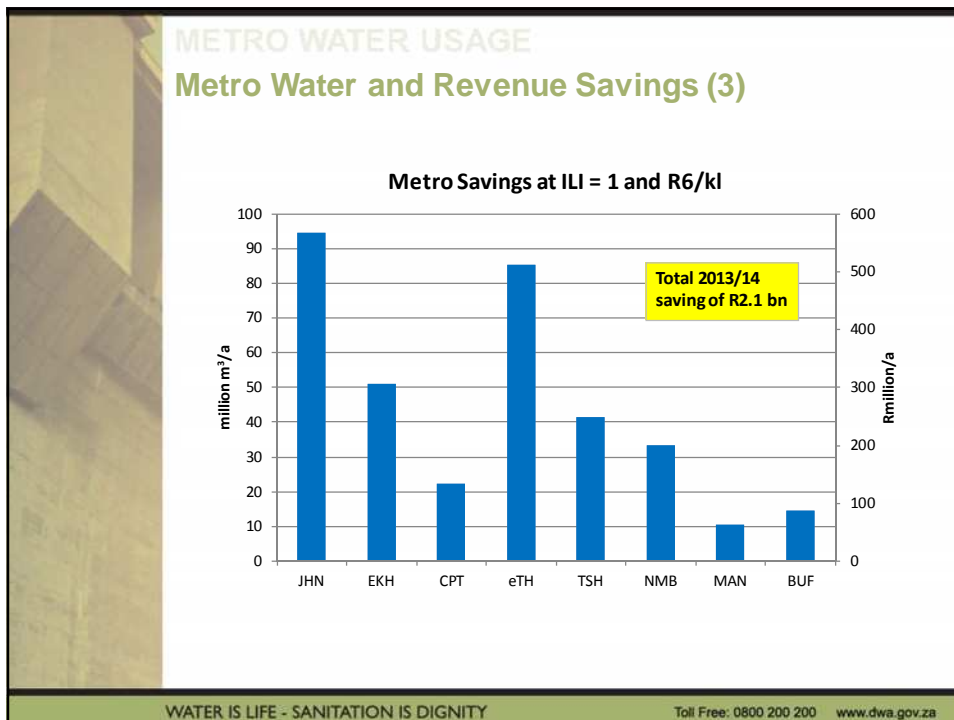
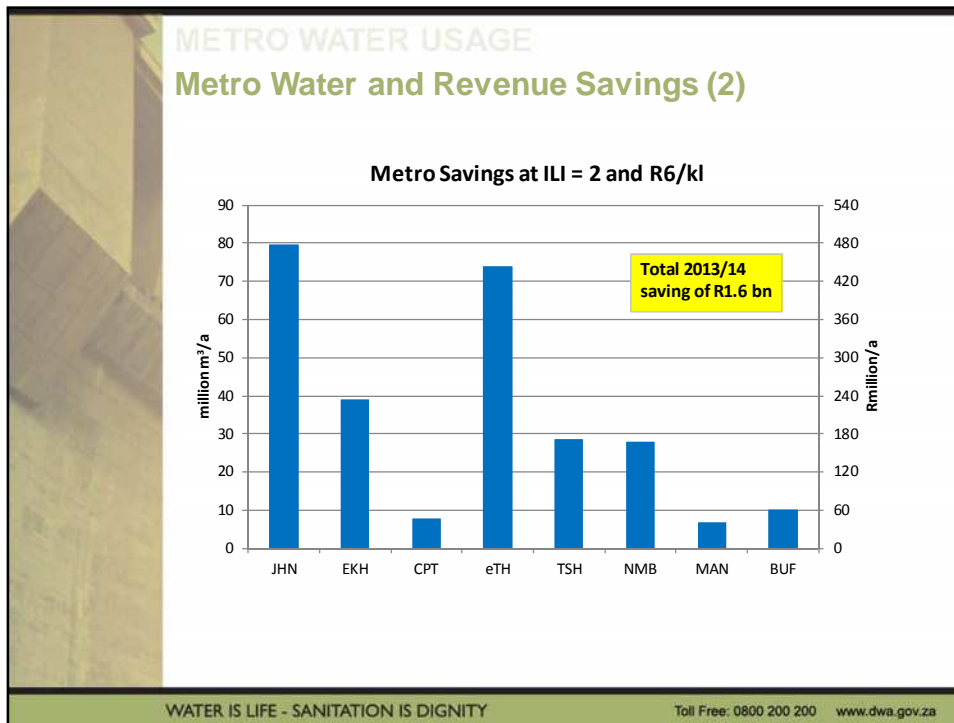
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