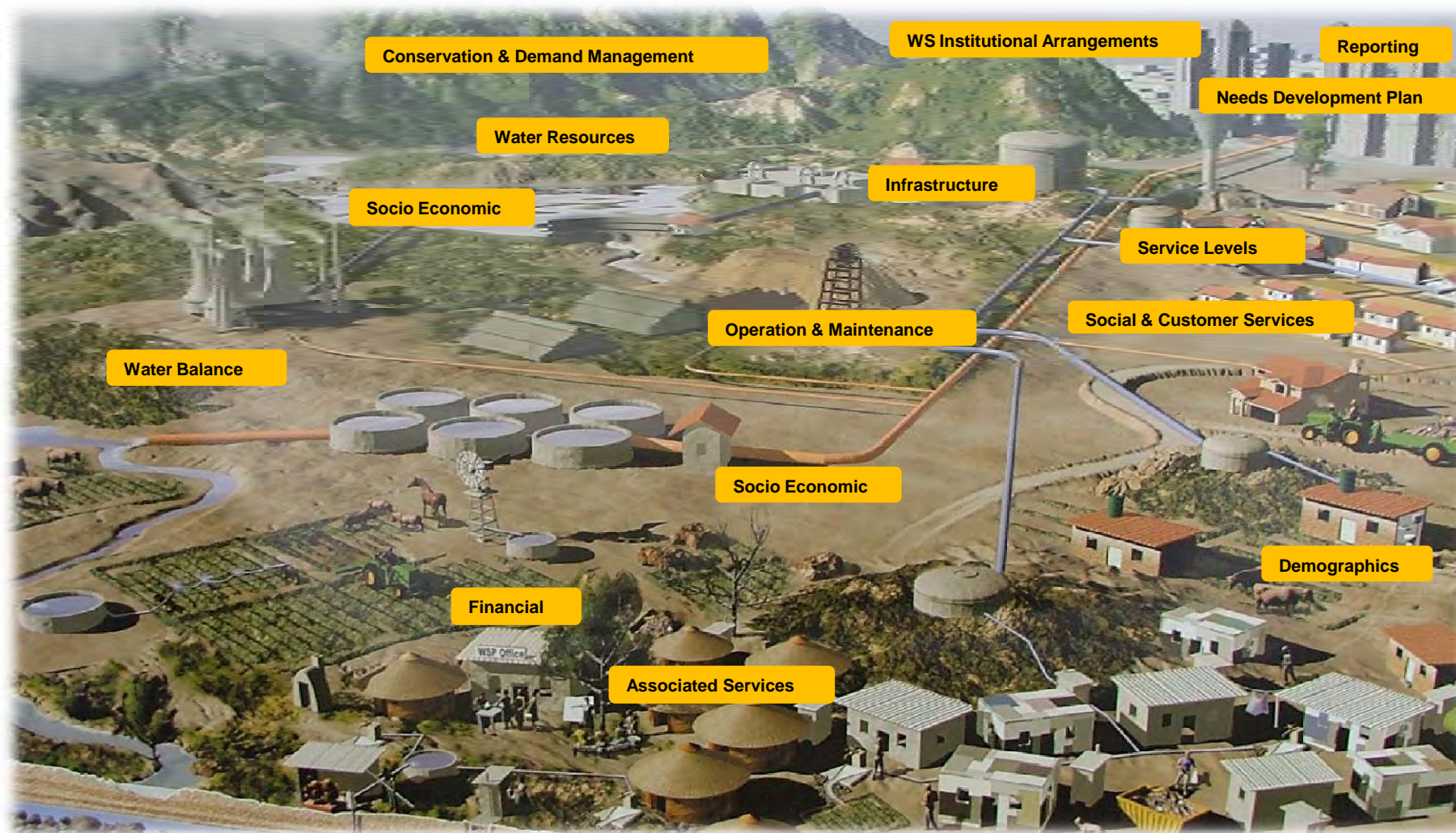


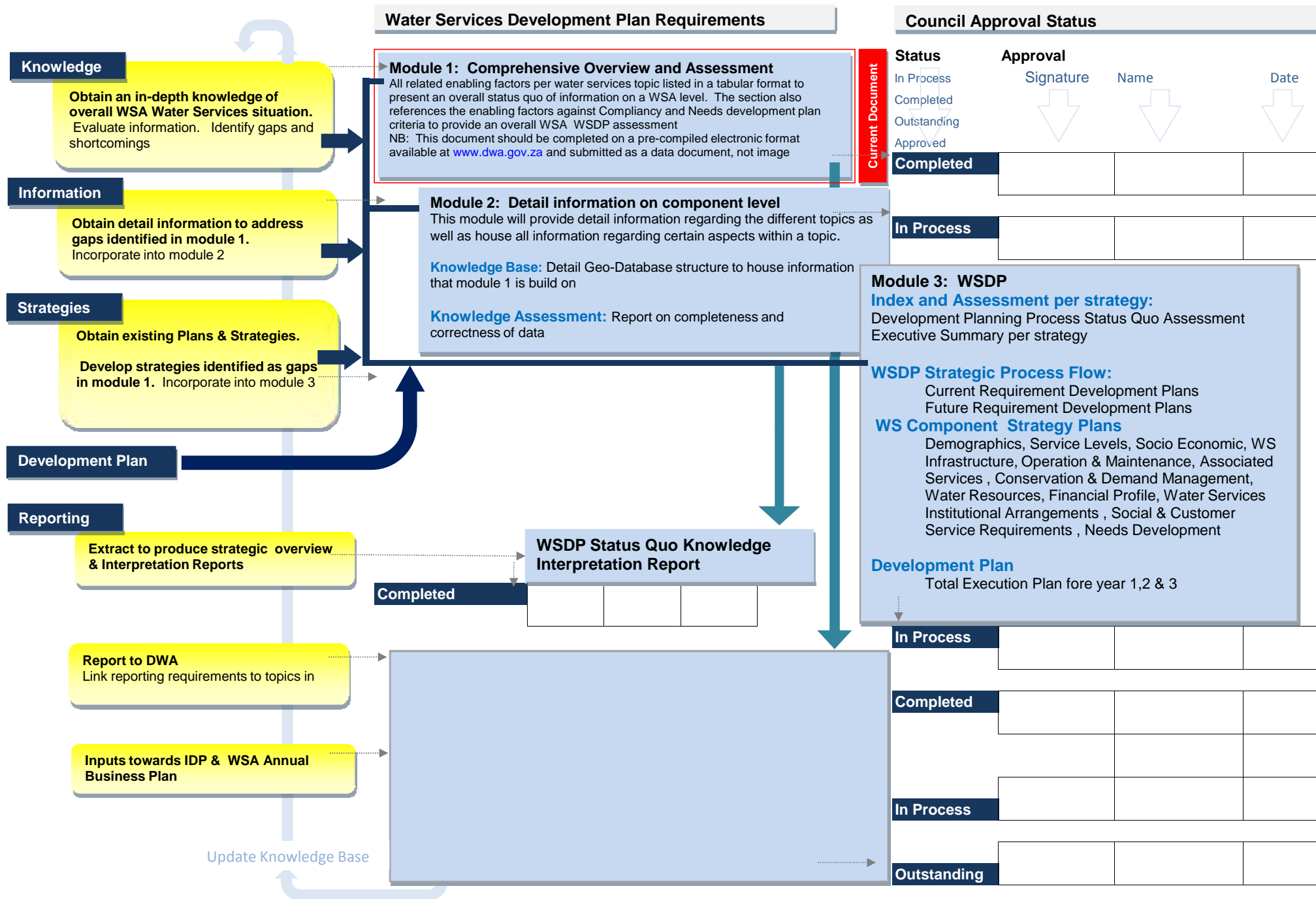
WATER SERVICES DEVELOPMENT PLAN

Mafube Local Municipality 2012

Module 1: Overview and Assessment of the Status of Information and Strategies on a WSA Level



Document Date: FEBRUARY 2012



THE WATER SERVICES BUSINESS

MAFUBE LOCAL MUNICIPALITY

WSDP 2012

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SALGA

What is the WSA's Vision & Mission Statement on Water Services?

Vision & Mission Statement:

Vision: A viable, developed and sustainable municipality

Mission: To provide effective, transparent government and ensure efficient, affordable and sustainable service delivery, promote integrated development and economic growth



People

What are their needs regarding water?



SALGA



Demographics	Total
Number of People	68656
Total Number of Settlements	9
Total Number People Urban	60207
Total Number People Rural	8449
Total Number of Settlements Urban	8
Total Number of Settlements Rural	1



Water Category	Water Need Description	Settlements	Population	Households
10	No Service	0	0	0
7	Infrastructure Upgrade	4	7330	1981
7	Infrastructure Extension	4	6880	1860
7	Infrastructure Refurbishment	4	1217	329
6	O&M Need (Total Settlement)			
5	Water Resource Needs			
8	Infrastructure O&M Need			
9	Infrastructure & O&M Need & Water Resource Needs			
Adequate:	Stand Pipe			
Adequate:	Yard Connection			
Adequate:	House Connection	8	20097	5421
Informal Below	No Service	0	0	0
Informal Adequate	Temporary Services Provided	0	0	0

What are their needs regarding sanitation?

Sanitation Category	Sanitation Need Description	Settlements	Population	Households
10	No Service	0	0	0
7	Infrastructure Upgrade	4	541	144
7	Infrastructure Extension	4	25382	6855
7	Infrastructure Refurbishment			
6	O&M Need (Total Settlement)			
5	Water Resource Needs			
8	Infrastructure O&M Need			
9	Infrastructure & O&M Need & Water Resource Needs			
Adequate:	Waterborne			
Adequate:	Waterborne Low Flush			
Adequate:	Septic Tanks / Conservancy	1	7093	1912
Adequate:	Non-Waterborne	1	1582	428
Informal Below	No Service	0	0	0
Informal Adequate	Temporary Services Provided	0	0	0

What is our water availability status to supply all the needs?

Water sources	Number of sources	Current abstraction (MI/Dav)	Licensed abstraction (MI/Dav)
Groundwater	4	0.0073	
Surface Water	5	0.8	
External Sources (Bulk purchase)	0		
Water returned to resources			
How much water is re-used (Recycled Water)	0	0	0

4. Water & Sanitation Infrastructure?

4.1. How does the infrastructure picture look in my WSA to distribute water to our people?



Topic 5: Water Infrastructure	Total
Total Number of Schemes	4
Total bulk pipeline km.	30
Total Number reservoirs	7
Total Number pump stations	6
Total Number of Water Treatment Works	4
Total Number of Waste Water Treatment Works	6



The general condition of WWTW	Total
1. Estimated cost to Upgrade	R 36 000 000.00
2. Estimated cost to Refurbish	R -
3. Existing Budget	R -

5. How sufficient is our Operation & Maintenance:

5.1. Do we have enough people to perform the function?

5.2. What is the % infrastructure not working due to O&M?

5.3. What is the problem?



Topic 6: Operation & Maintenance	Total
Total Number of O&M staff	81
Total Number of O&M staff sufficient? Yes/No	No
Total Number of O&M staff required	
Statement on population and effluent release	

Define the Problem
Most WWTW are overloaded and operating beyond their capacity. Pump maintenance is an issue and require outside skills to repair and maintain and may result in unacceptable outages of water. Basic maintenance is done internally. BPs have been submitted for upgrades. We are hoping to start with upgrades during 2012 -2013 period.

Statement on Polution and Effluent Release
Population in Mafube has a steady growth and is gradually impacting on the existing infrastructure. As the pipes run next to the river, occasional blockages causes overflows causing pollution in the river.



6. Do I pollute my environment



Topic 8: Conservation & Demand Management

	Y / N
Does the municipality have a Water Conservation Demand Management Plan(WCDM)?	Y
Does the municipality have a strategy to meet 2014 targets?	Y
Is there an internal budget?	N
Does the municipality apply through IDP funds for WCDM?	

8

- 7. 1. What is my total Water Services Budget?
- 7.2. Is my budget enough to eradicate backlog and maintain the WS infrastructure?
- 7.3. What is the shortfall?

Topic 10: Financial

Total Water Services Budget:	R 160 830 000.00
Is the budget enough to eradicate backlog and maintain the WS infrastructure? (Yes/No)	N
Shortfall:	R 428 610 000.00

10



8. Do we have plans and projects in place to address the water services issues and requirements?

Topic 13: Project List

13

Total Number of Projects	5
Sufficient to eradicate backlog: (Yes/No)	N
Total Allocated Funds (Rm)	54.9

PROJECT NAME	Total Funds on Budget for Project	PROJECT NAME	Total Funds on Budget for Project
ACTIVE PROJECTS : MIG2011/2012 ; RBIG ; ACIP		Villiers water pump station to be upgraded	R 750 000.00
Villiers:Eradication of 148 buckets	R 706 937.00	Cornelia new reservoir of 5MI	R 4 500 000.00
Cornelia (Ntswanatsatsi): Eradication of 211 buckets	R 6 588 366.66	Cornelia refurbish old line of 7000m	R 1 750 000.00
Tweeling/Mafahlaneng: Erad 489 bkts -add funds	R 5 612 185.00	Cornelia Upgrade pumpstation-water	R 1 250 000.00
Namahadi:Constr of water ret, inst erf connect 1714 stds	R 21 325 745.00	Frankfort upgrade wtw R8milj	R 8 000 000.00
Villiers/Qalabotjha: Constr of new water purification wks	R 20 757 690.00	Frankfort new reservoir R8.2	R 8 200 000.00
CONCEPTUAL & AWAITING FUNDING PROJECTS		Frankfort refurbish water line 4000m	R 1 000 000.00
Qalabotjha: Sewer Reticulation & Toilet Structures	R 12 546 000.00	Frankfort upgrade water pumpstation x 3	R 1 200 000.00
Namahadi Ext: Sewer Ret & Toilet Structures for 2100 Erven	R 35 213 197.80	Tweeling upgrade wtw R6milj	R 6 000 000.00
Mafahlaneng:Sewer Ret & Toilet Structures for 304 Erven	R 5 472 000.00	Tweeling new reservoir R4.5	R 4 500 000.00
Ntswanatsatsi: Sewer Ret & Toilet Structures for 393 Erven	R 7 074 000.00	Tweeling upgrade water pump stations x 2	R 1 200 000.00
Bucket eradication backlog, Frankfort-2100	R 20 220 375.00	Qalabotjha :Water Ret Network, Instal of 697 Erf Connections	R 8 015 500.00
Tweeling upgrade sewer pumpstation x 2	R 1 200 000.00	Mafahlaneng: Water Ret Network and Instal of 304 Erf Connect	R 3 496 000.00
Frankfort new Biofilter R9	R 9 000 000.00	Ntswanatsatsi :Water Ret Network, Instal of 393 Erf Connections	R 4 519 500.00
Frankfort sewer pump upgrade x 3	R 2 289 583.52	Mafube LM: Rehab,Rep of Asbesto-cement Water pipes	R 35 000 000.00
Mafube Municipality:San Int Bulk Refurbishments (group est)	R 26 790 000.00	Installation of functional floor meters in LM	R 2 000 000.00
Namahadi: Extension of the WWTW (MIS: 185309)	R 18 408 720.00		
Qalabotjha: Construction of the extension of the WWTW	R 17 500 482.00		
Qalabotjha:Outfall sewer modification incl pumpstation	R 798 000.00		
Villiers Upgrading of Waste water plant	R 2 500 000.00		
Villiers upgrade sewer pump stations	R 1 500 000.00		
Cornelia Upgrade sewer pump stations 2	R 5 700 000.00		
Tweeling wwt upgrade R7	R 7 000 000.00		
Mafube Municipality - Water Internal Bulk Ref (group est)	R 21 050 000.00		
Qalabotjha: Construction of a weir in the Vaal river	R 9 000 000.00		
Frankfort:Pressure Tower and 4.5MI Water Reservoir	R 14 000 000.00		
Namahadi,Villiers and Cornelia:Constr of New Water Reservoirs	R 30 000 000.00		
Villiers: pipeline from water plant to reservoir O&M	R 6 250 000.00		
Frankfort/Namahadi/Cornelia/Ntswanatsatsi:Ext bulk water supp	R 6 685 929.00		
Tweeling:Constr pressure tower,booster pmpstn,Appurtenant wks	R 575 700.00		
Mafube:Constr of new rising main to the water purification plant	R 8 064 240.00		
Villiers new reservoir 4,5MI	R 4 000 000.00		

The project summary (i.e. Number of and Allocated Funds) only indicates current projects for the current year (2011-2012).

[illegible]

Critical Developments & Associated Factors that impacts our Area for the Immediate Future

Urban versus Rural Backlogs

The biggest impacting factor is the unavailability of developed stands. Where existing stands are available no infrastructure (water & Sanitation & Electricity) is currently provided or available due to existing backlogs due to budget constraints. Currently there is a waiting list of 3,500 and approx another 3,000 with no adequate services in most instances they are sharing communal taps and buckets for sanitation. There is sufficient water available and the planned upgrades will cater for this growth.

Reliance on Water Resources available and Bulk Infrastructure

There is sufficient water available and no immediate source of concern. The main concern is with storage capacity, treatment plant capacity and the maintenance thereof.

Links between Water Supply & Sanitation

Once the WWTW have been upgraded there will be no issues as the infrastructure will then be available as there is no immediate concern of a water deficit.

Limited Implementation & Operating Capacity in Some Municipalities

There is a huge backlog wrt WTW and WWTW due to budget constraints.

Critical Developments & Associated Factors that impacts our Area for the Immediate Future

Available Funding

The WS Budget, and Shortfall was calculated by the PSP as the information was not provided by the municipality. The methodology applied is in line with the MIG Guidelines that was downloaded from COGTA's website: "Municipal Infrastructure An Industry guide to Infrastructure Service Delivery Levels and Unit Costs" and utilised the different backlog figures as indicated on Pages 4 and 5 of this WSDP and includes Water and Sanitation. Where appropriate the unit cost per household was escalated by 10 % per annum. Mafube relies on MIG funding only as the incoming revenue is only 70% and does provide for development projects.

Affordability of Service Levels (O&M Costs)

The Mafube are mostly indigents and are struggling to pay for services and apply for indigent subsidies. Others can afford, but not paying. There is a 30% outstanding debtors.

Growing Backlog in Refurbishment of Existing Infrastructure

The existing infrastructure as indicating earlier is currently unable to cope with demand and Business Plans for upgrades has been submitted.

Major Economic Development

The major economic development is a large bakery and mill (Kromdraai), a co-op (VKB) a dairy (Clover) and various abattoirs. These are all major users of water.

Associated Population Growth & Water Demand

There is inadequate budget to keep up with the existing demand of infrastructure and it is mainly due to existing backlog. If the backlog is addressed, growth is provided for in the Business Plans.

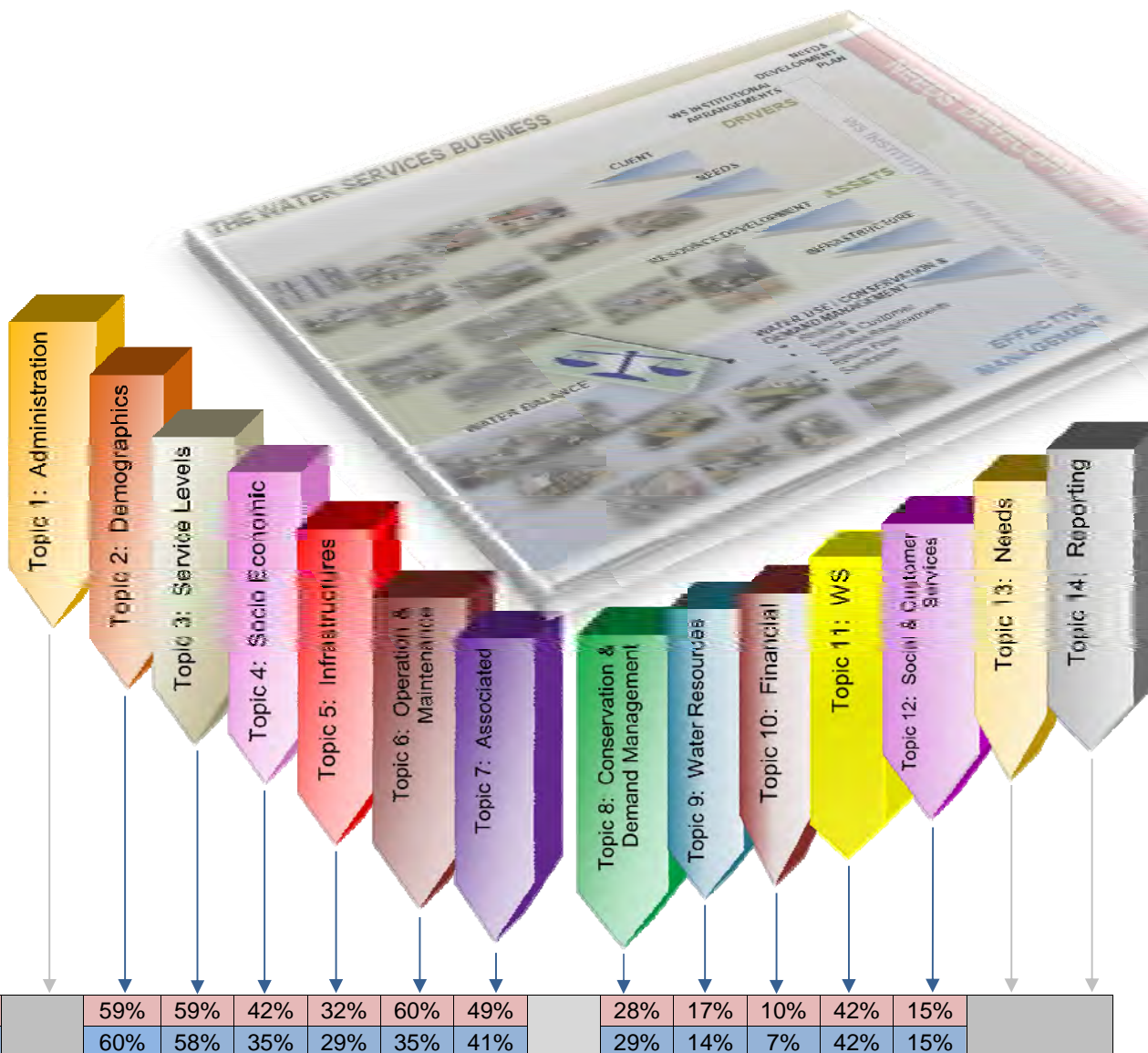
MAFUBE LOCAL MUNICIPALITY

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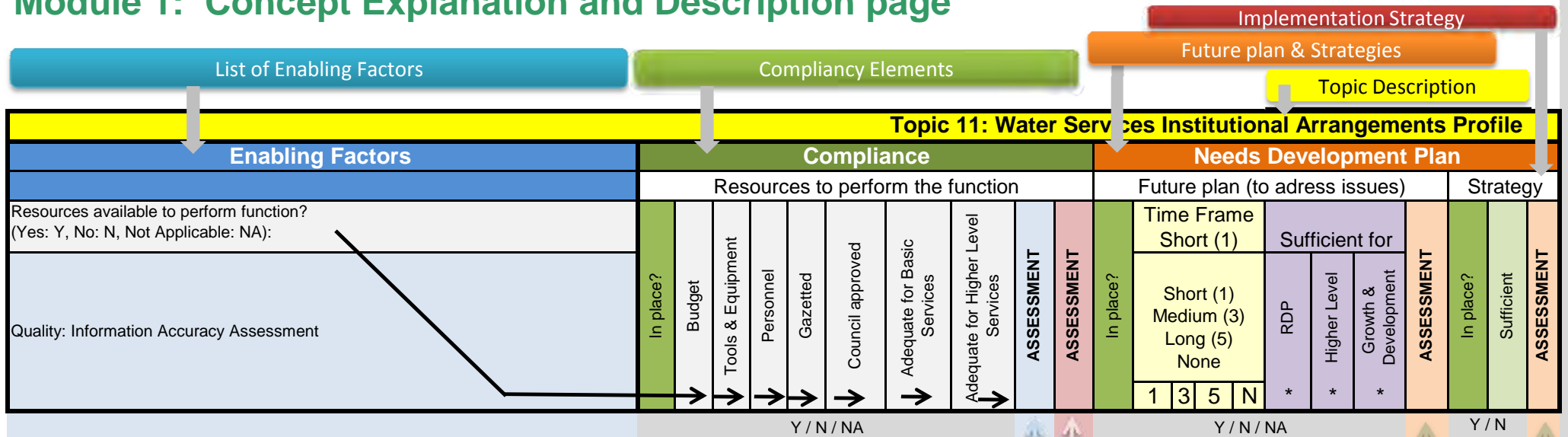
An Overall Critical Self Evaluation of the Overall WSDP Knowledge Base

How does my WSA fare regarding knowledge and information of the building pillars of the Water Services Business?

A % summary evaluation derived from the WSDP Document C Module 1 per topic



Module 1: Concept Explanation and Description page



INDEX: List of Topics

1. Administration
2. Demographic
3. Service Levels
4. Socio Economic Background
5. Infrastructure
6. Operation & Maintenance
7. Associated Services
8. Conservation & Demand Management
9. Water Resources
10. Financial
11. Water Services Institutional Arrangements
12. Social & Customer Service Requirements
13. Needs Development Plan
14. Reporting

Each Topic has its own enabling factors that will make the Topic work

Quality Assessment

Assessment of Current Status
measured against compliancy
requirements

None	0%
Limited	20%
Partial	40%
Good	60%
Excellent	80%

Quantity Assessment

An indication of the representation of total area to address the issue

None: 0%

Limited 20%

Partially: 40%

Good coverage: 60%

Available for whole area: 80%

**Is there a Future
Plan in Place?**
(Physical document
that addresses issues
& shortcomings)

Is there an Implementation Strategy in Place?

