



water & sanitation  
Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA

## BRIEFING THE PORTFOLIO COMMITTEE ON SONA IMPLICATIONS FOR THE WATER & SANITATION SECTOR

Presented by:  
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(KVT) Director-General

18 February 2015

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- Part A: Water and Sanitation infrastructure development programme
- Part B: Action plan for water supply to areas affected by water shortages
- Part C: Water conservation through War on Leaks programme

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**Part A**

**WATER AND SANITATION  
INFRASTRUCTURE DEVELOPMENT  
PROGRAMME**

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**MZIMVUBU WATER PROJECT**

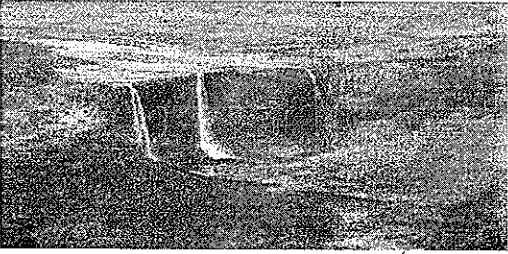
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## Project description

**Project Objectives**

- Ntabelanga dam with small scale hydropower generation, water treatment works and bulk distribution infrastructure for potable and irrigation supply
- Lalini dam and hydropower plant
- New and upgrading of existing district roads



**Project Description**

The Mzimvubu Water Project aims to develop a conjunctive scheme comprising two multi-purpose dams and associated bulk water distribution infrastructure for domestic and irrigation water supply as well as hydropower generation. The project is intended to stimulate socio-economic development in the area and the Eastern Cape Province as a whole.

**Project Cost**

- Project cost is estimated to be R12.45 billion
- Treasury allocation is R694 million broken down as:
  - 2014/15 : Nil
  - 2015/16 : R264 million
  - 2016/17 : R430 million

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## Project status

**Project Objectives**

- Feasibility study for Lalini Dam and Hydropower Scheme is expected to be finalised by March 2015.
- Appointment of PSP for Design and supervision finalised

