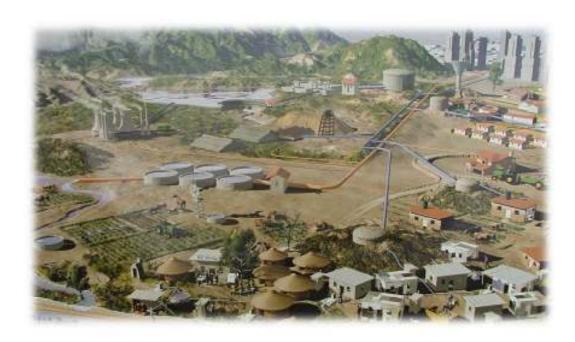
# WATER SECTOR IDP REPORT

## **WSDP WATER SECTOR INTEGRATION OUTFLOW:**

Water Services Delivery, Resources & Infrastructure **Planning** 

THEEWATERSKLOOF MUNICIPALITY: **30 MARCH 2012** 



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#### WSDP WATER SECTOR INTEGRATION OUTFLOW:

### Water Services Delivery, Resources & Infrastructure Planning

#### THEEWATERSKLOOF LOCAL MUNICIPALITY

30 MARCH 2012

#### **EXPLANATION PAGE**

For any Local Government to supply sustainable water services to their customers it is important to regard the issues listed below in planning and implementation to ensure continuous service delivery at the required standards. The issues are important aspects within the Water Services Development Planning process for the specific area of authority. The information provided below are required issues that need to be addressed in an IDP as reflected in the IDP Analysis Framework and was extracted from the detail WSDP Module 1 document compiled for the municipality.

## Evidential Criteria / KPIs WATER

Is the WSDP

- a) Adopted?
- b) has it been reviewed in last year.?

Do the IDP reflect knowledge, implementation, strategies and target programmes w.r.t.

- a) Backlogs
- b) Basic services provision
- c) Free basic water
- d) Higher levels of service requirements
- e) Associated services eg. Schools and clinics
  - f) Water for growth and development.

Did the IDP integrate other sector programme's water requirements and specially address the impact on water planning.

- a) Housing
- b)Agriculture
- c)Mining
- d)Tourism

## Evidential Criteria / KPIs SANITATION

Does the IDP reflect knowledge, implementation, strategies and target programmes w.r.t.

- a) Backlogs
- b) Basic services provision
- c) Free basic sanitation
- d) Higher levels of service requirements
- e) Associated services eg. Schools and clinics

Does the WDSP reflect multi - year projects to address the backlog?

Does the municipality have a sanitation implementation plan put in place?

Does the municipality have the CAPEX Plan which indicates allocation for sanitation for the next three years?

Does the municipality manage (a) waste water treatment?

Is there a plan to manage untreated effluent?

Has this Municipality determined the need / extent for basic services, (a) free basic and (b) higher level service?

Is the sanitation service financially viable and is there a budget that is ring fenced?

Is the licensing/contractual arrangement i.t.o of (a) WSA, (b) WSP, (c) WWTW working?

#### e)Public Works programmes

- Did the IDP provide a proper project list that addresses all the needs as identified in the future plans and implementation strategies?
- Are there approved budgets in the MTEF allocations for all these projects?
- Is there a plan and budget for Operations and Maintenance for Water services and infrastructure?
- Is the water services programme financially viable w.r.t. Cost recovery, Metering and billing with an associated budget that is ring fenced?

Does the IDP address water resources development w.r.t. demand management, water balance issues and ecological reserve?

Are there specific references to the status of all contracting and licensing issues?

Does the IDP reflect the status of water quality monitoring w.r.t. drinking water quality, water resources quality and WWTW releases?

- Is there a plan and budget for Operations and Maintenance for sanitation services and infrastructure?

