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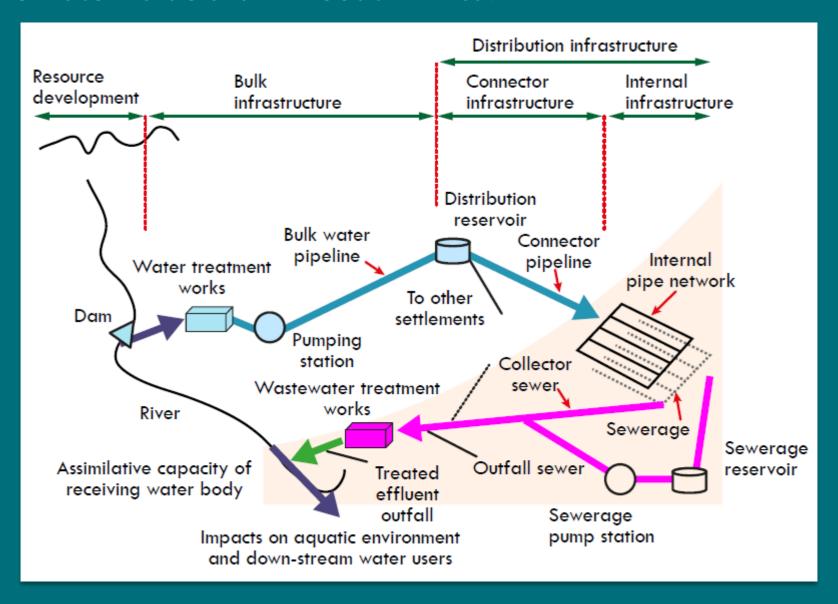


PPP Opportunities Along The Water Value Chain

27 February 2018 Maanda Rashaka, NBI



The water value chain in South Africa:



Source: DWS: Strategic Overview of the Water Sector in South Africa: 2013

(1) South Africa has experience in establishing successful water and wastewater PPPs

Nature of the PPP*	Contract Period	Service Provided	Municipality	Private Partner
	1999- 2029	Abstraction, purification, distribution, wastewater collection and treatment	Mbombela (Town of Nelspruit)	Sembcorp Silulumanzi
	1999-2029	Water purification and distribution, wastewater collection and treatment	Illembe DM (Dolphin Coast)	Siza Water Company
	2012	Built (partially), operates and maintains the Northern works	Johannesburg Water	WEC Projects (Pty) Ltd
	? - Current	Financed, operates and maintains water and sewerage bulk infrastructure	Rustenburg Water	Water and Sanitation Services South Africa Ltd. (WSSA)**
	2001- 2006	Management contract providing expertise	Johannesburg MetroM	Johannesburg Water Management (Pty) Ltd
	? - Current	Operates and maintains Zandvliet wastewater treatment works	Cape Town	Water and Sanitation Services South Africa Ltd. (WSSA)
	2014-2016	Manages, operates and maintains water treatment facilities	Richards Bay, KZN	Water and Sanitation Services South Africa Ltd. (WSSA)
	2005-2011	Management contract providing expertise	Maluti-a-Phofung LM	Uzinzo Water Services
	1999- 2024	Abstraction, purification, distribution, wastewater collection and treatment	Queenstown	Water and Sanitation Services South Africa Ltd. (WSSA)

^{*)} The formel PPP establishment procedure only applies, if private actors provide municipal services:

Note: **) On behalf of Rustenburg Trust

Source: Voluntas research

⁼ Municipal services

⁼ Municipal support activity

(2) South Africa has experience in establishing successful water and wastewater PPPs

Nature of the PPP*	Contract Period	Service Provided	Municipality	Private Partner
	1995-2000	Abstraction, purification, distribution, wastewater collection and treatment	Stutterheim	Water and Sanitation Services South Africa Ltd. (WSSA)
	1995-2000	Abstraction, purification, distribution	Fort Beaufort	Water and Sanitation Services South Africa Ltd. (WSSA)
	? - Current	Refurbishment of potable water treatment plant and subsequent operation for 14months	Ndlambe LM	Veolia water technologies
	2001	Built, operates and maintains wastewater treatment works	eThekwini; WSA = eThekwini Water Services	Durban Water Recycling (Pty) Ltd.
	? - Current	Operates and maintain wastewater treatment works for the generation of Biogas	Ekurhuleni MM (East Rand Water)	Barloworld Power
	1999-2000	Project Management (Research Studies)	Durban MetroM	Vivendi Water
	2011	Provides funding for water demand management activities	Emfuleni	Sasol New Energy and GIZ
	2010-Current	Operates and maintains of desalination plan	Mossel Bay LM	Veolia water technologies
	2005-2010	Built, operated and maintained an advanced pressure management installation to reduce revenue water losses	Emfuleni LM	WRP Pty Ltd