(Must be a
implementation plan
of action that reflects
in the budget with a
time line)

**General Assessment
on Scale 1-5**

None 0%
Limited 20%
Partial 40%
Good 60%
Excellent 80%

MAFUBE LOCAL MUNICIPALITY

Status Tracking of WSDP

	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5		YEAR 6	
Status	Modules: All/1/2/3 or 4	Date Submitted	Modules: All/1/2/3 or 4	Date Submitted	Modules: All/1/2/3 or 4	Date Submitted	Modules: All/1/2/3 or 4	Date Submitted	Modules: All/1/2/3 or 4	Date Submitted	Modules: All/1/2/3 or 4	Date Submitted
Interim												
Draft 1		31 January 2012										
Adopted												
Annual Review												
Public Viewed												

Role Players Contact Details

POSITION	PERSON	TEL	FAX	CELL	EMAIL	Interaction Acknowledgement Yes / No	Interaction Acknowledgement Signature
Municipal Manager	MASOKA NAKANAU	588139702	588133119	823603435	ltshabalala@mafube.org		
Executive Mayor							
Water services Councillor	MR. M MOSIA	823086929	588133072	822225200	mosia@webmail.co.za		
WSDP Contact							
IDP Manager	NHLAPO MAFIKA	588139701	588133119	825233341	mafika@mafube.org		
PIMSS Senior Planner							
Technical Services	MRS.N.V. XAMEXI	588139716	588133072				
Treasurer	ANDREW HLUBI	588139703	58813072	795135998	finance@mafube.org		
WSDP Data Custodian							
WSDP Custodian							
Data official							
Acting Mayor							
Acting Municipal Manager							
PMU Manager							
Chief Financial Officer	ANDREW HLUBI	588139703	58813072	795135998	finance@mafube.org		
Acting Chief Financial Officer							
Mayor	LOUIS NTOMBELA	588139715	588133072	827875155			
Housing	HADEBE NOKUFA	588139747	588133072	829246618			
Environmental							
Infrastructure	XAMESI NOKWANDA	XAMESI NOKWANDA	588133072	825262777	skwashx@webmail.co.za		

Topic 1: Administration

Professional Service Provider (PSP)

Company		Pula Strategic Resource Management (Pty) Ltd			
Name of PSP WSDP Project Manager		Alet McCully			
Tel: 012 424 0900	Cell: 083 228 5260	Fax: 012 460 1205	E-mail: alet@pula.co.za		
Inputs					
Components	Chapter	Name	Designation	Role	Contact address, and number
Name of PSP WSDP Information Systems Operator		Alet McCully			
Tel: 012 424 0900	Cell: 083 228 5260	Fax: 012 460 1205	E-mail: alet@pula.co.za		

* Sector Integration

Did this plan consult with other Sector Plans and incorporated their needs

* Sector	* Inter-action	* To which extend was it calculated? (Refer to Page 1: General Assessment on Scale 1-5)
Agri-Culture	90	The main source of income for Mafube.
Mining	0	There are no mining activities in Mafube.
Tourism	75	During December the resorts and guest houses are well supported.
Other 1:	90	The industries are of major importance to the growth and sustainability of Mafube.
Other 2:		
Other 3:		
Other 4:		

Comments



SETTLEMENT DEMOGRAPHICS

Assessment

Assessment

* 2.1	Total Population	68656
* 2.2	Total number of households	18519
* 2.3	Average household size	3.71

Quality: Information Accuracy Assessment

Quantity: Assessment of Information Completeness

2.4 Settlement Type

		Number of settlements	Population per settlements type		
Farming	Farming	1	8449	60%	60%
Urban	Metropolitan Area			60	60
	Urban - Formal Town	4	8051	60	60
	Urban - Former Township	4	52156	60	60
	Urban - Informal Settlements (Squatter Camp)			60	60
	Working Towns & Service Centres - Mines, Prisons etc.			60	60
	Urban	8	60207	60%	60%
Rural	Rural - Dense Village > 5000			60	60
	Rural - Small Village <= 5000			60	60
	Rural Scattered			60	60
	Rural Scattered Dense			60	60
	Rural Scattered Low Density			60	60
	Rural Scattered Very Low Density			60	60
	Rural - Informal Settlements (Squatter Camp)			60	60
	Rural	0	0	60%	60%

Comments

Mafube is a growing municipality with a couple of bigger industries as a growing economic activities. The younger generation is mainly looking towards major cities for employment as there are not enough opportunities. Population growth increases the demand for food, education, health facilities and services, water, energy and other resources. Due to the mushrooming informal settlements, high demand of low cost housing and the lack of funding, the Municipality has a backlog of 3159 erven with no house connections, but have access to water through communal taps.

Public Amenities Consumer Types

2.5 Social Services type	No. of facilities	Area (Ha)	Assessment	Assessment
Police Stations	4		70	60
Magisterial Offices	2		70	60
Schools	45		70	60
Health Facilities	9		70	60
Prisons	1		70	60
Industries	10		70	60
Mining	0		70	60
Resorts and tourism	2		70	60
Agriculture dry land		141890	60	60
Agriculture irrigation		1293	60	60
Agr. Intensive livestock/grazing		288344	60	60
Agr. Extensive livestock/grazing		70402	60	60
Conservation areas	0		0	0
TOTAL			62%	55%

OVERALL QUALITY ASSESSMENT

60%


OVERALL QUANTITY ASSESSMENT

59%



Enabling Factors										Needs Development Plan														
3.1 SETTLEMENT WATER SERVICE LEVEL DEFINITIONS										ASSESSMENT	ASSESSMENT	Future plan (to address issues)										Strategy		
												In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT	
													Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development					
													1	3	5	N	*	*	*					
DEFINITION	CLASSIFICATION	DESCRIPTION	CATEGORY	SETTLEMENTS	POPULATION	HOUSEHOLDS	%	%	Y / N / NA							%	Y / N		%					
FORMAL	No Service	Whole community never had any formal (municipal) water supply system.	10	0	0	0	60	60	y	y	y	y		y	y	y	60	y	n	40				
	Infrastructure Upgrade	Existing infra not on RDP std.	7	4	15427		60	60	y	y	y	y		y	y	y	60	y	n	40				
		1.Network: too small pipes, 2.Storage: Add to exist / elevation 3.Source: Infra to increase exist yield																						
		Communities have grown structurally and there are households that do not have water : TOTAL																						
	1.Network: new infra 2.Storage: new & adjacent																							
	Infrastructure Extension	Water can be restored to RDP by: Repair/Replace with same existing infra	8	9		60	60	y	y	y	y		y	y	y	60	y	n	40					
	Infrastructure Refurbishment	(Total Settlement)																						
	- BELOW	O&M Need (Total Settlement)	Water can be restored to RDP (where infra ok) by: enough & efficient staff and sufficient funds for O&M (incl. eg: quality at wtw, machines working, etc)	6				60	60	y	y	y	y		y	y	y	60	y	n	40			
Water Resource Needs		Includes Source Development Local Available Source: New BH, pipe Conserving & Demand Management Needs Water Source Quality Drinking Water Quality	5				60	60	y	y	y	y		y	y	y	60	y	n	40				
	Infrastructure & O&M Need		8				60	60	y	y	y	y		y	y	y	60	y	n	40				
	Infrastructure & O&M Need & Water Resource Needs		9				60	60	y	y	y	y		y	y	y	60	y	n	40				
TOTAL FORMAL NEED				4	15427	0	60%	60%								60%			40%					
- ADEQUATE	StandPipe	Adequate Infra	1 (C) / 3	0	3274	878	60	60	y	y	y	y		y	y	y	60	y	n	40				
	Yard Connection	Adequate Infra	1 (B) / 3		30412	8190	60	60	y	y	y	y		y	y	y	60	y	n	40				
	House Connection	Adequate Infra	1 (A) / 3		30939	8362	60	60	y	y	y	y		y	y	y	60	y	n	40				
TOTAL FORMAL ADEQUATE				0	64625	17430	60%	60%								60%			40%					
INFORMAL	- BELOW	No Services	Permanent Housing must be provided	4	0	0	60	60	y	y	y	y		y	y	y	60	y	n	40				
	- ADEQUATE	Temporary Services Provided	Permanent Housing must be provided	2	0	0	60	60	y	y	y	y		y	y	y	60	y	n	40				
TOTAL NEED				4	15427	0	30%	30%								30%			20%					
TOTAL ADEQUATE				0	64625	17430	30%	30%								30%			20%					

MAFUBE LOCAL MUNICIPALITY							WSDP 2012													Topic 3: Service Levels Profile				
Enabling Factors										Needs Development Plan														
3.2 SETTLEMENT SANITATION SERVICE LEVEL DEFINITIONS										ASSESSMENT	ASSESSMENT	Future plan (to address issues)										Strategy		
												Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT		
												Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development						
												1	3	5	N								*	*
DEFINITION	CLASSIFICATION	DESCRIPTION	CATEGORY	SETTLEMENTS	POPULATION	HOUSEHOLDS	%	%	Y / N / NA							%	Y / N		%					
FORMAL	No Service	Whole community never had any formal (municipal) sanitation supply system.	10	0	0	0	60	60	y	y	y	y		y	y	y	60	y	n	40				
	Infrastructure Upgrade	Existing infra not on RDP std. Typically, unimproved pit or chemical toilet. Communities have sanitation but below the minimum standard. This will normally be a bucket or an ecological toilet. Communities at RDP standard but not appropriate due to local circumstances e.g. shallow ground water levels.	7	4	25923	6999	60	60	y	y	y	y		y	y	y	60	y	n	40				
	Infrastructure Extension	Community partially served to RDP level	8	9																				
	Infrastructure Refurbishment	Sanitation can be restored to RDP by: Repair/Replace with same existing infra																						
	O&M Need (Total Settlement)	Sanitation can be restored to RDP (where infra ok) by: enough & efficient staff and sufficient funds for O&M (incl. pit-emptying, + appropriate actions for waterborne)	6				60	60	y	y	y	y		y	y	y	60	y	n	40				
	Water Resource Needs	Adequate Infra but not working due to inadequate water in the system.	5				60	60	y	y	y	y			y	y	60	y	n	40				
	Infrastructure & O&M Need		8				60	60	y	y	y	y			y	y	60	y	n	40				
	Infrastructure & O&M Need & Water Resource Needs		9				60	60	y	y	y	y			y	y	60	y	n	40				
TOTAL FORMAL NEED				4	25923	6999	60%	60%								60%			40%					
- ADEQUATE	Waterborne	Adequate Infra	1 (A) / 3	8	45616	12329	60	60	y	y	y	y			y	y	60	y	n	40				
	Waterborne Low Flush	Adequate Infra	1 (B) / 3				60	60	y	y	y	y			y	y	60	y	n	40				
	Septic Tanks / Conservancy	Adequate Infra	1 (C) / 3		7183	1912	60	60	y	y	y	y			y	y	60	y	n	40				
	Non Waterborne (VIP)	Adequate Infra	1 (D) / 3		1582	428	60	60	y	y	y	y			y	y	60	y	n	40				
TOTAL FORMAL ADEQUATE				8	54381	14669	60%	60%								60%			40%					
INFORMAL	- BELOW	No Services	Permanent Housing must be provided	4	0	0	60	60	y	y	y	y			y	y	60	y	n	40				
	- ADEQUATE	Temporary Services Provided	Permanent Housing must be provided	2	0	0	60	60	y	y	y	y			y	y	60	y	n	40				
TOTAL NEED				4	25923	6999	61%	61%								61%			40%					
TOTAL ADEQUATE				8	54381	14669	61%	61%								61%			40%					

 SALGA

* BASELINE INFORMATION: COMPULSORY FIELDS 6

Topic 3: Service Levels Profile

3

Enabling Factors								Compliance				Needs Development Plan											
3.3 Residential, Public Institutions and Industries												Future plan (to address issues)								Strategy			
												Adequate for Basic Services	Adequate for Higher Level Services	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for		
Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development																	
1	3	5	N	*	*	*																	
Quality: Information Accuracy Assessment										%	%	Y / N / NA								%	Y / N	%	
Quantity:										%	%	Y / N / NA								%	Y / N	%	
Public amenities consumer types	Type	No. Of consumer units (H-H)	No. Of consumer units with access to:																				
			None or inadequate Supply		Communal supply	Controlled volume supply	Uncontrolled volume supply																
			Water	Sanitation																			
* Residential	Urban	16272	0	2311	2819	12043	1410	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
	Rural	2247	0	450	0	0	2247	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
Police Stations	Urban	4	0	0	0	4	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
	Rural	0	0	0	0	0	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
Magistrate offices	Urban	2	0	0	0	2	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
	Rural	0	0	0	0	0	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
Businesses	Urban	0	0	0	0	0	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
	Rural	0	0	0	0	0	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
"Dry" Industries	Urban	5	0	0	0	5	0	y	n	40	30	y	y	y	y		y	y	y	60	y	n	40
	Rural	0	0	0	0	0	0	y	n	40	30	y	y	y	y		y	y	y	60	y	n	40
Office Buildings	Urban	0	0	0	0	0	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
	Rural	0	0	0	0	0	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
Prisons	Urban	1	0	0	0	1	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
	Rural	0	0	0	0	0	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
Schools	Urban	16	0	0	0	16	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
	Rural	29	6	15	0	0	8	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
Hospitals	Urban	2	0	0	0	2	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
	Rural	0	0	0	0	0	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
Clinics	Urban	4	0	0	0	4	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
	Rural	3	0	0	0	0	3	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
Health Centres	Urban	0	0	0	0	0	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
	Rural	0	0	0	0	0	0	y	n	40	60	y	y	y	y		y	y	y	60	y	n	40
"Wet" Industries	Urban	5	0	0	0	5	0	y	n	40	30	y	y	y	y		y	y	y	60	y	n	40
	Rural	0	0	0	0	0	0	y	n	40	30	y	y	y	y		y	y	y	60	y	n	40
Total	Urban	16311	0	2311	2819	12082	1410			40%	55%							60%			40%		
	Rural	2279	6	465	0	0	2258			40%	55%							60%			40%		
TOTAL										40%	55%							60%			40%		




Topic 4: Socio Economic Background

Socio Economics

Quality of Information Assessment

Quantity: Assessment of Information Completeness

4.1 General				4.5 Household income							60	60		
4.1.1 Present population	68656	60	60	Definition of poor household by the municipality					% Population					
4.1.2 Current population growth rates	0.61	50	60	A Household with an income level below R1,500pm					30%					
4.1.3 Projected Population growth rate: 5 years	0.61	50	60											
4.1.4 Projected Population growth rate: 10 years	0.61	50	60											
				53%	60%									
4.2 Age and gender Profile				§ Monthly household Income (as per StatsOnline)							50	60		
4.2.1 Permanent resident population	68656	60	60	o R1 - R400					5101		50	60		
4.2.2 Aged Residents (>65yrs)	3373	50	60	o R401 – R800					6520		50	60		
4.2.3 Youth Residents (<18yrs)	27417	50	60	o R801 – R1600					1643		50	60		
4.2.4 Male Residents	32129	50	60	o R1601 or more					2463		50	60		
4.2.5 Female Residents	36526	50	60	o Collective living Quarters							0	0		
				52%	60%									
4.3 Employment Profile				Water Affordability (Population not able to afford water)							0	0		
4.3.1 Eligible Workforce (19 – 65 yrs)	9547	60	60	o Typical monthly Water Bill						0	0			
4.3.2 Permanent residents – without jobs	7649	50	60	o Average % of monthly income			0%			0	0			
4.3.3 Permanent farm workers	3379	50	60	Sanitation Affordability (Population not able to afford sanitation)						0	0			
4.3.4 Permanent Industry workers	0	0	0	o Typical monthly Sanitation Bill						0	0			
4.3.5 Professional workers	0	0	0	o Average % of monthly income			0%			0	0			
				32%	36%						21%	25%		
				4.6 Economics										
				Economic Sector (As per Reserve Bank Quarterly Bulletins)		% Contribution to Local GGP	Total No of Employees	No of Local Employees	No of Migrating labour					
4.4 Demographic trends and migration patterns				Agriculture, Forestry & Fishing		75%	2540			40 60				
4.4.1 Permanent resident population	68656	60	60	Mining		1%	39			40 60				
4.4.2 Peak daily labour migration (-) out / (+) in	0	0	0	Manufacturing		15%	509			40 60				
4.4.3 Peak long-term labour migration (-) out / (+) in	0	0	0	Electricity, Gas & Water		0%	0			40 60				
4.4.4 Permanent population changes (-) out / (+) in	0	0	0	Construction		9%	290			40 60				
4.4.5 Holiday Population	0	0	0	Insurance		0%	0			40 60				
				12%	12%	Finance		0%	0			40 60		
						Comments							40%	60%
				Mafube covers 21.5% of the district area. In respect of population Mafube has 12.5% of the district population, but contributes only 4% of the economic output of the District. At the sub area level, Mafube consists of four towns (Frankfort, Villiers, Cornelia and Tweeling), as well as a rural area consisting mainly of commercial agriculture. All urban areas grew at considerable rates for the period under consideration. Yet, there was a considerable decline in the rural population of 10.3% per annum over the past 5- year period. This can, amongst others, be attributed to the liberalisation of agriculture in South Africa. It should also be seen in association with the decline of agriculture in Mafube.										
				OVERALL QUALITY ASSESSMENT							35%			
				OVERALL QUANTITY ASSESSMENT							42%			


5

MAFUBE LOCAL MUNICIPALITY

WSDP 2012

Topic 5: Water Services Infrastructure Profile

Enabling Factors				Compliance														Needs Development Plan																														
General Notes: The Enabling Factors below must be completed for the appropriate component compliancy section. All factors must be assessed and the Needs Development Plan section completed				Status Quo														Future plan (to address issues)														Strategy																
				Groundwater (Boreholes)	Surface water (Abstraction Points)	* WTW	Water Pumpstations	Sewer Pumpstations	Water Bulk pipeline	Sewer Bulk pipeline	Reservoirs	Water Reticulation	Sewer Reticulation	* WWTW	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT																				
																		Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development																								
																		1	3	5	N								*	*	*																	
Y / N / NA														%	%	Y / N / NA														%	Y / N	%																
Quality: Information Accuracy Assessment				(No of Components)																																												
* 5.1.1 Is there an Asset Register Monitoring Programme				Yes	y	No															60	60	y	y	y	y		y	y	y	60	y	n	60														
Does the plan address:				na	y	y	y	y	y	y	y	y	y	y	y	60	60																															
* 5.1.2 Is there a disaster management plan				Yes		No	n															0	0	n							0	n		0														
Does the plan address:				na	n	n	n	n	n	n	n	n	n	0	0	n									0	n		0																				
* 5.1.3 Is there a Water Quality Plan				To be obtained from Blue & Green Drop Reports	Yes	y	No	na	y	y	y	y					y	60	60	y	y	y	y		y	y	y	60	y	n	40																	
Does the plan address:														y	60	60	y	y	y	y		y	y	y	60	y	n	40																				
* 5.1.4 Is there a plan in place to manage untreated effluent				Yes	y	No	na	y	y	y	y					y	60	60																														
Does the plan address:				na	y	y	y	y					y	60	60																																	
5.1.5 Total number of components / km of pipeline / units																		4	5	4	5	1	25	5.6	7			6	60	20																		
5.1.6 VIP toilets																		TOTAL		428																40	40											
5.1.7 Other dry sanitation toilets (below RDP)																		TOTAL		144																40	40											
5.1.8 Septic tanks																		TOTAL		1912																40	40											
Sub Topic 5.1 Compliancy & Needs Development Plans Assessment														45%		42%																36%				28%												
5.2 Operation																																																
5.2.1 Previous incidents including Security Problems (R: Regular, P: Periodic, S: Sporadic, N: None)				s	s	s	s	s	s	s	s	s	s	s	s	50	60	n									0	n		0																		
5.2.2 Is the abstraction registered with DWA?				y	y															60	60	n								0	n		0															
5.2.3 Is abstraction recorded?				n	n															20	60	n								0	n		0															
5.2.4 Safety inspection performed (R: Regular, P: Periodic, S: Sporadic, N: None)				na	s	s	s	s	s	s	s	s	s	s	40	60	n										0	n		0																		
5.2.5 Average Operating hours per day (X hrs)																		24	60	60	n								0	n		0																
Sub Topic 5.2 Compliancy & Needs Development Plans Assessment														46%		60%																0%				0%												
* 5.3 Monitoring & Sample Failure																																																
* 5.3.1 Monitoring & Sample Failure:				To be obtained from Blue & Green Drop Reports														20	60	y	y	y	y		y	y	y	40	n		0																	
5.3.1.1 Monitoring : % of tests performed as required by general limits /special limits/ license requirements (Average % over previous 12 months)						31															0	20	60	y	y	y	y		y	y	y	40	n		0													
5.3.1.2 Operational: % of tests performed as required by general limits /special limits/ license requirements (Average % over previous 12 months)						82.2															0	20	60	y	y	y	y		y	y	y	40	n		0													
5.3.1.3 Chemical (Results of tests performed. Average % sample failure over previous 12 months)																					0	0	0	y	y	y	y		y	y	y	40	n		0													
5.3.1.4 Microbiological (Results of tests performed. Average % sample failure over previous 12 months)																					0	0	0	y	y	y	y		y	y	y	40	n		0													
5.3.1.5 Physical Compliance (Results of tests performed. Average % sample failure over previous 12 months)																					0	0	0	y	y	y	y		y	y	y	40	n		0													
* 5.3.2 Authorisation Compliance																		0	0	0	y	y	y	y		y	y	y	40	n		0																
5.3.3 Are there any standby pumps available?																		n	n															20	60	y	y	y	y		y	y	y	40	n		0	
5.3.4 How many illegal connections to date? (NR)																		0	0															50	60	y	y	y	y		y	y	y	40	n		0	
5.3.5 What is the storage factor (x daily use)																		2															50	60														



* BASELINE INFORMATION: COMPULSORY FIELDS

10

Topic 5: Water Services Infrastructure Profile

Enabling Factors														Compliance Status Quo										Needs Development Plan															
General Notes: The Enabling Factors below must be completed for the appropriate component compliancy section. All factors must be assessed and the Needs Development Plan section completed														Groundwater (Boreholes)	Surface water (Abstraction Points)	* WTW	Water Pumpstations	Sewer Pumpstations	Water Bulk pipeline	Sewer Bulk pipeline	Reservoirs	Water Reticulation	Sewer Reticulation	* WWTW	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT	
																												Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development					
																												1	3	5	N								
																																							*
Quality: Information Accuracy Assessment														Y / N / NA										Y / N / NA															
Quantity: Assessment of Information Completeness														Y / N / NA										Y / N / NA															
5.3.6 % Effluent controled																									0	0	y	y	y	y		y	y	y	60	n		0	
5.3.7 Permitted effluent (Ml/day)																									0	0	y	y	y	y		y	y	y	60	n		0	
5.3.8 Solid waste disposal (m³/day)																									0	0	y	y	y	y		y	y	y	60	n		0	
5.3.9 Sludge produced (dry tonnes per day)																									0	0	y	y	y	y		y	y	y	60	n		0	
5.3.10 % Of the time that effluent is chlorinated																									0	0	y	y	y	y		y	y	y	60	n		0	
Sub Topic 5.3 Compliancy & Needs Development Plans Assessment																									12%	24%						44%			0%				
5.4 Functionality																																							
5.4.1 General physical condition (D: Dysfunctional, O: Operational, P: Prime Condition, V: Vandalised)														na	o	o	o	d	d	o	o	o	o	o	d	40	60	y	y	y	y		y	y	y	60	y	n	40
5.4.2 Number of breakages / failures per year																									0	0	y	y	y	y		y	y	y	60	y	n	40	
5.4.3 Total refurbishment needs %																									0	0	y	y	y	y		y	y	y	60	y	n	40	
5.4.4 Total refurbishment needs cost (RM)																									0	0	y	y	y	y		y	y	y	60	y	n	40	
5.4.5 Total replacement needs %																									0	0	y	y	y	y		y	y	y	60	y	n	40	
5.4.6 Total replacement needs cost (RM)																									0	0	y	y	y	y		y	y	y	60	y	n	40	
Sub Topic 5.4 Compliancy & Needs Development Plans Assessment																									7%	10%						60%			40%				
5.5 Institutional Status																																							
5.5.1 % Whereoff the WSA Self is the Current Owner														na	100	100	100	100	100	100	100	100	100	100	60	60	y	y	y	y		y	y	y	60	y	n	40	
5.5.2 % Whereoff the WSA Self is Current Operator														na	100	100	100	100	100	100	100	100	100	100	60	60	y	y	y	y		y	y	y	60	y	n	40	
Sub Topic 5.5 Compliancy & Needs Development Plans Assessment																									60%	60%						60%			40%				
5.6 Asset Assessment Spectrum																																							
5.6.1 % Expected total lifespan: Short (1-3 yrs)																									0	0	y	y	y	y		y	y	y	60	y	n	40	
5.6.2 % Expected total lifespan: Medium (3 - 10 yrs)																									0	0	y	y	y	y		y	y	y	60	y	n	40	
5.6.3 % Expected total lifespan: Long (10 - 20 yrs)																									0	0	y	y	y	y		y	y	y	60	y	n	40	
* 5.6.4 Estimated replacement value (RM)																									0	0	y	y	y	y		y	y	y	60	y	n	40	
Sub Topic 5.6 Compliancy & Needs Development Plans Assessment																									0%	0%						60%			40%				
5.7 Type and Capacity																																							
5.7.1 Capacity (m³) (WTW & WWTW: Ml/day and PumpStation: L/s)																23.2								9.01	40	20	y	y	y	y		y	y	y	60	y	n	40	
Comments Lack of funding is a challenge, hence the Municipality is unable to extend the waste water treatment works in both Qalabotjha and Namahadi which are overloaded and running beyond their design capacities. The Municipality has approximately 3956 houses still using bucket system.																																							

Enabling Factors			Compliance										Needs Development Plan														
General Notes: The Enabling Factors below must be completed for the appropriate component compliancy section. All factors must be assessed and the Needs Development Plan section completed			Status Quo										Future plan (to address issues)							Strategy							
			Groundwater (Boreholes)	Surface water (Abstraction Points)	* WTW	Water Pumpstations	Sewer Pumpstations	Water Bulk pipeline	Sewer Bulk pipeline	Reservoirs	Water Reticulation	Sewer Reticulation	* WWTW	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT
																	Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development				
1	3	5	N	*	*	*																					
Quality: Information Accuracy Assessment			Y / N / NA										%	%	Y / N / NA							%	Y / N	%			
Quantity: Assessment of Information Completeness			Y / N / NA										%	%	Y / N / NA							%	Y / N	%			
5.7.2 Pipe material (Most common)		Water Pipeline:	PVC												60	60											
		Sewer Pipeline:	PVC												60	60											
5.7.3 How much capacity is still available for development? (%)													0	0													
5.7.4 Design Capacity - Hydraulic Load (Ml/day)													9.01	40	40												
5.7.5 Design Capacity - Organic Load (COD kg/day)														0	0												
Sub Topic 5.7 Compliancy & Needs Development Plans Assessment													33%	30%								15%		10%			

Comments

Currently only a draft SDF is in place, which is under review at the moment. A Water Master Plan must be developed and there is also only the WCDM document prepared by DWA. There are ongoing negotiations with Sedibeng water wrt water quality monitoring and should be in place during the course of next year. Blue Drop and Green Drop assessment has been ongoing but not yet fully implemented.

