

OVERVIEW OF CLIENT AND APPLICATION (2014)

- A local municipality, which acknowledges that it is obliged to halve the levels of water losses by 2014 as per the President's state of Nation Address
- Current NRW volumes currently stand at around 48.5% which includes real losses of 25.5% of all potable water supplied to the Municipality area of jurisdiction.
- Interventions are underway to help reduce the current NRW levels; a dedicated NRW Reduction Program started in the 2011/12 financial year
- ✓ Submitted a 2013 report that summarized NRW interventions completed in two preceding years and an update of the Master Plan for the next 5 years to address high NRW levels.

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- Current NRW volumes currently stand at around 48.5% which includes real losses of 25.5% of all potable water supplied to the Municipality area of jurisdiction.
- Interventions are underway to help reduce the current NRW levels; a dedicated 3-Phase NRW Reduction Program started in the 2011/12 financial year
- ✓ Program in Phase 3 and client has submitted a 2013 report that summarized NRW interventions completed in 1st 2 Phases and an update of the Master Plan for the next 5 years to address high NRW levels.

OVERVIEW PHASE 1 & 2 ACTIVITIES AND RESULTS - 1

- Designing and simulation of pressure management with potential **savings in excess of 10MI/day (or R15million/annum)**.
- Maintenance checks of existing Pressure Reducing Valves to all zones
- installation, commissioning and monitoring of two advanced, flow-modulated controllers feeding most of the CBD with savings for this initiative calculated as a **reduction of real losses of 2.2MI/day (or R3.5million/annum)**;
- Proactive leak detection and repairs in which 1,791km of reticulation surveyed and 1,714 leaks repaired **-reduced real losses by 2.4MI/day (or R3.8million/annum)**;

OVERVIEW PHASE 1 & 2 ACTIVITIES AND RESULTS - 2

- Six reservoirs were surveyed for refurbishment: only managed to refurbish the worst reservoir was refurbished and the calculated savings accounted for a **reduction in real losses by 1.1MI/day (or R1.7million/annum)**
- Targeted mains replacement on ageing infrastructure was completed in the CBD using trenchless technology
- Consumer awareness, audit and analysis of top 100 commercial and industrial consumers completed
- 12589 Meter maintenance and replacement: phase 1 => 6061 meters replaced or maintained leading increase in revenue of 11.5M/d (or R18million/annum; phase 2 1672 meters replaced or maintained but impact yet to be calculated

OVERVIEW PHASE 1 & 2 CHALLENGES

- Limited budget:
 - The entire five-year program from the 2010/11 FY value was costed at R175 million, the result of which would reduce NRW by Volume from approximately 63% to 39%.
 - The second phase of the program requested that a budget of R36.7 million be made available – only R13,5 million was eventually made available (37% of requested budget)
- Protracted procurement processes
- Long history of poor operation and maintenance

Going Forward – 2013/14 Financial Year and the Outer Financial Years

- Municipality's the Water and Sanitation Unit has prepared a Masterplan for NRW reduction program.
- budget set aside for the next five financial years is R15million for the 2013/14 FY and R20million thereafter for the following four FYs.
- Using these budgets (as seen in *Table below*) the Masterplan outlines all the initiatives that have the largest impact on NRW.

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Going Forward – 2013/14 Financial Year and the Outer Financial Years