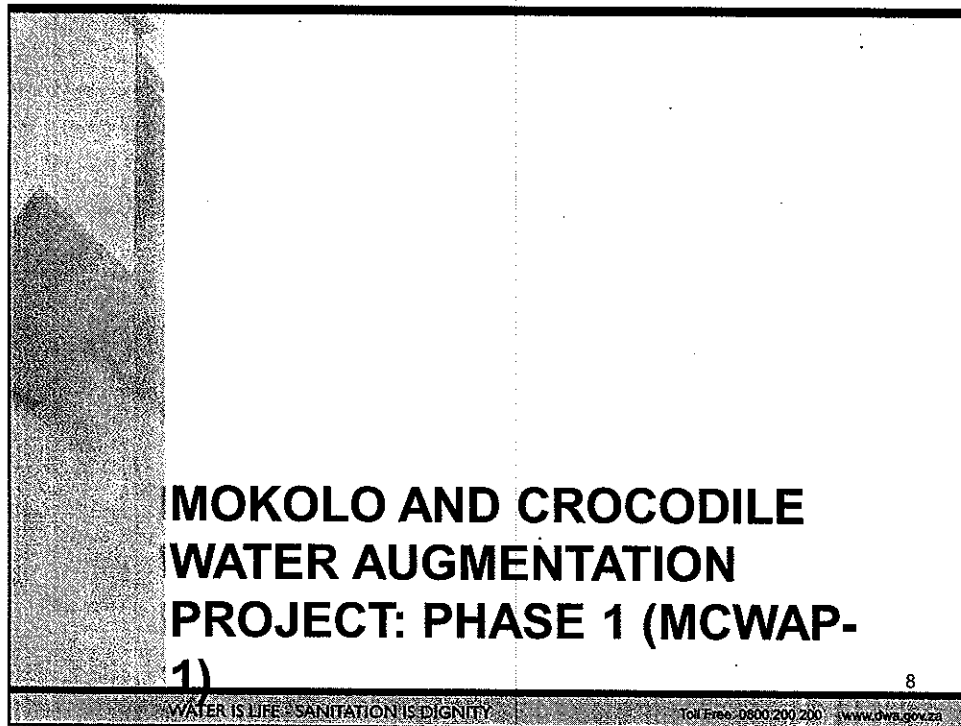
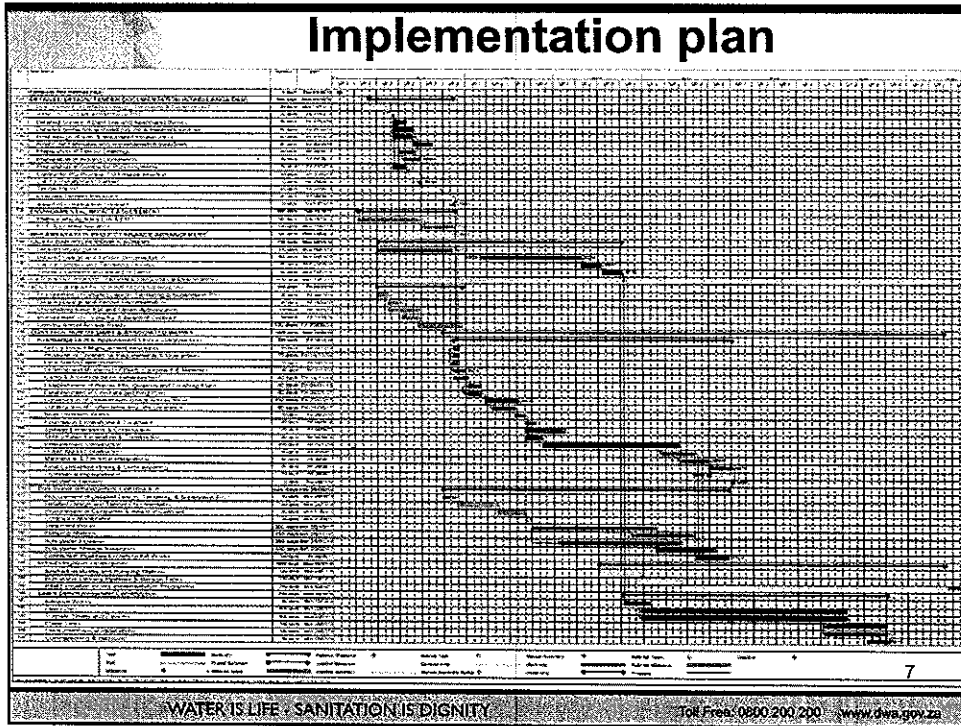
**Jobs impact:**  
Job creation is estimated at 5 500 during construction and 3 700 during operation.

**Project Schedule**

Catchment Rehabilitation	Started April 2014
Advance Works	Starting April 2015
Ntabelanga Dam & Appurtenant Works	Starting July 2015
Bulk Water Infrastructure	Starting October 2015
On-farm Developments	Starting July 2016
Laleni Dam and Hydroelectric Plant	Starting October 2016
First Water Delivery	Early 2020

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# Project description

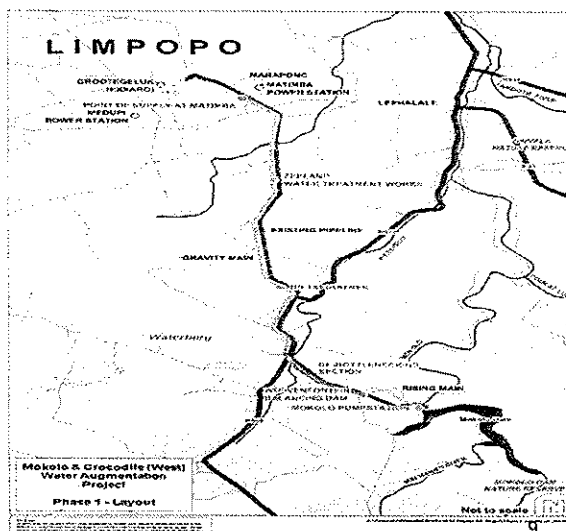
## Purpose

- Water augmentation project to supply raw water demands in the Waterberg area to Eskom ( Medupi and Matimba Power Station) and Exxaro for National Power Generation, and Lephalale Municipality for the expected domestic growth.
- This project will use the Mokolo dam as the source and it will deliver 30 million m<sup>3</sup> per annum water at completion.