The municipality identified the following priorities:

1. Complete the current projects to upgrade the sewer works and oxidation ponds in Frankfort, Tweeling and Villiers
2. Upgrade the Techrover system at Cornelia.
3. Prevent overflow into the river at Frankfort, Tweeling and Villiers provide proper backup systems such as pumps, standby generators etc
4. Adequate provision for future growth is made on condition that the above upgrading is done.
5. Upgrade the oxidation ponds at Villiers, Frankfort and Tweeling.
6. Upgrade all pump stations at all towns

The upgrade of the water storage capacity to meet future demands has been addressed by an ongoing project to ensure at least 48 hours storage capacity.

OVERALL TOPIC ASSESSMENT

- 5.1 General Information
- 5.2 Operation
- 5.3 Monitoring & Sample Failure
- 5.4 Functionality
- 5.5 Institutional Status
- 5.6 Asset Assessment Spectrum
- 5.7 Type and Capacity

45%	42%
46%	60%
12%	24%
7%	10%
60%	60%
0%	0%
33%	30%

NEEDS DEVELOPMENT PLAN ASSESSMENT

Future plan	39%
Strategy	23%

OVERALL QUALITY ASSESSMENT	29%
OVERALL QUANTITY ASSESSMENT	32%

Topic 6: Operation & Maintenance

Enabling Factors														Compliance										Needs Development Plan																													
<div>STATUS QUO (S) Z - Zero Compliance 1 - Below minimum requirement 2 - Minimum basic requirement 3 - Above minimum requirement N/R Not Required</div> <div>IMPACT (I) C - Critical M - Mediumal/High L - Low No - No Impact</div>														Status Quo										Future plan (to address issues)								Strategy																					
														Staff	External resources	Spare Parts	Tools & Equipment	Budget	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT																					
																						Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development																									
S	I	S	I	S	I	S	I	S	I	60%	60%	1	3	5	N	*	*	*	%	Y / N	%																																
Quality: Information Accuracy Assessment																																																					
Quantity: Assessment of Information Completeness																																																					
* 6.1 IS THERE A OPERATION & MAINTENANCE PLAN? (Y / N):														y										60%										60%																			
6.2 WATER SERVICES INFRASTRUCTURE: OPERATIONAL& MAINTENANCE ASSESSMENT																																																					
6.2.1 Resources																																																					
6.2.1.1 Existing Groundwater Infrastructure														: OPERATION																n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	60	60	y	y	y	y		y	y	y	60	y	n	20
														: MAINTENANCE																n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	60	60	y	y	y	y		y	y	y	60	y	n	20
6.2.1.2 Existing Surface water Infrastructure														: OPERATION																2	M	2	M	1	C	2	M	2	C	50	60	y	y	y	y		y	y	y	60	y	n	20
														: MAINTENANCE																2	M	2	M	2	M	2	M	2	C	60	60	y	y	y	y		y	y	y	60	y	n	20
6.2.1.3 Existing Waste Water Treatment Works Infrastructure														: OPERATION																2	M	2	M	1	C	2	M	2	C	50	60	y	y	y	y		y	y	y	60	y	n	20
														: MAINTENANCE																2	M	2	M	2	M	2	M	2	C	60	60	y	y	y	y		y	y	y	60	y	n	20
6.2.1.4 Existing Water Treatment Works Infrastructure														: OPERATION																2	M	2	M	1	C	2	M	2	C	50	60	y	y	y	y		y	y	y	60	y	n	20
														: MAINTENANCE																2	M	2	M	2	M	2	M	2	C	60	60	y	y	y	y		y	y	y	60	y	n	20
6.2.1.5 Existing Pump Station Infrastructure														: OPERATION																2	M	2	M	1	C	2	M	2	C	50	60	y	y	y	y		y	y	y	60	y	n	20
														: MAINTENANCE																2	M	2	M	2	M	2	M	2	C	60	60	y	y	y	y		y	y	y	60	y	n	20
6.2.1.6 Existing Bulk Pipeline Infrastructure														: OPERATION																2	M	2	M	1	C	2	M	2	C	50	60	y	y	y	y		y	y	y	60	y	n	20
														: MAINTENANCE																2	M	2	M	2	M	2	M	2	C	60	60	y	y	y	y		y	y	y	60	y	n	20
6.2.1.7 Existing Tower & Reservoir Infrastructure														: OPERATION																2	M	2	M	1	C	2	M	2	C	50	60	y	y	y	y		y	y	y	60	y	n	20
														: MAINTENANCE																2	M	2	M	2	M	2	M	2	C	60	60	y	y	y	y		y	y	y	60	y	n	20
6.2.1.8 Existing Reticulation Infrastructure														: OPERATION																2	M	2	M	1	C	2	M	2	C	50	60	y	y	y	y		y	y	y	60	y	n	20
														: MAINTENANCE																2	M	2	M	2	M	2	M	2	C	60	60	y	y	y	y		y	y	y	60	y	n	20
Sub Topic 6.2.1 Compliancy & Needs Development Plans Assessment																								56%	60%											60%			20%														

COMMENTS

The current personnel work teams and equipment is insufficient to properly address blockages and complaints. In Frankfort, Villers and Tweeling additional teams are required and to be equipped.

Enabling Factors

Compliance

Needs Development Plan

STATUS QUO (S)

Z - Zero Compliance
1 - Below minimum requirement
2 - Minimum basic requirement
3 - Above minimum requirement
N/R Not Required

IMPACT (I)

C - Critical
M - Medium/High
L - Low
No - No Impact

Status Quo

Future plan (to address issues)

Strategy

Manuals Available	Asset Register	As-Built Info.	Tools & Equipment	Contingency & Safety Plan	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT
								Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development				
								1	3	5	N	*	*	*				

6.2.2 Information

6.2.2.1 Existing Groundwater Infrastructure	: OPERATION	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	60	60	y	y	y	y		y	y	y	60	y	n	20
	: MAINTENANCE	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	60	60	y	y	y	y		y	y	y	60	y	n	20
6.2.2.2 Existing Surface water Infrastructure	: OPERATION	1	M	1	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
	: MAINTENANCE	2	M	2	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
6.2.2.3 Existing Water Treatment Works Infrastructure	: OPERATION	3	N	1	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
	: MAINTENANCE	2	M	2	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
6.2.2.4 Existing Waste Water Treatment Works Infrastructure	: OPERATION	3	N	1	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
	: MAINTENANCE	2	M	2	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
6.2.2.5 Existing Pump Station Infrastructure	: OPERATION	3	N	1	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
	: MAINTENANCE	2	M	2	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
6.2.2.6 Existing Bulk Pipeline Infrastructure	: OPERATION	1	M	1	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
	: MAINTENANCE	2	M	2	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
6.2.2.7 Existing Tower & Reservoir Infrastructure	: OPERATION	1	M	1	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
	: MAINTENANCE	2	M	2	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
6.2.2.8 Existing Reticulation Infrastructure	: OPERATION	1	M	1	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
	: MAINTENANCE	2	M	2	M	1	M	2	L	1	C	30	60	y	y	y	y		y	y	y	60	y	n	20
Sub Topic 6.2.2 Compliancy & Needs Development Plans Assessment												34%	60%								60%				20%

COMMENTS

COMMENTS


The Municipality needs to ensure that a complaint register is kept at all offices and monitored and implement and investigate a toll free number for complaints. Train all maintenance staff(water, sewerage, electricity, streets and storm water, refuse removal and cemetery maintenance staff) to ensure effectiveness and productivity. In some areas there is a need to replace asbestos pipes with PVC. O&M needs to be implemented according to the specifications of the equipment.

Enabling Factors										Compliance										Needs Development Plan											
<div>STATUS QUO (S)</div> <div>Z - Zero Compliance</div> <div>1 - Below minimum requirement</div> <div>2 - Minimum basic requirement</div> <div>3 - Above minimum requirement</div> <div>N/R Not Required</div> <div>IMPACT (I)</div> <div>C - Critical</div> <div>M - Mediumal/High</div> <div>L - Low</div> <div>No - No Impact</div>										Status Quo										Future plan (to address issues)						Strategy					
										Policies & Procedures	Record keeping in Place	Quality Control Procedures Established	Risk Management	Reporting	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT			
																		Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development							
																		1	3	5	N								*	*	*
Quantity: Assessment of Information Completeness										S	I	S	I	S	I	S	I			Y / N / NA						%	Y / N	%			
Quality: Information Accuracy Assessment																		%	%									%			
* 6.3 Water Supply and Quality										In Place Y / N		ADD SCORE FROM BLUE DROP STATUS <div>15%</div> <div>60%</div> <div>40%</div> <div>0%</div>																			
6.3.1 Water: Incident Management Protocol										y																					
6.3.2 Water: Process Control										y																					
6.3.3 Water: Monitoring Programme										y																					
6.3.4 Water: Sample Analysis (Credible: Scale 1 – 5 as per Blue Drop requirements)										5																					
6.3.5 Water: Failure Response Management										No																					
6.3.6 Blue Drop Status										No																					
* 6.4 Waste Water Supply and Quality										In Place Y / N		ADD SCORE FROM GREEN DROP STATUS <div>10%</div> <div>60%</div> <div>40%</div> <div>0%</div>																			
6.4.1 Waste Water: Incident Management Protocol										No																					
6.4.2 Waste Water: Process Control										No																					
6.4.3 Waste Water: Monitoring Programme										No																					
6.4.4 Waste Water: Sample Analysis (Credible: Scale 1 – 5 as per Green Drop requirements)										0																					
6.4.5 Waste Water: Failure Response Management										y																					
6.4.6 Green Drop Status										No																					
6.1 OPERATION & MAINTENANCE PLAN										60%		60%		NEEDS DEVELOPMENT PLAN ASSESSMENT																	
6.2.1 RESOURCES										56%		60%																			
6.2.2 INFORMATION										34%		60%																			
6.2.3 ACTIVITY CONTROL & MANAGEMENT										38%		60%																			
6.3 WATER SUPPLY AND QUALITY (BLUE DROP)										15%		60%																			
6.4 WASTE WATER SUPPLY AND QUALITY (GREEN DROP)										10%		60%																			
COMMENTS																															
There is a need for adequate funding for planned O&M (not repairs). A need for more funding for human and in human resources.														Future plan										52%							
														Strategy												12%					
														OVERALL QUALITY ASSESSMENT												35%					
														OVERALL QUANTITY ASSESSMENT												60%					

Topic 7: Associated Services

Enabling Factors						Compliance		Needs Development Plan											
Resources available to perform function? (Yes: Y, No: N, Not Applicable: NA):								Future plan (to address issues)						Strategy					
						ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT
									Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development				
									1	3	5	N	*	*	*				
Quality: Information Accuracy Assessment																			
Quantity: Assessment of Information Completeness																			
7.1 Water Services						%	%	Y / N / NA						%	Y / N	%			
Associated Services Facility	Number of facilities	Facilities with adequate services	Facilities with no services	Facilities with inadequate services	Total Potential cost (basic level) (RM)														
7.1.1 Education Plan																			
* Schools	45	39	6	6		30	70	y	y	y	y		y	y	y	60	y	n	40
Tertiary education facility						0	0	y	y	y	y		y	y	y	60	y	n	40
Total	45	39	6	6	0														
* 7.1.2 Health Plan																			
* Hospitals	2	2	0	0		60	60	y	y	y	y		y	y	y	60	y	n	40
* Health centres	0	0	0	0		60	60	y	y	y	y		y	y	y	60	y	n	40
* Clinics	7	7	0	0		60	60	y	y	y	y		y	y	y	60	y	n	40
Total	9	9	0	0	0														
Sub Topic 7.1 Compliancy & Needs Development Plans Assessment						42%	50%							60%		40%			
7.2 Sanitation Services																			
7.2.1 Education Plan																			
* Schools	30	18	15			20	60	y	y	y	y		y	y	y	60	y	n	40
Tertiary education facility						0	0	y	y	y	y		y	y	y	60	y	n	40
Total	30	18	15	0	0														
* 7.2.2 Health Plan																			
* Hospitals	2	2	0	0		60	60	y	y	y	y		y	y	y	60	y	n	40
* Health centres	0	0	0	0		60	60	y	y	y	y		y	y	y	60	y	n	40
* Clinics	7	7	0	0		60	60	y	y	y	y		y	y	y	60	y	n	40
Total	9	9	0	0	0														
Sub Topic 7.2 Compliancy & Needs Development Plans Assessment						40%	48%							60%		40%			



Enabling Factors		Compliance		Needs Development Plan			
<div></div> <div><u>OVERALL TOPIC ASSESSMENT</u></div>				Future plan (to address issues)		Strategy	
		ASSESSMENT	ASSESSMENT		ASSESSMENT		ASSESSMENT
Quality: Information Accuracy Assessment							
Quantity: Assessment of Information Completeness							
7.1 WATER SERVICES 7.2 SANITATION SERVICES							
		42%	50%				
GENERAL COMMENTS							

Topic 8: Conservation & Demand Management

Enabling Factors		Compliance						Needs Development Plan												
		Status Quo						Future plan (to address issues)								Strategy				
		Resources available to perform function? (Yes: Y, No: N, Partially: P, N/A: NA):	Urban Settlements		Rural Settlements		ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT
										Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development				
			Number Of	% of Total	Number Of	% of Total														
Quality: Information Accuracy Assessment							%	%	Y / N / NA								%	Y / N	%	
Quantity: Assessment of Information Completeness							%	%	Y / N / NA								%	Y / N	%	
8.1 Water Resource Management Interventions								%	%	Y / N / NA								%	Y / N	%
* 8.1.1 Reducing unaccounted water and water inefficiencies																				
8.1.1.1 Night flow metering		n	0	0	0	0	0	0	n								0	n		0
8.1.1.2 Day flow metering		n	0	0	0	0	0	0	n								0	n		0
8.1.1.3 Reticulation leaks		y					20	0	n								0	n		0
8.1.1.4 Illegal connections		n	0	0	0	0	0	0	n								0	n		0
8.1.1.5 Un-metered connections		y					20	0	n								0	n		0
8.1.1.6 Internal plumbing leaks		n	0	0	0	0	20	0	n								0	n		0
* 8.1.2 Reducing high pressures for residential consumers			TOTAL				10%	0%									0%		0%	
8.1.2.1 <300kPa							0	0												
8.1.2.2 300 –600kPa							0	0												
8.1.2.3 600 –900kPa							0	0	n								0	n		0
8.1.2.4 >900kPa (>9Bar)							0	0	n								0	n		0
* 8.1.3 Leak and meter repair programmes			TOTAL				0%	0%									0%		0%	
Consumer units targeted by:																				
8.1.3.1 Leak repair assistance programme		y					20	20	n								0	n		0
8.1.3.2 Retro-fitting of water efficient toilets		n	0	0	0	0	0	0	n								0	n		0
8.1.3.3 Meter repair programme		Y / N : y	y				20	20	n								0	n		0
8.1.4 Consumer/end-use demand management: Public Information & Education Programmes			TOTAL				13%	13%									0%		0%	
8.1.4.1 Schools targeted by education programmes		n					0	0	n								0	n		0
8.1.4.2 Consumers targeted by public information programmes		n					0	0	n								0	n		0
* 8.1.4.3 IS THERE A OPERATION & MAINTENANCE PLAN?			(Y / N):		n		0%	0%									0%		0%	
Sub Topic 8.1 Compliancy & Needs Development Plans Assessment							6%	3%									0%		0%	



Enabling Factors	Compliance			Needs Development Plan												
	Status Quo			Future plan (to address issues)							Strategy					
	Number of Settlements	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT	
					Short (1)	Medium (3)	Long (5)	None	RDP	Higher Level	Growth & Development					
																1
Quality: Information Accuracy Assessment																
Quantity: Assessment of Information Completeness																
	Number of	%	%		Y / N / NA							%	Y / N	%		
8.1.5 Conjunctive use of surface – and groundwater																
Ground Water																
Surface Water																
Conjunctive Use																
Artificial Recharge																
Rain Water Harvesting																
8.1.6 Working for Water																
Is there a Working for Water Programme in Place:				(Y / N) : n												
Provide List of Projects:																
1)																
2)																
3)																
4)																
5)																
6)																
7)																
Comments																
<p>The municipality needs to address ongoing educational programmes with consumers to minimize blockages in the system and conduct ongoing education programmes with consumers to timely report breakages.</p> <p>The municipality is aiming to increase resources, equipment and personnel capacity to be able to reduce water loss within 2 hours and to repair breakages within 8 hours.</p>																

Topic 8: Conservation & Demand Management

Enabling Factors

General Notes: The compliancy and needs development plan section must be completed for each aspect listed

TOTAL: 4.717

Must be completed for Total. If required **this page** can be completed in multi copies to list and describe more than one system

Compliance

Needs Development Plan

Status Quo

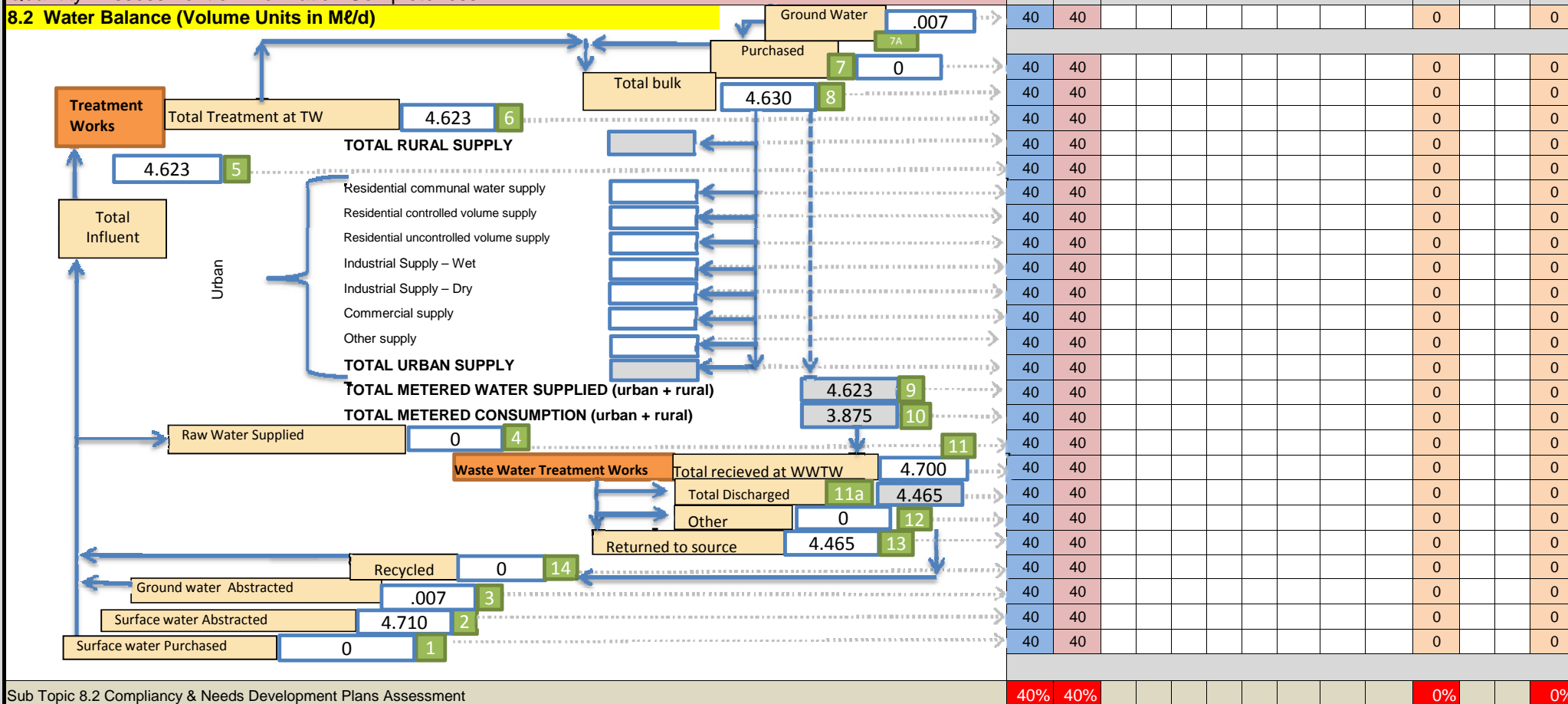
Future plan (to address issues)

Strategy

Quality: Information Accuracy Assessment

Quantity: Assessment of Information Completeness

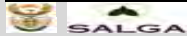
8.2 Water Balance (Volume Units in Ml/d)



* BASELINE INFORMATION: COMPULSORY FIELDS

21A

Enabling Factors				Compliance				Needs Development Plan															
<div>General Notes: The compliancy and needs development plan section must be completed for each aspect listed</div> <div>TOTAL: 4.717</div> <div>Must be completed for Total. If required this page can be completed in multi copies to list and describe more than one system</div> <div>Quality: Information Accuracy Assessment</div> <div>Quantity: Assessment of Information Completeness</div>				Status Quo				Future plan (to address issues)						Strategy									
				ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT						
							Short (1) Medium (3) Long (5) None				Basic	Higher Level	Growth & Development										
135N				*	*	*																	
%	%	Y / N / NA						%	Y / N		%												
8.3 Water Losses																							
8.3.1 - Raw Water Bulk Loss																							
Raw Water at Treatment - Total Raw Water Bulk Received - Raw Water Supplied % LOSS																							
5 - (1+2+3+14) - 4																							
4.623 - 4.7173 - 0.000 = -0.094346 -2%																		40400000000000000000					
8.3.2 - Treated Water Loss :Bulk																							
Total Metered Supplied - (Total Treated at Treated Water + Purchased Treated Water)																							
9 - 8																							
4.623 4.630 = -0.0073 0%																		40400000000000000000					
8.3.3 - Treated Water Loss :Internal																							
Metered Consumption - Metered Supplied																							
10 - 9																							
3.875 - 4.623 = -0.7477709 -16%																		40400000000000000000					
8.3.4 - Water Balance																							
<div><div>Bulk</div><div>Usage</div><div>Discharged</div></div>																							
Input (1+2+3+7+7a)-4 - 9 + 13 Value																							
4.725 4.623 4.465 4.5666 97%																		40400000000000000000					
Sub Topic 8.3 Compliancy & Needs Development Plans Assessment																		40%40%0%0%					



Topic 8: Conservation & Demand Management

Enabling Factors

General Notes: The compliancy and needs development plan section must be completed for each aspect listed

TOTAL: _____

Must be completed for Total. If required **this page** can be completed in multi copies to list and describe more than one system

Compliance

Status Quo

Needs Development Plan

Future plan (to address issues)

Strategy

ASSESSMENT

ASSESSMENT

In place?

Time Frame

Sufficient for

ASSESSMENT

In place?

