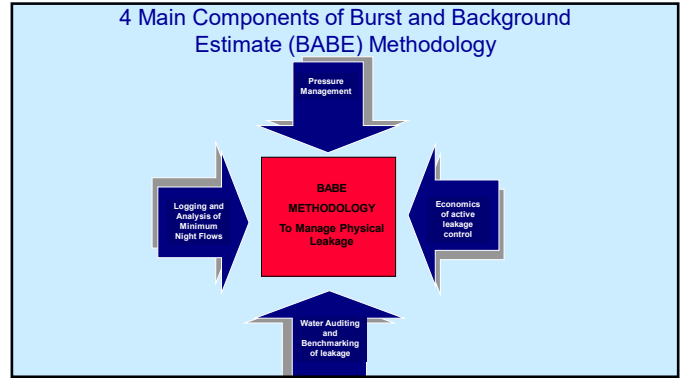




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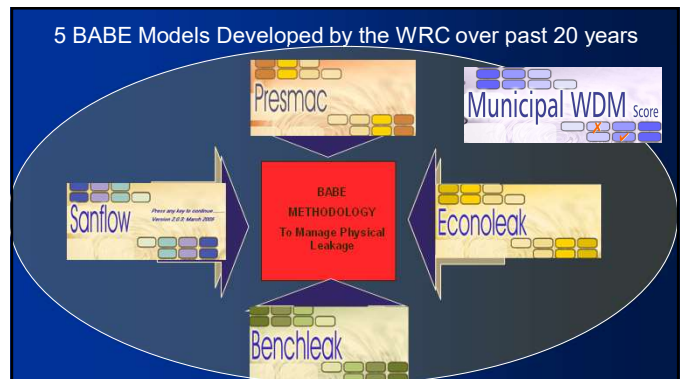
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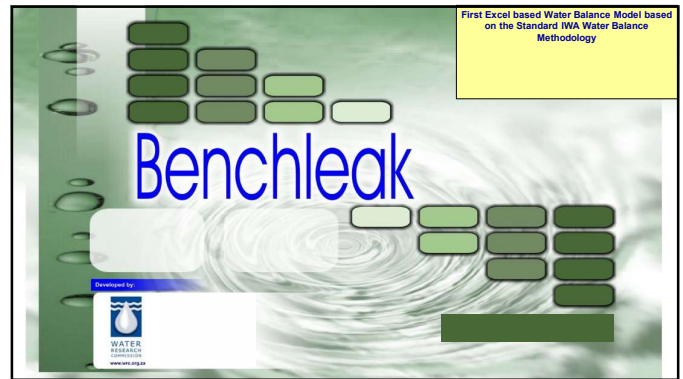
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6

Water Auditing and Standard IWA Water Balance

7

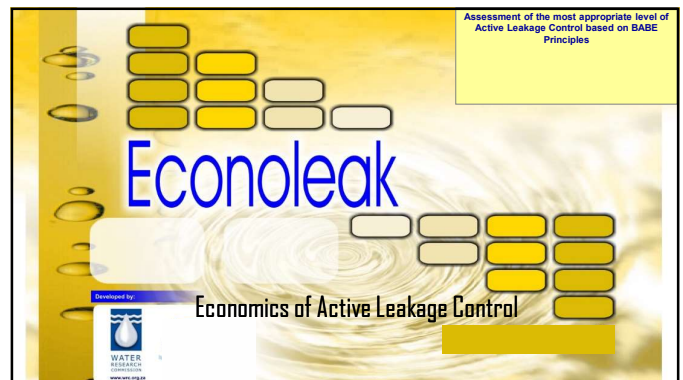


8

IWA Water Balance Modified for Free Basic Water Component in SA

System Input Volume	Authorised Consumption	Billed Authorised Consumption	Billed Metered Consumption	Free Basic Recovered Revenue Non-Recovered
		Unbilled Authorised Consumption	Unbilled Metered Consumption	
Water Losses	Apparent Losses	Real Losses	Unbilled Unmetered Consumption	Non Revenue Water
			Unauthorised Consumption	
			Customer Meter Inaccuracies	
			Leakage on Transmission and Distribution Mains	
			Leakage and Overflows at Storage Tanks	
			Leakage on Service Connections up to point of Customer Meter	