## Description

- Construction of a new 1,2 m<sup>3</sup>/s Pumping Station and 43km of pipeline.
- 900 mm diameter of 4,8 km Rising Main from pump station to the Balancing reservoirs
- 1 100 mm diameter of 15,8 km gravity main
- 800 mm diameter of 221 km to supply point
- Refurbishment of the existing 43 km pipeline following commissioning of the new project

## Schematic layout of project



# Project status

## Physical Progress

- Land acquisition completed
- Existing pipeline debottlenecked to enable additional 57% water throughput - sufficient to commission four of Medupi's units and water demand until Dec 2015
- 42.8 km of 43 km laid
- Pre-commissioning of Pump Station completed

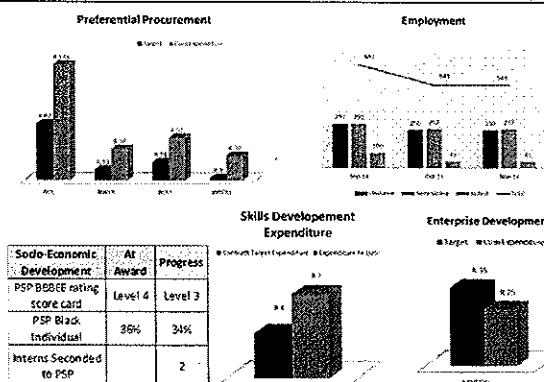
## Program

Project Start	07 Sep 2009
RFTO	31 Mar 2015
RFO	06 Nov 2015
Refurbishment	31 July 2018
Project Finish	30 Sep 2018
% Completion (excl. refurbishment)	96%

## Cost

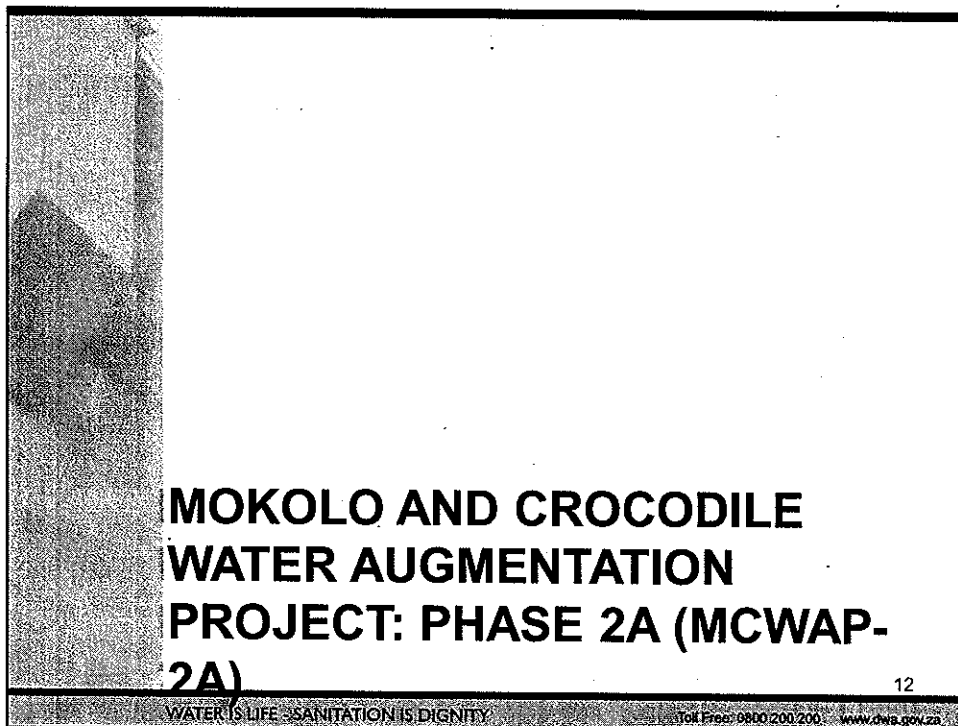
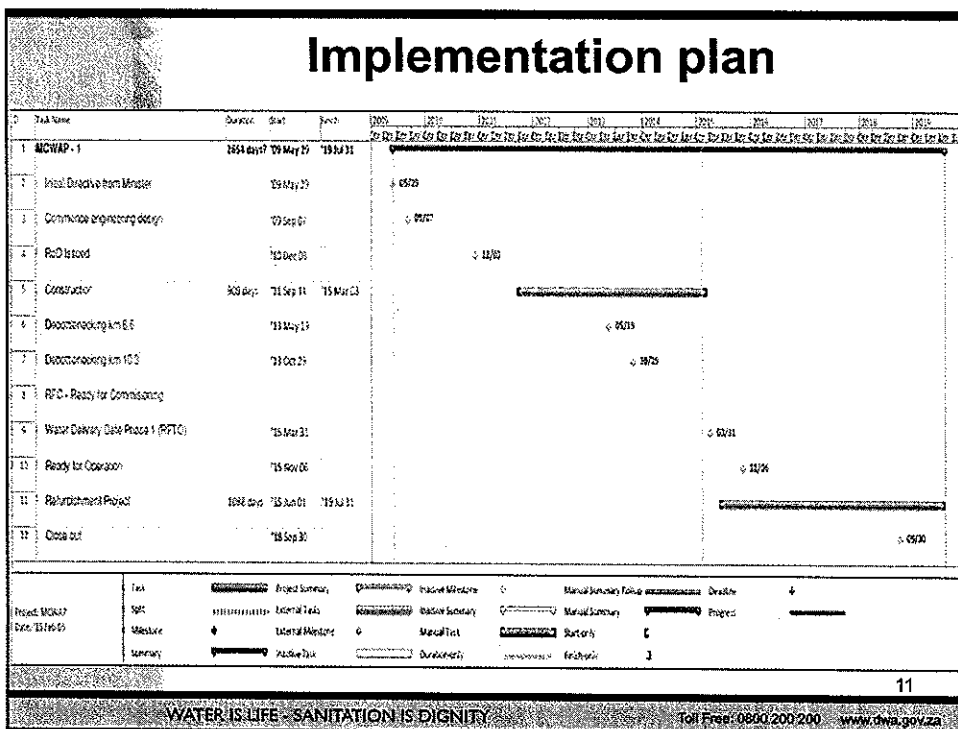
Original Budget	R2 139m
Cumulative to Date	R 1 215m
Forecast at completion	R 1 941m
% Spend	63%