Sufficient

ASSESSMENT

Short (1)
Medium (3)
Long (5)
None

RDP

Higher Level

Growth &
Development

Quality: Information Accuracy Assessment

Quantity: Assessment of Information Completeness

8.2 Water Balance (Volume Units in Ml/d)

	%	%	Y / N / NA				%	Y / N	%
Ground Water									
Purchased									
7A									
7									
Total bulk									
8									
Treatment Works									
Total Treatment at TW									
6									
TOTAL RURAL SUPPLY									
5									
Residential communal water supply									
Residential controlled volume supply									
Residential uncontrolled volume supply									
Industrial Supply – Wet									
Industrial Supply – Dry									
Commercial supply									
Other supply									
TOTAL URBAN SUPPLY									
TOTAL METERED WATER SUPPLIED (urban + rural)									
9									
TOTAL METERED CONSUMPTION (urban + rural)									
10									
Raw Water Supplied									
4									
Waste Water Treatment Works									
Total recieved at WWTW									
11									
Total Discharged									
11a									
Other									
12									
Returned to source									
13									
Recycled									
14									
Ground water Abstracted									
3									
Surface water Abstracted									
2									
Surface water Purchased									
1									
Sub Topic 8.2 Compliancy & Needs Development Plans Assessment	0%	0%						0%	0%

Enabling Factors		Compliance		Needs Development Plan																																																																			
<p>General Notes: The compliancy and needs development plan section must be completed for each aspect listed</p> <p>TOTAL: _____</p> <p>Must be completed for Total. If required this page can be completed in multi copies to list and describe more than one system</p> <p>Quality: Information Accuracy Assessment</p> <p>Quantity: Assessment of Information Completeness</p>		Status Quo		Future plan (to address issues)							Strategy																																																												
				ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT																																																						
							Short (1)	Medium (3)	Long (5)	None	Basic	Higher Level	Growth & Development																																																										
																		1	3	5	N	*	*	*																																															
%	%	Y / N / NA							%	Y / N	%																																																												
8.3 Water Losses																																																																							
8.3.1 - Raw Water Bulk Loss																																																																							
<table border="0"> <tr> <td>Raw Water at Treatment</td> <td>-</td> <td>Total Raw Water Bulk Received</td> <td>-</td> <td>Raw Water Supplied</td> <td colspan="13">% LOSS</td> </tr> <tr> <td>5</td> <td>-</td> <td>(1+2+3+14)</td> <td>-</td> <td>4</td> <td colspan="13"></td> </tr> <tr> <td><input type="text"/></td> <td>-</td> <td><input type="text"/></td> <td>-</td> <td><input type="text"/></td> <td>=</td> <td><input type="text"/></td> <td><input type="text"/></td> <td colspan="10"></td> </tr> </table>																		Raw Water at Treatment	-	Total Raw Water Bulk Received	-	Raw Water Supplied	% LOSS													5	-	(1+2+3+14)	-	4														<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>	<input type="text"/>										
Raw Water at Treatment	-	Total Raw Water Bulk Received	-	Raw Water Supplied	% LOSS																																																																		
5	-	(1+2+3+14)	-	4																																																																			
<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>	<input type="text"/>																																																																
8.3.2 - Treated Water Loss :Bulk																																																																							
<table border="0"> <tr> <td>Total Metered Supplied</td> <td>-</td> <td colspan="16">(Total Treated at Treated Water + Purchased Treated Water)</td> </tr> <tr> <td>9</td> <td>-</td> <td colspan="16">8</td> </tr> <tr> <td><input type="text"/></td> <td>-</td> <td><input type="text"/></td> <td>=</td> <td><input type="text"/></td> <td><input type="text"/></td> <td colspan="12"></td> </tr> </table>																		Total Metered Supplied	-	(Total Treated at Treated Water + Purchased Treated Water)																9	-	8																<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>	<input type="text"/>												
Total Metered Supplied	-	(Total Treated at Treated Water + Purchased Treated Water)																																																																					
9	-	8																																																																					
<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>	<input type="text"/>																																																																		
8.3.3 - Treated Water Loss :Interna																																																																							
<table border="0"> <tr> <td>Metered Consumption</td> <td>-</td> <td colspan="16">Metered Supplied</td> </tr> <tr> <td>10</td> <td>-</td> <td colspan="16">9</td> </tr> <tr> <td><input type="text"/></td> <td>-</td> <td><input type="text"/></td> <td>=</td> <td><input type="text"/></td> <td><input type="text"/></td> <td colspan="12"></td> </tr> </table>																		Metered Consumption	-	Metered Supplied																10	-	9																<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>	<input type="text"/>												
Metered Consumption	-	Metered Supplied																																																																					
10	-	9																																																																					
<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>	<input type="text"/>																																																																		
8.3.4 - Water Balance																																																																							
<table border="0"> <tr> <td>Bulk</td> <td>+</td> <td>Usage</td> <td>+</td> <td>Discharged</td> <td colspan="13"></td> </tr> <tr> <td>Input (1+2+3+7+7a)-4</td> <td>-</td> <td>9</td> <td>+</td> <td>13</td> <td>Value</td> <td colspan="12"></td> </tr> <tr> <td><input type="text"/></td> <td>-</td> <td><input type="text"/></td> <td>+</td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td colspan="11"></td> </tr> </table>																		Bulk	+	Usage	+	Discharged														Input (1+2+3+7+7a)-4	-	9	+	13	Value													<input type="text"/>	-	<input type="text"/>	+	<input type="text"/>	<input type="text"/>	<input type="text"/>											
Bulk	+	Usage	+	Discharged																																																																			
Input (1+2+3+7+7a)-4	-	9	+	13	Value																																																																		
<input type="text"/>	-	<input type="text"/>	+	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																																	
Sub Topic 8.3 Compliancy & Needs Development Plans Assessment																																																																							
0%		0%									0%		0%																																																										

Topic 8: Conservation & Demand Management

Enabling Factors

General Notes: The compliancy and needs development plan section must be completed for each aspect listed

TOTAL: _____

Must be completed for Total. If required **this page** can be completed in multi copies to list and describe more than one system

Compliance

Status Quo

Needs Development Plan

Future plan (to address issues)

Strategy

ASSESSMENT

ASSESSMENT

In place?

Time Frame

Sufficient for

ASSESSMENT

In place?

Sufficient

ASSESSMENT

Short (1)
Medium (3)
Long (5)
None

RDP

Higher Level

Growth &
Development

Quality: Information Accuracy Assessment

Quantity: Assessment of Information Completeness

8.2 Water Balance (Volume Units in Ml/d)

	%	%	Y / N / NA				%	Y / N	%
Ground Water									
Purchased									
7A									
7									
Total bulk									
8									
Treatment Works									
Total Treatment at TW									
6									
TOTAL RURAL SUPPLY									
5									
Residential communal water supply									
Residential controlled volume supply									
Residential uncontrolled volume supply									
Industrial Supply – Wet									
Industrial Supply – Dry									
Commercial supply									
Other supply									
TOTAL URBAN SUPPLY									
TOTAL METERED WATER SUPPLIED (urban + rural)									
9									
TOTAL METERED CONSUMPTION (urban + rural)									
10									
Raw Water Supplied									
4									
Waste Water Treatment Works									
Total recieved at WWTW									
11									
Total Discharged									
11a									
Other									
12									
Returned to source									
13									
Recycled									
14									
Ground water Abstracted									
3									
Surface water Abstracted									
2									
Surface water Purchased									
1									
Sub Topic 8.2 Compliancy & Needs Development Plans Assessment	0%	0%						0%	0%

Enabling Factors		Compliance		Needs Development Plan														
<p>General Notes: The compliancy and needs development plan section must be completed for each aspect listed</p> <p>TOTAL: _____</p> <p>Must be completed for Total. If required this page can be completed in multi copies to list and describe more than one system</p> <p>Quality: Information Accuracy Assessment</p> <p>Quantity: Assessment of Information Completeness</p>		Status Quo		Future plan (to address issues)							Strategy							
				ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT	
							Short (1) Medium (3) Long (5) None				Basic	Higher Level	Growth & Development					
							1	3	5	N	*	*	*					
		%	%	Y / N / NA							%	Y / N	%					
8.3 Water Losses																		
8.3.1 - Raw Water Bulk Loss																		
Raw Water at Treatment	-	Total Raw Water Bulk Received	-	Raw Water Supplied	% LOSS													
5	-	(1+2+3+14)	-	4														
<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>	<input type="text"/>											
8.3.2 - Treated Water Loss :Bulk																		
Total Metered Supplied	-	(Total Treated at Treated Water + Purchased Treated Water)																
9	-	8																
<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>	<input type="text"/>													
8.3.3 - Treated Water Loss :Interna																		
Metered Consumption	-	Metered Supplied																
10	-	9																
<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>	<input type="text"/>													
8.3.4 - Water Balance																		
Bulk	+	Usage	+	Discharged														
Input (1+2+3+7+7a)-4	-	9	+	13	Value													
<input type="text"/>	-	<input type="text"/>	+	<input type="text"/>	<input type="text"/>	<input type="text"/>												
Sub Topic 8.3 Compliancy & Needs Development Plans Assessment		0%	0%												0%		0%	

Topic 8: Conservation & Demand Management

Enabling Factors

General Notes: The compliancy and needs development plan section must be completed for each aspect listed

TOTAL: _____

Must be completed for Total. If required **this page** can be completed in multi copies to list and describe more than one system

Compliance

Status Quo

Needs Development Plan

Future plan (to address issues)

Strategy

ASSESSMENT

ASSESSMENT

In place?

Time Frame

Sufficient for

Short (1)
Medium (3)
Long (5)
None

RDP

Higher Level

Growth & Development

ASSESSMENT

In place?

Sufficient

ASSESSMENT

Quality: Information Accuracy Assessment

Quantity: Assessment of Information Completeness

8.2 Water Balance (Volume Units in Ml/d)

		%	%	Y / N / NA				%	Y / N	%
Ground Water										
Purchased										
Total bulk										
Treatment Works										
Total Treatment at TW										
TOTAL RURAL SUPPLY										
Residential communal water supply										
Residential controlled volume supply										
Residential uncontrolled volume supply										
Industrial Supply – Wet										
Industrial Supply – Dry										
Commercial supply										
Other supply										
TOTAL URBAN SUPPLY										
TOTAL METERED WATER SUPPLIED (urban + rural)										
TOTAL METERED CONSUMPTION (urban + rural)										
Raw Water Supplied										
Waste Water Treatment Works										
Total recieved at WWTW										
Total Discharged										
Other										
Returned to source										
Recycled										
Ground water Abstracted										
Surface water Abstracted										
Surface water Purchased										
Sub Topic 8.2 Compliancy & Needs Development Plans Assessment		0%	0%						0%	0%

Enabling Factors		Compliance		Needs Development Plan														
<p>General Notes: The compliancy and needs development plan section must be completed for each aspect listed</p> <p>TOTAL: _____</p> <p>Must be completed for Total. If required this page can be completed in multi copies to list and describe more than one system</p> <p>Quality: Information Accuracy Assessment</p> <p>Quantity: Assessment of Information Completeness</p>		Status Quo		Future plan (to address issues)							Strategy							
				ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT	
							Short (1)	Medium (3)	Long (5)	None	Basic	Higher Level	Growth & Development					
																		1
%	%	Y / N / NA							%	Y / N	%							
8.3 Water Losses																		
8.3.1 - Raw Water Bulk Loss																		
Raw Water at Treatment	-	Total Raw Water Bulk Received	-	Raw Water Supplied	% LOSS													
5	-	(1+2+3+14)	-	4														
<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>	<input type="text"/>											
8.3.2 - Treated Water Loss :Bulk																		
Total Metered Supplied	-	(Total Treated at Treated Water + Purchased Treated Water)																
9	-	8																
<input type="text"/>	-	<input type="text"/>	=														<input type="text"/>	<input type="text"/>
8.3.3 - Treated Water Loss :Interna																		
Metered Consumption	-	Metered Supplied																
10	-	9																
<input type="text"/>	-	<input type="text"/>	=														<input type="text"/>	<input type="text"/>
8.3.4 - Water Balance																		
Bulk	+	Usage	+	Discharged														
Input (1+2+3+7+7a)-4	-	9	+	13	Value													
<input type="text"/>	-	<input type="text"/>	+	<input type="text"/>	<input type="text"/>	<input type="text"/>												
Sub Topic 8.3 Compliancy & Needs Development Plans Assessment		0%	0%											0%		0%		

Enabling Factors		Compliance		Needs Development Plan											
<p>General Notes: The compliancy and needs development plan section must be completed for each aspect listed</p> <p>TOTAL: _____</p> <p>Must be completed for Total. If required this page can be completed in multi copies to list and describe more than one system</p> <p>Quality: Information Accuracy Assessment</p> <p>Quantity: Assessment of Information Completeness</p>		Status Quo		Future plan (to address issues)							Strategy				
		ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT
					Short (1)	Medium (3)	Long (5)	None	Basic	Higher Level	Growth & Development				
%	%	Y / N / NA							%	Y / N	%				
8.3 Water Losses															
8.3.1 - Raw Water Bulk Loss															
Raw Water at Treatment	-	Total Raw Water Bulk Received	-	Raw Water Supplied	% LOSS										
5	-	(1+2+3+14)	-	4											
<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
8.3.2 - Treated Water Loss :Bulk															
Total Metered Supplied	-	(Total Treated at Treated Water + Purchased Treated Water)													
9	-	8													
<input type="text"/>	-	<input type="text"/>	= <input type="text"/> <input type="text"/>												
8.3.3 - Treated Water Loss :Interna															
Metered Consumption	-	Metered Supplied													
10	-	9													
<input type="text"/>	-	<input type="text"/>	= <input type="text"/> <input type="text"/>												
8.3.4 - Water Balance															
Bulk	+	Usage	+	Discharged											
Input (1+2+3+7+7a)-4	-	9	+	13	Value										
<input type="text"/>	-	<input type="text"/>	+	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
Sub Topic 8.3 Compliancy & Needs Development Plans Assessment					0%	0%						0%	0%		

Topic 8: Conservation & Demand Management

8

Enabling Factors

Compliance

Needs Development Plan

Status Quo

Future plan (to address issues)

Strategy

OVERALL TOPIC ASSESSMENT

Quality: Information Accuracy Assessment

Quantity: Assessment of Information Completeness

8.1 WATER RESOURCE MANAGEMENT INTERVENTIONS

8.2 WATER BALANCE

8.3 WATER LOSSES

Comments

6%	3%
40%	40%
40%	40%

NEEDS DEVELOPMENT PLAN ASSESSMENT

Future plan

0%

Strategy

0%

OVERALL QUALITY ASSESSMENT

29%

OVERALL QUANTITY ASSESSMENT

28%



* 9.1 Sources & Volumes

* CURRENT Water sources	* Number of sources	* Current abstraction (Mm³/A)	* Licensed abstraction (Mm³/A)	* Community water supply		ASSESSMENT	ASSESSMENT	Additional Source Available	* Number of sources	Potential Volume	* Licensed abstraction (Mm³/A)
				Rural	Urban						
Groundwater	4	0.0073				40	40	Groundwater			
Surface Water	5	0.8				40	40	Surface Water			
External Sources (Bulk purchase)	0					60	60	External Sources (Bulk purchase)			
Water returned to source	0					60	60				
Sub Topic 9.1 Compliancy & Needs Development Plans Assessment						50%	50%				

Enabling Factors		Compliance			Needs Development Plan												
Resources available to perform function? (Yes: Y, No: N, Partially: P, N/A: NA):	<div>General Assesment on Scale 1-5</div> <div>None 0%</div> <div>Limited 20%</div> <div>Partial 40%</div> <div>Good 60%</div> <div>Excellent 80%</div>	Status Quo			Future plan (to address issues)								Strategy				
		Budget, Tools & Equipment & Personnel	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT	
						Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development					
			1	3		5	N	*	*	*							
Quality: Information Accuracy Assessment		Y / N / NA	%	%	Y / N / NA							%	Y / N		%		
Quantity: Assessment of Information Completeness																	
9.2 Monitoring		Is there a Monitoring Plan in Place (Y / N):															
9.2.1 % of water abstracted monitored: Surface water			0	0	y	y	y	y		y	y	y	60	y	n	40	
9.2.2 % of water abstracted monitored: Groundwater			0	0	y	y	y	y		y	y	y	60	y	n	40	
9.2.3 % of water abstracted monitored: External Sources (Bulk purchase)			0	0	y	y	y	y		y	y	y	60	y	n	40	
9.2.4 Water levels (1: daily, 2: weekly, 3: monthly, 4: annually, 5: never)			0	0	y	y	y	y		y	y	y	60	y	n	40	
9.2.5 Water quality? (1: daily, 2: weekly, 3: monthly, 4: annually, 5: never)			0	0	y	y	y	y		y	y	y	60	y	n	40	
9.2.6 Borehole abstraction? (1: daily, 2: weekly, 3: monthly, 4: annually, 5: never)			0	0	y	y	y	y		y	y	y	60	y	n	40	
* 9.2.7 % Compliance to drinking water acceptable limits					y	y	y	y		y	y	y	60	y	n	40	
* 9.2.8 % Compliance to effluent release acceptable limits					y	y	y	y		y	y	y	60	y	n	40	
9.2.9 Number of monitoring points for drinking water sufficient		60%	60	60	y	y	y	y		y	y	y	60	y	n	40	
9.2.10 Number of monitoring points for effluent release sufficient		60%	60	60	y	y	y	y		y	y	y	60	y	n	40	
Sub Topic 9.2 Compliancy & Needs Development Plans Assessment			12%	12%									60%				40%



Topic 9: Water Resources

Enabling Factors					Compliance			Needs Development Plan																			
Resources available to perform function? (Yes: Y, No: N, Partially: P, N/A: NA):	General Assessment on Scale 1-5 None 0% Limited 20% Partial 40% Good 60% Excellent 80%	In Place? Y/N	Status Quo			Future plan (to address issues)								Strategy													
			Budget, Tools & Equipment & Personnel	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT										
							Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development														
							1	3	5	N								*	*	*							
Quality: Information Accuracy Assessment			Y / N / NA	%	%	Y / N / NA								%	Y / N	%											
Quantity: Assessment of Information Completeness			Y / N / NA																%	Y / N	%						
9.3 Water Quality		Is there a Water Quality Plan in Place (Y / N):																y									
9.3.1 Reporting on quality of water taken from source: urban & rural			y	y	60	60	y	y	y	y		y	y	y	60	y	n	0									
9.3.2 Quality of water returned to the resource: urban		40%			40	60	y	y	y	y		y	y	y	60	y	n	0									
9.3.3 Quality of water returned to the resource: rural		40%			40	60	y	y	y	y		y	y	y	60	y	n	0									
9.3.4 Is there a Pollution contingency measures plan in place?			n	n	0	0	n								0	n		0									
9.3.5 Quality of water taken from source: urban - % monitored by WSA self?		100%		y	40	60	y	y	y	y		y	y	y	60	y	n	0									
9.3.6 Quality of water taken from source: rural - % monitored by WSA self?		100%		y	40	60	y	y	y	y		y	y	y	60	y	n	0									
9.3.7 Quality of water returned to the source: urban - % monitored by WSA self?		100%		y	40	60	y	y	y	y		y	y	y	60	y	n	0									
9.3.8 Quality of water returned to the source: rural - % monitored by WSA self?		100%		y	0	60	y	y	y	y		y	y	y	60	y	n	0									
9.3.9 Are these results available in electronic format? (Yes/no)		y			60	60	y	y	y	y		y	y	y	60	y	n	0									
9.3.10 % Time (days) within SABS 241 standards per year		75%			40	60	y	y	y	y		y	y	y	60	y	n	0									
Sub Topic 9.3 Compliancy & Needs Development Plans Assessment					36%	54%									54%			0%									

General Comments

Funds are required for a mini lab to minimize the high cost of going to big laboratories. Use of locally available expertise is required and training of aspiring lab hands is encouraged.



Enabling Factors						ASSESSMENT	ASSESSMENT	Needs Development Plan											
9.5 Wet Industries								Future plan (to address issues)							Strategy				
								In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT
									Short (1)	Medium (3)	Long (5)	None	RDP	Higher Level	Growth & Development				
Quality: Information Accuracy Assessment								1	3	5	N	*	*	*					
Quantity: Assessment of Information Completeness						%	%	Y / N / NA							%	Y / N		%	
9.4 Wet Industries: Urban and Rural						ASSESSMENT	ASSESSMENT								ASSESSMENT			ASSESSMENT	
Monthly Water use (ml/d) (Total)	Water Quality Received				Reliability (inadequate adequate, special treatment) (Total)														
	Raw (Total)	Filtered (Total)	Chlorinated (Total)	Fully Treated (Total)															
						0%	0%									0%			
9.5 'Raw' Water Consumers: Urban and Rural						ASSESSMENT	ASSESSMENT								ASSESSMENT			ASSESSMENT	
Monthly Water use (ml/d) (Total)	Water Quality Received			Tariff (R/ml) Total	Reliability (inadequate adequate, special treatment) (Total)														
	Raw (Total)	Filtered (Total)	Other (Total)																
						0%	0%									0%			
9.6 Industrial Consumer Units for Sanitation: Urban and Rural						ASSESSMENT	ASSESSMENT								ASSESSMENT			ASSESSMENT	
Number of service units (Total)	Monthly waste water (ml) (Total)	Monthly Sewage (ml) (Total)	Total Treated effluent (ml) (Total)	Total Untreated effluent (ml) (Total)	Total Return flow to river system (ml)														
						0%	0%									0%			
9.7 Industries and their permitted effluent releases						ASSESSMENT	ASSESSMENT								ASSESSMENT			ASSESSMENT	
Permitted volume (Mℓ/yr) (Total)	Permitted effluent quality (units) (Total)																		
						0%	0%									0%			

Topic 9: Water Resources

Enabling Factors				Needs Development Plan		
<div><div><div>OVERALL TOPIC ASSESSMENT</div></div></div>	ASSESSMENT	ASSESSMENT	Future plan (to address issues)		Strategy	
				ASSESSMENT		ASSESSMENT
Quality: Information Accuracy Assessment						
Quantity: Assessment of Information Completeness						
9.1 Sources & Volumes	50%	50%				
9.2 Monotoring	12%	12%				
9.3 Water Quality	36%	54%				
9.4 Wet Industries: Urban & Rural	0%	0%				
9.5 'Raw' Water Consumers: Urban & Rural	0%	0%				
9.6 Industrial Consumer Units for Sanitation: Urban & Rural	0%	0%				
9.7 Industries and their permitted effluent releases	0%	0%				
Comments			NEEDS DEVELOPMENT PLAN ASSESSMENT			
Water quantity maybe inadequate in three years due to new factories which require lots of water. Restricted water source.			Future plan	19%		
				Strategy	7%	
			OVERALL QUANTITY ASSESSMENT			17%
			OVERALL QUALITY ASSESSMENT			14%



10.1 Capital Funds

		Housing	Trading Services						Grand Total
			Environmental Protection	Waste Management (solid waste)	Waste water management	Road transport	Water	Electricity	
10.1.1 Income		RM	RM	RM	RM	RM	RM	RM	RM
10.1.1.1	Subsidies From:								
10.1.1.2	National Government								
10.1.1.3	Provincial Government								
10.1.1.4	Local Government								
10.1.1.5	Other								
10.1.1.6	Grants (including the equitable share) from:								
10.1.1.7	National Government				3.4	4.57	15.66	12.1	0.536
10.1.1.8	Provincial Government								
10.1.1.9	Local Government								
10.1.1.10	Other								
10.1.1.11	Spent conditional grants							3.8	3.8
10.1.1.12	Metering & Billing Income								
10.1.1.13	Other Income								
10.1.1.14	Deficit								
Total Income		0	0	0	3.4	4.57	15.66	12.1	4.336
									40.159

Comments

Topic 10: Financial Profile

Enabling Factors				Compliance								Needs Development Plan																					
				Status Quo								Future plan (to address issues)						Strategy															
				Water				Sanitation				ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT								
															Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development												
															1	3	5	N	*	*	*												
Quality: Information Accuracy Assessment				Urban		Rural		Urban		Rural				Y / N / NA						%	Y / N		%										
Quantity: Assessment of Information Completeness				Value Spend	% of Allocation	Value Spend	% of Allocation	Value Spend	% of Allocation	Value Spend	% of Allocation	%	%							%			%										
* 10.1.2 Capital Expenditure																						% Allocation spend in last financial year											
Values to be given in R million																																	
Regional Bulk												0	0								0			0									
Internal Bulk												0	0								0			0									
Reticulation												0	0								0			0									
Backlog Eradication												0	0								0			0									
Total cost												0	0								0			0									
Sub Topic 10.1 Compliancy & Needs Development Plans Assessment												0%	0%							0%			0%										
10.2 Operation & Maintenance Budget																																	

WATER		BUDGET	
ITEM		(R million)	
Income:	Sales, other	R	8.24
	Grants, subsidies, and other	R	-
	Other income	R	-
	Total Income	R	8.24
Expenditure:	Employee related cost (salaries, allowances, bonuses, medical, pension etc.)	R	-
	Bulk water purchases	R	0.47
	General expenditure	R	1.72
	Municipal rates and services	R	-
	Operation and Maintenance cost	R	-
	Depreciation and financial cost	R	-
	Total Expenditure	R	2.19
	Surplus/Deficit	R	6.05

SANITATION		BUDGET	
ITEM		(R million)	
Income:	Sales, other	R	7.59
	Grants, subsidies, and other	R	-
	Other income	R	-
	Total Income	R	7.59
Expenditure:	Employee related cost (salaries, allowances, bonuses, medical, pension etc.)	R	-
	Bulk waste water charges (external waste water treatment)	R	-
	General expenditure	R	0.50
	Municipal rates and services	R	-
	Operation and Maintenance cost	R	-
	Depreciation and financial cost	R	-
	Total Expenditure	R	0.50
	Surplus/Deficit	R	7.09

Sub Topic 10.2 Assessment of the Existence and Status of a Proper Budget

Add scores for Water and Sanitation Budget: 0% 0%

0%

0%

Comments

The Operation & Maintenance Budget information was completed by the PSP and extracted from the Statement of Capital and Operating Expenditure for the 4th Quarter ended 30 June 2011(Preliminary results) as extracted from National Treasury web page.



