



CITY OF CAPE TOWN
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City of Cape Town's long term water supply plans

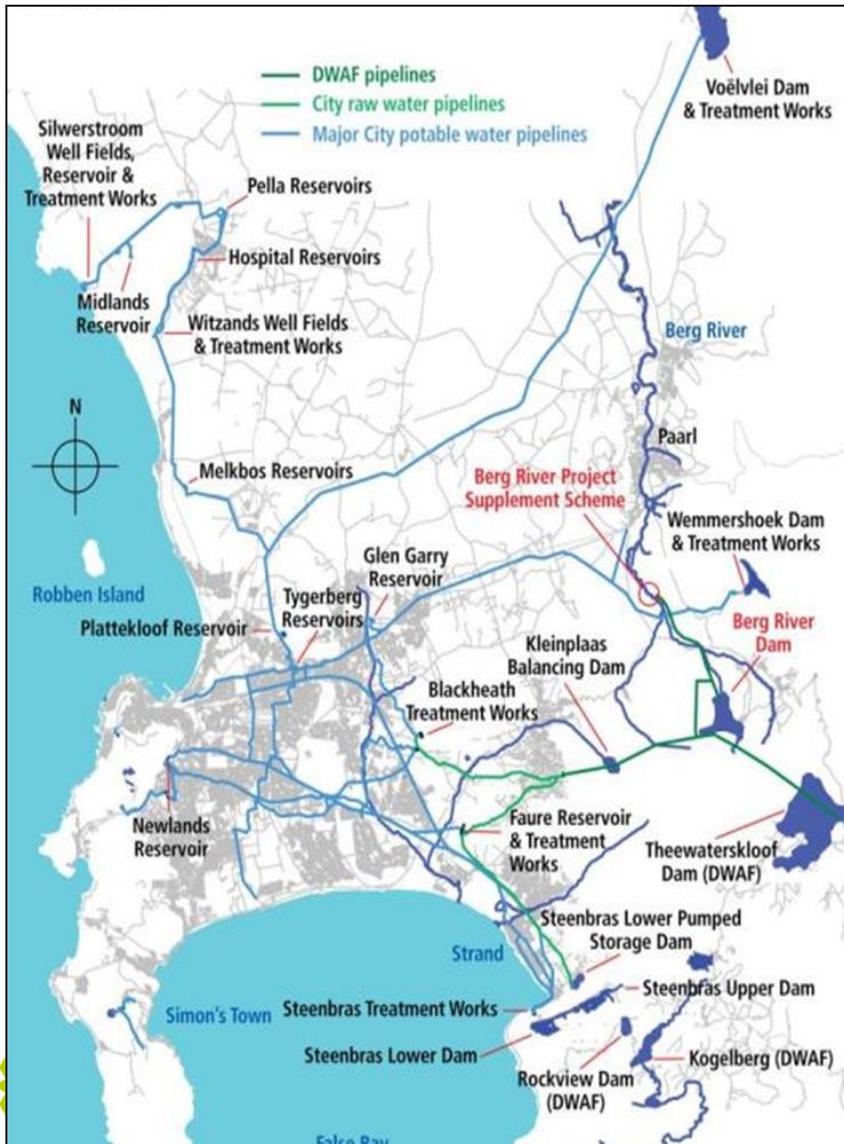
Cllr Xanthea Limberg

Mayoral Committee Member for Informal Settlements,
Water and Sanitation and Energy