## 1. WSDP ADOPTION STATUS

Status	Modules: All/1/2/3 or 4	Date Submitted
Interim	1,2,3	18 December 2011
Draft	1,2,3	18 December 2011
Adopted		
Annual Review		
Public Viewed		

Link to Topic 1 page 1 in WSDP Module 1

## 2. KNOWLEDGE OVERVIEW

#### 2.1. **DEMOGRAPHICS**

Number of People	177344
Total Number of Settlements	47
Total Number of People: Urban	84091
Total Number of People: Rural	33253
Total Number of Settlements: Urban	43
Total Number of Settlements: Rural	4

Link to Page IV in WSDP Module 1

#### 2.2. ASSOCIATED SERVICES

Public		No. Of	No. Of consumer units with access to:				
amenities consumer	Туре	consumer units		one or uate Supply	Communal	Controlled volume	Uncontrolled volume
types		(HH)	Water	Sanitation	supply	supply	supply
Police	Urban	7	0	0	0	0	7
Stations	Rural	0	0	0	0	0	0
Magistrate	Urban	2	0	0	0	0	2
offices	Rural	0	0	0	0	0	0
Businesses	Urban	696	0	0	0	0	696
	Rural	0	0	0	0	0	0
"Dry"	Urban	69	0	0	0	0	69
Industries	Rural	0	0	0	0	0	0
Office	Urban	0	0	0	0	0	0
Buildings	Rural	0	0	0	0	0	0
Prisons	Urban	0	0	0	0	0	0
	Rural	1	0	0	0	0	1
Schools	Urban	25	0	0	0	0	25
	Rural	17	0	0	0	0	17
Hospitals	Urban	1	0	0	0	0	1
	Rural	0	0	0	0	0	0
Clinics	Urban	7	0	0	0	0	7

	Rural	0	0	0	0	0	0
"Wet"	Urban	1	0	0	0	0	1
Industries	Rural	0	0	0	0	0	0

Link to Topic 3 Page 7 in WSDP Module 1 [Business includes Office buildings]

#### 2.3. BACKLOGS: WATER NEED DESCRIPTION & STATUS OF SUPPLY

Water Priority	Water Need Description	Settlements	Population	Households
Definition 1	No Water Services	1	3224	806
Definition 2	Inadequate RDP Infrastructure Need: Extension Required	0	0	0
Definition 3	Inadequate RDP Infrastructure Need: Upgrade Required	0	0	0
Definition 4	Inadequate RDP Resource Need	0	0	0
Definition 5	Inadequate RDP Management Need: O&M Required	0	0	0
Definition 6	Inadequate RDP Management Need: Refurbishment Required	0	0	0
Definition 7	Inadequate Housing Interim Solutions	0	0	0
Definition 8	Inadequate Housing Permanent Solutions	22	23876	6347
Adequate:	Standpipe	0	0	0
Adequate:	Yard Connection	0	0	0
Adequate:	House Connection	33	90244	23905
TOTALS			117344	31058

Link to Page IV & Topic 3 Page 5 in WSDP Module 1

#### 2.4. PLANNING STRATEGIES FOR INADEQUATE SUPPLIES

Water Priority & Levels of Supply			re Plan to ss the issue		Strategy to ss the issue
Water Priority	Water Need Description	In Place?	Sufficient?	In Place?	Sufficient?
Definition 1	No Water Services	Yes	Yes	No	No
Definition 2	Inadequate RDP Infrastructure Need: Extension Required	NA	NA	NA	NA
Definition 3	Inadequate RDP Infrastructure Need: Upgrade Required	NA	NA	NA	NA
Definition 4	Inadequate RDP Resource Need	NA	NA	NA	NA
Definition 5	Inadequate RDP Management Need: O&M Required	NA	NA	NA	NA
Definition 6	Inadequate RDP Management Need: Refurbishment Required	NA	NA	NA	NA
Definition 7	Inadequate Housing Interim Solutions	NA	NA	NA	NA
Definition 8	Inadequate Housing Permanent Solutions	Yes	Yes	Yes	Yes

