



# DEPARTMENT of LOCAL GOVERNMENT

Provincial Government of the Western Cape



## **Bulk Infrastructure Master Plan (Water & Sanitation) for the Western Cape 8 September 2011**

# Background

- **Bulk infrastructure challenges delaying service delivery**
- **Establishment of BITT**
- **Comprehensive Bulk Infrastructure Master Plans (CBIMP) for each district**
- **Consolidation into one report for the Western Cape**

# Economic and population growth

- Average growth for Western Cape economy estimated at 4.1% per annum for period 2010 – 2015
- Population (excl. City of Cape Town) expected to grow by 750 000 in next 20 years at 1.8% per annum



# Population growth

District	2010 population	Percent of Western Cape	2030 population	Average annual growth rate
Cape Winelands	684,155	38%	998,221	1.9%
West Coast	248,113	14%	393,607	2.3%
Central Karoo	70,432	4%	73,170	0.2%
Eden	556,413	31%	728,085	1.4%
Overberg	233,184	13%	349,551	2.0%
<b>Total</b>	<b>1,792,297</b>		<b>2,542,633</b>	<b>1.8%</b>

# Historic water demand

- **Water demand has increased significantly over the last ten years**
- **Many towns in excess of 5% per annum and some in excess of 10% per annum**
  - Economic & population growth + increased living standards

# City of Cape Town: Bulk Water & Sanitation for 10 years

Description	Budget (R billion)
Reticulation	4.3
Bulk Water	3.5
WWTW	2,2
WDM	0.3
Other	0.7
<b>Total</b>	<b>11,0</b>

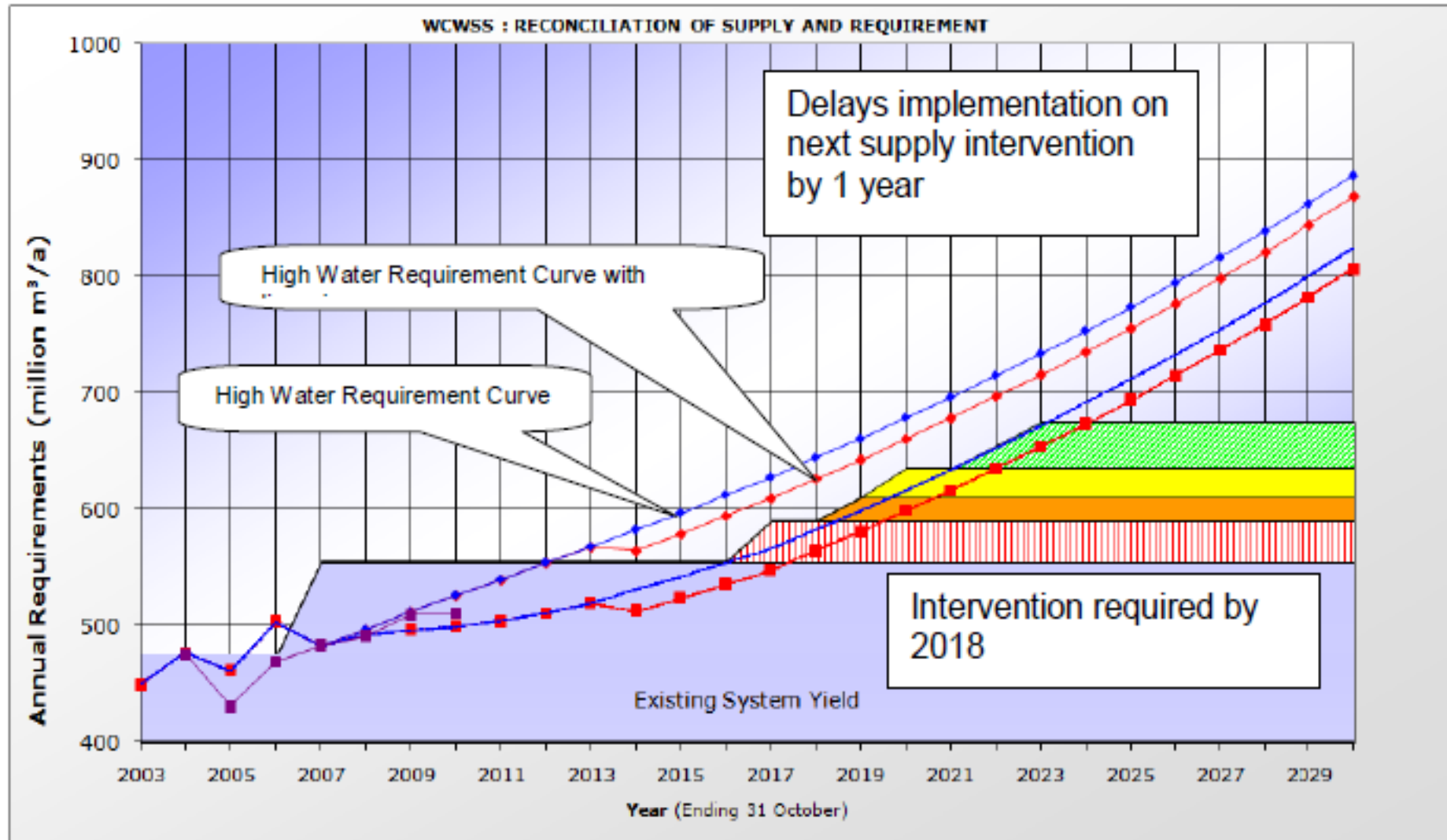
# Project costs (bulk water and sanitation for 15years excl CoCT)