16 May 2017

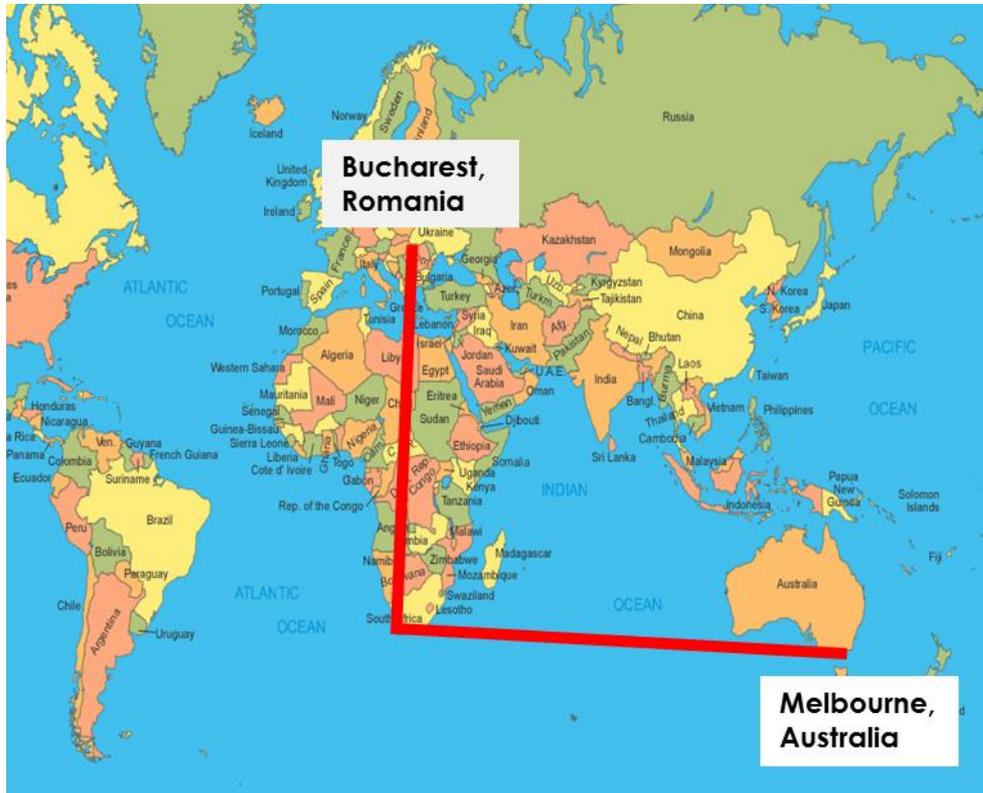
Making progress possible. **Together.**

Bulk Water Infrastructure



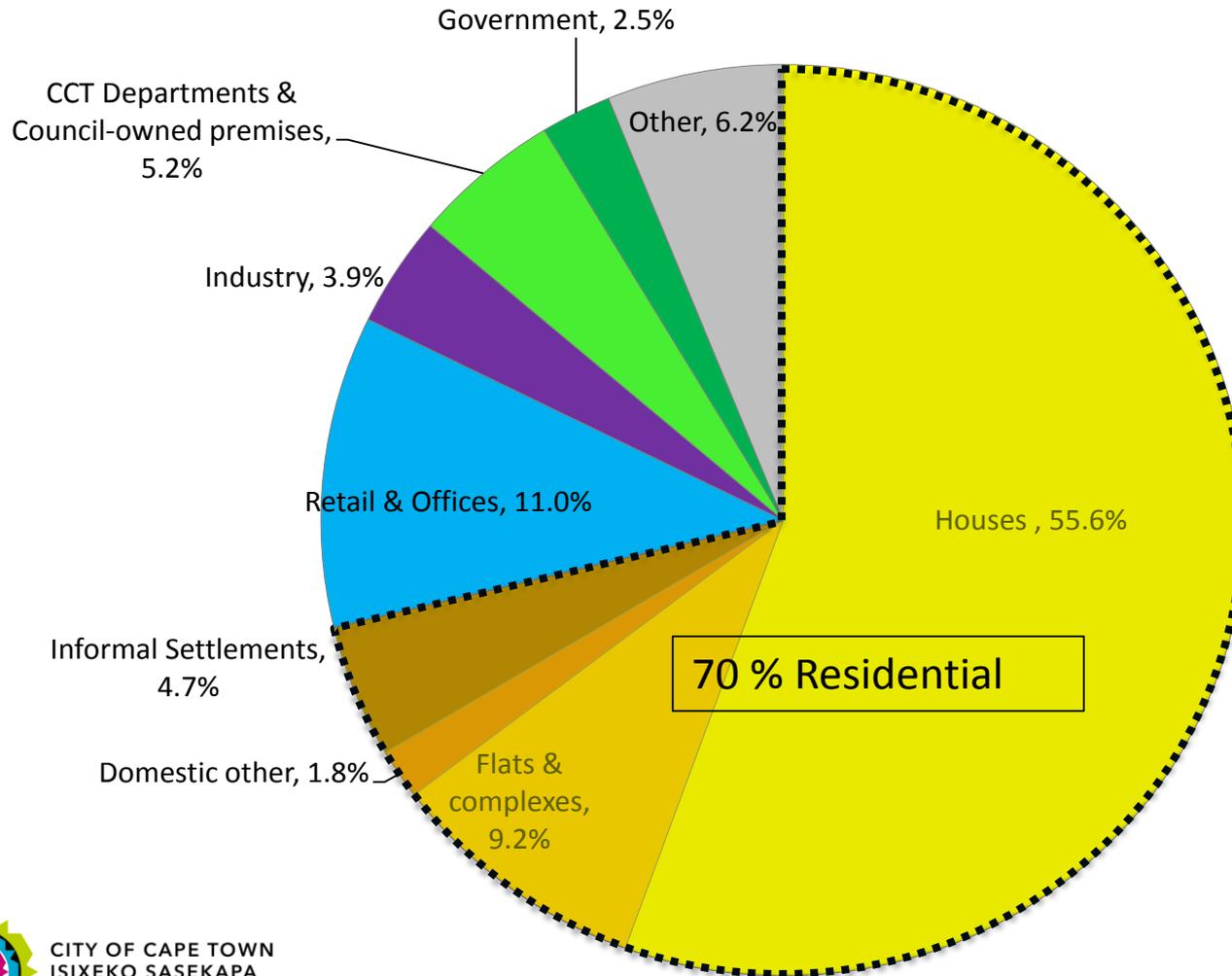
- **Western Cape Water Supply System**
- Major dams: **Voelvlei, Theewaterskloof, Wemmershoek, Berg & Steenbras.**
- Small volume from **Atlantis artificial aquifer recharge scheme**
- **Sell some of our water to Stellenbosch and Drakenstein** for part of their needs.