## Socio Economic Development



## Key Issues

- Project delays due to labour unrest, slow pipe supply and pipe-laying and flooding during Mar 2014 – matters resolved within the contractual provisions
- Project on schedule to meet all current and future water demands



## Project description

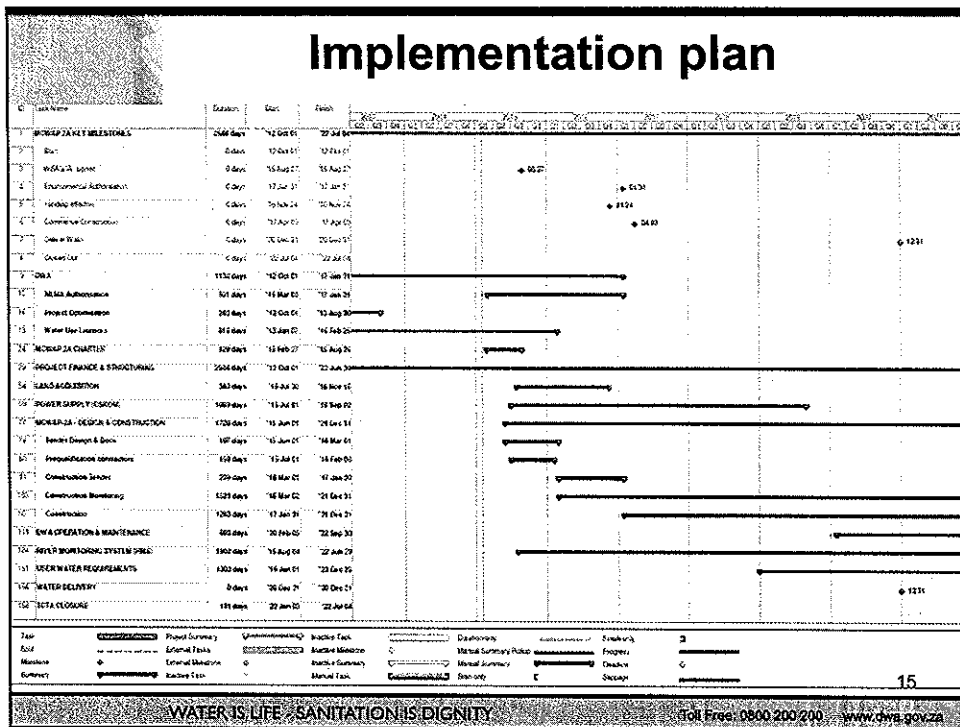
<p><b>Purpose</b></p> <ul style="list-style-type: none"> <li>To augment the water supply to Lephalale area for Eskom and IPP power generation and associated coal mining, Eskom Mpumalanga Coal, Lephalale municipality and to unlock economic development in the Waterberg Coal Fields</li> </ul>	<p><b>Schematic layout of project</b></p>
<p><b>Description</b></p> <p>Phase 2 of MCWAP comprises of an abstraction weir, pump stations and a 160 km pipe line to transfer water from the Crocodile River to the Lephalale area</p>	
<p><b>Cost</b></p> <p><b>Total project cost:</b> Ca. R12 billion</p>	