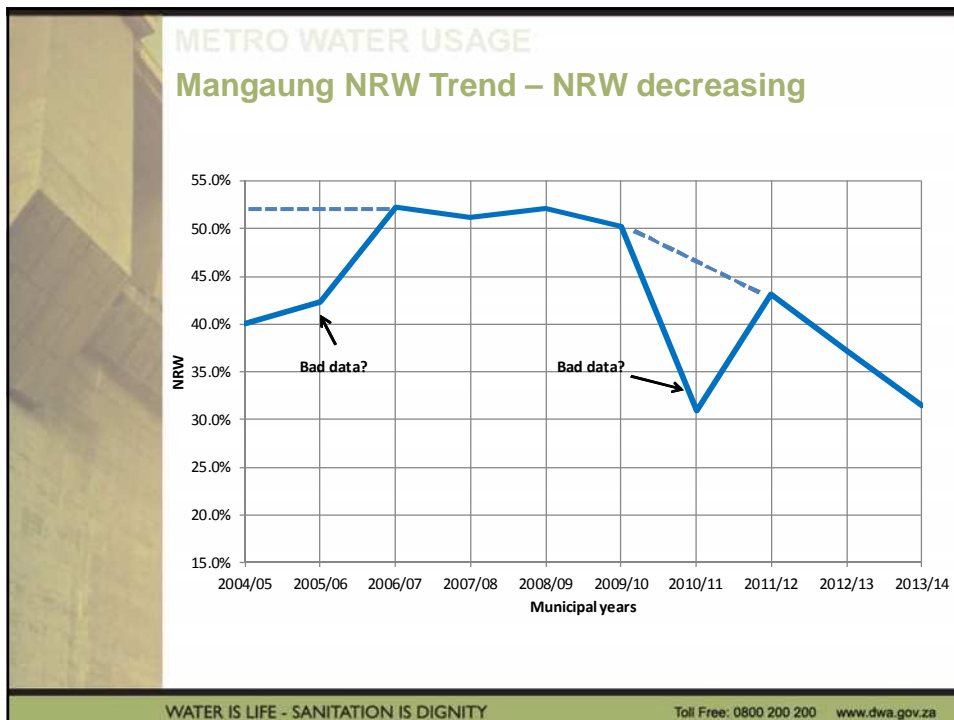
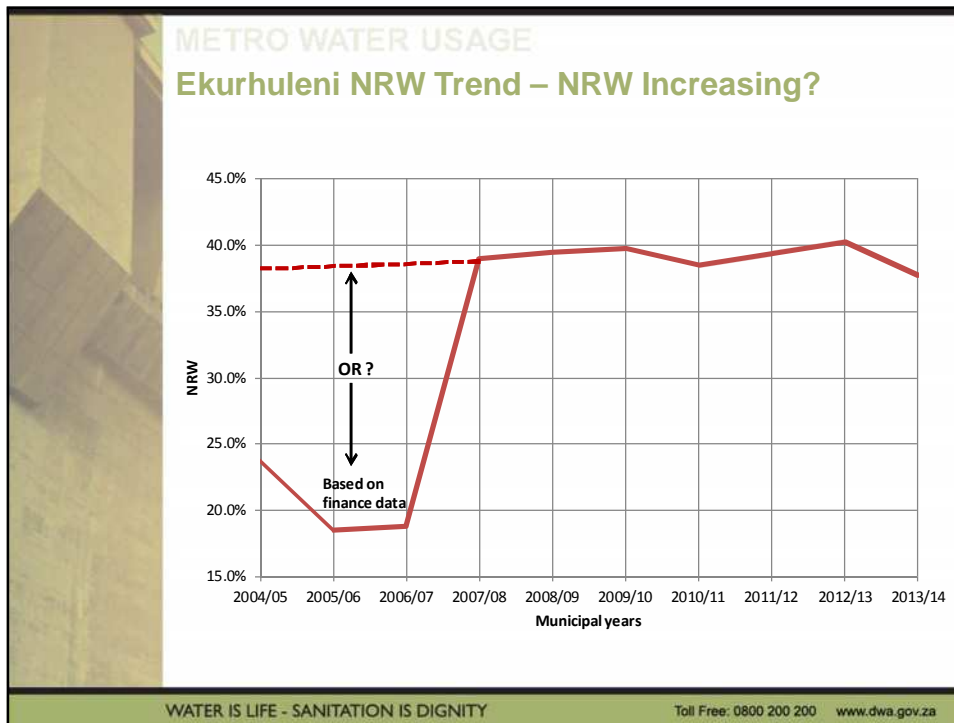