Link to Page IV & Topic 3 Page 5 in WSDP Module 1

# 2.5. FUTURE PLANS TO ADDRESS SERVICE DELIVERY & GROWTH AND DEVELOPMENT

Water Priority	Water Need Description	Are the future plans indicated in 2.4 sufficient to address service delivery at:		Do future plans cater for the Growth & Development strategy	Are these plans included in Module 3 of the WSDP (Provide
		RDP LEVEL	HIGHER LEVEL		reference)
Definition 1	No Water Services	Yes			Yes
Definition 2	Inadequate RDP Infrastructure Need: Extension required	NA			NA
Definition 3	Inadequate RDP Infrastructure Need: Upgrade required	NA			NA
Definition 4	Inadequate RDP Resource Need	NA			NA
Definition 5	Inadequate RDP Management Need: O&M required	NA			NA
Definition 6	Inadequate RDP Management Need: Refurbishment required	NA			NA
Definition 7	Inadequate Housing Interim Solutions	NA			NA
Definition 8	Inadequate Housing Permanent Solutions	Yes			Yes

Link to section 1.1 in WSDP Module 1

#### 2.6. FREE BASIC WATER

Is there a Free Basic Services Policy in Place?: YES

Subsidy Targeting Approach	Current % of HH's requiring FBW	% of HH Targeted: Water	% of HH Targeted: Sanitation
Rising block tariff		73.2	NA
Service level targeting		26.8	100
* Credits to Water account			
* Credits to Sanitation account  * Number of units requiring free basic services (Water)			
* Number of units requiring free basic services (Sanitation)			
Number of units with access to free basic services		6466	6466

Link to Topic 10 Page 33 in WSDP Module 1

#### 3. SECTOR INTEGRATION

Consultation and Integration with other Sector Plans to incorporate their needs

Sector	Interaction (None, Limited, Partial, Good, Excellent)
Agri-Culture	0%
Mining	NA
Tourism	30%
Public Works programmes	
Other 1:IDP	75%
Other 2:SDF	90%
Other 3:Master Plan	75%
Other 4:ISP	75%

INTERACTION
To which extend has interaction taken place?
None - 0%
Limited - 10%
Partial - 30%
Good - 75%

Excellent - 90%

Link to Topic 1 Page 3 in WSDP Module 1

## 4. PROJECT LISTS

#### 4.1. TOTAL NUMBER OF PROJECTS

Total number of projects	27
Total number of projects: Water	15
Total number of projects: Sanitation	12

#### 4.2. LEVELS OF SERVICE

Total number of projects aimed at Basic Levels of Services	
Total number of projects aimed at Higher levels of Services	
Total number of projects aimed at System Improvement	

#### 4.3. POPULATION BENEFITTING

	Water	Sanitation
Basic Levels of Services		
Higher levels of Services		
System Improvement		