Water Reticulation System

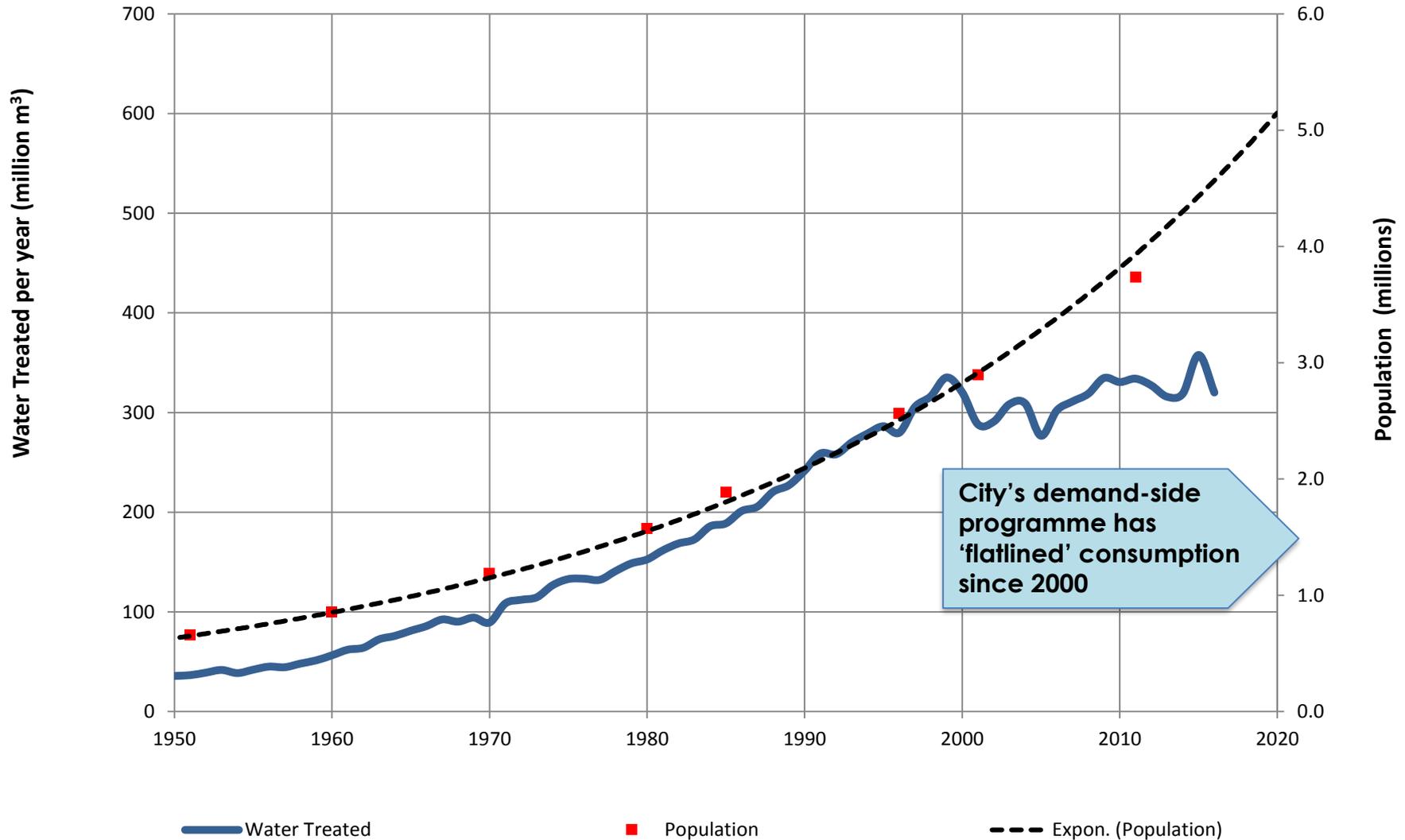


- **15 dams** (some City, some DW&S)
- **12 water treatment plants**
- **24 reservoirs**
- **422 pump stations**
- **9,300km** of sewer pipeline
- **11,000km** of water pipeline
- **650,000** service connections

