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WATER DEMAND REDUCTION TARGETS SET BY DWA

- In 2005 DWA studied the water supply and demand situation in the IVRS (Integrated Vaal River System) - the IVRS Reconciliation Study
- The bottom line for urban water users was that they had to reduce their demand by 15% to ensure that the region is within the limits of the water supply system. The reduction had to be achieved by 2010
- 3. By 2010 no major demand reduction had been achieved and the deadline for implementation of Project 15% was moved to 2015

RAND WATER

RECENT ACTUAL DEMANDS – RAND WATER

- The graph on the next slide shows Rand Water's abstraction from the IVRS sub-divided into its major components:
 - 1. Local Authorities
 - 2. Mines

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- 3. Other Direct Consumers
- 4. Raw Water Consumers
- 5. Water Loss
- Rand Water's sales to Local Authorities was singled out by DWA for Project 15%



RECENT ACTUAL DEMANDS – RAND WATER MUNICIPAL DEMAND

The graph on the next slide shows:

- 1. The Demand Reduction target for 2015 (1 126 million m3 per annum)
- 2. Various routes that could be taken to reach the target of 1 126:
 - 1. Immediate Reduction this would have resulted in a 15% reduction in demand in 2005 followed by gradual growth of 1.4% per annum up to 2015
 - 2. Deferred Reduction this would have resulted in an annual growth in demand of 1.4% followed by a sudden reduction in demand before 2015
- 3. The expected demand with no WC/WDM resulting in a demand of 1321 mill m3/a
- 4. The current demand projection which shows a 2% pa growth which is much higher than any of the above – the 2015 demand is expected to be 1 416 mill m3/a (126% of the 2015 target set by Project 15%)

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EFFECT OF ACTUAL WC/WDM The graph on the following slide shows the annual impact of not reaching the demand reduction target - annual wastage of water 11 RAND WATER



DEMAND REDUCTION PERFORMANCE VS TARGETS

EFFECT OF ACTUAL WC/WDM • The graph on the following slide shows the cumulative impact of not reaching the demand reduction target – cumulative wastage of water

EFFECT OF ACTUAL WC/WDM RAND WATER PROJECTIONS vs PROJECT 15% QUOTAS CUMULATIVE WASTAGE SINCE 2005 2 000 1 800 WASTED BY JAN 2014 Ê 1 600 1 416 1 318 1 400 1 126 s 1 200 ****** 1 000 Ξ 800 600 400 200 Jun-15 1 13 14 5 8 60-ur ŝ CUM ACTUAL WASTAGE (+)/ REDUCTION (-) vs 2015 DEMAND TARGETS - Actual RW Sales to Local Authorities 14 •••• 2015 MUN SYSTEM INPUT TARGET (PROJ 15%)

3. WATER SUPPLY PLANNING BY RAND WATER

- Rand Water is planning its bulk water infrastructure to supply the high demand trend
- However, in times of restricted raw water abstraction (drought) Rand Water will be limited by DWA, which in turn will make it impossible to supply the high demands

RAND WATER

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