## 4.4. FUNDING SOURCES (RM) 2010/11

MIG	14.496
RBIG	0
ACIP	0
DROUGHT	
RELIEF	0
MUNICIPAL	
INTERVENTION	0

DWA	0
Own/Other	0.155
TOTAL	14.651

## 4.5. DETAIL PROJECT LISTS

	Description Services Type Programme type		Programme type	Project Primary	Proposed project funding (RM)		
Project		Type		Class	10/11	11/12	12/13
number	Name & Description	W: Water S: Sanitation	Water Services WIB: Internal Bulk WRB: Regional Bulk WT: Treatment WWT: Waste Water Treatment WR: Reticulation SS: Sanitation Service H: Housing O: Other	B - Basic H - Higher S - System Improvement	Total	Total	Total
TK0708004	Botrivier : Upgrading of WTW	Water	Water Treatment Works		0.3	0.2	4
TK0708014	Genadendal : Upgrading of WTW [WMP 7]	Water	Water Treatment Works		0	0	3
TK0708022	Grabouw: Upgrade Bulk Water Infrastructure Capacity Ph1&2 [0420/W/06/07]	Water	Water Internal Bulk		1.422	0	0
TK0708032	Riviersonderend : Upgrading of WTW	Water	Water Treatment Works		0	0	4
TK0708040	Villiersdorp : Upgrade WTW	Water	Water Treatment Works		0	0	4
TK1011043	Voorstekraal 150Kl Reservoir	Water	Water Internal Bulk		0.15	0	0.75
TK0809001	Botriver - Bulk Water Infrastructure upgrading	Water	Water Internal Bulk		5.842	0.192	0
TK0910005	Botriver - Eradication of septic tank system	Sanitation	Internal Sanitation		0	0	2.524
TK0910008	Botriver - Upgrading of WWTP - Phase 2	Sanitation	Sanitation Bulk		0	0.3	0
TK1011001	Botrivier: Rehabilitate Bulk Water Supply [WC0832/W/10/12]	Water	Water Internal Bulk		3.776	0	0
TK0708009	Caledon: Upgrading of WWTW [WMP 6]	Sanitation	Sanitation Bulk		0	0	0.56
TK1011003	Water Demand Management [WMP 1]	Water	Strategic Planning		2.463	0	0
TK0910006	Upgrading of Bulk Water Supply	Water	Water Internal Bulk		1	0	0
TK0708023	Grabouw: Upgrade Bulk Water Infrastructure Capacity Ph3 [WC0420/W/07/09]	Water	Water Internal Bulk		6.658	0.618	2.088
TK0809008	Grabouw - Water Reticulation replacement	Water	Water Reticulation		0.2	0.2	0
TK0708017	Grabouw: New Bulk Sewer Upgrade [0532/S/07/10]	Sanitation	Sanitation Bulk		2.673	0	0
TK0708021	Grabouw: Upgrade WWTW [WC0722/S/07/12] [WMP 5]	Sanitation	Sanitation Bulk		1.721	15.889	8.350
TK0910007	Grabouw - Sewer Network Replacement	Sanitation	Internal Sanitation		0.05	0.08	0

	Description	Services	Programme type	Project Primary		posed pi inding (F	
Project		Type		Class	10/11	11/12	12/13
number	Name & Description	W: Water S: Sanitation	Water Services WIB: Internal Bulk WRB: Regional Bulk WT: Treatment WWT: Waste Water Treatment WR: Reticulation SS: Sanitation Service H: Housing O: Other	B - Basic H - Higher S - System Improvement	Total	Total	Total
TK1011021	Toilets for Slangpark informal settlement	Sanitation	Internal Sanitation		0.1	0	0
TK1011022	Grabouw: Rehabilitate 6MI/d Extension to WTW [WC0607/W/07/10]	Water	Water Treatment Works		2.019	0	0
TK0809013	Greyton -Upgrade WTW [WMP 8]	Water	Water Treatment Works		0	0	0.1
TK0809015	Greyton - Sewer connection Greyton - Genadendal	Sanitation	Sanitation Bulk		0	3.576	1.424
TK0809018	Greyton - Eradication of septic tank system	Sanitation	Sanitation Bulk		0	0	0.3
TK0809022	Tesselaarsdal - WWTW [WMP 10]	Sanitation	Sanitation Bulk		1.2	0	0
TK0708042	Villiersdorp: New reservoir at 19 Damme (2,4 MI reservoir)	Water	Water Internal Bulk		0	0	0.3
TK0708037	Villiersdorp : Upgrading of WWTP	Sanitation	Sanitation Bulk		0.3	0.3	8
TK1011032	Toilets for informal settlement areas	Sanitation	Internal Sanitation		0.2	0	0

Link to Topic 13 Page 41 – 43 (optional) in WSDP Module 1

## 4.6. APPROVED BUDGETS IN THE MTEF ALLOCATIONS

Are there approved budgets in the MTEF allocations for all these projects?