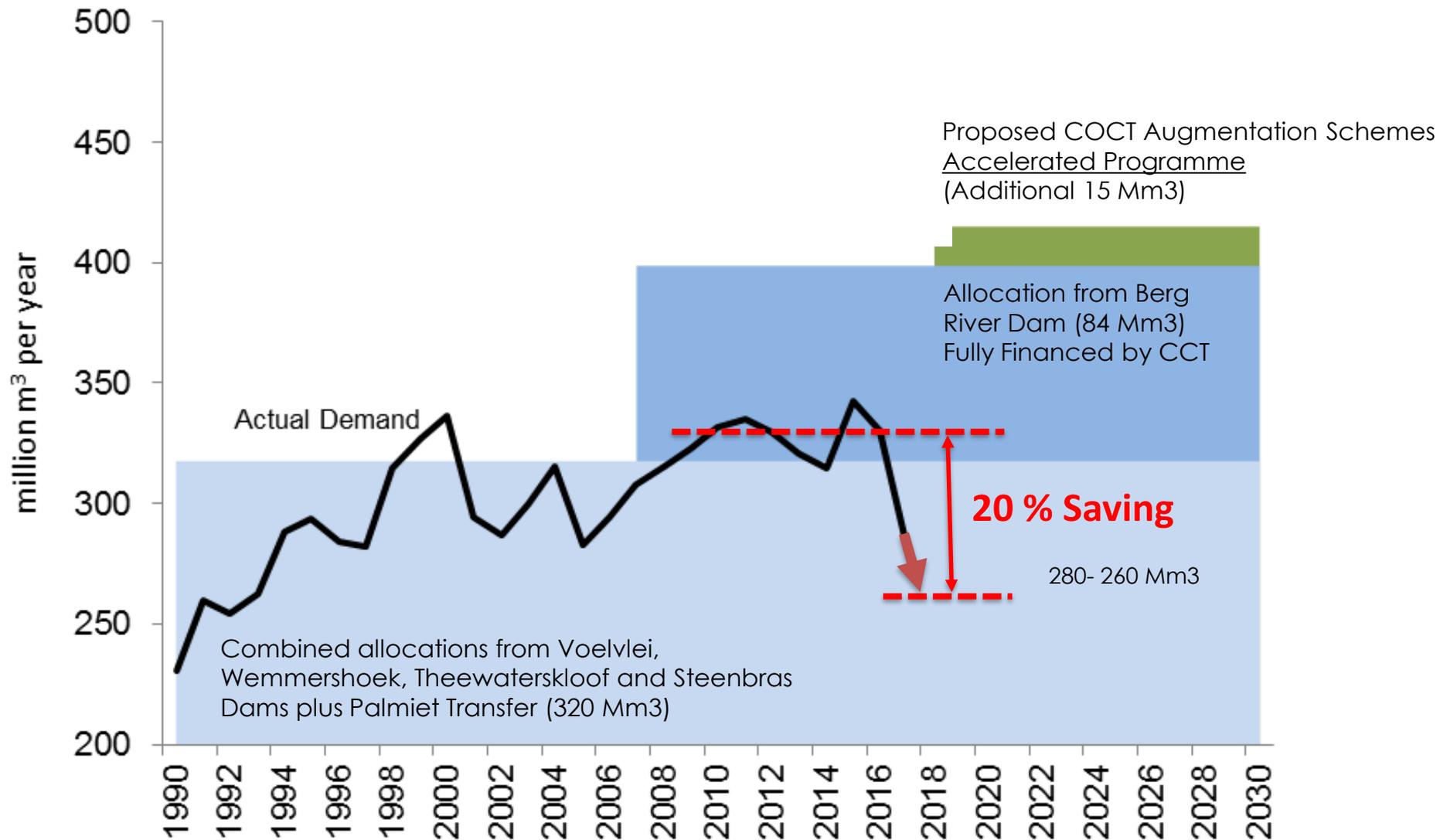
Water Use in Cape Town (2015/16) – mainly residential



