

# WATER DEMAND MANAGEMENT

METSI-A-LEKOA  
18 APRIL 2012  
DWAF REGIONAL OFFICE

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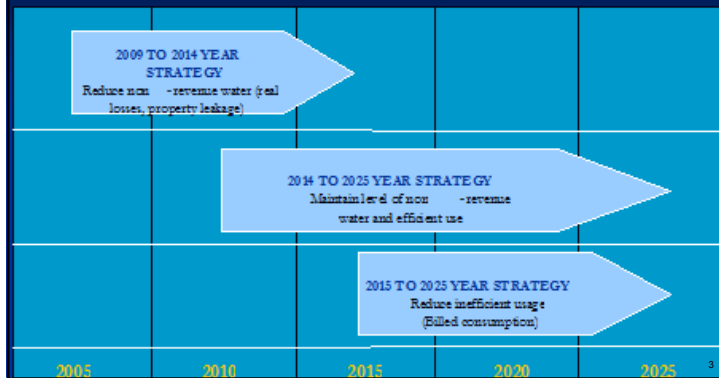
## WDM/WCM PRINCIPALS

- ▶ Effective and sustainable Water Conservation and Water Demand interventions entail the implementation of a mixture of appropriate activities within four strategic pillars.
- ▶ • Technical Interventions
- ▶ • Economic Interventions
- ▶ • Social Interventions
- ▶ • Legislative and Institutional Interventions

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## STRATEGY

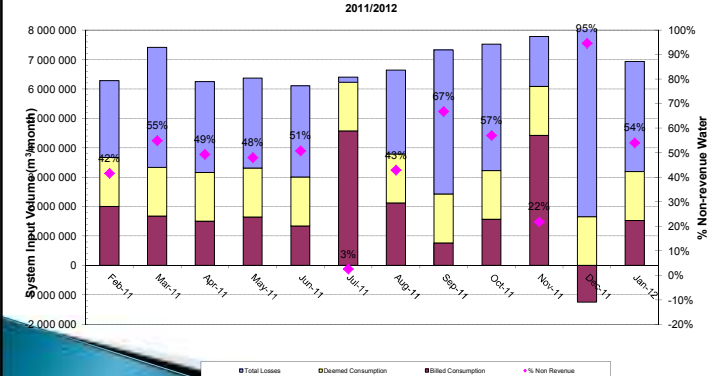
### WC /WDM Strategy



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## MONTHLY WATER BALANCE

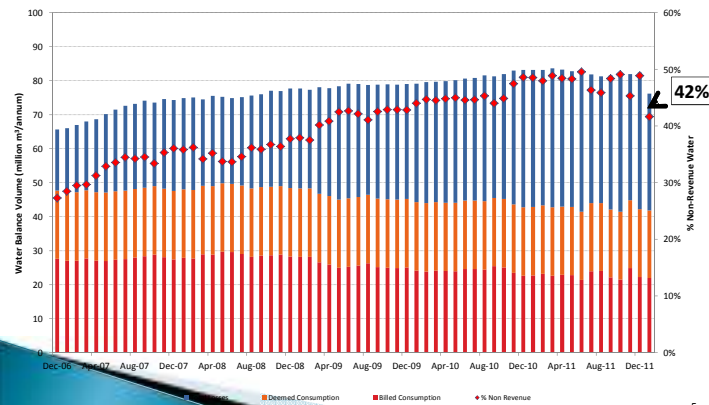
### Emfuleni Water Loss Project Water Balance



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## YEARLY ROLLING WATER BALANCE

Emfuleni Local Municipality - Rolling Year Water Balance



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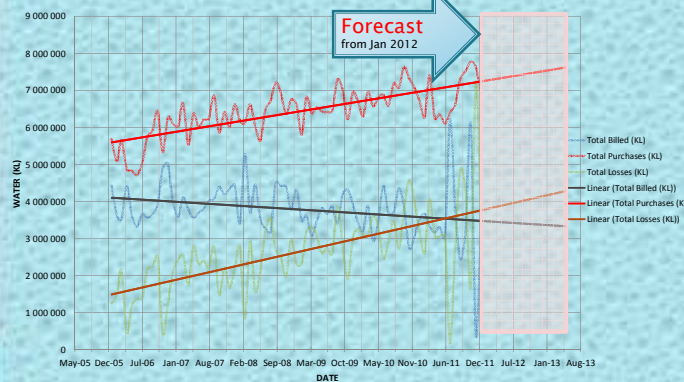
## BILLING INFORMATION

- ▶ Total properties = 166 169
- ▶ Billed per consumption = 39 371 (24%)
- ▶ Flat rate consumers 20 Kl = 83 123 (50%)
- ▶ Farm portions = 1 921 (1%)
- ▶ Stand pipes = 16 526 (12%)
- ▶ Other (no water accounts) = 19 228 (13%)

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## WATER BALANCE FORECAST

EMFULENI LOCAL MUNICIPALITY  
WATER BILLED vs PURCHASES



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## FLAT RATE CONSUMERS

- ▶ Flat rate calculated on 20 Kl/household/month
- ▶ Average consumption 32 Kl/household/month
- ▶ Relates to a loss of 14 % on total water purchases
- ▶ Adjusted water loss 28%

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## INTERVENTIONS

- ▶ Revenue Enhancement and Collection Unit (Institutional)
- ▶ Social interventions : In-house  
: WCM projects
- ▶ Review of By-laws and Tariff structures (Legislative & Economic)

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## PROJECTS

### ▶ Pressure Mangement

- Pressure Station Sebokeng/ Evaton (Phase 1)
  - Bench mark project delivering outstanding savings with low inset costs.
  - Savings SINCE 2005, = R 174 Mill,
  - 9 – 11% of total Emfuleni consumption.
  - This project indicated that 80% of night flow is measured at WWTW.

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## PROJECTS continue

### ▶ Retrofitting (PPP) (Phase2)

- Sasol/Giz :
  - Kick-off meeting 11 April 2012
  - 20 000 house
  - Target 6% savings on total water purchases
  - Project seed funding R 10 Mill, re- investment R 18 Mill
- Rand water:
  - Await appointment of Managing Contractor
  - 1900 houses
  - Project funding R 2 Mill

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## PROJECTS continue

### ▶ Network up grades

- Palm Springs new balk water connection:
  - R 3.4 Mill
  - Progress 50% completed
  - New supply to critical pressure point result in lowering of overall water supply pressure in Evaton.
- Sharpville and VDBP Reservoir refurbishments
  - Busy with specifications
  - Estimated cost R 2.2 Mill

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## PROJECTS continue

- Refurbishment of PRV's in Vereeniging
  - Rand Water appointed under existing contract
  - Budget R 450,000.00
- Quaggasfontein 15 Meg water Reservoir
  - 90% completed
  - Budget R 25 Mill
  - Water supply to new Tshipeso housing development
  - Improve flow and pressure in network.

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## PROJECTS continue

### ► Special Projects

- Smart Metering
  - Deloitte appointed to streamline billing process
  - Technology available investigated (Integrated system water, sanitation and electricity)
  - Busy with business plan finalization
  - Tenders advertised for pilot project
- EPWP
  - Funds allocated for EPWP program, water meter cleaning. Work force appointed and await PPE for project to kick off. Budget R 1 Mill.

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## PROJECTS continue

### ► Water Demand Management

- Appointed 3 year WC/WDM consultant
  - Amount of meters audited = 11 600 of 80 000
  - Amount of water meters replaced to date = 286
  - Focus on flat rate areas.

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THANK YOU

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