		ο αρριόνου συυξ	<u>,</u>	Trading Se					
Income Subsidies From:	Housing	Environmental Protection	Waste Management (solid waste)	Waste water management	Road transport	Water	Electricity	Other Trading Services	Grand Total
	RM	RM	RM	RM	RM	RM	RM	RM	RM
National Government									
Provincial Government									
Local Government									
Other									
Grants (including the equitable share) from:									
National Government									
Provincial Government									
Local Government									
Other									
Spent conditional grants									
Metering & Billing Income									
Other Income									
Deficit									
Total Income	0	0	0	0	0	0	0	0	0

Link to Topic 10 Page 30 in WSDP Module 1

#### 5. PREPARATION & MAINTENANCE

Is there an Operation & Maintenance Plan in place?:

#### **WATER SERVICES INFRASTRUCTURE:**

#### **Existing Groundwater Infrastructure**

Staff to perform the function	2
Budget to perform the function	2
Sufficient for:	
RDP	Yes
Higher level services:	Yes
the Growth & Development Strategy of the WSA:	Yes

Zero Compliance

1 -Below minimum requirement

YES

Minimum basic requirement 2 -Above minimum requirement

N/R Not Required

#### **Existing Surface water Infrastructure**

Staff to perform the function	2
Budget to perform the function 2	
Sufficient for:	
RDP	Yes
Higher level services:	Yes
the Growth & Development Strategy of the WSA:	Yes

#### **Existing Water Treatment Works Infrastructure**

Staff to perform the function	2
Budget to perform the function 2	
Sufficient for:	
RDP	Yes
Higher level services:	Yes
the Growth & Development Strategy of the WSA:	Yes

#### **Existing Pump Station Infrastructure**

Staff to perform the function	2
Budget to perform the function 2	
Sufficient for:	
RDP	Yes
Higher level services:	Yes
the Growth & Development Strategy of the WSA:	Yes

#### **Existing Bulk Pipeline Infrastructure**

Staff to perform the function	2
Budget to perform the function	2
Sufficient for:	
RDP	Yes
Higher level services:	Yes
the Growth & Development Strategy of the WSA:	Yes

#### **Existing Tower & Reservoir Infrastructure**

Staff to perform the function	2
Budget to perform the function 2	
Sufficient for:	
RDP	Yes
Higher level services:	Yes
the Growth & Development Strategy of the WSA:	Yes

Link to Topic 6 Page 14 - 17 in WSDP Module 1

## 6. FINANCIAL VIABILITY, INCOME, METERING & BILLING

#### 6.1. Residential: Water

	URBAN	RURAL
Units Supplied	18718	NA
Metered %	100	NA
Billed %	100	NA
Not Metered	0	NA
Income Received %	Unk	NA
Non Payment %	Unk	NA

Link to Topic 10 Page 34 in WSDP Module 1

#### 6.2. Industrial: Water

	URBAN	RURAL
Units Supplied	1	NA
Metered %	100	NA
Billed %	100	NA
Not Metered	0	NA
Income Received %	Unk	NA
Non Payment %	Unk	NA

Link to Topic 10 Page 34 in WSDP Module 1

## 6.3. Commercial: Sanitation

	URBAN	RURAL
Units Supplied	1	NA
Metered %		
Billed %	100%	NA
Not Metered	0	NA
Income Received %	Unk	NA
Non Payment %	Unk	NA

Link to Topic 10 Page 35 in WSDP Module 1

#### 6.4. Industrial: Sanitation

	URBAN	RURAL
Units Supplied	1	NA
Metered %		
Billed %	100%	NA
Not Metered	0	NA
Income Received %	Unk	NA
Non Payment %	Unk	NA

Link to Topic 10 Page 35 in WSDP Module 1

#### 7. WATER RESOURCE DEVELOPMENT

# 7.1. Water resources development w.r.t. demand management, water balance issues and ecological reserve?

Is there Water conservation and demand management strategy in place?:	YES
Is there Budget to perform the function	YES
Sufficient Personnel perform the function	YES
Adequate for Higher Level Services	YES
Does the municipality have a strategy in place to meet 2014 targets?	YES

#### 7.2. WATER RESOURCE MANAGEMENT

Conjunctive use of surface – and groundwater (Number of settlements)