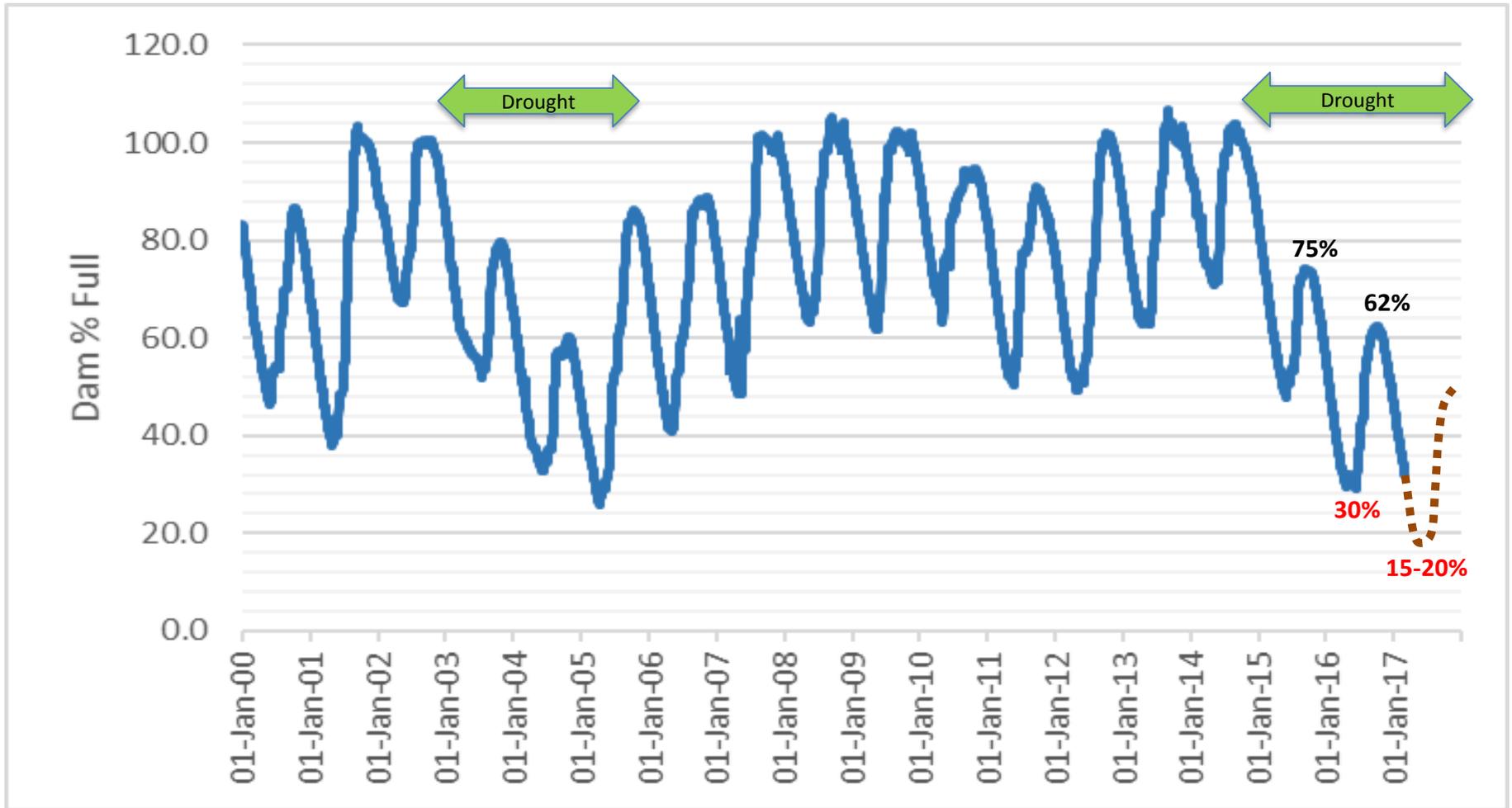
Population Growth and Water Use Efficiency