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## Project status

<p><b>Program</b></p> <ul style="list-style-type: none"> <li>TCTA mandated in terms of the Ministerial Directive issued on 19 May 2010 includes implementation and co-funding of both MCWAP 1 (currently under construction) and MCWAP 2, which was postponed due to IRE2010 but is now once again urgent.</li> <li>TCTA is assisting DWS with the Environmental Impact Assessment (EIA), to commence shortly.</li> <li>TCTA is awaiting RID from DWS to start implementation once capacity is confirmed.</li> <li>Engineering design can commence immediately as PSP currently engaged was appointed on full scope of MCWAP (MCWAP 1&amp;2)</li> <li>Implementation Agreement and Water Supply Agreements have been negotiated – still to be signed by parties.</li> <li>Borrowing limit under consideration by National Treasury, outcome will determine transfer capacity of the infrastructure and the project cost.</li> <li>DE &amp; DoE to enter into Guarantee agreement with several national departments</li> </ul>	<p><b>Key Issues</b></p> <ul style="list-style-type: none"> <li>Infrastructure capacity sizing is a key risk in ensuring that the project meets its objective of correctly addressing current and future needs. Incorrect sizing may lead to sub-optimal infrastructure and lock-out economic potential. Mitigation: DWS DME, ESKOM, DMR, TCTA all involved in negotiations and supporting for optimal capacity.</li> <li>Delayed Environmental Impact Assessment (EIA) will delay start of construction – DWS requested TCTA to undertake EIA</li> <li>Phase 2 will also provide an alternative water supply for electricity generation – currently sole dependant on Phase 1 – Mokolo Dam</li> </ul>
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# BUSHBUCKRIDGE WATER SUPPLY

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## Project description

**DESCRIPTION**

- Installation of water reticulation, including associated valves and fittings in Bushbuckridge.
- Construction of storage reservoirs
- Bulk water connections
- Installation of bulk and consumer water meters
- Refurbishment of existing bulk

The project is aimed at ensuring water service delivery in the entire Bushbuckridge Local Municipality. The project is being implemented under a MoU entered into between the Department and the Mpumalanga Provincial Government. It focuses on the entire value chain of water supply and is funded through NWRI, MWIG, Office of the Premier, & MIG in a multi-pronged approach, tapping from the bulk water supply schemes that have been extensively developed throughout Bushbuckridge.



Phase / Funding	Budget	Expenditure
National Water Resources Infrastructure	R 100 000 000.00	R 100 000 000.00
Municipal Infrastructure Grant	R 121 000 000.00	R 121 000 000.00
Municipal Water Infrastructure Grant	R 27,000,000.00	R 23 229 721.93
Rand Water (Bridge funding)	R 50,000,000.00	R 53 325 907.95
<b>Total</b>	<b>R 298,000,000.00</b>	<b>R 297,555 629.90</b>

Phase / Funding	Budget	Expenditure
National Water Resources Infrastructure	R 293 000 000.00	R 0
Municipal Infrastructure Grant	R 101 048 000.00	R 0
Municipal Water Infrastructure Grant	R 37 000 000.00	R 0
Mpumalanga Provincial Government	R 150 000 000.00	R 0
<b>Total</b>	<b>R 601 048 000.00</b>	<b>R 0</b>

