

water affairs

Department: Water Affairs REPUBLIC OF SOUTH AFRICA

Continuation of the Reconciliation Strategy of the KZN Coastal Metro Areas

WATER REQUIREMENTS UPDATE Mgeni, Mdloti, Mvoti and the South Coast System

2014 Presented by: Jonathan Schroder

Summary from SSC5 (September 2012)

Context of the KZN Coastal Metro Areas System



2012 – SSC Meeting 5



Water requirement projection adopted from llembe Water and Sanitation Master Plan

2012 – SSC Meeting 5



Water requirement projection Umgeni Water 2011 (SSC5)

Water requirement projection Umgeni Water 2007 (Recon)



Mgeni Water Requirements - Actual Historical and Predicted 2009 Recon



2012 – SSC Meeting 5: Scenario A



New Information and update for SSC6

Proposed updates

- New updated water sales/supply figures available for past year and a half.
- New studies and planning with additional sources of information on growth anticipated (i.e. growth rates and spatial location).
- Further integration of water supply systems meaning more connectedness between catchments.
- Revised information on progress with implementation of interventions

Proposed revision of water supply systems



New Water Requirements Information

- The following sources of information used for updating the water requirements projections:
- 1. Umgeni Water sales figures 2013/2014
- uMkhomazi Feasibility Study: Module 1 (DWA) and Module 3 (Umgeni Water)
- 3. Umgeni Water Infrastructure Master Planning
- 4. Liaison between Ethekwini MM, Umgeni Water and Ugu DM on South Coast



Information in proposed projection revision



WATER IS LIFE - RESPECT IT, CONSERVE IT, ENJOY IT.

Information in proposed projection revision



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Water requirements and sources of information

				Average	
Supj	oly Area	Information source	2013 req.	growth	Comment
Name	Areas		million m3/a	up until 2050	
Upper Mgeni WSS	Howick, PMB etc.	Umgeni 2012 sales figures projected at 1.5% as per Umgeni Water projection	80.6	5 1.5%	the use of 1.5% across the board for all areas in and around PMB needs to be checked?
Outer West	Umlass Road	uMWP1 feasibility - Bulk water study	29.0) 2.2%	Low road scenario selected by feasibility study. Growth starts out at 3% in 52014 and ends at 1.5% by 2050
Western Aqueduct	Pinetown etc	uMWP1 feasibility - Bulk water study	17.5	0.4%	Low road scenario selected by feasibility study. 0.4 % constant growth
Western Aqueduct	Kwadabeka	uMWP1 feasibility - Bulk water study	4.0	0.1%	Low road scenario selected by feasibility study. 0.1 % constant growth
Western Aqueduct	Tshelimnyama	uMWP1 feasibility - Bulk water study	6.9	9 1.0%	Low road scenario selected by feasibility study. Growth starts out at 1.2% in 2014 and ends at 0.8% by 2045
Western Aqueduct	Ntuzuma	uMWP1 feasibility - Bulk water study	29.4	0.4%	Low road scenario selected by feasibility study. Growth starts out at 0.5% in 2014 and ends at 0.4% by 2030
Western Aqueduct	Mzinyathi- Ogunjini	uMWP1 feasibility - Bulk water study	7.3	3 0.7%	Low road scenario selected by feasibility study. 0.7 % constant growth
Northern Aqueduct	Northern Aqueduct	uMWP1 feasibility - Bulk water study	20.1	1.7%	Low road scenario selected by feasibility study. Growth starts out at 2.4% in 2014 and ends at 1.1% by 2050
Northern Aqueduct	Inyaninga	uMWP1 feasibility - Bulk water study	0.7	7.8%	Low road scenario selected by feasibility study. Growth starts out at 40% in 2014 and ends at 2.5% by 2050
Northern Aqueduct	Waterloo	uMWP1 feasibility - Bulk water study	1.9	7.1%	Low road scenario selected by feasibility study. Growth starts out at 18% in 2014 and ends at 2.7% by 2050
Northern Aqueduct	La Mercy	uMWP1 feasibility - Bulk water study	1.4	5.8%	Low road scenario selected by feasibility study. Growth starts only in 2022 and ends at 3% by 2051
Durban Heights remainder		uMWP1 feasibility - Bulk water study (knight Piesold in consultation with Brendan MaGill)	104.0	0.9%	Chosen scenario from the feasibility study. Based on 0.5% for southern aqueduct and 1% for existing Northern Aqueduct
Wiggins		Umgeni 2012 sales figures projected at 1.5% as per Umgeni Water projection	81.3	1.5%	Wiggins projected as per Umgeni Water demand scenario
South Coast Augmentation		Water requirement projections for Etekwini and Ugu complied by Etekwini	22.0) 3.7%	Projection done at bulk reservoir level. Includes current water loss levels Sinto future. Silimar to Umgeni Water projection

Resolving the overlapping supply areas identified by various studies

New supply area information

- Further information obtained about revised water supply areas obtained with new water requirement projection information.
- Various studies not always conducted at same time or in an integrated manner.
 Reconciliation Strategy required to:
 - Identify possible areas of overlap and/or omission of water requirements and supply sources.
 - 2. Resolve these to avoid double counting of water requirements

Information in proposed projection



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Mgeni River Syetem Water Requirements - Actual Historical and Predicted



Mdloti and Mvoti - Water Requirements



Shift in Water Supply Area 2023

South Coast Supply area

South Coast - Water Requirements



----- TOTAL SOUTH COAST

ETHEKWINI PORTION OF SOUTH COAST

Thank you