





National Government Directive

- Assagay Hotel WC/WDM Workshop
- 19 August 2010
- President has informed us that average waterloss for SA is 30% He has instructed the Minister of
- Water Affairs that this must be halved by 2014 (18%) Communication to the City Manager
- is expected in this regard Estimated budget given is approx 5bn
- but this funding is not being provided.



NRW Strategic Plan Objectives	
 NRW by volume for 2009/2010 - 37.5% NRW by Volume for 2010/11 YTD - 33,6% Target for June 2013 - 28% loss (R175m pa savings) Target for June 2018 - 25% loss (ILI 4.5) 2% NRW reduction per annum is realistic. 	
 Main drivers:- Reduce real losses AC Mains replacement Active leak detection Pressure reduction Ressure reduction Resure reduction Reduce apparent losses Illegal connection rectification Billing data integrity improvements Improve meter accuracy 	

Own Sources m3/day ± x %		Water Exported m3/day ± x %		Biled Authorised Consumption m3/day ± x %	Billed Water Exported m3/day	Revenue Water m3/day ± x %
			Authorised		Billed Metered Consumption m3/day ± x %	
			Consumption m3/day ± x %		Biled Unmetered Consumption m3/day ± x %	
System Input militay innoted Water mäliday ± x %	System	System Water Input Supplied m3/day m3/day ± x % ± x %		Unbilled Authorised Consumption m3/day ± x %	Unbilled Metered Consumption m3/day ± x %	Non-revenue
	Input m3/day ± x %				Unbilled Unmetered Consumption m3/day ± x %	
		Water Losses	Apparent Losses m3/day ± x %	Unauthorised Consumption m3/day	Water m3/day ± x %	
				Metering Inaccuracies		



NRW Reduction Intervention	2008/09 FY	2009/10 FY	2010/11 FYTD	Total
PRV's designed	62	326	134	522
PRV's commissioned	56	27	76	159
PRV's maintained	1 7 3 5	2 025	939	4 699
PRV controllers commissioned	1	51	23	75
PRV failure devices commissioned	81	19		100
Leak detection length of mains (km)	14 188	14 987	1 710	30 885
Leaks repaired	6 8 3 1	16 305	11 471	34 607
Consumer meters replaced – domestic		8 884	1 162	10 0 46
Consumer meters replaced – ICI		303	920	1 223
Length of mains replaced	724	646		1 370









March Mark

Real Loss Reduction Targets

	Original Physical Targets (all figures cumulative)		
	2010/11 FY	3-year Target 2012/13 FY	10-year Target 2019/20 FY
New PRV's	300	800	1 600
Advanced Controllers	53	200	350
Optimising Existing PRV's	120	200	200
Leak Detection & Repair	5 000km	15 000km	50 000km
Mains Replacement	-	600km	2 000km
Mains under PRV Control	25%	40%	50%

Real Loss Reduction Targets

	Original Loss Reduction Targets (all figures cumulative)			
	2010/11 FY	3-year Target 2012/13 FY	10-year Target 2019/20 FY	
New PRV's	24 MI/day	66 MI/day	79 Ml/day	
Advanced Controllers	4 MI/day	15 MI/day	26 MI/day	
Optimising Existing PRV's	5 MI/day	7 MI/day	7 MI/day	
Leak Detection & Repair	2 MI/day	6 MI/day	20 Ml/day	
Mains Replacement	-	5 MI/day	16 Ml/day	
Total Targeted Real Loss Reduction	35 MI/day	99 Ml/day	148 MI/day	

Apparent / Commercial Losses New standards for meter installations New standards for meter installations New standards for meter installations Change out programme for meters 400m and greater and older than 10 years (1000) Ensure Top 200 meters < 5 years old Change out programme for domestic meters older than 20 years (22 346) Checking Council databases for properties with

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- Sale Anda - Anarika

- Water Accounting buildings or electrical connections that don't have a water connection
 - Checking of all Government owned properties for multiple connections
- Checking properties where connections were previously removed
- Amnesty Programme commenced 15 March 2010
- 75 Custody Transfer Points Bulk Purchase from Umgeni Water (4 upgrades)
- Top 17 sites account for 99% of volume purchase R3m / day





Allied Interventions

Asset management is being implemented across the Unit Risk management has been implemented across the Unit Data cleansing and launch of the new PRV database Drafting of Standard Operating Procedures and asset management plans Performance management of senior staff Increased publicity and communication Buy-in from all Deputy Heads and recognition that the reduction of NRW is a key

strategic initiative





Conclusions

 In order for any NRW reduction intervention to be successful, the entire water company must fully support all aspects of loss management and provide a coordinated effort to reduce all NRW. This is not to be underestimated!

 Consumer education is equally important. Unless the consumers accept and subscribe to our policies we will forever be removing vast numbers of illegal connections and penalising those who do not pay.



· EWS allied interventions R150m