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## Implementation plan

1. Bulk water supply reticulation

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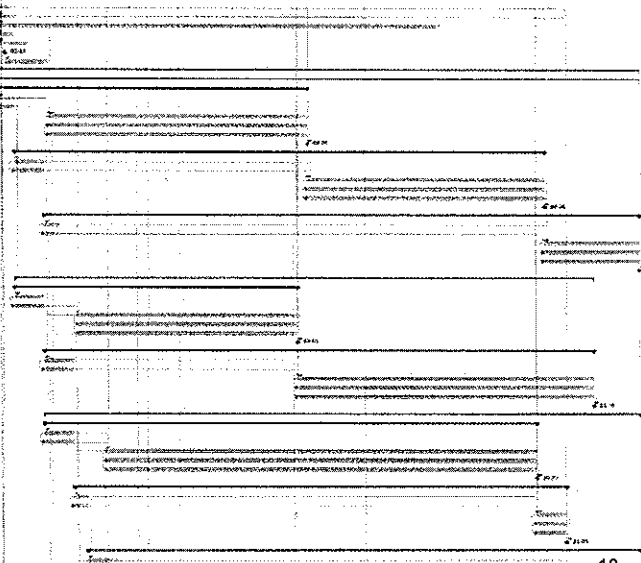
46. Bulk water supply reticulation

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49. Bulk water supply reticulation

50. Bulk water supply reticulation



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## Project status


- Minister launched one of the completed reticulation projects on 13 September 2014
- Rand Water appointed as Implementing Agent to undertake 16 projects addressing 27 villages starting from February 2015
- Implementing Agent currently busy with project designs, site handover was on 09 February 2015
- Phase 2 covers 69 villages. Rand Water currently in the process of procurement for the balance of the 42 villages
- The Shortfall funds still required: R485 million
- 25 villages have been completed by end of September 2014

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## JOZINI – INGWAVUMA BULK WATER SUPPLY

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## Project description

<p><b>Project Description</b></p> <p>Increase production of potable water and install bulk water infrastructure as well as reticulation networks that will provide 134 864 people North of Jozini with sustainable water supply.</p>	
<p><b>Project Objectives</b></p> <p>Supply potable water to rural communities within Jozini Local Municipality in Mkhanyakude District Municipality (KwaZulu-Natal)</p>	<p><b>Project Details</b></p> <ul style="list-style-type: none"> <li>• The total project cost including reticulation is R 1 376 048 million</li> <li>• Department of Water &amp; Sanitation (DWS) funds the bulk portion to the amount of R674 003</li> <li>• KwaZulu-Natal Province co-funded the project reticulation with R72 million</li> <li>• The uMkhanyakude DM has not committed funding for the reticulation (MWIG to fund reticulation)</li> <li>• DWS allowed an amount of R 252 678 for the inclusion of the Shemula area, taking the committed amount to R 926 681</li> </ul> <p>DWS funding through the regional bulk infrastructure programme is as follows:</p> <ul style="list-style-type: none"> <li>• 2014/15      R350 000 million (with R267 million spent)</li> <li>• 2015 MTEF budget allocation is R410 million</li> </ul>