Water Allocations and Actual Demand



Recent Drought Events

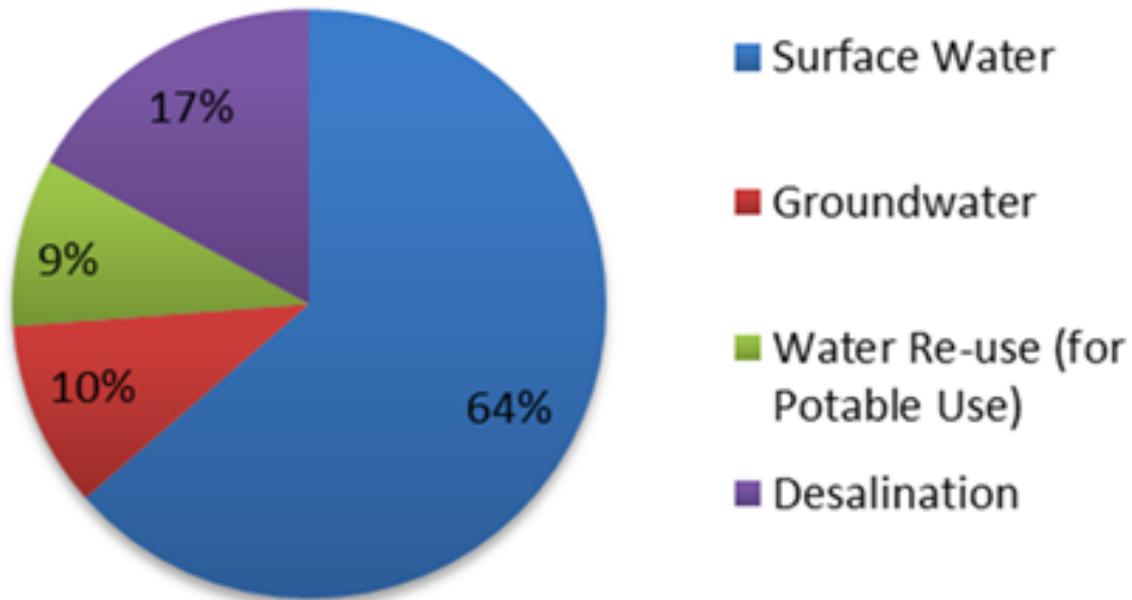


New Accelerated Water Supply Schemes

SCHEME	YIELD (MI/day)	DESCRIPTION	ESTIMATED COST
TMG Aquifer	10	Development of well fields into deep aquifer at Steenbras, Wemmershoek and Theewaterskloof Dams	R 85 million
Seawater Desalination Package Plant	5	Primarily for sea water quality data acquisition as well as to improve supply security in Atlantis	R 100 million
Wastewater Re-use (drinking water)	10	Treatment of effluent from Zandvliet WWTW for direct or indirect injection into bulk water supply system.	R 120 million