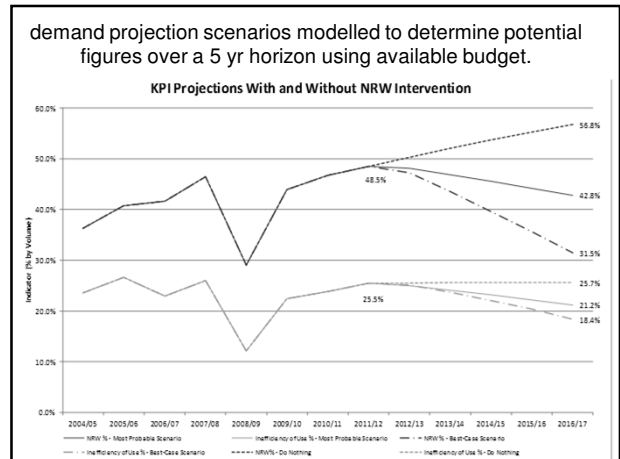
Activity	2013/14 FY				
	2013/14	2014/15	2015/16	2016/17	2017/18
Program Management and Support	R 3,063,000.00	R 4,084,000.00	R 4,084,000.00	R 4,084,000.00	R 4,084,000.00
Reservoir Outlet Metering	R 1,549,263.90	R 3,024,190.29	R 3,538,302.64	R -	R -
Optimising Existing PRV zones	R 2,693,990.00	R 2,091,804.00	R 3,337,378.20	R 3,367,487.50	R 3,502,187.00
Re-zoning of New PRV Zones	R -	R 6,187,951.05	R 5,036,454.07	R 8,743,843.88	R 9,093,597.63
Meter Replacement - Domestic	R 1,188,000.00	R 1,296,000.00	R 1,684,800.00	R 504,000.00	R -
Meter Replacement - Non-Domestic	R 3,960,000.00	R 3,240,000.00	R -	R -	R -
Leak Detection and Repair	R 2,443,500.00	R -	R -	R 3,234,375.00	R 3,217,500.00
Consumer Awareness and Education	R 102,248.10	R 76,054.68	R 119,065.09	R 66,293.63	R 102,715.37
Installation and commissioning of Custody Transfer check meters	R -	R -	R 2,200,000.00	R -	R -
Sub-Total (ex-VAT)	R 15,000,000.00	R 20,000,000.00	R 20,000,000.00	R 20,000,000.01	R 20,000,000.00
Total (incl-VAT)	R 17,100,000.00	R 22,800,000.00	R 22,800,000.00	R 22,800,000.01	R 22,800,000.00
Capital Expenditure (incl-VAT)	R 14,197,849.45	R 22,713,297.69	R 22,664,265.80	R 19,037,237.77	R 19,014,984.48
Operational Expenditure (incl-VAT)	R 2,902,150.55	R 86,702.31	R 135,734.20	R 3,762,762.24	R 3,785,045.52

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demand projection scenarios modelled to determine potential figures over a 5 yr horizon using available budget.

- Do Nothing Approach** – what would happen with the water demands and sales should nothing be done to stop or slow the current trends of bulk water purchases, consumer sales and system attrition
- Best-Case Scenario** – what would happen should all identified NRW reduction activities that have been identified be completed
- Most-Probable Scenario** – closely aligned to the best-case scenario, but taking into consideration the available budget, probable delays in implementation, alignment and process within the MM.

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SUMMARY of KEY MESSAGES

IDEALLY FUNDING SHOULD NOT BE THE ISSUE:
 ✓ Client needs levels/priorities dictate funding options:

- Implementation or support should **not be once-off** – establish **permanent institutional structures**;
- Situation analysis** informs development of more resilient strategies; **what informs your need/offering?**
- Cost/Benefit based prioritisation** of interventions to ensure leveraging on quick-wins; **what has to be first!**
- Sustainability entails accounting for benefits** – within infrastructure development & management.

THERE IS ENOUGH POLICY AND LEGISLATION

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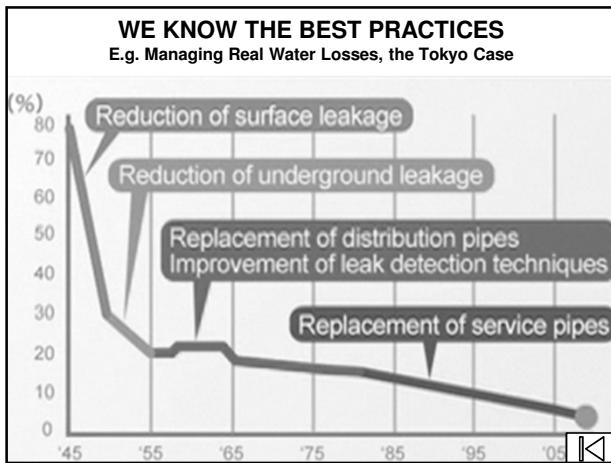
Its more than “JUST PLUGGING THE LEAKS”

New Sources of Water

1. New Dams
2. River Sharing
3. Rain Water Harvesting
4. Desalination
5. Icebergs

END
Thank you

DBSA



END

Thank you.

No Questions?

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