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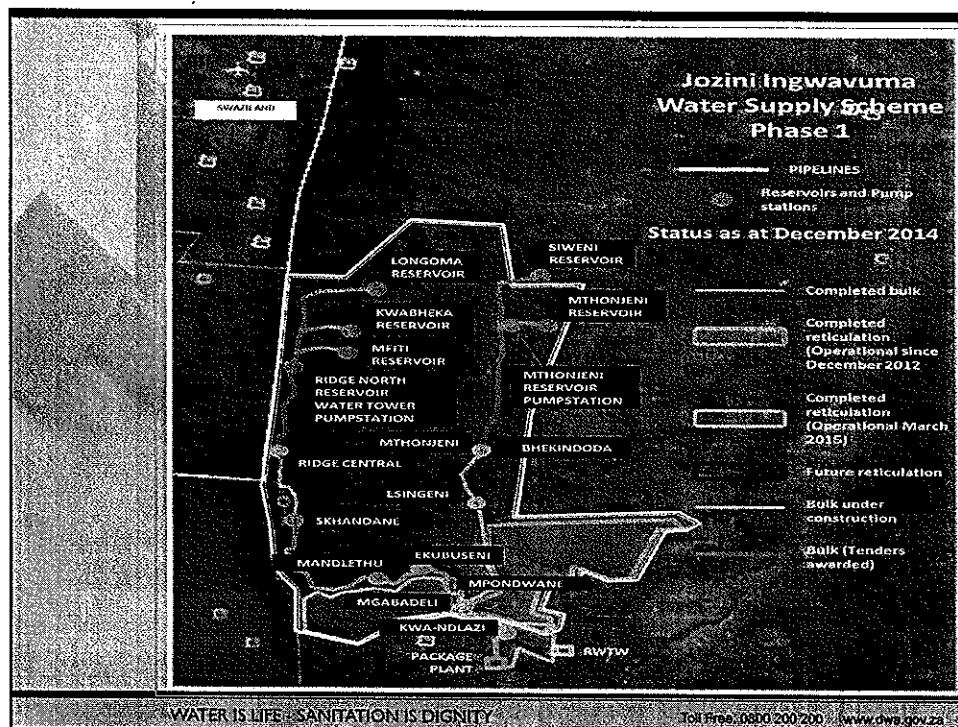
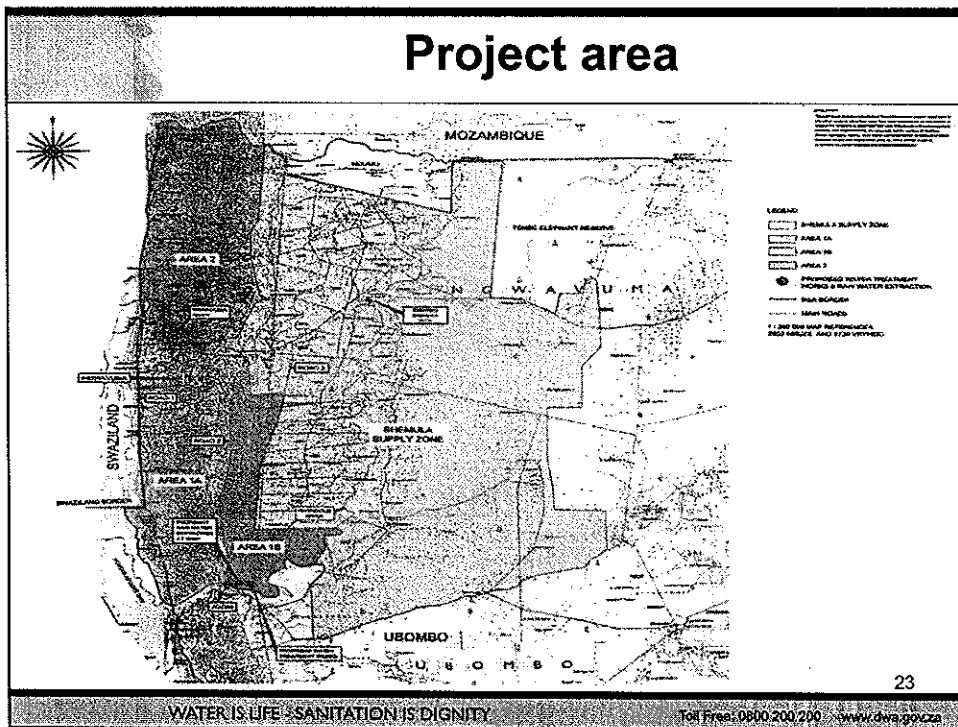
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## Project design

- Raw water will be taken from the existing Pongolapoort (Jozini) Dam through direct off-take from the dam outlet works
- Construction underway of a new 40 Megalitre/day (Ml/d) works that will be the new sub-regional water treatment works
- The bulk treated water supply system for the entire region comprises bulk gravity pipelines, rising mains, pump stations and bulk storage reservoirs
- Existing infrastructure will be incorporated into the bulk water supply system where possible, but the actual extent to which this is practical and feasible is limited