9



10

A financial model based on:
leakage rates,
leak run times,
water costs,
cost of leak detection,
cost of leak repairs
and repairs etc

**to assess the most cost effective frequency for
Leak Detection Interventions (i.e Active Leakage Control)**
(not to be confused with the Economic Level of Leakage)

11

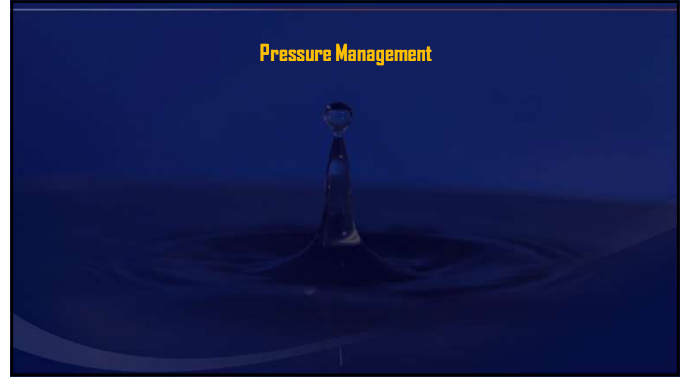
Take Away Point 1

Before you worry about looking
for new leaks– fix the ones you
already know about !!!

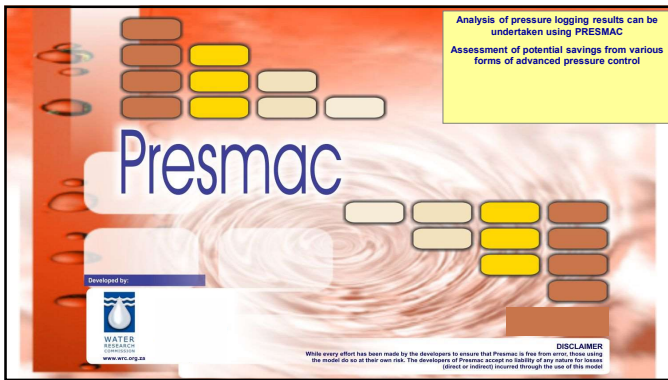
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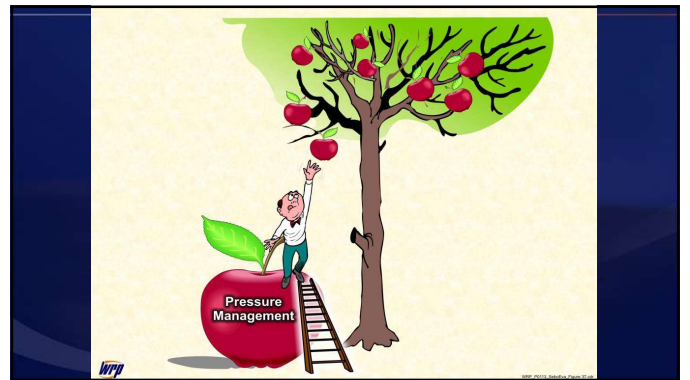