Enabling Factors

Compliance

Needs Development Plan

		Status Quo										ASSESSMENT		ASSESSMENT		Future plan (to address issues)						Strategy				
		Fixed Tariff		Volume Charges												In place?		Time Frame		Sufficient for		ASSESSMENT	In place?	Sufficient	ASSESSMENT	
				Block Definition 1 KI per month from: 0 to 6		Block Definition 2 KI per month from: 6 to 30		Block Definition 3 KI per month from: 30 to 50		Block Definition 4 KI per month from: 50 to 80								RDP	Higher Level	Growth & Development						
				Current	Previous	Current	Previous	Current	Previous	Current	Previous															
		Year 2011	Year 2010	Current	Previous	Current	Previous	Current	Previous	Current	Previous					1	3	5	N	*	*	*				
Quality: Information Accuracy Assessment		Year 2011	Year 2010	Current	Previous	Current	Previous	Current	Previous	Current	Previous	%	%	Y / N / NA						%	Y / N	%				
Quantity: Assessment of Information Completeness		Y / N / NA										%	%	Y / N / NA						%	Y / N	%				
10.3 Tariff & Charges		Is there a Tariff & Charges Plan in Place for (Y / N):								y		60	60	y	y	y	y		y	y	y	60	y	n	40	
10.3.1 Residential		Values to be given in R / kl for Current and Previous Financial Years																								
Water	Communal Water Supply				5.93		6.16		7.52		8.89	40	60	y	y	y	y		y	y	y	60	y	n	40	
	Controlled Volume Supply											40	60	y	y	y	y		y	y	y	60	y	n	40	
	Uncontrolled Volume Supply											40	60	y	y	y	y		y	y	y	60	y	n	40	
Sanitation	On site dry											40	60	y	y	y	y		y	y	y	60	y	n	40	
	On site wet (conservancy tanks etc.)		193.8									40	60	y	y	y	y		y	y	y	60	y	n	40	
	Water borne reticulated sanitation		68.4									40	60	y	y	y	y		y	y	y	60	y	n	40	
Enabling Factors		Compliance										Needs Development Plan														
		Status Quo										ASSESSMENT		ASSESSMENT		Future plan (to adress issues)						Strategy				
		Fixed Tariff		Volume Charges												In place?		Time Frame		Sufficient for		ASSESSMENT	In place?	Sufficient	ASSESSMENT	
				Block Definition 1 KI per month from: _____ to _____		Block Definition 2 KI per month from: _____ to _____		Block Definition 3 KI per month from: _____ to _____		Block Definition 4 KI per month from: _____ to _____								RDP	Higher Level	Growth & Development						
				Current	Previous	Current	Previous	Current	Previous	Current	Previous															
		Year 20	Year 20	Current	Previous	Current	Previous	Current	Previous	Current	Previous					1	3	5	N	*	*	*				
Quality: Information Accuracy Assessment		Year 20	Year 20	Current	Previous	Current	Previous	Current	Previous	Current	Previous	%	%	Y / N / NA						%	Y / N	%				
Quantity: Assessment of Information Completeness		Y / N / NA										%	%	Y / N / NA						%	Y / N	%				
10.3.2 Industrial		Values to be given in R / kl for Current and Previous Financial Years																								
	Water Industrial											0	0	y	y	y	y		y	y	y	60	y	n	40	
	Sanitation Industrial											0	0	y	y	y	y		y	y	y	60	y	n	40	

Comment



Topic 10: Financial Profile

Enabling Factors		Compliance										Needs Development Plan														
		Status Quo										Future plan (to address issues)						Strategy								
		Fixed Tariff		Volume Charges								ASSESSMENT	ASSESSMENT	In place?	Time Frame			Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT		
		Current	Previous	Block Definition 1 KI per month from: 0 to 999999		Block Definition 2 KI per month from: _____ to _____		Block Definition 3 KI per month from: _____ to _____		Block Definition 4 KI per month from: _____ to _____					Short (1) Medium (3) Long (5) None	RDP	Higher Level	Growth & Development	ASSESSMENT	In place?					Sufficient	ASSESSMENT
				Current	Previous	Current	Previous	Current	Previous	Current	Previous															
Quality: Information Accuracy Assessment		Year 2011	Year 2010																							
Quantity: Assessment of Information Completeness		Y / N / NA										%	%	Y / N / NA						%	Y / N	%				
10.3.3 Commercial		Values to be given in R / kl for Current and Previous Financial Years																								
Water Commercial					8.64								40	60	y	y	y	y		y	y	y	60	y	n	40
Sanitation Commercial		47.04	43.96										40	60	y	y	y	y		y	y	y	60	y	n	40
		Status Quo										Future plan (to address issues)						Strategy								
		Fixed Tariff		Volume Charges								ASSESSMENT	ASSESSMENT	In place?	Time Frame			Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT		
		Current	Previous	Block Definition 1 KI per month from: _____ to _____		Block Definition 2 KI per month from: _____ to _____		Block Definition 3 KI per month from: _____ to _____		Block Definition 4 KI per month from: _____ to _____					Short (1) Medium (3) Long (5) None	RDP	Higher Level	Growth & Development	ASSESSMENT	In place?					Sufficient	ASSESSMENT
				Current	Previous	Current	Previous	Current	Previous	Current	Previous															
Quality: Information Accuracy Assessment		Year 20__	Year 20__																							
Quantity: Assessment of Information Completeness		Y / N / NA										%	%	Y / N / NA						%	Y / N	%				
10.3.4 Other		Values to be given in R / kl for Current and Previous Financial Years																								
Water													0	0	y	y	y	y		y	y	y	60	y	n	40
Sanitation													0	0	y	y	y	y		y	y	y	60	y	n	40
Sub Topic 10.3 Compliancy & Needs Development Plans Assessment												29%	42%							60%		40%				
10.4 Free Basic Services		Is there a Free Basic Services Policy in Place (Y / N):										60	60													
10.4.1 Subsidy Targeting Approach		% of HH Targeted: Water				% of HH Targeted: Sanitation																				
Rising block tariff													0	0	y	y	y	y		y	y	y	60	y	n	40
Service level targeting													0	0	y	y	y	y		y	y	y	60	y	n	40
* Credits to Water account													0	0	y	y	y	y		y	y	y	60	y	n	40
* Credits to Sanitation account													0	0	y	y	y	y		y	y	y	60	y	n	40
* Number of units requiring free basic services (Water)													0	0	y	y	y	y		y	y	y	60	y	n	40
* Number of units requiring free basic services (Sanitation)													0	0	y	y	y	y		y	y	y	60	y	n	40
Number of units with access to free basic services													0	0	y	y	y	y		y	y	y	60	y	n	40
Sub Topic 10.4 Compliancy & Needs Development Plans Assessment												8%	8%							60%		40%				
Comment																										
		All Tariffs are inclusive of VAT. There are 5 block tariffs in place.																								

Enabling Factors				Compliance				Needs Development Plan																			
				Status Quo				Future plan (to address issues)						Strategy													
WATER				Urban		Rural		TOTAL	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT					
												Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development									
				1	3	5	N																*	*	*		
Resources available to perform function? (Yes: Y, No: N, Not Applicable: NA):				Current	Previous	Current	Previous					%	%	Y / N / NA									%	Y / N		%	
Quality: Information Accuracy Assessment																											
Quantity: Assessment of Information Completeness																											

10.5 Metering, Billing & Income*** 10.5.1 Residential: Water**

* Units Supplied						0	0	y	y	y	y		y	y	y	60	y	n	40
* Metered %						0	0	y	y	y	y		y	y	y	60	y	n	40
* Billed %						0	0	y	y	y	y		y	y	y	60	y	n	40
* Not Metered						0	0	y	y	y	y		y	y	y	60	y	n	40
* Income Received %						0	0	y	y	y	y		y	y	y	60	y	n	40
* Non Payment %						0	0	y	y	y	y		y	y	y	60	y	n	40

10.5.2 Industrial & Commercial: Water

Units Supplied						0	0	y	y	y	y		y	y	y	60	y	n	40
Metered %						0	0	y	y	y	y		y	y	y	60	y	n	40
Billed %						0	0	y	y	y	y		y	y	y	60	y	n	40
Not Metered						0	0	y	y	y	y		y	y	y	60	y	n	40
Income Received %						0	0	y	y	y	y		y	y	y	60	y	n	40
Non Payment %						0	0	y	y	y	y		y	y	y	60	y	n	40
Comments																			

Topic 10: Financial Profile

Enabling Factors	Compliance					Needs Development Plan														
SANITATION	Status Quo					Future plan (to address issues)										Strategy				
	Urban		Rural		TOTAL	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT	
									Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development					
	Resources available to perform function? (Yes: Y, No: N, Not Applicable: NA):	Fixed Charge	Value Charge	Fixed Charge	Value Charge	%	%	13				%	Y / N	%						
	Quality: Information Accuracy Assessment					Y / N / NA	%	Y / N	%											
Quantity: Assessment of Information Completeness	Y / N / NA	%	Y / N	%																
* 10.5.3 Residential: Sanitation																				
* Units Supplied						0	0	y	y	y	y		y	y	y	60	y	n	40	
* Metered %																				
* Billed %						0	0	y	y	y	y		y	y	y	60	y	n	40	
* Not Metered						0	0	y	y	y	y		y	y	y	60	y	n	40	
* Income Received %						0	0	y	y	y	y		y	y	y	60	y	n	40	
* Non Payment %						0	0	y	y	y	y		y	y	y	60	y	n	40	
10.5.4 Industrial & Commercial: Sanitation																				
Units Supplied						0	0	y	y	y	y		y	y	y	60	y	n	40	
Metered %																				
Billed %						0	0	y	y	y	y		y	y	y	60	y	n	40	
Not Metered						0	0	y	y	y	y		y	y	y	60	y	n	40	
Income Received %						0	0	y	y	y	y		y	y	y	60	y	n	40	
Non Payment %						0	0	y	y	y	y		y	y	y	60	y	n	40	
						0	0	y	y	y	y		y	y	y	60	y	n	40	
Sub Topic 10.5 Compliancy & Needs Development Plans Assessment						0%	0%											60%		40%

Comments

Enabling Factors		Compliance		Needs Development Plan			
	Status Quo			Future plan (to address issues)		Strategy	
<div>OVERALL TOPIC ASSESSMENT</div>				ASSESSMENT	ASSESSMENT		ASSESSMENT
Quality: Information Accuracy Assessment							
Quantity: Assessment of Information Completeness							
10.1.2 CAPITAL EXPENDITURE 10.2 OPERATION & MAINTENANCE BUDGET 10.3 TARIFF & CHARGES 10.4 FREE BASIC SERVICES 10.5 METERING, BILLING, INCOME & SALES							
				0%	0%		
				0%	0%		
				29%	42%		
				8%	8%		
				0%	0%		
Comments							
				NEEDS DEVELOPMENT PLAN ASSESSMENT			
				Future plan		36%	
						Strategy	24%
				OVERALL QUALITY ASSESSMENT 7%			
				OVERALL QUANTITY ASSESSMENT 10%			

Topic 11: Water Services Institutional Arrangements Profile

Enabling Factors										Compliance					Needs Development Plan										1			
WSA functions and outputs										Status Quo					Future plan (to address issues)								Strategy					
Resources available to perform function? (Yes: Y, No: N, Not Applicable: NA):										Policy in Place	Budget	Personnel	Gazetted	Council approved	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT
																		Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development				
																		1	3	5	N	*	*	*				
Quality: Information Accuracy Assessment										Y / N / NA					%	%	Y / N / NA								%	Y / N		%
Quantity: Assessment of Information Completeness										Y / N / NA					%	%	Y / N / NA								%	Y / N		%
11.1 General Functions																												
* 11.1.1 Policy development																												
* Indigent Policy										y				y	60	60	y	y	y	y		y	y	y	60	y	n	40
* Free basic water policy (including equitable share)										y				y	60	60	y	y	y	y		y	y	y	60	y	n	40
* Free basic sanitation policy										y				y	60	60	y	y	y	y		y	y	y	60	y	n	40
* Procurement policy										y				y	60	60	y	y	y	y		y	y	y	60	y	n	40
* Credit control & debt collection policy										y	y	y		y	60	60	y	y	y	y		y	y	y	60	y	n	40
* 11.1.2 Regulation and tariffs															60%	60%									60%		40%	
* Water Services bylaws with conditions as required by the Water Services Act										n			n	n	0	0	n								0	n		0
* Mechanisms to ensure compliance with bylaws										n			n	n	0	0	n								0	n		0
* Tariff structure										y				y	60	60	y	y	y	y		y	y	y	60	y	n	40
* Tariffs promulgated										y	y	y		y	60	60	y	y	y	y		y	y	y	60	y	n	40
11.1.3 Infrastructure development (projects)															30%	30%									30%		20%	
Mechanisms to undertake project / feasibility studies											y	y			60	60	y	y	y	y		y	y	y	60	y	n	40
Criteria for prioritising projects										y				y	60	60	y	y	y	y		y	y	y	60	y	n	40
Mechanisms to assess and approve project business plans										y	y	y			60	60	y	y	y	y		y	y	y	60	y	n	40
Mechanisms for selecting, contracting, managing and monitoring implementing agents										y	y	y		y	60	60	y	y	y	y		y	y	y	60	y	n	40
Mechanisms to monitor project implementation											y	y			60	60	y	y	y	y		y	y	y	60	y	n	40
11.1.4 Performance management and monitoring															60%	60%									60%		40%	
Performance management systems										n	n	n		n	0	0	y	y	y	y		y	y	y	60	y	n	40
Water service monitoring and evaluation (M&E) system										n	n	n		n	0	0	y	y	y	y		y	y	y	60	y	n	40
11.1.5 WSDP															0%	0%									60%		40%	
WSDP information system										Yes:	y	No:			60	60	y	y	y	y		y	y	y	60	y	n	40
Mechanisms to monitor and report on WSDP implementation										Yes:	y	No:			60	60	y	y	y	y		y	y	y	60	y	n	40
Mechanisms for stakeholder participation										Yes:	y	No:			60	60	y	y	y	y		y	y	y	60	y	n	40
															60%	60%									60%		40%	

11.2 Bulk & Retail Functions

Water Services Providers	* Name of Provider	* Contract type	Staffing Levels Appropriate	* % Consumers served by the WSP
11.2.1 Water Service providers (retail water)	Mafube	Service	n	100%
11.2.2 Water service providers (sanitation)	Mafube	Service	n	100%
11.2.3 Water service providers (bulk water)				
11.2.4 Water service providers (bulk sanitation)				
11.2.5 Support service agents (water)				
11.2.6 Sanitation Promotion agent				
11.2.7 Support service contracts				
* 11.2.8 Water service institutions				
* 11.2.9 WSP staffing levels: water				
* 11.2.10 WSP staffing levels: sanitation				
11.2.11 WSP training programme				

Sub Topic 11.2 Compliancy & Needs Development Plans Assessment

40%

40%

40%

40%

Comments

Inadequate staff and need for continuous training.

NEEDS DEVELOPMENT PLAN ASSESSMENT

11.1.1 POLICY DEVELOPMENT

60% 60%

Future plan

52%

11.1.2 REGULATION AND TARIFFS

30% 30%

Strategy

37%

11.1.3 INFRASTRUCTURE DEVELOPMENT (PROJECTS)

60% 60%

11.1.4 PERFORMANCE MANAGEMENT AND MONITORING

0% 0%

11.1.5 WSDP

60% 60%

11.2 BULK AND RETAIL FUNCTIONS

40% 40%

OVERALL QUALITY ASSESSMENT

42%

OVERALL QUANTITY ASSESSMENT

42%



Topic 12: Social & Customer Service Requirements

Enabling Factors				Compliance						Needs Development Plan													
Resources available to perform function? (Yes: Y, No: N,Not Applicable: NA):	Status Quo											Future plan (to address issues)							Strategy				
	Urban Households			Rural Households			ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT			
										Short (1) Medium (3) Long (5) None				RDP	Higher Level	Growth & Development							
	1	3	5	N	*	*															*		
	Quality: Information Accuracy Assessment	Budget	Physical Resources	Personnel	Budget	Physical Resources	Personnel	%	%	Y / N							%	Y / N		%			
Quantity: Assessment of Information Completeness	Y / N																						
12.1 Resources available to Perform this Function: Water & Sanitation																							
12.1.1 Attending to Complaints for Water				y	y	y	y	y	y	60	60	y	y	y	y		y	y	y	60	y	n	40
12.1.2 Attending to Complaints for Sanitation				y	y	y	y	y	y	60	60	y	y	y	y		y	y	y	60	y	n	40
12.1.3 Attending to Complaints for Pit/Tank Pumping				y	y	y	y	y	y	60	60	y	y	y	y		y	y	y	60	y	n	40
Sub Topic 12.1 Compliancy & Needs Development Plans Assessment									60%	60%								60%			40%		
12.2 Attending to Complaints for Water																							
				Number Of:																			
12.2.1 Total number of consumer units								0	0	y	y	y	y		y	y	y	60	y	n	40		
12.2.2 Number of queries/complaints received within the year								0	0	y	y	y	y		y	y	y	60	y	n	40		
* 12.2.3 % Queries responded to within 24 hours								0	0	y	y	y	y		y	y	y	60	y	n	40		
12.2.4 Number of major or visible leaks reported within the year								0	0	y	y	y	y		y	y	y	60	y	n	40		
12.2.5 % Major or visible leaks repaired within 48 hours after being reported								0	0	y	y	y	y		y	y	y	60	y	n	40		
* 12.2.6 Number of consumers experiencing greater than 7 days interruption in supply per year								0	0	y	y	y	y		y	y	y	60	y	n	40		
12.2.7 Number of consumers receiving flow rate of less than 10 litres per minute								0	0	y	y	y	y		y	y	y	60	y	n	40		
Sub Topic 12.2 Compliancy & Needs Development Plans Assessment									0%	0%								60%			40%		
12.3 Attending to Complaints for Sanitation: Discharge to Treatment Works																							
				Number Of:																			
12.3.1 Total number of consumer units								0	0	y	y	y	y		y	y	y	60	y	n	40		
12.3.2 Number of queries/complaints received within the year								0	0	y	y	y	y		y	y	y	60	y	n	40		
* 12.3.3 % Queries responded to within 24 hours								0	0	y	y	y	y		y	y	y	60	y	n	40		
12.3.4 Number of blockages reported within the year								0	0	y	y	y	y		y	y	y	60	y	n	40		
12.3.5 % Blockages repaired within 48 hours after being reported								0	0	y	y	y	y		y	y	y	60	y	n	40		
* 12.3.6 Number of consumers experiencing greater than 7 days interruption in supply per year								0	0	y	y	y	y		y	y	y	60	y	n	40		
12.3.7 Sanitation promotion and health and hygiene awareness								0	0	y	y	y	y		y	y	y	60	y	n	40		
Sub Topic 12.3 Compliancy & Needs Development Plans Assessment									0%	0%								60%			40%		
12.4 Attending to Complaints for Sanitation: Pit/Tank Pumping																							
				Number Of:																			
12.4.1 Number of pits/ tanks								0	0	y	y	y	y		y	y	y	60	y	n	40		
12.4.2 Number of calls received within the year for emptying								0	0	y	y	y	y		y	y	y	60	y	n	40		
12.4.3 Number of calls received within the year for emergency maintenance to pits/ tanks								0	0	y	y	y	y		y	y	y	60	y	n	40		
12.4.4 % Queries responded to within 24 hours								0	0	y	y	y	y		y	y	y	60	y	n	40		
12.4.5 % Pits/tanks pumped within 48 hours of being reported								0	0	y	y	y	y		y	y	y	60	y	n	40		
Sub Topic 12.4 Compliancy & Needs Development Plans Assessment									0%	0%								60%			40%		

OVERALL TOPIC ASSESSMENT

NEEDS DEVELOPMENT PLAN ASSESSMENT

12.1 RESOURCES AVAILABLE TO PERFORM THIS FUNCTION

60% 60%

12.2 ATTENDING TO COMPLAINTS FOR WATER

0% 0%

Future plan

60%

12.3 ATTENDING TO COMPLAINTS FOR SANITATION: DISCHARGE TO TREATMENT WORKS

0% 0%

Strategy

40%

12.4 ATTENDING TO COMPLAINTS FOR SANITATION: PIT/TANK PUMPING

0% 0%

OVERALL QUALITY ASSESSMENT

15%

OVERALL QUANTITY ASSESSMENT

15%

Comments

The Municipality needs to ensure that a complaint register is kept at all offices and monitored and implement and investigate a toll free number for complaints.
Train all maintenance staff to ensure effectiveness and productivity.

Topic 13: Needs Development Plan

LIST OF PROJECTS

Description		Program type	Wards	
Project Name	Project Number	Autonumber Water Internal Bulk Water Regional Bulk Water Reticulation Water Treatment Works Sanitation Services Housing	Wards Location of Project	Wards Benefit
ACTIVE PROJECTS : MIG2011/2012 ; RBIG ; ACIP				
Villiers:Eradication of 148 buckets	MIG/FS0302/S/06/09	Internal Sanitation	42005003	
Cornelia (Ntswanatsatsi): Eradication of 211 buckets	MIG/FS0298/S/07/07	Internal Sanitation		
Tweeling/Mafahlaneng: Erad 489 bkts -add funds	MIG/FS0470/S/07/07	Internal Sanitation		
Namahadi:Constr of water ret, inst erf connect 1714 s	MIG/FS0721/W/09/11	Water Reticulation		
Villiers/Qalabotjha: Constr of new water purification w	MIG/FS0503/W/08/09	Water Treatment Works		
CONCEPTUAL & AWAITING FUNDING PROJECTS				
Qalabotjha: Sewer Reticulation & Toilet Structures	Temp_Actpl_00006	Internal Sanitation		
Namahadi Ext: Sewer Ret & Toilet Structures for 2100	Temp_MTASet_00001	Internal Sanitation		
Mafahlaneng:Sewer Ret & Toilet Structures for 304 E	Temp_MTASet_00004	Internal Sanitation		
Ntswanatsatsi: Sewer Ret & Toilet Structures for 393	Temp_MTASet_00005	Internal Sanitation		
Bucket eradication backlog, Frankfort-2100	Temp_MTASet_00043	Internal Sanitation		
Tweeling upgrade sewer pumpstation x 2	fs_temp0910_0068	Internal Sanitation		
Frankfort new Biofilter R9	fs_temp0910_0060	Sanitation Bulk	42005005	
Frankfort sewer pump upgrade x 3	fs_temp0910_0062	Sanitation Bulk	42005002;42005006	
Mafube Municipality:San Int Bulk Refurbishments (grd	fs_temp0910_0271	Sanitation Bulk		
Namahadi: Extension of the WWTW (MIS: 185309)	MIG/FS0759/S/09/10	Sanitation Bulk		
Qalabotjha: Construction of the extension of the WW	MIG/FS0760/S/09/10	Sanitation Bulk		
Qalabotjha:Outfall sewer modification incl pumpstation	MIG/FS0092/S/05/06	Sanitation Bulk		
Villiers Upgrading of Waste water plant	fs_temp0910_0050	Sanitation Bulk		
Villiers upgrade sewer pump stations	fs_temp0910_0051	Sanitation Bulk		
Cornelia Upgrade sewer pump stations 2	fs_temp0910_0052	Sanitation Bulk		
Tweeling wwt upgrade R7	fs_temp0910_0067	Sanitation Bulk		
Mafube Municipality - Water Internal Bulk Ref (group	fs_temp0910_0292	Water Internal Bulk		
Qalabotjha: Construction of a weir in the Vaal river	MIG/FS0093/W/05/06	Water Internal Bulk		
Frankfort:Pressure Tower and 4.5MI Water Reservoir	Temp_MTASet_00002	Water Internal Bulk		
Namahadi,Villiers and Cornelia:Constr of New Water	Temp_MTASet_00010	Water Internal Bulk		
Villiers: pipeline from water plant to reservoir O&M	Temp_MTASint_00019	Water Internal Bulk		
Frankfort/Namahadi/Cornelia/Ntswanatsatsi:Ext bulk	MIG/FS0314/W/06/07	Water Internal Bulk		
Tweeling:Constr pressure tower,booster pmpstn,App	MIG/FS0097/W05/05	Water Internal Bulk		
Mafube:Constr of new rising main to the water purifica	MIG/FS0224/W/06/07	Water Internal Bulk		
Villiers new reservoir 4,5MI	fs_temp0910_0045	Water Internal Bulk		
Villiers water pump station to be upgraded	fs_temp0910_0049	Water Internal Bulk		
Cornelia new reservoir of 5MI	fs_temp0910_0053	Water Internal Bulk		



Total Allocation

SALGA

Topic 13: Needs Development Plan

LIST OF PROJECTS

[illegible]

Total Allocation



Topic 14: Reporting

MAFUBE LOCAL MUNICIPALITY

Reporting and assessment documents status

Documents		Previous Reference date	Included in current WSDP version module 4	Current WSDP version module 4 submission date
1	IDP checklist framework version 2.4:	Completed		
2	DWA Regulatory Performance Management System (RPMS)	Completed		
3	WSA Checklist April 2005	Not existing		
4	Blue Drop 2010 Assessment	Completed		
5	Green Drop 2010 Assessment	Completed		
6	Water Conservation & Demand Management	Completed		
		Options In process Not existing Completed Completed & Submitted Needs review Completed	Options Not included Included (not complete) Included (complete)	