Description	Budget (R billion)
Priority water	1,6
Remainder water	6,0
Priority sanitation	2,1
Remainder sanitation	1,5
<b>Total</b>	<b>11,2</b>

**MIG allocation for 2011/12: R375m**



# Value of Water Demand Management



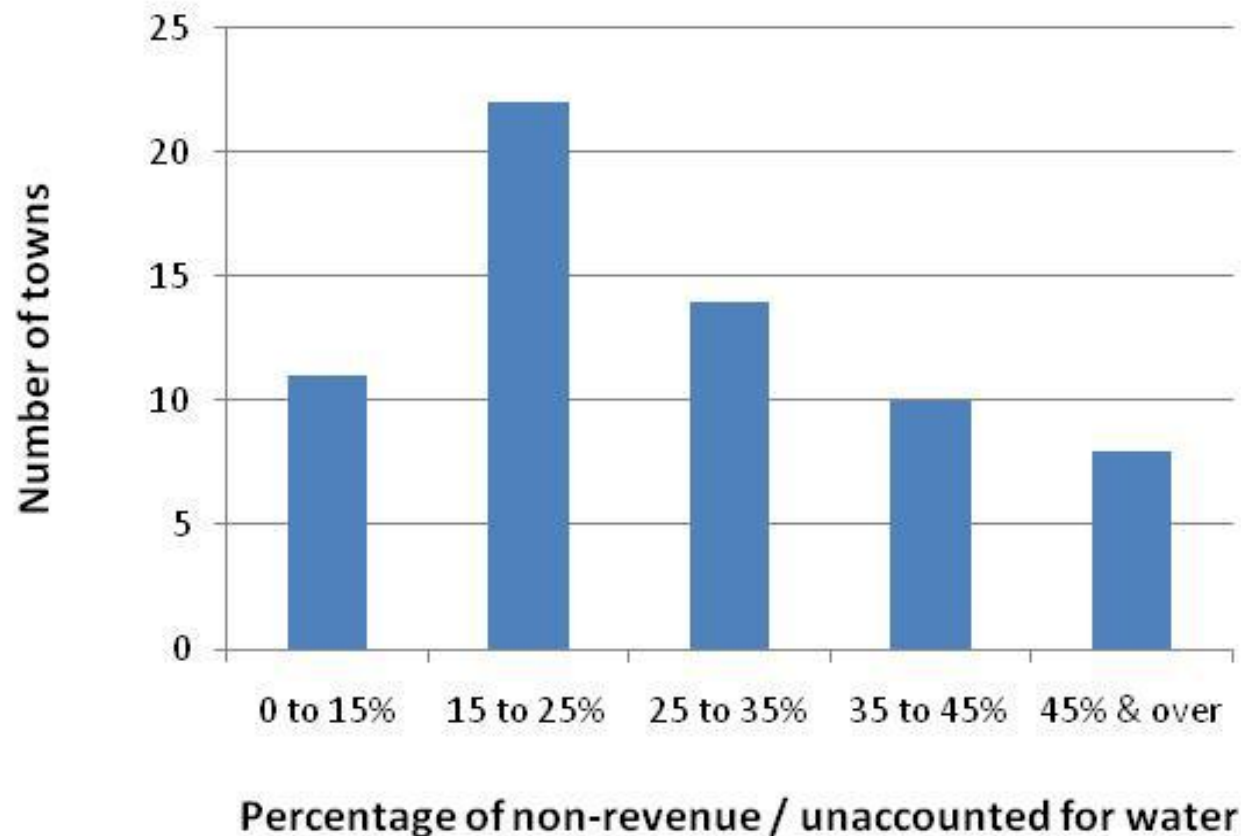


# Unaccounted for Water(UAW) & Non Revenue Water (NRW)

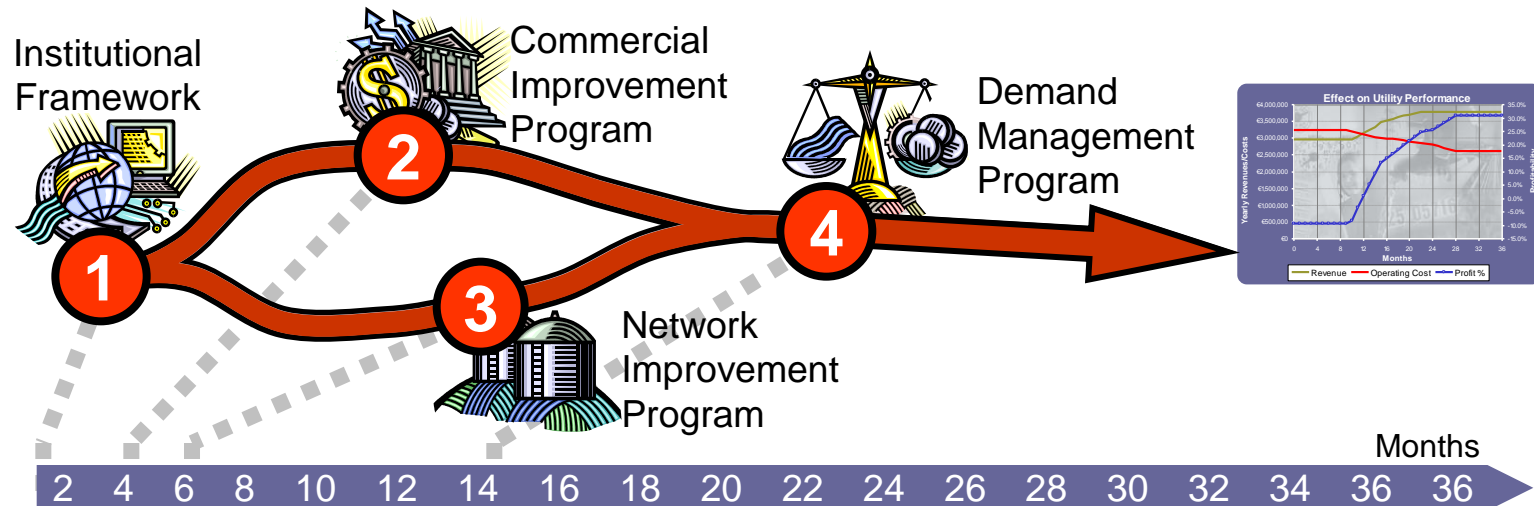
	Billed authorized consumption	Billed metered consumption	Revenue Water
		Billed non-metered consumption	
Authorized Consumption	Unbilled authorized consumption	Unbilled metered consumption	Non Revenue Water
		Unbilled non-metered consumption	
Unaccounted for Water	Apparent losses	Unauthorized consumption	
		Metering inaccuracies	
	Real losses	Leakage on transmission and/or distribution mains	
		Leakage and overflows at utility's storage tanks	
		Leakage on service connections up to customers' meters	

# Water demand management and conservation

## Levels of non-revenue / unaccounted for water

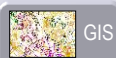


# Effective Utility Management Overview of Methodology



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## Institutional Framework



GIS Property & Plot Data



Policy & Procedure

## Commercial Improvement Program



Commercial Data Analysis



Commercial Rehabilitation

## Network Improvement Program



GIS Network Data Capture



Network Data Analysis

Network Rehabilitation

## Demand Management Program



Leakage Detection, Fixing & Commissioning

Network & Demand Analysis



Network Optimisation