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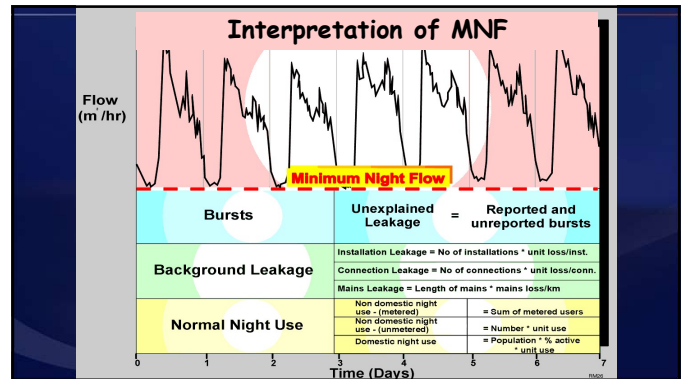
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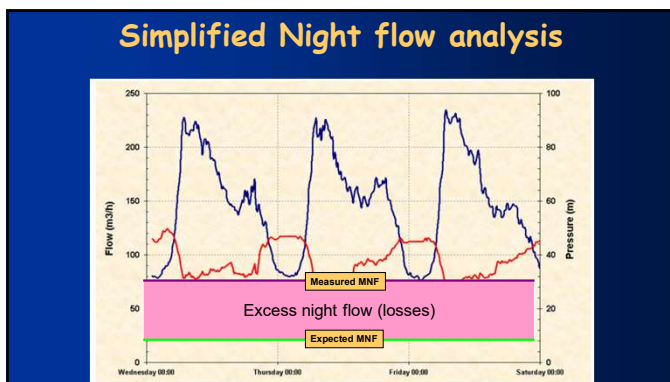
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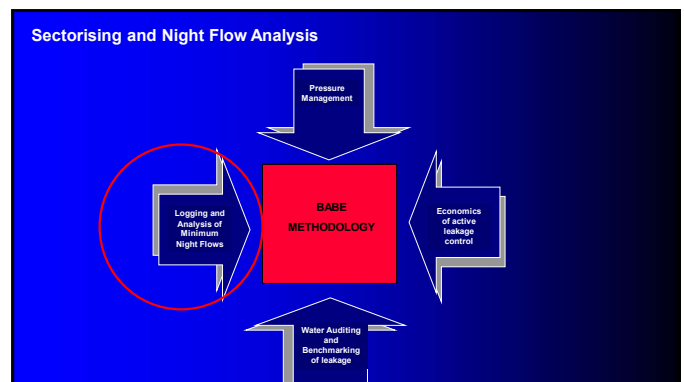
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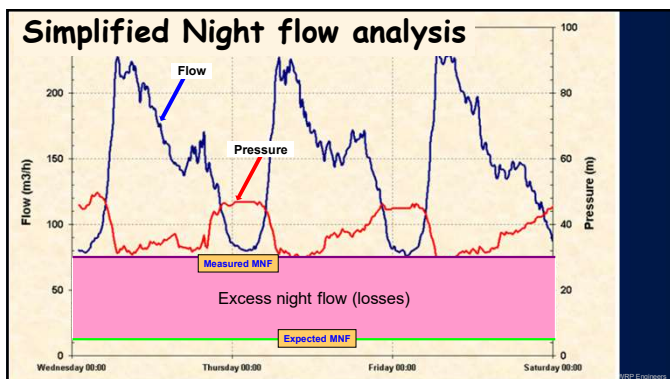
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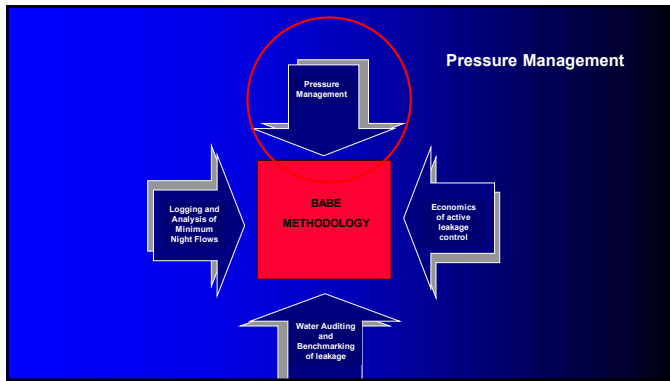
22



23

Using Sectorising and Night Flow Ratio to Identify and Reduce Leakage

24



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