^{*)} The formel PPP establishment procedure only applies, if private actors provide municipal services:

Source: Voluntas research

⁼ Municipal services

⁼ Municipal support activity

(3) South Africa has experience in establishing PPPs for funding water and wastewater infrastructure

Nature of the PPP*	Contract Period	Service Provided	Municipality	Private Partner
	2003-2028	Capital investment in wastewater treatment and sale to industry for reduced tariff	Rustenburg LM	Rustenburg Infrastructure Trust Fund
	? - Current	Funding for the construction of pipeline from dam	Mogalakwena LM; Town of Mokopane	Mining sector
	? - Current	Capital Investment to extend Olifants river catchment area	Mogalakwena, Vhembe, Mopani and Waterberg	Aurecon Ndodana Joint Venture (ANJV)

^{*)} The formel PPP establishment procedure only applies, if private actors provide municipal services:

⁼ Municipal services

⁼ Municipal support activity

The Water Value Chain

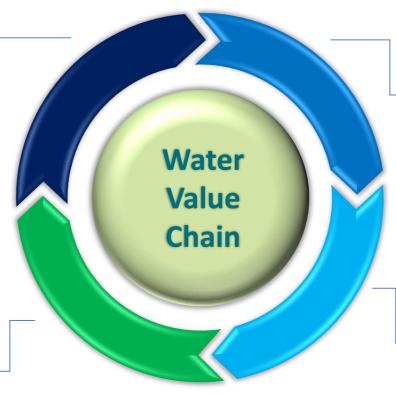


Resource Development

- Desalination
- AMD
- Surface Water
- Groundwater
- Recycled Water
- Sea water for flushing

Waste Water

Waste Water
 Treatment Works



Bulk Infrastructure

- Water Treatment
 Works
- Bulk Pipelines
- Waste Water
 Treatment works

Distribution & Reticulation

 Connector and internal networks



Phase 1



Resource Development

- Desalination
- AMD
- Surface Water
- Groundwater
- Recycled Water
- Sea water for flushing



BOT: New dams and bulk water pipes

BOT: Desalination plants (limited to coastal areas for now

BOT: Waste Water (water reuse)

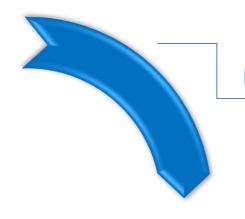
BOT: Ground Water Extraction and aquifer recharger

BOT: Build-Operate-Transfer



Specific PPP Opportunities





Bulk Infrastructure

Water Treatment
Works
Waste Water
Treatment Works

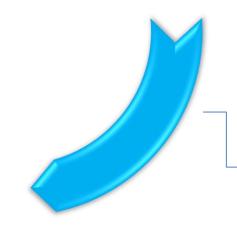
- BOT: Conventional Water Treatment
- O&M: Water Treatment Works (Richards Bay)



Specific PPP Opportunities



- O&M: Non-Revenue Water (Performance Based Contract)
- O&M: NRW reduction (physical losses only)
- BOT: Non-revenue Water (Emfuleni)



Distribution & Reticulation

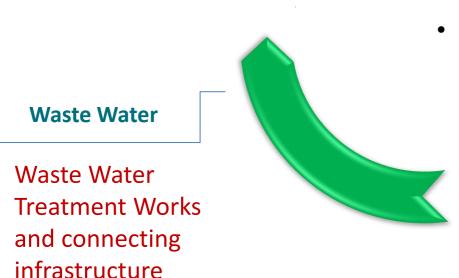
Connector and internal networks both for potable and waster water



Specific PPP Opportunities



- O&M Contract (Rustenburg)
- O&M Contract (Water reuse) (eThekwini)
- BOT Contract



O&M: Operations & Maintenance



Utility Level PPPs



Utility
Restructuring/
Corporatisation
(CoJ)

Utility
Management
Contract (Co.)

Utility
Concession
(Mbombela)

Increasing private sector involvement →



Opportunity Matrix

■ Mentimeter





For more information



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The NBI is a global network partner of the World Business Council for Sustainable Development (WBCSD) and an implementation partner of the CEO Water Mandate, We Mean Business and the CDP.

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