Infrastructure Upgrading

# Recommendations

- **Water services asset management plans to be developed by all municipalities**
- **Municipalities to start planning and EIA processes – seed funding**
- **Environmental processes on projects to be started as soon as possible due to long timeframes**

# Recommendations (Cont)

- **Technical Directors to report specifically on private developments & subsidised housing projects curtailed or postponed due to lack of bulk services**
- **Facilitation of private developers contributing financially towards closing infrastructure gaps, holding back their developments**

# Recommendations (Cont)

- **Chief Financial Officers & Technical Directors to discuss project financing**
- **Opportunities for PPPs and concession projects to be explored:**
  - Management and maintenance of WTWs and WWTWs
  - Large scale investment is required into the development of WTWs and WWTWs

# Recommendations (cont)

- **Provincial Government to provide support to local municipalities (where needed) in the implementation of priority projects**
- **Seed-funding for prefeasibility studies (R100,000 - R200,000 per municipality)**
- **Province takes the lead in facilitating better cooperative governance across government departments**



# Municipal Budgets

- **Financial model to be developed for all municipalities:**
  - **15 year cash flow forecast (incl. EIA timelines, capital costs and escalation)**
  - **Operation and maintenance costs**
  - **Revenue management**
  - **Sources of funding**

**THANK YOU**