General Comments

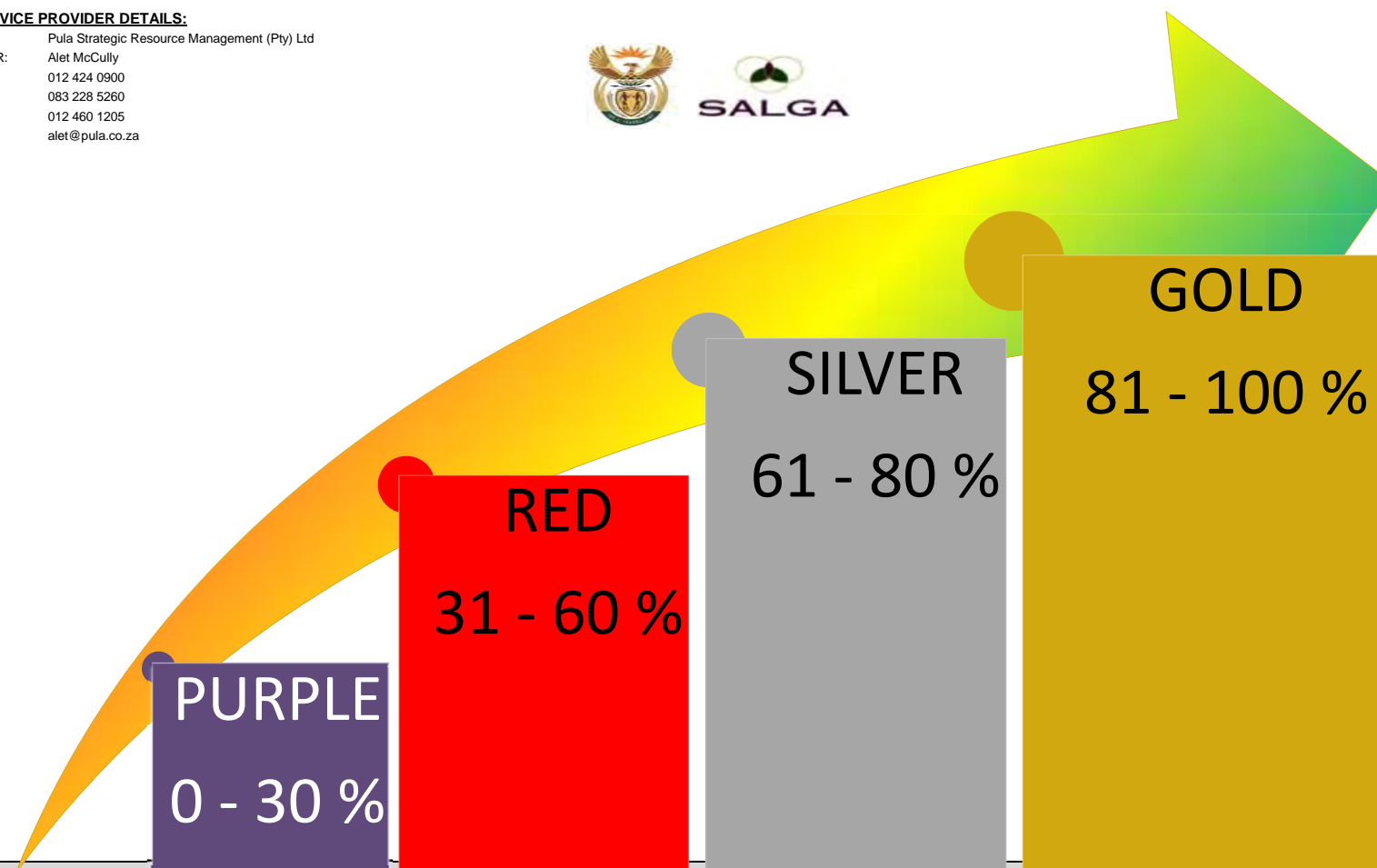
WSDP Status Quo Knowledge Interpretation Report

Overall Water Services Planning Status Bar Legend

MAFUBE LOCAL MUNICIPALITY

PROFESSIONAL SERVICE PROVIDER DETAILS:

COMPANY: Pula Strategic Resource Management (Pty) Ltd
PSP PROJECT MANAGER: Alet McCully
TEL: 012 424 0900
CELL: 083 228 5260
FAX: 012 460 1205
EMAIL: alet@pula.co.za

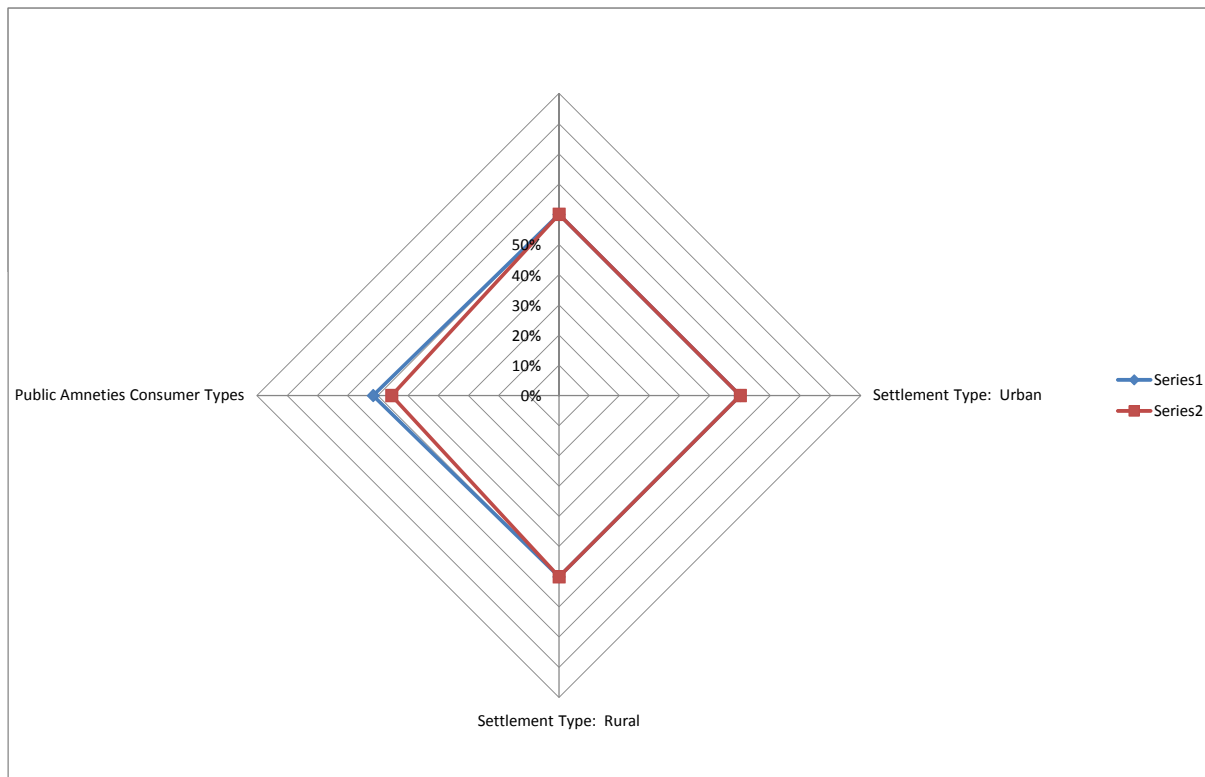


WSDP Status Quo Knowledge Interpretation Report: Demographics Profile (Topic 2)

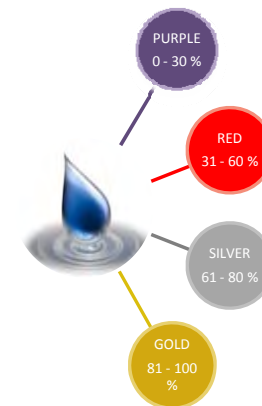
Settlement Type: Farming
Settlement Type: Urban
Settlement Type: Rural
Public Amneties Consumer Types

Assessment	
Quality	Quantity
SERIES 1	SERIES 2
60%	60%
60%	60%
60%	60%
62%	55%

60% 59%



Water Service Planning Status Bar Legend



Service Levels Profile Average Total **60%**

WSDP Status Quo Knowledge Interpretation Report: Demographics Profile (Topic 2)

Topic 2 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

Settlement Type: FARMING

Interpret Situation Assessment:	Farming population was established by DM surveys and subsequently divided into LMs using Stats SA indicators. Although Mafube is mainly agricultural related, it does provide certain industrial growth potential which is mainly agricultural orientated
Define Strategy:	To establish farm population at farm level in order to establish backlog and determine and manage individual backlog eradication projects.
List Possible Projects:	Establish population per farm through house count on 5 meter resolution aerial photography of the NGI and the latest census data once released.

Settlement Type: URBAN

Interpret Situation Assessment:	The municipality is situated on the banks of the Vaal River next to the N3 highway in the Free State province. All Urban areas has been formalised into 4 Formal Towns and 4 Townships. The majority of the rural population is active within the agricultural sector. The towns predominantly serve the surrounding agricultural community.
Define Strategy:	Manage urbanisation through active monitoring of migrating farm workers and through active monitoring and pro-active planning of human settlement.
List Possible Projects:	Continue with modern town planning principles thereby ensuring desirable extensions and development of the urban area Determine migration patterns.

Settlement Type: RURAL

Interpret Situation Assessment:	There are no Rural Communities defined in this area.
Define Strategy:	
List Possible Projects:	

Public Amenities Consumer Types

Interpret Situation Assessment:	This LM is mainly a farming community and consists mainly of agricultural related towns. The identified Industries are also mainly agriculture related, dairies and the usual Co-ops. There are no mines in the area. The town of Villiers is a big tourist attraction, offering birding, fishing, arts and crafts and water sports on the Vaal River, and Mafube have identified 2 main resourts and tourism facilities. The area consists of 4 Police stations, one in each major town, and 2 Magisterial Offices. There is also a prison in the municipality. The area seems to be well serviced by Health facilities, Clinics and Schools.
Define Strategy:	To establish adequacy of public amenities in consultation with responsible sector departments and support spatial planning of these amenities.
List Possible Projects:	Participate in integrated spatial planning to update amenities and service requirements. Consult with SDF to identify additional planned public services.

3.1 SETTLEMENT WATER SERVICE LEVEL DEFINITIONS - CATEGORY 10 - NO SERVICES (FORMAL)

CATEGORY 7 - INFRASTRUCTURE UPGRADE, EXTENSION & REFURBISHMENT

CATEGORY 6 - O&M NEED

CATEGORY 4 - NO SERVICES (INFORMAL)

3.1 SETTLEMENT SANITATION SERVICE LEVEL DEFINITIONS - CATEGORY 10 - NO SERVICES (FORMAL)

CATEGORY 7 - INFRASTRUCTURE UPGRADE, EXTENSION & REFURBISHMENT

CATEGORY 6 - O&M NEED

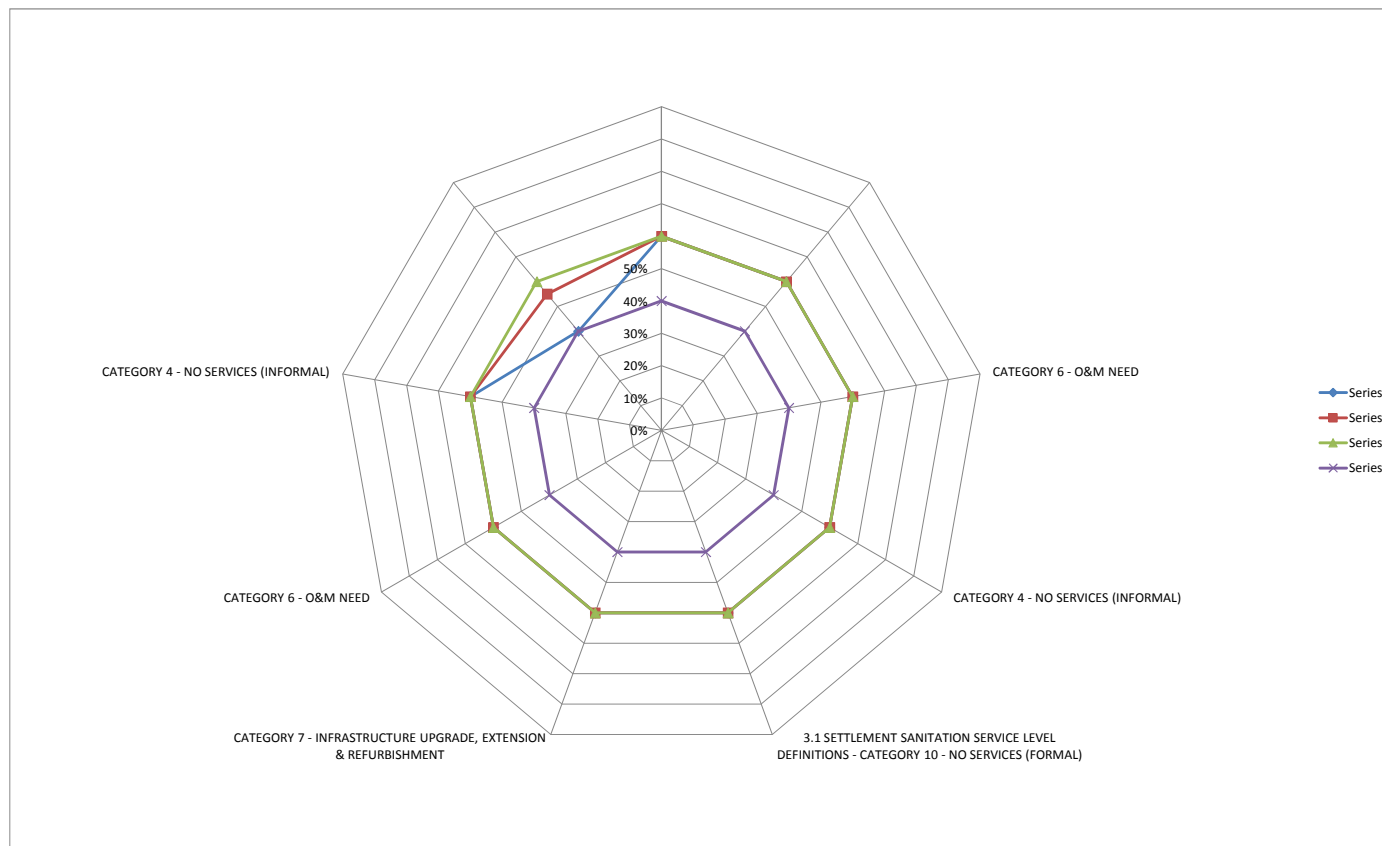
CATEGORY 4 - NO SERVICES (INFORMAL)

3.3 RESIDENTIAL, PUBLIC INSTITUTIONS AND INDUSTRIES

Assessment		Future Plan Assessment	Strategy Assessment
Quality	Quantity		
SERIES 1	SERIES 2	SERIES 3	SERIES 4
60%	60%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%
40%	55%	60%	40%

58% 59% 60% 40%

Water Service Planning Status Bar Legend



Series1
Series2
Series3
Series4

Service Levels Profile Average Total **54%**

Topic 3 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

3.1 SETTLEMENT WATER SERVICE LEVEL DEFINITIONS: WATER FORMAL

Interpret Situation Assessment:	This area has adequate water resources. This LM is relatively well serviced, mainly requiring Upgrades, extension and refurbishment to the infrastructure. The number of people that have house connections and yard connections are more or less the same, with a small number of standpipes.
Define Strategy:	Monitor levels of service and capacity and functionality from source to tap. To inform ongoing increases in service levels (upgrades, extension of existing networks and refurbishment)
List Possible Projects:	Monitor levels of services in consultation with housing and property development projects. Monitor functionality of services through technical services and client services / feedback.

3.2 SETTLEMENT WATER SERVICE LEVEL DEFINITIONS: WATER INFORMAL

Interpret Situation Assessment:	All informal areas has been formalised.
Define Strategy:	Monitor the growth of backyard dwellers and service extensions to determine impact on service delivery.
List Possible Projects:	Determine number of backyard dwellers through analysis of 0.5 meter aerial photography. Monitor the growth of backyard dwellers and service extensions through reviewing annual spot images.

3.2 SETTLEMENT SANITATION SERVICE LEVEL DEFINITIONS: SANITATION FORMAL

Interpret Situation Assessment:	Although not all of the population have waterborne sanitation, there is no households that has no form of sanitation, requiring either and upgrade, extension or refurbishment.
Define Strategy:	Critical review of Waste Water treatment capacity in consultation with Green drop assessment.
List Possible Projects:	Eradicate all remaining bucket and pit latrines before 2014.

3.2 SETTLEMENT SANITATION SERVICE LEVEL DEFINITIONS: SANITATION INFORMAL

Interpret Situation Assessment:	Currently there are no informal settlements in this area.
Define Strategy:	Monitor the growth of backyard dwellers and informal settlements to determine impact on service delivery.
List Possible Projects:	Determine number of backyard dwellers through analysis of 0.5 meter aerial photography. Monitor the growth of backyard dwellers and service extensions through reviewing annual spot images.

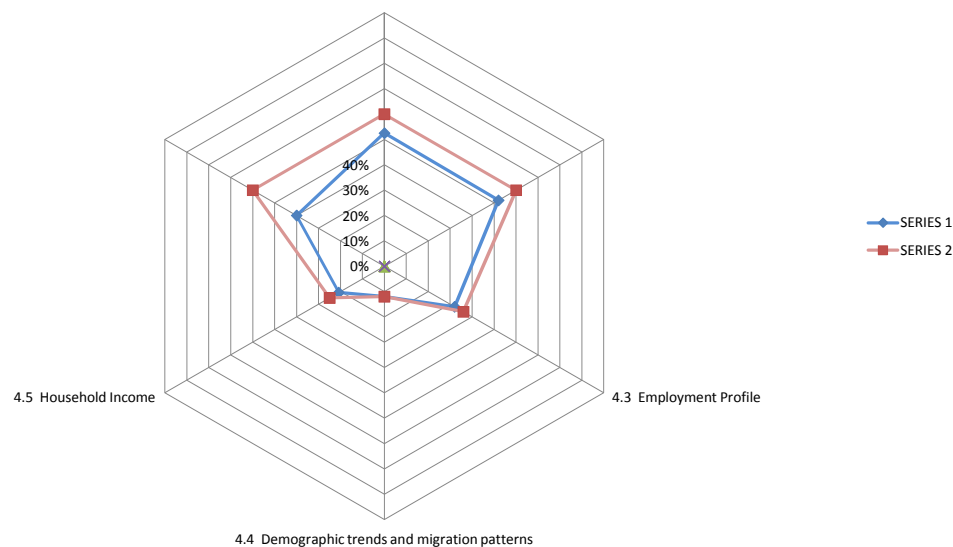
3.3 RESIDENTIAL PUBLIC INSTITUTIONS AND INDUSTRIES

Interpret Situation Assessment:	All public amenities have access to basic services, although there are schools indicated in the rural areas with none or inadequate water and sanitation. There are also a number of households (both urban and rural) with an uncontrolled volume supply.
Define Strategy:	Regular update of service levels at public amenities through consultation with relevant sector departments / databases.
List Possible Projects:	Address remaining backlogs at schools and implement controlled water supply in all residential areas.

- 4.1 General
- 4.2 Age and Gender Profile
- 4.3 Employment Profile
- 4.4 Demographic trends and migration patterns
- 4.5 Household Income
- 4.6 Economics

Assessment	
Quality	Quantity
SERIES 1	SERIES 2
53%	60%
52%	60%
32%	36%
12%	12%
21%	25%
40%	60%
35%	42%

Water Service Planning Status Bar Legend



Water Services Infrastructure Average Total **39%**

Topic 4 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

4.1 General

Interpret Situation Assessment:	There was a considerable decline in the rural population of 10.3% per annum over the past 5- year period. The highest annual population growth rate was in Villiers with an annual growth rate of 11%.
Define Strategy:	To ensure that all planning documentation is maintained and regularly updated and the standards therein are maintained
List Possible Projects:	Update and maintain documentation and address gaps.

4.2 Age and Gender Profile

Interpret Situation Assessment:	Compared with South Africa, the Free State, and Fezile Dabi, Mafube had the largest percentage of people younger than 15 years. The percentage in Mafube was 34.5% compared with 29.4% in the district. Mafube also had the highest percentage (7.9%) of population older than 60 years. The census data also indicates that there was a drop in male population.
Define Strategy:	Plan education and job creation to accommodate high proportion of youth in the community.
List Possible Projects:	Promote job creation in the water sector (eg Leak detection and Water Conservation)

4.3 Employment Profile

Interpret Situation Assessment:	Unemployment remains a critical concern in the area and unemployment figures could generally be considered as high. Only 16.6% of the population is employed. This can be contributed to the decline in agriculture activities. The most recent unemployment statistics for Mafube is 13.3%; the portion of the eligible work force that is unemployed, is calculated as 24.6% and 30.4% of the population is not economically active.
Define Strategy:	Investigate job opportunities in the secondary economy (eg processing of agriculture products)
List Possible Projects:	To see how water can support the development of the secondary economy.

4.4 Demographic trends and migration patterns

Interpret Situation Assessment:	The general tendency of migration from rural to urban areas is also occurring in the area, as is the case in the rest of the Free State Province. This migration from rural to urban areas poses serious challenges to the municipality in terms of the allocation of residential sites and increases the level of demand in terms of sites and services. The waiting list increases every year and thus poses serious challenges in terms of the number of subsidies that municipality receives annually from the provincial department of Corporate government, Traditional Affairs and Human Settlement.
Define Strategy:	Update town and regional planning to keep track of demographic change.
List Possible Projects:	WSDP to consider and respond to demographic and migrational trends.

5.5 Household Income

Interpret Situation Assessment:	
Define Strategy:	Active monitoring of household income and its impact on affordability of service delivery.
List Possible Projects:	Setting of water and sanitation tariffs with consideration of household income and equitable share.

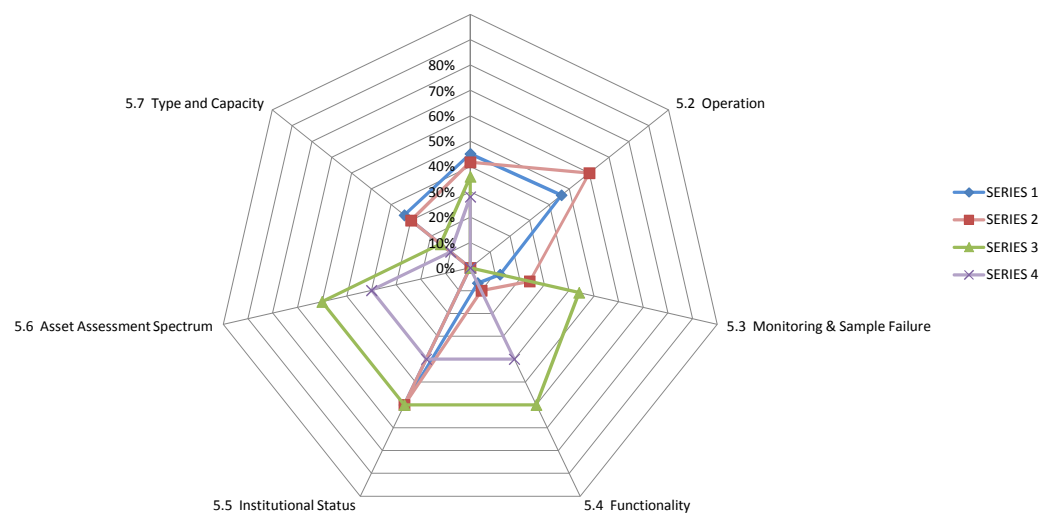
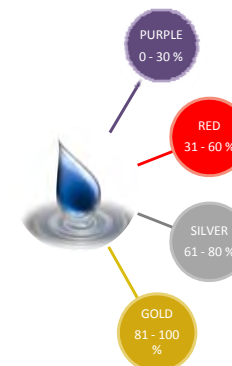
4.6 Economics

Interpret Situation Assessment:	Frankfort shows considerably more potential than the other four areas in terms of innovation and experimentation, labour-intensive mass-produced goods, public services and administration, as well as tourism. Mafube also shows potential in terms of retail and services, public services and administration and tourism. Nearly one quarter of the economy in Mafube is dependent on manufacturing – mainly linked to the agricultural economy in and around Frankfort. In respect of population Mafube has 12.5% of the district population, but contributes only 4% of the economic output of the District. The relative contribution of agriculture has decreased rapidly, and then more significantly in Mafube than in the district or the Free State.
Define Strategy:	Develop the secondary economy (eg processing of agriculture products)
List Possible Projects:	Support small scale farmers and land redistribution projects.

- 5.1 General Information
- 5.2 Operation
- 5.3 Monitoring & Sample Failure
- 5.4 Functionality
- 5.5 Institutional Status
- 5.6 Asset Assessment Spectrum
- 5.7 Type and Capacity

Assessment		Future Plan Assessment	Strategy Assessment
Quality	Quantity		
SERIES 1	SERIES 2	SERIES 3	SERIES 4
45%	42%	36%	28%
46%	60%	0%	0%
12%	24%	44%	0%
7%	10%	60%	40%
60%	60%	60%	40%
0%	0%	60%	40%
33%	30%	15%	10%
29%	32%	39%	23%

Water Service Planning Status Bar Legend



Water Services Infrastructure Average Total **31%**

Topic 5 - WSDP Strategic Interpretation Report.

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

5.1 General Information:

Interpret Status Assessment:	Currently all the main Water plans and operational documents are in place. On face value they appear to be on a relatively acceptable standard.
Define Strategy:	To ensure that all documentation, plans and strategies are implemented and in practice, continuously enhanced, and appropriately updated. To strive towards a learning and integrated and planning culture. Striving towards constant improvement on all services.
List Possible Projects:	Ensure that a planning culture is established and maintained (Training?). Enhance and maintain existing and additional operational and strategic documents. Identify, assess and adjust gaps and weaknesses.