Cape Flats Aquifer & Atlantis Aquifer	5	Incremental drilling of boreholes to abstract water from the Cape Flats Aquifer in Mitchells Plain as well as expansion of well fields in Atlantis	R 50 million
WC/WDM Strategy	100	Intensification of demand management measures: <ul style="list-style-type: none"> • Water restrictions • Pressure management • Water saving incentive schemes • Regulation of plumbing fittings and water using appliances • Informative water billing • Communication 	R 10 million
Voelvrei Augmentation (Phase 1)	60	DWS Scheme – Pumped transfer of water from Berg River to Voelvrei Dam	R 300 million

Diversification of Water Sources

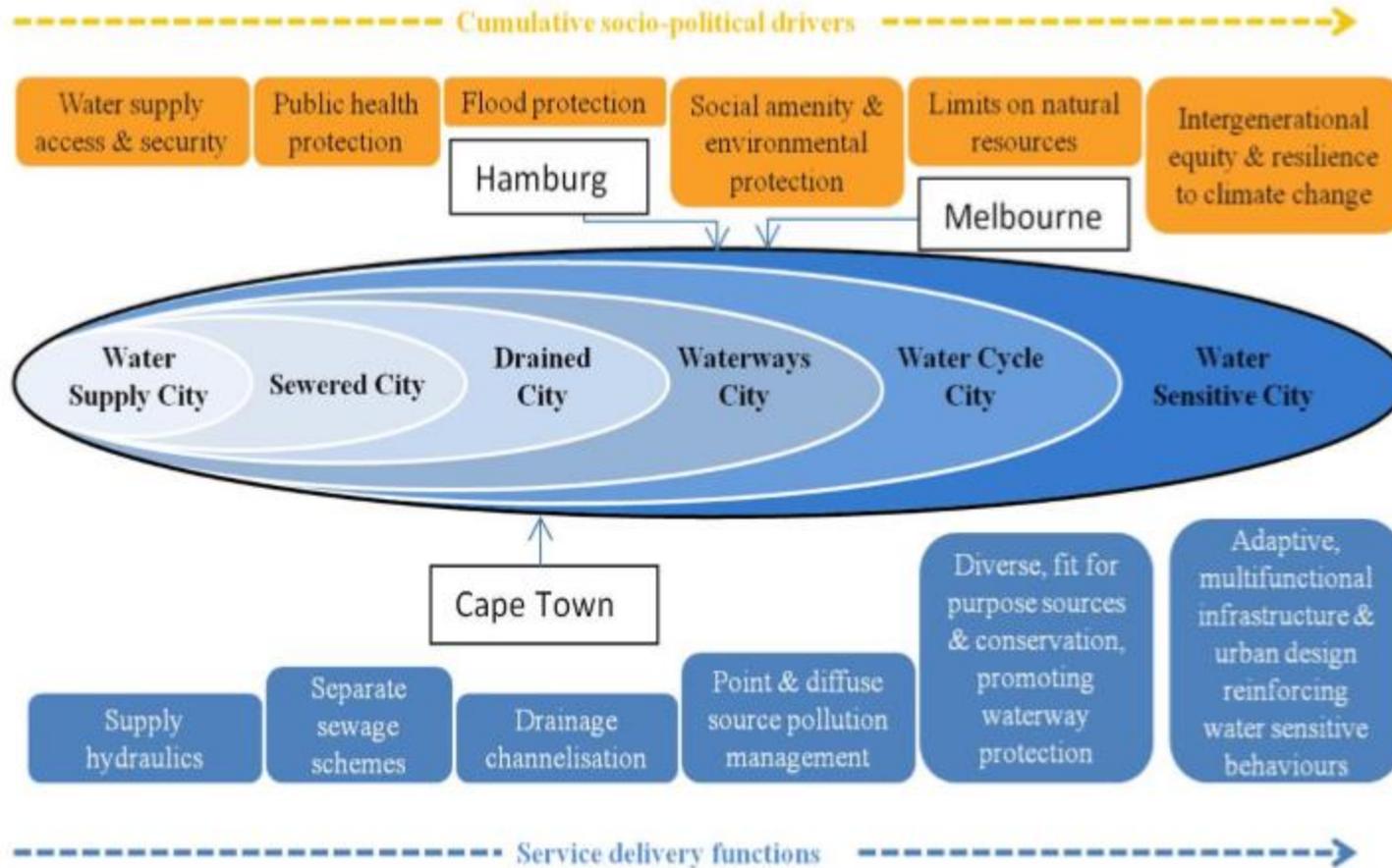
Cape Town's Possible Future Water Resource Mix