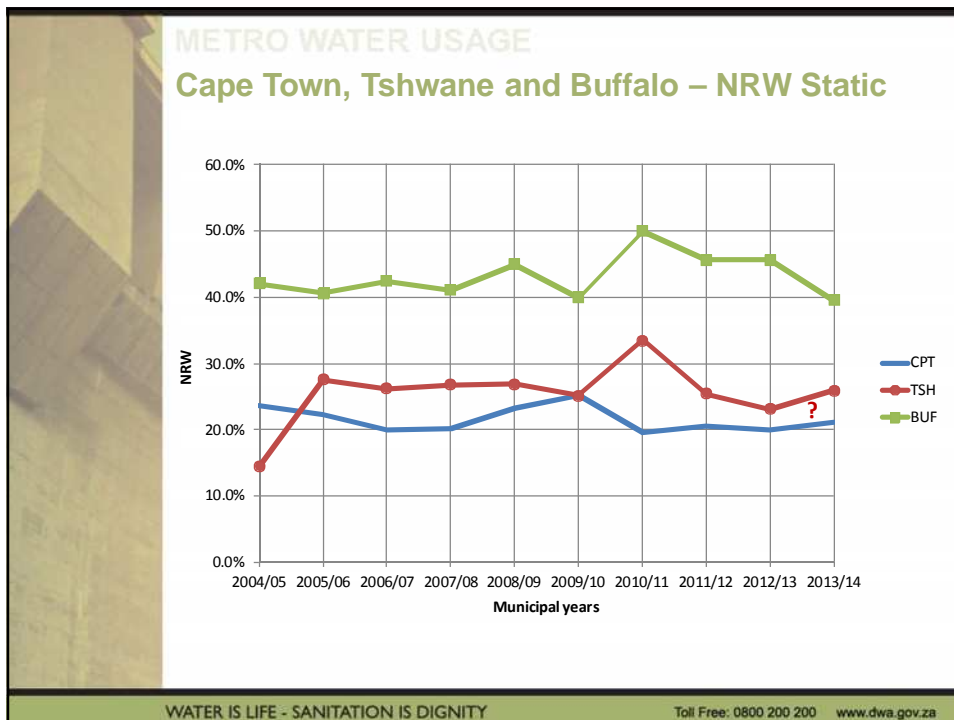
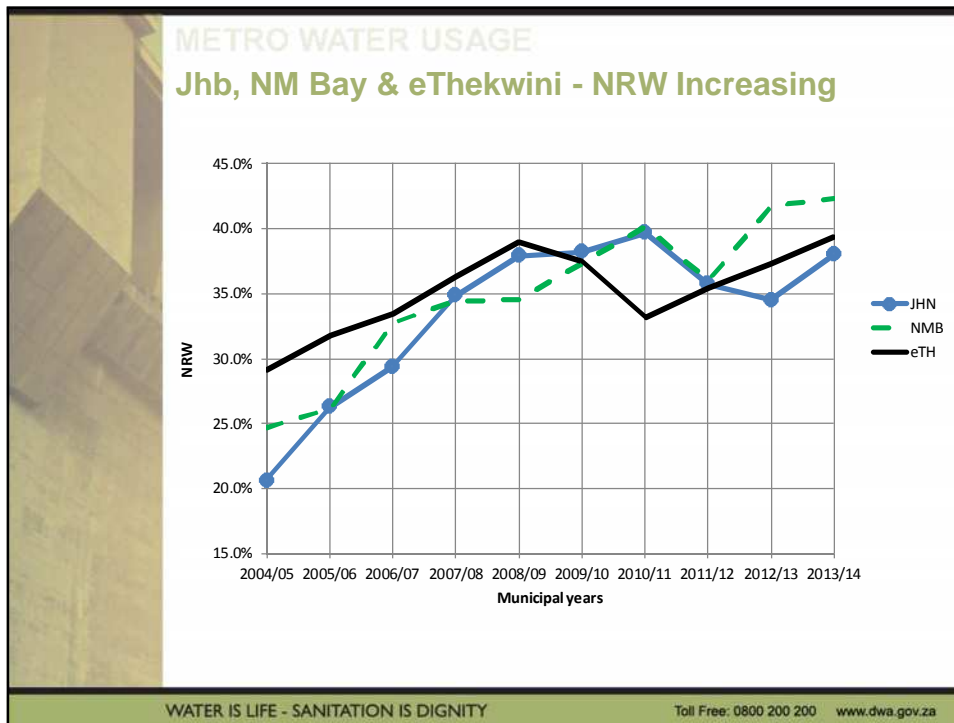














**METRO WATER USAGE**

**Strategic Conclusions (1)**

From the metro analysis the following strategic conclusions can be drawn:

- Metro reporting and data quality are improving;
- Trend analyses since 2008/9 have been impacted on by improved data quality.
- Since 2010/11 NRW and WL have reduced and appear to be plateauing - at about 33% and 27% respectively;
- SIV has increased (2.4%) in line with population growth (2.2%);
- Per capita authorised consumption reduced from 210 l/c/d in 2003/4 to 178 in 2010/11, but has since increased to 192 in 2013/14;
- Average l/c/d measured against SIV is high at 270, but the average domestic component of 125 is substantially lower. The accuracy of the latter is however in doubt and needs verification;

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**Strategic Conclusions (2)**

- Unbilled authorised consumption has increased significantly of late (due to the standardisation of water balance methodology) – from 26 million m<sup>3</sup>/a in 2008/9 to 131 million m<sup>3</sup>/a in 2013/14;
- Total estimated sales loss of NRW is about R4.4bn/a;
- The ILI average has improved considerably over the last 5 years from 7 to 5.5;
- By reducing the ILI Metros can save a considerable amount of money; and
- Jhb and eThekweni have the largest saving potential.

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