Ground Water	0
Surface Water	0
Conjunctive Use	0

Link to Topic 8 Page 22 in WSDP Module 1

#### 7.3. WATER BALANCE & LOSSES

#### Water Losses (%)

Raw Water Bulk Loss	0%
Treated Water Loss: Bulk	0%
Treated Water Loss: Internal	11.363%

Link to Topic 8 Page 24 in WSDP Module 1

## Water Balance (Volume Units in Mℓ/d))

Bulk	4.8
Usage	9.552
Discharged	7.263
Balance value	0

Link to Topic 8 Page 24 in WSDP Module 1

## 8. CONTRACTING & LICENSING

## References to the status of all contracting and licensing issues

FUNCTIONS	% in place
GENERAL FUNCTIONS	80%
BULK & RETAIL FUNCTIONS	80%
WATER SERVICES PROVIDERS	80%

Link to Topic 11 Page 37 – 38 in WSDP Module 1

## 8.1. Contracting issues

GENERAL FUNCTIONS	Policy in Place	Budget to perform the function	Personnel to perform the function	Gazetted	Council approved	Adequate for Basic Services
Policy development						
Indigent Policy	Yes			NA	Yes	
Free basic water policy (including equitable share)	Yes			Yes	Yes	
Free basic sanitation policy	Yes			Yes	Yes	
Procurement policy	Yes			NA	Yes	
Credit control & debt collection policy	Yes	Yes	Yes	Yes	Yes	
Regulation and tariffs						
Water Services bylaws with conditions as required by the Water Services Act	Yes					
Mechanisms to ensure compliance with bylaws	Yes	Yes	Yes	NA	Yes	
Tariff structure	Yes			Yes	Yes	
Tariffs promulgated	Yes	Yes	Yes	Yes	Yes	

Water Services Providers	Name	Contract type	% Consumers served by the WSP
Retail water	Theewaterskloof Municipality	NA	100%
Sanitation	Theewaterskloof Municipality	NA	100%

Link to Topic 11 Page 37 – 38 in WSDP Module 1

## 8.2. Licensing issues

CURRENT Water sources	Number of sources	Current abstraction (Mm³/A)	Licensed abstraction (Mm³/A)	Community water supply	
				Rural	Urban
Groundwater	12	0.926414	0.696894	NA	100%
Surface Water	11	1.19472	2.28899	NA	100%
External Sources (Bulk purchase)	3	3.062327	7.88358	NA	100%
Water returned to source	7	2.756639	Unknown	0	0

FUTURE Water sources	Number of sources	Current abstraction (Mm³/A)	Licensed abstraction (Mm³/A)	Community water supply	
				Rural	Urban
Groundwater	13		696.894		
Surface Water	11		2288.99		
External Sources (Bulk purchase)	3		7883.58		
Water returned to source					

Link to Topic 9 Page 26 in WSDP Module 1

### 9. QUALITY & MONITORING

#### 9.1. MONITOTING

% Compliance to drinking water acceptable limits 95%

% Compliance to effluent release acceptable limits 45%

#### 9.2. WATER QUALITY

Is there a Water Quality Plan in Place YES

WATER QUALITY	% or Number of / Yes No	Policy in Place	Budget to perform the function	Personnel to perform the function	Gazetted	Council approved	Adequate for Basic Services
Reporting on quality of water taken from source: urban & rural		Yes	Yes	Yes	Yes		
Quality of water returned to the resource: urban	Yes						
Quality of water returned to the resource: rural	No						
Is there a Pollution contingency measures plan in place?		Yes	Yes	Yes	Yes		
Quality of water taken from source: urban - % monitored	Yes		Yes	Yes	Yes		
Quality of water taken from source: rural - % monitored	NA		NA	NA	NA		
Quality of water returned to the source: urban - %	Yes		Yes	Yes	Yes		
Quality of water returned to the source: rural - %	NA		NA	NA	NA		
Are these results available in electronic format? (Yes/no)		Yes					
% Time (days) within SABS 241 standards per year	95%						

Link to Topic 9 Page 27 in WSDP Module 1