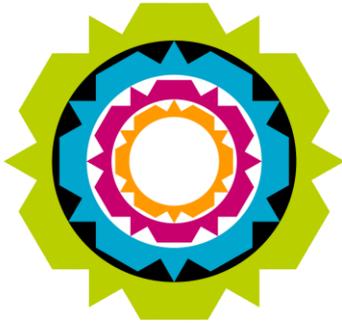


Future Water Outlook

- **Key considerations:**
 - Growing regional demand and competition for water
 - Climate change requires diversification of water sources and improved water use efficiency
 - Unit cost of water is likely to increase as more costly alternatives to surface water schemes are implemented
 - Opportunity provided by current water crisis must be maximized to effect “quantum leap” change to the way water is resourced and utilized in CT.
- **Drive towards Cape Town as a Water Sensitive City that:**
 - Optimises and integrates the management of all available water resources – surface, ground, wastewater and stormwater - to improve resilience
 - Places high value on water and strives to increase water use efficiency through water sensitive urban design

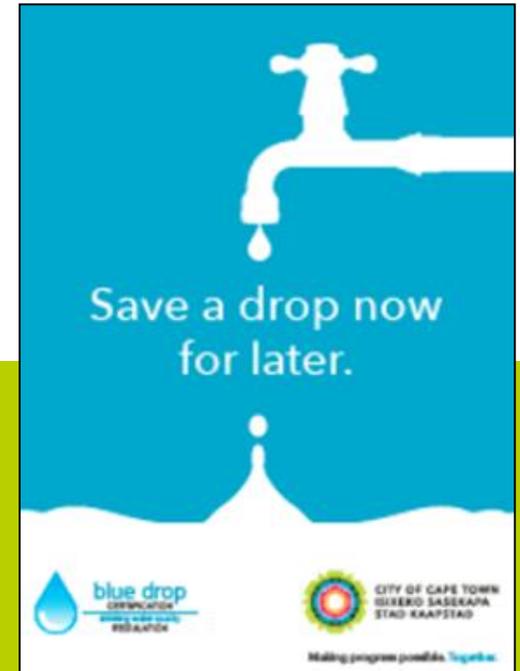
The Future Cape Town – a Water Sensitive City





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Thank You



Making progress possible. Together.