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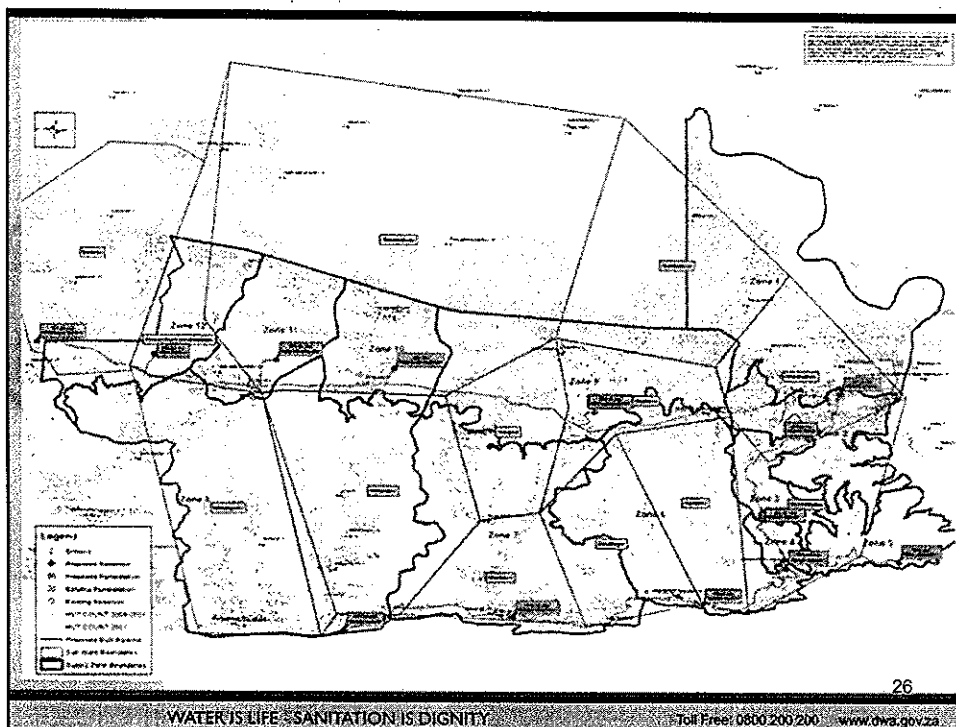
## Progress to date

- Feb 2008: Mhlathuze Water appointed as implementing agent for the scheme
- March 2009: Business plan for the supply of water to the area developed and revised in July 2013
- Appointment of a professional team followed soon thereafter
- Feb 2011: first construction contracts awarded with further contracts awarded in quarter 1 of 2012 and 2013
- Phase 1A completed and launched (see Area 1A in the project area slide)
- Construction of bulk water pipelines and reservoirs for zone 8, 10, 11 and 12 is underway (see next slide)
- Construction of the 40 Ml/d regional water treatment work is underway

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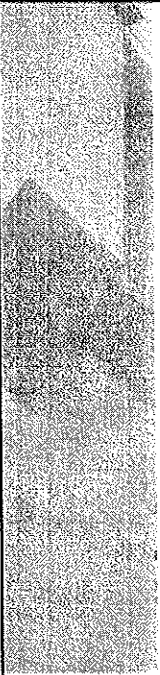
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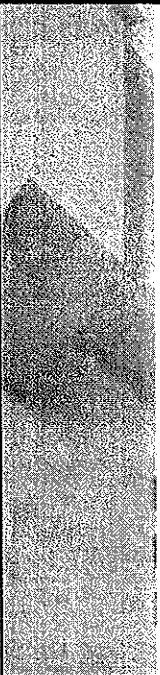


**Part B**

**ACTION PLAN FOR WATER SUPPLY TO  
AREAS AFFECTED BY WATER  
SHORTAGES**

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**MAKANA LOCAL  
MUNICIPALITY (CACADU  
DISTRICT, EASTERN CAPE)**

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## Action plan

- DWS has allocated R66m to upgrade the storage capacity of the James Klienhans water supply system to meet current and future demands.
- Amatola Water board had been appointed to perform this task and work is expected to start during this month due for completion during 2015/16 financial year .
- The water board continues to assist the Makana Municipality in operating its current infrastructure. Significant refurbishment work on the bulk infrastructure is complete including the replacement of the power line dedicated to the Hawisons Poort pump station and Waainek Treatment Plant.

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