5.2 Operation:

Interpret Status Assessment:	Incidents, including security problems that influences the effectiveness of the infrastructure occur sporadically. Safety inspections are only done occasionally and not on a regular basis. The abstractions are all registered with DWA, however the abstractions are not recorded and the operating hours is 24 hours per day.
Define Strategy:	To improve security and create an incident free environment. Ensure that abstractions are recorded and within limits as set by DWA abstraction licenses.
List Possible Projects:	Put abstraction records in place. Prepare and implement safety and security procedures.

5.3 Monitoring & Sample Failure:

Interpret Status Assessment:	The monitoring status for both Blue and Green Drop is below an acceptable level. The municipality also failed to indicate the percentages that effluent is controlled and chlorinated, what the permitted effluent is and the amounts of sludge that is produced and solid waste that is disposed of. According to the Blue Drop status there were little implementation of best practices and compliance with various legal requirements. There were also no data available for quality of the drinking water to residents.
Define Strategy:	The bigger business of drinking water and wastewater management as far as qualitative monitoring, credibility of results, financial and management and planning of drinking water standards and wastewater collection and treatment needs to be addressed.
List Possible Projects:	As a matter of urgency the weaknesses within the drinking water and Wastewater environment must be assessed, and a Corrective Action Plan must be put in place and implemented.

5.4 Functionality:

Interpret Status Assessment:	The municipality indicated that their pumpstations and WWTW are dysfunctional, although the rest of the infrastructure is operational. This results in regular breakdowns and service interruptions, resulting in ongoing repairs, rather than planned and systematic maintenance. The municipality omitted to indicate what the % and estimated cost for refurbishment and replacement is. In order to determine the severity and cost implications would be, this information is required.
Define Strategy:	Determine % and cost estimates for refurbishment and replacement. A risk-based approach needs to be adopted with integrated asset management principles.
List Possible Projects:	An asset management system and process needs to be developed and implemented for all infrastructure. Urgent refurbishment of wastewater works and collector systems (sewer pumpstations) and the Water bulk pipeline.

5.5 Institutional Status:

Interpret Status Assessment:	Mafulwe is both the Water Service Authority and Provider and owns all the infrastructure. There are no boreholes.
Define Strategy:	Ensure that a planning culture is established and maintained (Training?). Enhance and maintain existing and additional operational and strategic documents. Identify, assess and adjust gaps and weaknesses.
List Possible Projects:	Provide ongoing staff training and monitor outputs. Raise awareness amongst managers and councillors and provide necessary decision support on priority intervention areas (eg wastewater works, affordable levels of services)

5.6 Asset Assessment Spectrum:

Interpret Status Assessment:	Mafulwe did not specify what the expected lifespan for their assets are. In order to determine the age and status of their infrastructure this is critical.
Define Strategy:	To determine, record and maintain lifespan % for all infrastructure. To Ensure that management, maintenance and staffing requirements are at a level to maintain effective and well cared for and operational equipment.
List Possible Projects:	Establish an asset management system and processes with adequate management, levels of staff and capacity, and systematic maintenance and repairs.

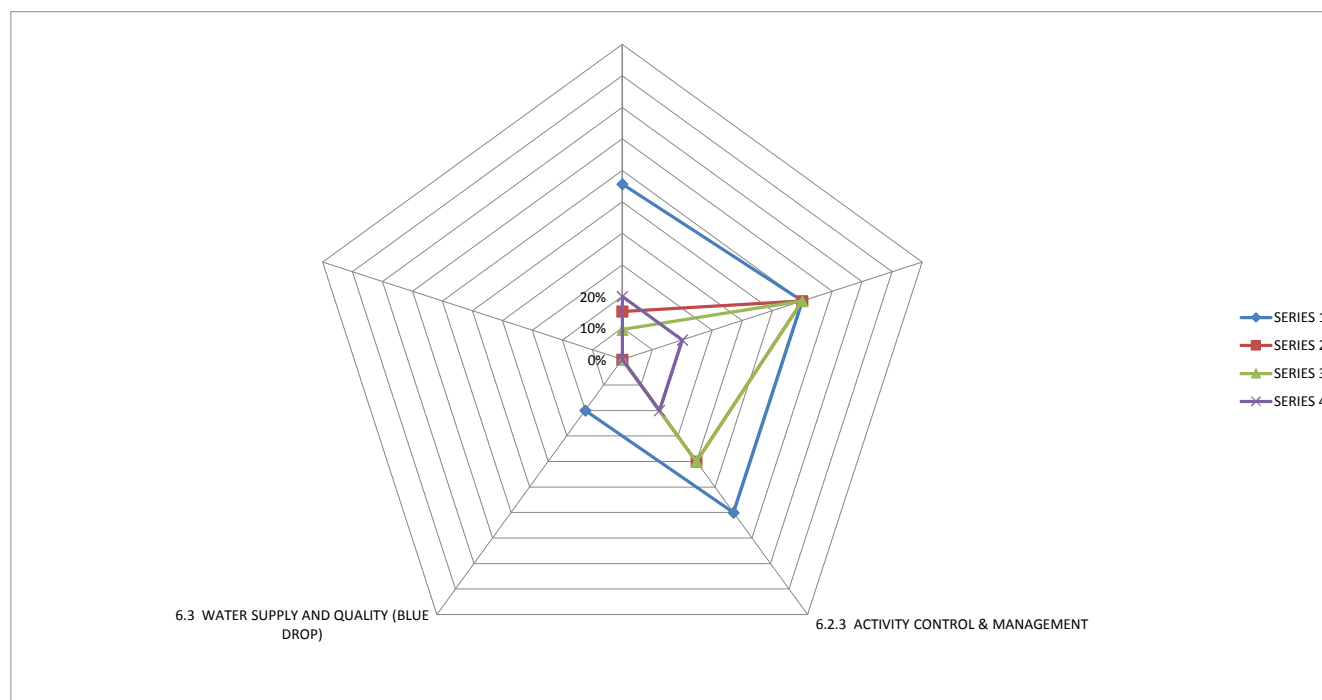
5.7 Type and Capacity:

Interpret Status Assessment:	No capacity information was provided and it is not possible to determine if there is any spare capacity available. However considering the status of the WWTW, additional capacity cannot be considered until the condition is stable.
Define Strategy:	Determine, document and monitor capacity on all infrastructure on a regular basis. Repairs and maintenance must consider replacing to latest standards. Output capacity with required standards must be managed and maintained.
List Possible Projects:	Ongoing enhancement and monitoring of capacity (a total view of the supply chain from source to tap must be considered).

WSDP Status Quo Knowledge Interpretation Report: Operation & Maintenance (Topic 6)

- 6.1 OPERATION & MAINTENANCE PLAN
- 6.2.1 RESOURCES
- 6.2.2 INFORMATION
- 6.2.3 ACTIVITY CONTROL & MANAGEMENT
- 6.3 WATER SUPPLY AND QUALITY (BLUE DROP)
- 6.4 WASTE WATER SUPPLY AND QUALITY (GREEN DROP)

Assessment		Future Plan Assessment	Strategy Assessment
Quality	Quantity		
SERIES 1	SERIES 2	SERIES 3	SERIES 4
60%	60%		
56%	60%	60%	20%
34%	60%	60%	20%
38%	60%	60%	20%
15%	60%	40%	0%
10%	60%	40%	0%
35%	60%	52%	12%



Water Service Planning Status Bar Legend



Water Services Infrastructure Average Total

40%

Topic 6 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

6.1 OPERATION & MAINTENANCE PLAN

Interpret Situation Assessment:	There is an Operation and Maintenance plan in place. Due to staff capacity issues, lack of staff and / or knowledge, maintenance is at a minimum basic requirement. In many aspects this has a medium to high impact in the short term, but as is evident with the status of the infrastructure, in the long term it becomes critical and almost irreversible. It is evident that this is all due to a budget constraint which is identified as Critical in all aspects.
Define Strategy:	Ensure that the O&M plan is implemented and maintained. Address all gaps and enhance where relevant. Ongoing monitoring of the O&M.
List Possible Projects:	Maintenance of the O&M Plan and the implementation thereof. Effective management and monitoring of O&M procedures.

6.2.1 RESOURCES

Interpret Situation Assessment:	The current personnel work teams and equipment is insufficient to properly address blockages and complaints. In the short term the effect is medium to High, however in the long term it becomes critical and almost irreversible. The lack of budget already has a critical impact.
Define Strategy:	Management and Budget for Operations and Maintenance must be addressed as a matter of urgency to address Operations and Maintenance processes - staff and equipment. With adequate budget, effective O&M procedures can be put in place.
List Possible Projects:	Establish a log book and document existing operating procedures. Ongoing enhancement and improvement of the log book and O&M Management and procedures.

6.2.2 INFORMATION

Interpret Situation Assessment:	Not all information is available on all of the equipment due to the age thereof and this has a negative effect on delivery. Ongoing records are also not maintained.
Define Strategy:	A regular log, and reports on faults and findings and documenting operating procedures will enable filling the gap of the lack of operating manuals, plans and drawings. By keeping ongoing records in a systematic manner this can in time be overcome.
List Possible Projects:	Establish a log book and document existing operating procedures. Ongoing enhancement and improvement of the log book and operating procedure

6.2.3 ACTIVITY CONTROL & MANAGEMENT

Interpret Situation Assessment:	Activity control is kept on a minimum basic requirement and quality control is below the minimum required standard. The impact varies between critical to medium / high. Once again budget is at a minimum with critical impact. It would appear as if an effective complaint register is not maintained.
Define Strategy:	With smart planning, effective maintenance / repairs and proper documentation, the impact can be maintained at low level. Where relevant repair visits can coincide with scheduled maintenance. If maintenance is nearly due, and a repair is required address standard maintenance at the same time. Monitor all activities and maintain a complaint register with progress.
List Possible Projects:	Ensure that all staff are adequately trained and documentation maintained. Determine how activities can be better monitored and how the activities can be more effectively managed. Maintain and monitor a complaint register.

6.3 WATER SUPPLY AND QUALITY (BLUE DROP)

Interpret Situation Assessment:	The Blue Drop status for Mafube currently stands at 15% which is far below an acceptable level. Although Mafube indicates that there are incident management protocols, Process Control and Monitoring programmes in place, they are still in the implementing stage and needs improvement and refinement. There is still no Failure Response Management in place. According to the Blue Drop report, drinking water quality management practices were still evaluated poor since the information verified little implementation of best practices and compliance with various legal requirements. Mafube presented no water safety plan, however a service provider was recently appointed. There were also various drinking water quality failures in the past and conservatively, DWA had to regard the water of unacceptable quality. The Blue Drop team also evaluated Asset management as poor.
Define Strategy:	To update and maintain an effective asset register. Identify processes and procedures for timeous submission of monitoring information. Ensure high level of supply and quality. Effective management and monitoring.
List Possible Projects:	Implement effective management and asset management. Management, processes and procedures to submit timeous monitoring information. Improve Blue Drop requirements and determine ongoing levels of improvement.

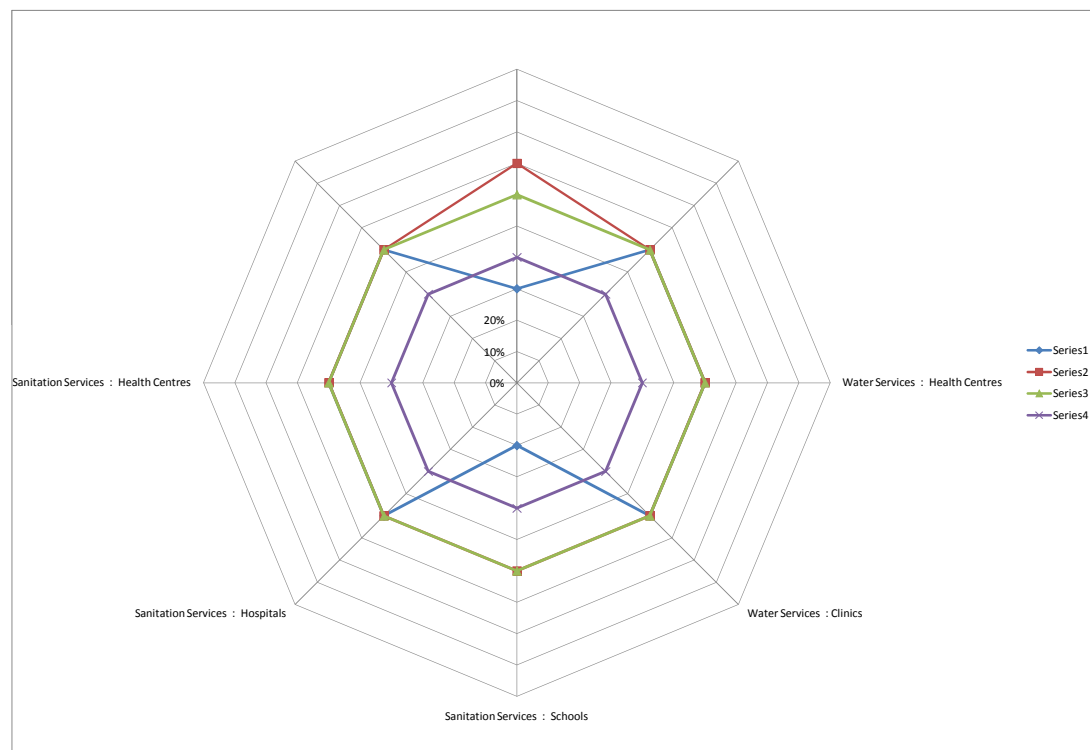
6.4 WASTE WATER SUPPLY AND QUALITY (GREEN DROP)

Interpret Situation Assessment:	The Green Drop score for Mafube currently stands at 9.5% and is far below an acceptable level. The most prominent gaps are to be found in the lack of technical staff, as well as management aspects as reflected in the breach of essential planning, procedures and planning aspects. There is a lack in monitoring on almost all levels, ranging from plant operations and repairs logging to daily flow measurements to financial aspects. The status poses a significant risk to the receiving environment and public health.
Define Strategy:	Identify the key gaps in the sanitation services delivery and implement a risk-based approach.
List Possible Projects:	Determine and address the gaps and implement a Corrective Action Plan and a risk-based approach.

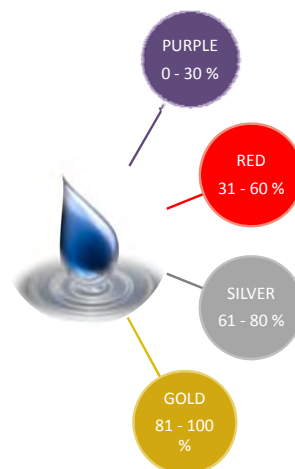
Water Services : Schools
 Water Services : Hospitals
 Water Services : Health Centres
 Water Services : Clinics
 Sanitation Services : Schools
 Sanitation Services : Hospitals
 Sanitation Services : Health Centres
 Sanitation Services : Clinics

Assessment		Future Plan Assessment	Strategy Assessment
Quality	Quantity		
SERIES 1	SERIES 2	SERIES 3	SERIES 4
30%	70%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%
20%	60%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%

51% 61% 60% 40%



Water Service Planning Status Bar Legend



Water Services Infrastructure Average Total

53%

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

Water Services: Hospitals	Current Status Assessment	Hospitals are all serviced.
	Future Strategy	Regular update of service levels through consultation with relevant sector departments / databases.
	Low Possible Program	Ensure levels of service is maintained.

There are no Health Centres in this area.

Water Services: Clinics		
Support Strategic Assessment	Clinics are all serviced.	
Define Strategy	Regular updates of service levels through consultation with relevant sector departments / databases.	
Let Possible Program	Address remaining backlogs and monitor service levels.	

There are a number of schools with inadequate and no services. These can mainly be attributed to farm schools.
--

Sanitation Services: Hospitals	
Support Assessment	(All Hospitals are serviced adequately.
Define Strategy	Regular updates of service levels through consultation with relevant sector departments / databases.
List Possible Program	Monitor service levels.

There are no Health Centres in this area.

Sanitation Services: Latrines	
Sanitation Strategy Assessment	Latrines are all serviced.
Latrine Strategy	Regular update of service levels through consultation with relevant sector departments / databases.
Latrine Feasibility	Monitor service levels.

Conservation & Demand Management & Water Balance

8.1.1 Reducing unaccounted water and water inefficiencies

8.1.2 Reducing high pressures for residential consumers

8.1.3 Leak and Meter Repair Programmes

8.1.4 Consumer/end-use demand management

8.2 WATER BALANCE

8.2 WATER BALANCE (Optional 2)

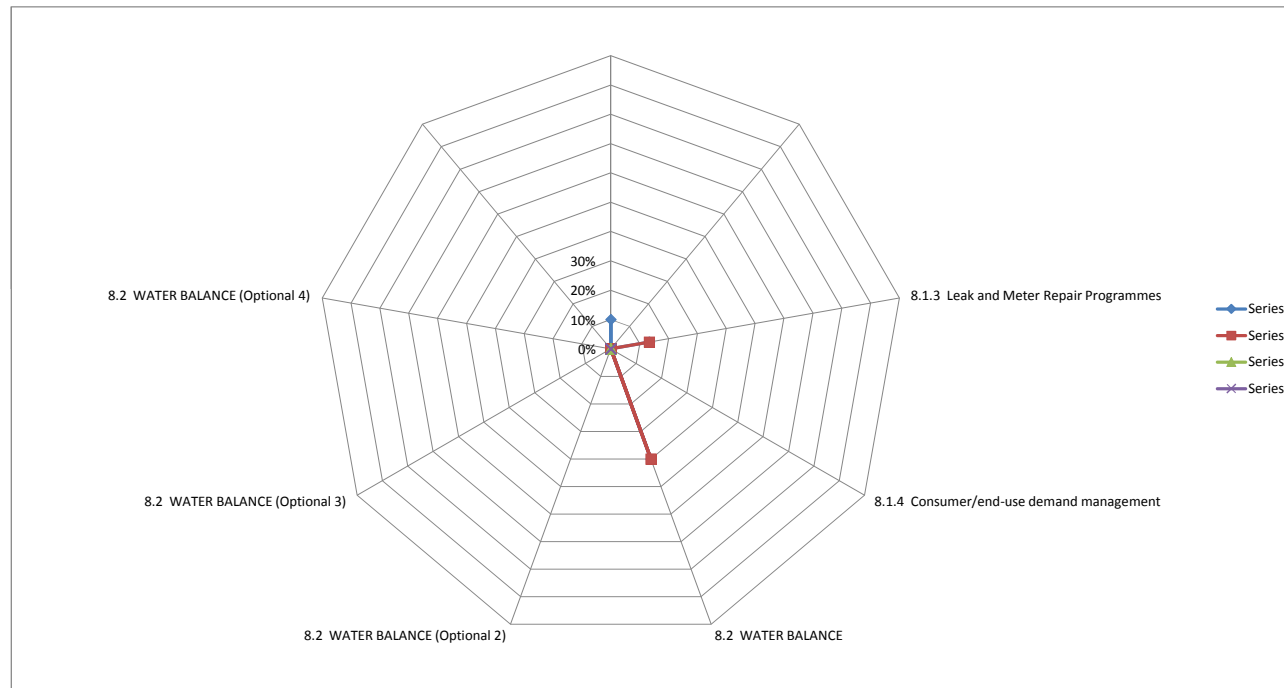
8.2 WATER BALANCE (Optional 3)

8.2 WATER BALANCE (Optional 4)

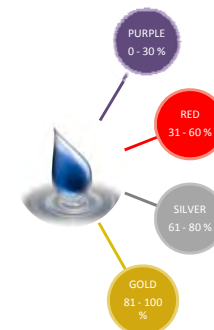
8.2 WATER BALANCE (Optional 5)

Assessment		Future Plan Assessment	Strategy Assessment
Quality	Quantity		
SERIES 1	SERIES 2	SERIES 3	SERIES 4
10%	0%	0%	0%
0%	0%	0%	0%
13%	13%	0%	0%
0%	0%	0%	0%
40%	40%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%

7% 6% 0% 0%



Water Service Planning Status Bar Legend



Water Services Infrastructure Average Total **3%**

Topic 8 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

8.1.1 Reducing unaccounted water and water inefficiencies

Interpretation Station Assessment:	There is no flow metering in place causing leaks and to go undetected resulting in water losses. Although limited, the municipality do have staff available to attend to leaks and repairs.
Define Strategy:	To identify and implement flow metering and effective water balance principles.
List Possible Projects:	Determine flow metering requirements and implement.

8.1.2 Reducing high pressures for residential consumers

Interpretation Station Assessment:	No formally designed pressure zones have been established and no pressure reducing valves are in place in any of the towns of Mafube Municipality causing strain on the pipelines and is responsible for leaks and water losses in the system..
Define Strategy:	Determine areas where water pressure is high and address. Ensure Pressurized supply to all consumers 100% of the time.
List Possible Projects:	Implementing pressure management zones and PRVs in parts of the network for distribution and reticulation and monitor.

8.1.3 Leak and Meter Repair Programmes

Interpretation Station Assessment:	There were no records on the status of bulk metering and system metering. It is however understood that there are no system meters, zonal and district meters in the reticulation of the water supply systems. The municipality has no formal consumer meter replacement programme. Consumer meters are only replaced when they are faulty if replaced at all.
Define Strategy:	Ongoing leak repair assistance.
List Possible Projects:	Ensure that all leaks are addressed timeously and effectively.

8.1.4 Consumer/end-use demand management

Interpretation Station Assessment:	There is no consumer/end-use programmes.
Define Strategy:	The need for consumer / end-use demand management must be determined and monitored.
List Possible Projects:	Determine target areas and mechanisms, and methods to measure effectiveness and implement.

8.2 WATER BALANCE :

Interpretation Station Assessment:	The municipality has no water balance in place, there is no monitoring of the pressurised supply and no active leakage detection.
Define Strategy:	To apply a Standard Water Balance. To provide Pressurised Supply to all consumer 100% of time. To have an active Leakage Control, an Asset Management System, and effective O&M.
List Possible Projects:	Implement good management principles, apply Standard Water Balance, Active Leakage Control, an Asset Management System and effective O&M.

8.2 WATER BALANCE (Optional 2):

8.2 WATER BALANCE (Optional 3):

8.2 WATER BALANCE (Optional 4):

8.2 WATER BALANCE (Optional 5):

Water Losses

8.3.1 Raw Water Bulk Loss

8.3.2 Treated Water Loss :Bulk

8.3.3 Treated Water Loss :Internal

8.3.4 Water Balance

8.3.1 Raw Water Bulk Loss (OPTION 2)

8.3.2 Treated Water Loss :Bulk

8.3.3 Treated Water Loss :Internal

8.3.4 Water Balance

8.3.1 Raw Water Bulk Loss (OPTION 3)

8.3.2 Treated Water Loss :Bulk

8.3.3 Treated Water Loss :Internal

8.3.4 Water Balance

8.3.1 Raw Water Bulk Loss (OPTION 4)

8.3.2 Treated Water Loss :Bulk

8.3.3 Treated Water Loss :Internal

8.3.4 Water Balance

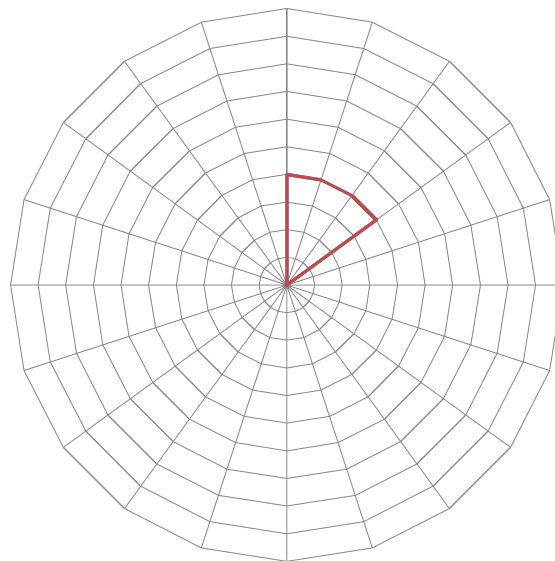
8.3.1 Raw Water Bulk Loss (OPTION 5)

8.3.2 Treated Water Loss :Bulk

8.3.3 Treated Water Loss :Internal

8.3.4 Water Balance

Assessment		Future Plan Assessment	Strategy Assessment
Quality	Quantity		
SERIES 1	SERIES 2	SERIES 3	SERIES 4
40%	40%	0%	0%
40%	40%	0%	0%
40%	40%	0%	0%
40%	40%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
8%	8%	0%	0%

**Water Service Planning Status Bar
Legend**Water Services Infrastructure Average Total **4%**

Topic 8 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

8.3.1 Raw Water Bulk Loss

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

8.3.3 Treated Water Loss :Internal

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

8.3.1 Raw Water Bulk Loss (OPTION 2)

--

8.3.3 Treated Water Loss :Internal

--

8.3.1 Raw Water Bulk Loss (OPTION 3)

--

8.3.3 Treated Water Loss :Internal

--

8.3.1 Raw Water Bulk Loss (OPTION 4)

--

8.3.3 Treated Water Loss :Internal

--

8.3.1 Raw Water Bulk Loss (OPTION 5)

--

8.3.3 Treated Water Loss :Internal

--

8.3.2 Treated Water Loss :Bulk

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

8.3.4 Water Balance

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

8.3.2 Treated Water Loss :Bulk

--

8.3.4 Water Balance

--

8.3.2 Treated Water Loss :Bulk

--

8.3.4 Water Balance

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8.3.2 Treated Water Loss :Bulk

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8.3.4 Water Balance

--

8.3.2 Treated Water Loss :Bulk

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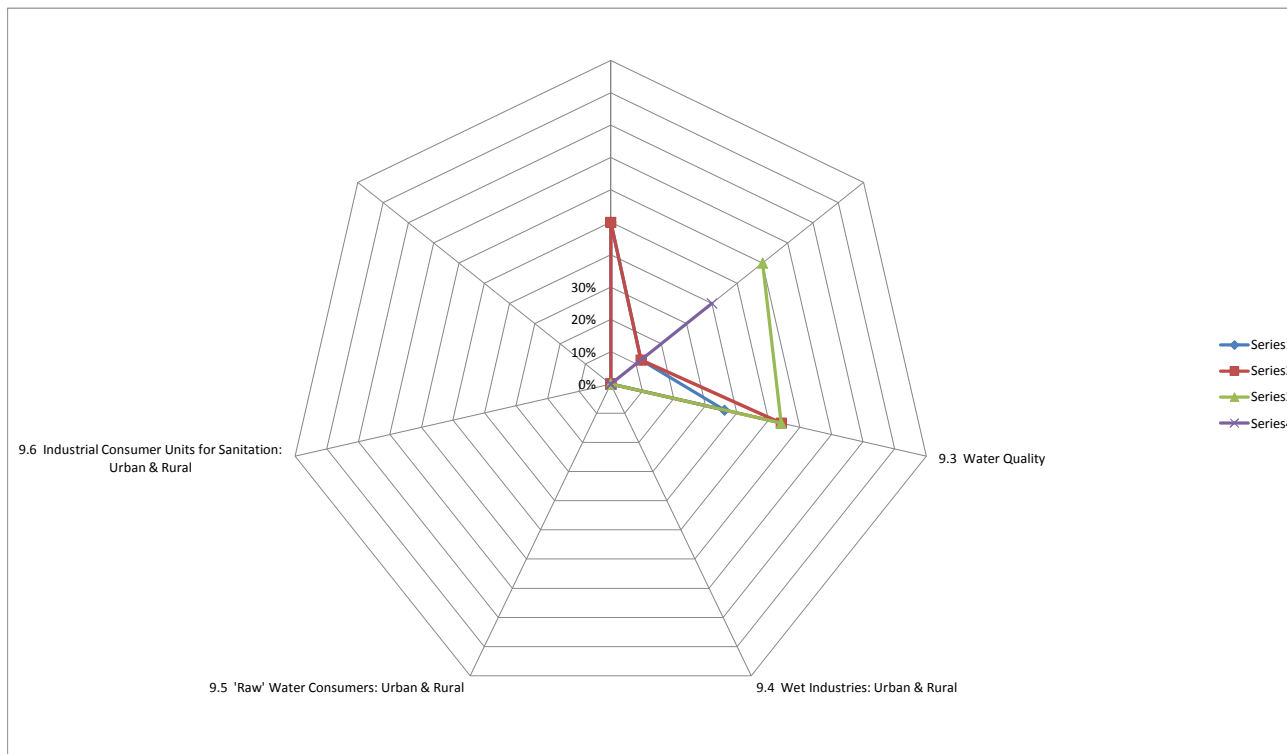
8.3.4 Water Balance

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- 9.1 Sources & Volumes
- 9.2 Monitoring
- 9.3 Water Quality
- 9.4 Wet Industries: Urban & Rural
- 9.5 'Raw' Water Consumers: Urban & Rural
- 9.6 Industrial Consumer Units for Sanitation: Urban & Rural
- 9.7 Industries and their permitted effluent releases

Assessment		Future Plan Assessment	Strategy Assessment
Quality	Quantity		
SERIES 1	SERIES 2	SERIES 3	SERIES 4
50%	50%		
12%	12%	60%	40%
36%	54%	54%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	0%	0%
14%	17%	19%	7%

Water Service Planning Status Bar Legend



Water Services Infrastructure Average Total **14%**

Topic 9 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

9.1 Sources & Volumes

Interpret Station Assessment: Mafube utilises 4 Boreholes and obtains surface water from 5 sources. The licenced abstraction and supply was not provided.

Define Strategy: To determine and calculate the supply and requirements and assess any additional sources.

List Possible Projects: Determine, document, monitor and maintain abstractions.

9.2 Monitoring

Interpret Station Assessment: Currently there is almost no monitoring done at any level - this was also identified and highlighted in both the Blue and Green Drop reports. The status of the drinking water and waste water are both far below the acceptable standard. It is indicated that the monitoring points for both drinking water and effluent release are of an acceptable number.

Define Strategy: To address the management and monitoring aspects at all levels.
Identify the gaps in staff levels.

List Possible Projects: Implement good management principles and implement all monitoring procedures.
Provide / obtain training where required and allocate sufficient staff.

9.3 Water Quality:

Interpret Station Assessment: Mafube is responsible for the quality of the drinking water and effluent. Currently the quality on both pose a significant risk to the receiving environment and public health.

Define Strategy: To develop safety plans, good drinking water quality and effluent quality standards, monitoring principles. To prepare a Corrective Action Plan as identified and required by both the Green and Blue Drop.

List Possible Projects: Prepare and implement a Corrective Action Plan.

9.4 Wet Industries: Urban & Rural:

Interpret Station Assessment: No Wet Industries identified.

9.5 'Raw' Water Consumers: Urban & Rural:

Interpret Station Assessment: No 'Raw' water consumers identified.

9.6 Industrial Consumer Units for Sanitation: Urban & Rural:

Interpret Station Assessment: No Industrial consumers identified.

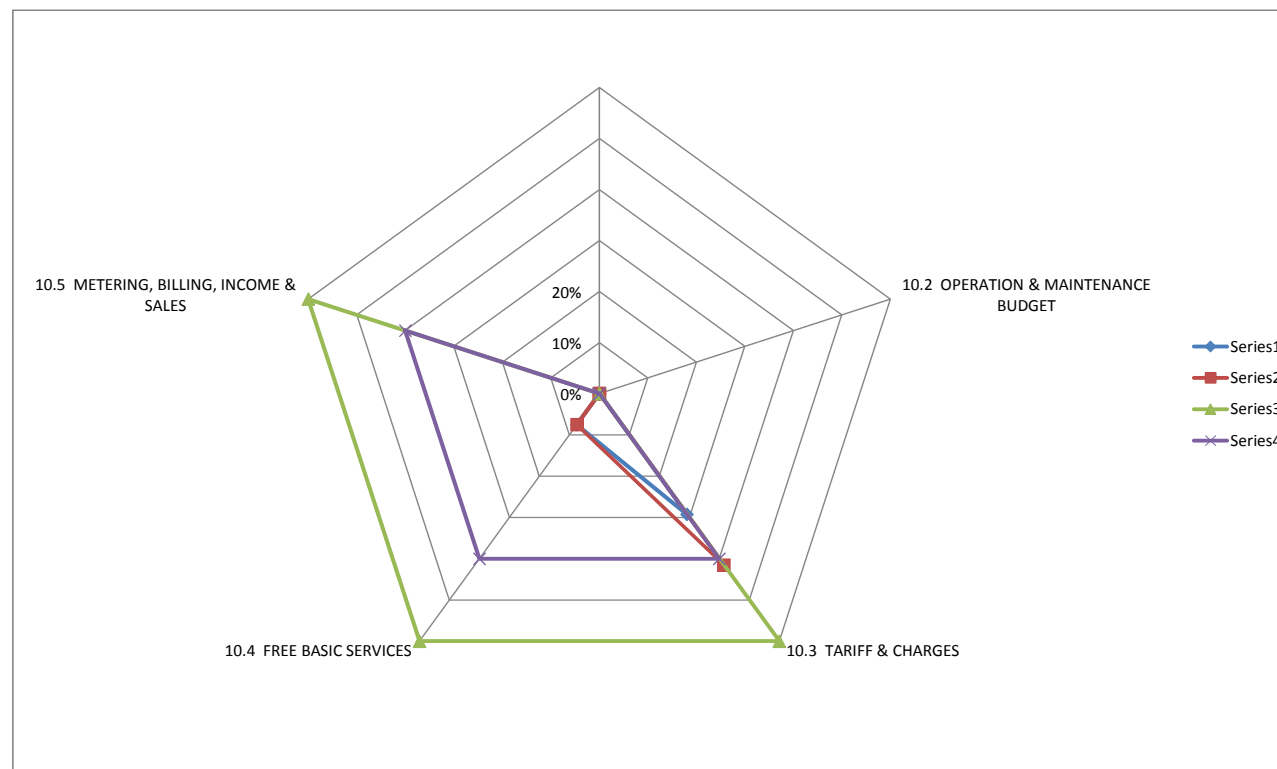
9.7 Industries and their permitted effluent releases:

Interpret Station Assessment: No Industries and permitted effluent releases identified.

WSDP Status Quo Knowledge Interpretation Report: Financial Profile (Topic 10)

- 10.1.2 CAPITAL EXPENDITURE
10.2 OPERATION & MAINTENANCE BUDGET
10.3 TARIFF & CHARGES
10.4 FREE BASIC SERVICES
10.5 METERING, BILLING, INCOME & SALES

Assessment		Future Plan Assessment	Strategy Assessment
Quality	Quantity		
SERIES 1	SERIES 2	SERIES 3	SERIES 4
0%	0%	0%	0%
0%	0%	0%	0%
29%	42%	60%	40%
8%	8%	60%	40%
0%	0%	60%	40%
7%	10%	36%	24%



Water Service Planning Status Bar Legend



Water Services Infrastructure Average Total

19%

Topic 10 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

10.1.2 CAPITAL EXPENDITURE:

Interpret
Situation
Assessment:

No breakdown of Capital expenditure was provided and available.

Define
Strategy:

It is recommended that a breakdown of expenditures is done for more effective management of funds.

List
Possible
Projects:

Establish a system where expenditure can be broken down further to assist with more effective budgeting and management.

10.2 OPERATION & MAINTENANCE BUDGET:

Interpret
Situation
Assessment:

The information was extracted by the PSP from the Statement of Capital and Operating Expenditure for the 4th Quarter, ending 30 June 2011.
It would appear as if no provision is made for O&M and depreciation. There also appears to be no provision for Municipal rates and services.

Define
Strategy:

To establish a breakdown and provision for all expenses.

List
Possible
Projects:

Implement a further breakdown of budgeted expenses.

10.3 TARIFF & CHARGES:

Interpret
Situation
Assessment:

Mafube has 5 block definitions. There is also no increase in tariff from last year in place. According to the available information there is no different tariff structure for Industrial. There is a different tariff structure, also with 5 block definitions in place for Commercial water and sanitation.

Define
Strategy:

Ensure tariffs are in line with the cost of water and effluent and regular increase in line with CPI. Although regular increases would be the norm, the affordability must be ensured and high users penalised.
To ring fence water sales revenue.

List
Possible
Projects:

Implement ring fencing of water sales revenue and investigate introducing water demand measures against excessive water use and water wastage.
Implement good cost recovery measures.

10.4 FREE BASIC SERVICES:

Interpret
Situation
Assessment:

Mafube has a Free Basic Services Policy in Place. Unfortunately the municipality did not provide any information on any of these questions.

Define
Strategy:

To maintain the indigent register for Free Basic Service delivery and ensure that the level of non-revenue water remains effective.

List
Possible
Projects:

Maintain an indigent register. Effective monitoring of non-revenue water.

10.5 METERING, BILLING, INCOME & SALES:

Interpret
Situation
Assessment:

The municipality provided no information with regards to Metering, Billing and Income.

Define
Strategy:

To ensure that all water users have meters and are billed.
To ensure that cost recovery is done effectively and to maintain a healthy debtors status.

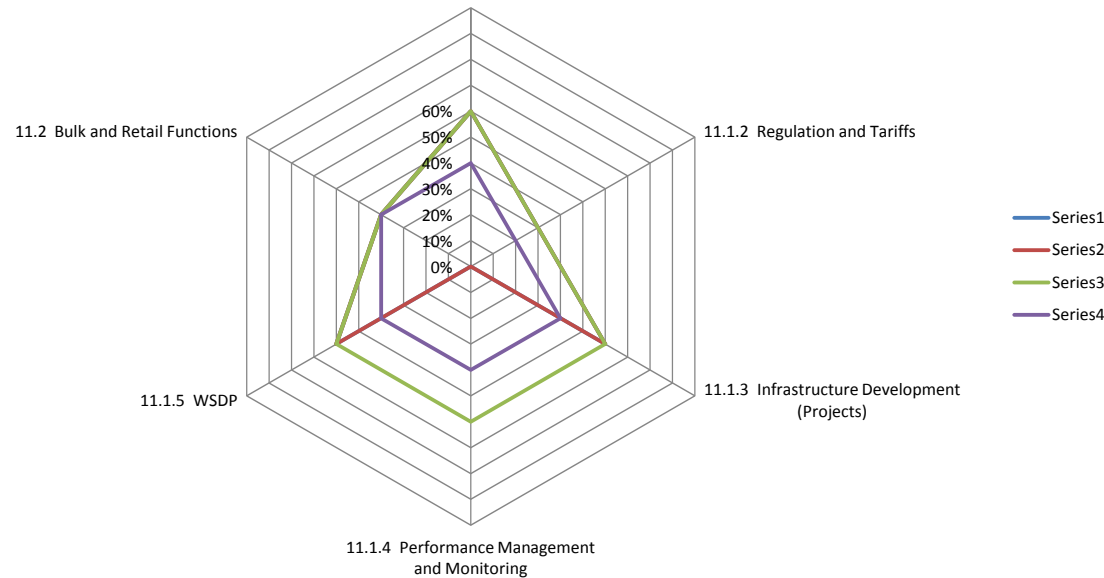
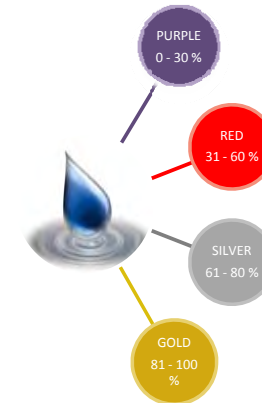
List
Possible
Projects:

Install meters in areas where they don't exist. Implement effective meter management.
Investigate and implement methods to improve debt collection.

11.1.1 Policy Development
 11.1.2 Regulation and Tariffs
 11.1.3 Infrastructure Development (Projects)
 11.1.4 Performance Management and Monitoring
 11.1.5 WSDP
 11.2 Bulk and Retail Functions

Assessment		Future Plan Assessment	Strategy Assessment
Quality	Quantity		
SERIES 1	SERIES 2	SERIES 3	SERIES 4
60%	60%	60%	40%
30%	30%	30%	20%
60%	60%	60%	40%
0%	0%	60%	40%
60%	60%	60%	40%
40%	40%	40%	40%
42%		52%	37%

Water Service Planning Status Bar Legend



Water Services Infrastructure Average Total **43%**

Topic 11 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

11.1.1 Policy Development

Interpret
Situation
Assessment

Mafube have all their required policies in place.

Define
Strategy

To ensure that policies are continuously maintained and improved and implemented.

List Possible
ProjectsEffective management of policies (i.e. Better debt collection).
Continuous maintenance and improvement of Policies.

11.1.2 Regulation and Tariffs

Interpret
Situation
Assessment

All Regulations and Tariffs appear to be in place.

Define
Strategy

To ensure that Regulations and tariffs are maintained, improved and implemented.

List Possible
Projects

Ensure effective management, implementation and maintenance of Regulations and Tariffs.

11.1.3 Infrastructure Development (Projects)

Interpret
Situation
Assessment

All Infrastructure development procedures appears to be in place.

Define
Strategy

To ensure that processes and mechanisms are continuously maintained, improved, implemented and adhered to.

List Possible
Projects

Ensure effective management, implementation and maintenance of mechanisms and procedures.

11.1.4 Performance Management and Monitoring

Interpret
Situation
Assessment

There is no Performance management and monitoring in place in Mafube.

Define
Strategy

To investigate Performance management and how to best implement in Mafube.

List Possible
Projects

Implement and monitor Performance Management.

11.1.5 WSDP

Interpret
Situation
Assessment

The FS province implemented P-Systems in all the Local Municipalities and all the mechanisms exist.

Define
Strategy

To ensure utilisation and ongoing monitoring of WSDP implementation.

List Possible
Projects

Effective management and implementation of WSDP requirements.

11.2 Bulk and Retail Functions

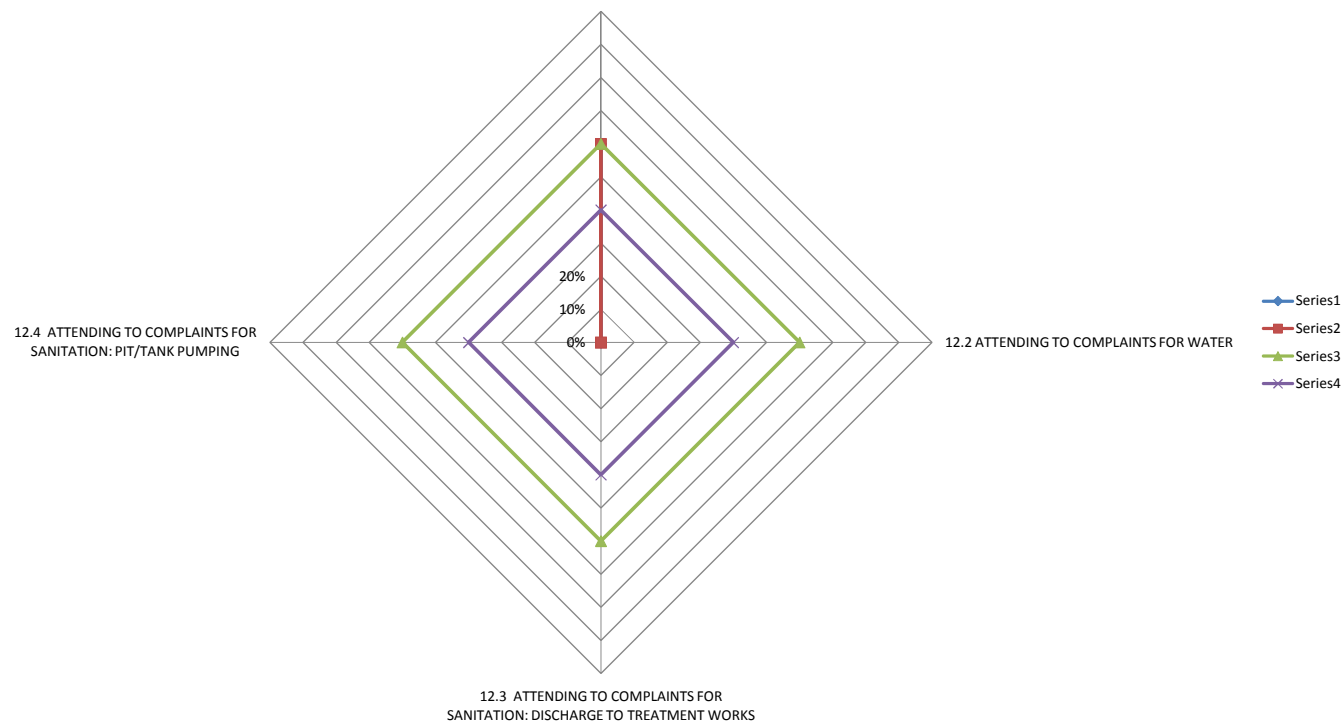
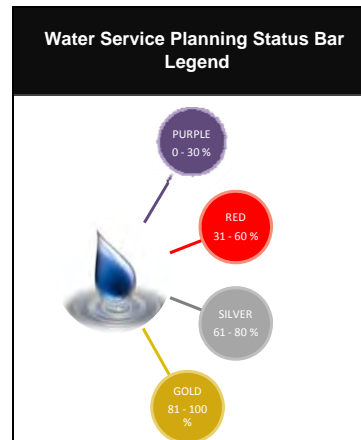
Interpret
Situation
AssessmentMafube is both the Service Authority and Provider. There are no other service agents, promoters or institutions utilised.
The Municipality omitted to provide all the information.Define
Strategy

Ensure effective Asset Management and O&M procedures as well as water monitoring and quality standards.

List Possible
ProjectsImplement, maintain and manage effective Asset Management and O&M procedures.
Maintain required Blue and Green Drop standards.

- 12.1 RESOURCES AVAILABLE TO PERFORM THIS FUNTION
- 12.2 ATTENDING TO COMPLAINTS FOR WATER
- 12.3 ATTENDING TO COMPLAINTS FOR SANITATION: DISCHARGE TO TREATMENT WORKS
- 12.4 ATTENDING TO COMPLAINTS FOR SANITATION: PIT/TANK PUMPING

Assessment		Future Plan Assessment	Strategy Assessment
Quality	Quantity		
SERIES 1	SERIES 2	SERIES 3	SERIES 4
60%	60%	60%	40%
0%	0%	60%	40%
0%	0%	60%	40%
0%	0%	60%	40%
15%	15%	60%	40%



Water Services Infrastructure Average Total **33%**

Topic 12 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

12.1 RESOURCES AVAILABLE TO PERFORM THIS FUNCTION

Interpret Situation Assessment:	Mafube indicated that they have budget and resources available to perform their Water and Sanitation functions.
Define Strategy:	Ensure effective management.
List Possible Projects:	Continuous monitoring of performance and pro-actively responding to deviations.

12.2 ATTENDING TO COMPLAINTS FOR WATER

Interpret Situation Assessment:	Mafube did not indicate any of the information for this question.
Define Strategy:	Ensure effective management, monitoring and improvement of services.
List Possible Projects:	Effectively manage and monitor and pro-actively responding to deviations and improvement

12.3 ATTENDING TO COMPLAINTS FOR SANITATION: DISCHARGE TO TREATMENT WORKS

Interpret Situation Assessment:	Mafube did not provide information on any of these questions.
Define Strategy:	Ensure effective management, monitoring and improvement of services.
List Possible Projects:	Effectively manage and monitor and pro-actively responding to deviations and improvement.

12.4 ATTENDING TO COMPLAINTS FOR SANITATION: PIT/TANK PUMPING

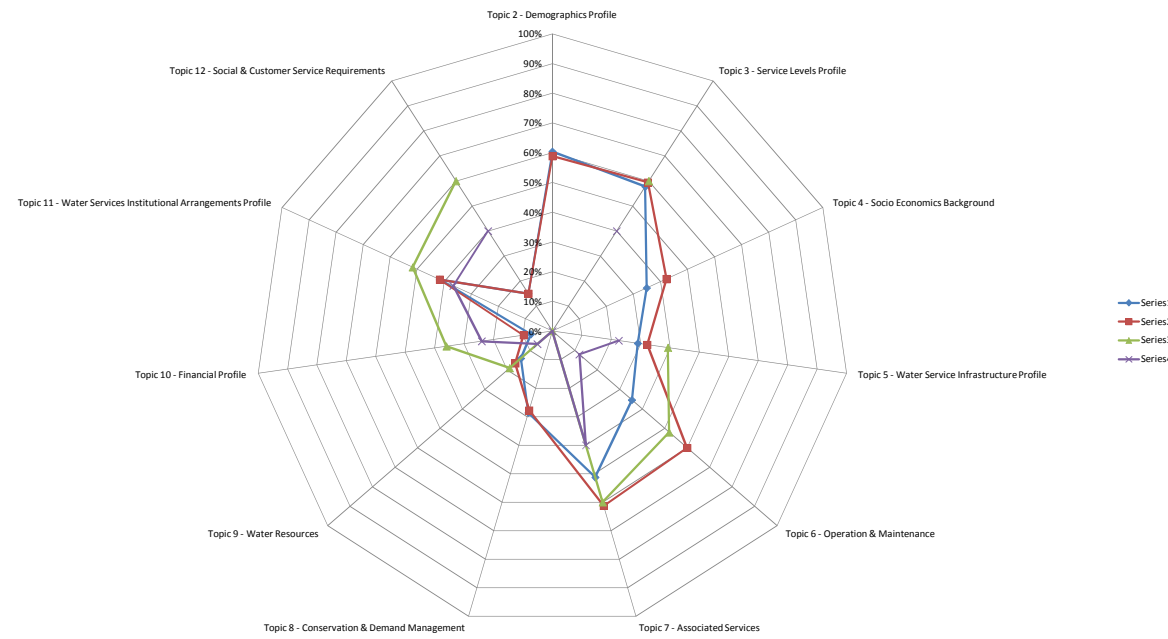
Interpret Situation Assessment:	Mafube did not provide information on any of these questions.
Define Strategy:	Ensure effective management, monitoring and improvement of services.
List Possible Projects:	Effectively manage and monitor and pro-actively responding to deviations and improvement.

WSDP Status Quo Knowledge Interpretation Report

Topic 2 - Demographics Profile
 Topic 3 - Service Levels Profile
 Topic 4 - Socio Economics Background
 Topic 5 - Water Service Infrastructure Profile
 Topic 6 - Operation & Maintenance
 Topic 7 - Associated Services
 Topic 8 - Conservation & Demand Management
 Topic 9 - Water Resources
 Topic 10 - Financial Profile
 Topic 11 - Water Services Institutional Arrangements Profile
 Topic 12 - Social & Customer Service Requirements

TOTAL AVERAGES OF TOPICS			
SERIES 1	SERIES 2	SERIES 3	SERIES 4
60%	59%		
58%	59%	60%	40%
35%	42%		
29%	32%	39%	23%
35%	60%	52%	12%
51%	61%	60%	40%
29%	28%	0%	0%
14%	17%	19%	7%
7%	10%	36%	24%
42%	42%	52%	37%
15%	15%	60%	40%
31%	37%	42%	25%

Water Services Infrastructure Average Total **34%**



Overall Water Services Planning Status Bar Legend

