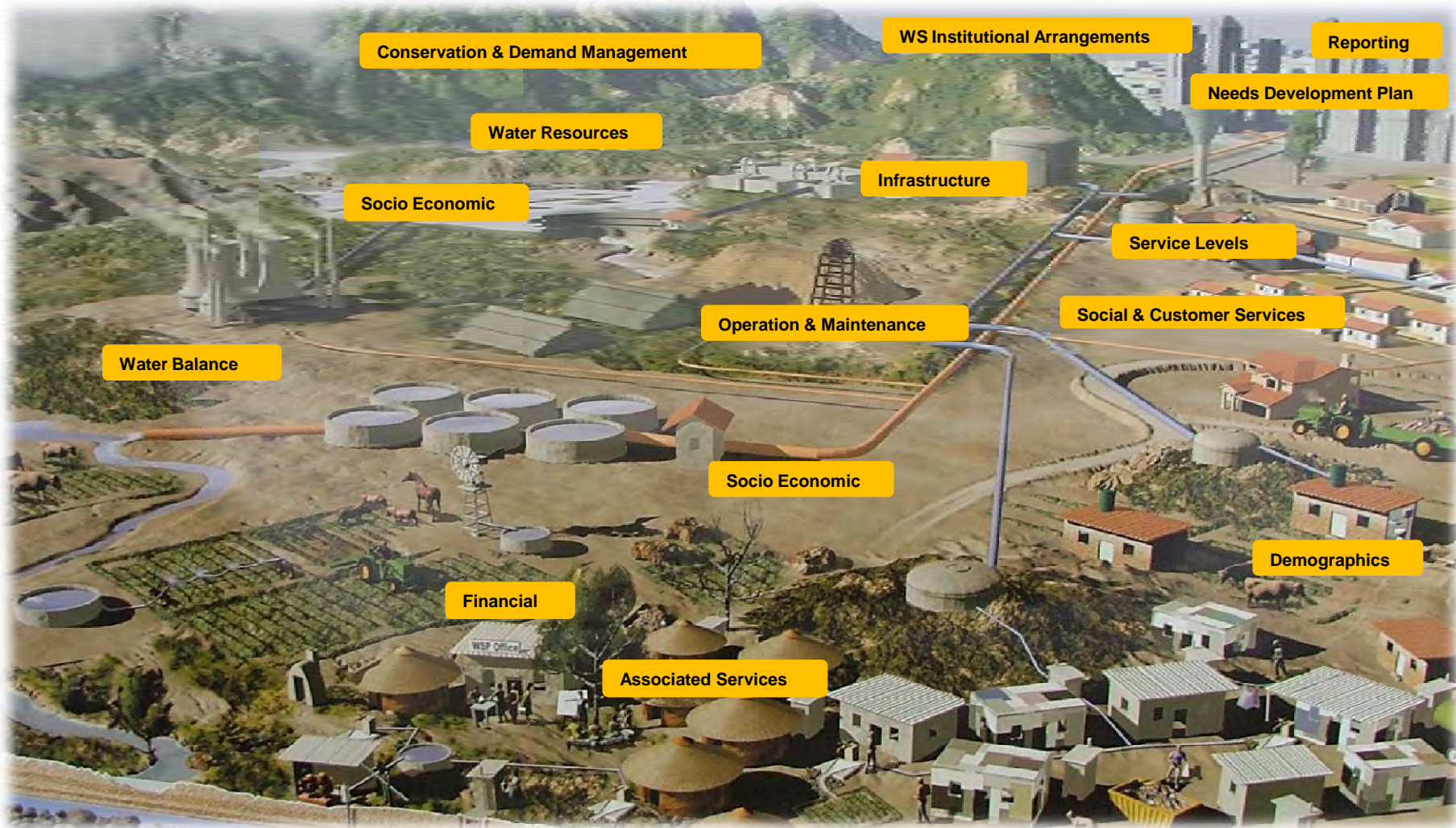


WATER SERVICES DEVELOPMENT PLAN

Moqhaka Local Municipality 2012

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



Document Date: FEBRUARY 2012



Water Services Development Plan Requirements

Council Approval Status

Knowledge
 Obtain an in-depth knowledge of overall WSA Water Services situation. Evaluate information. Identify gaps and shortcomings

Information
 Obtain detail information to address gaps identified in module 1. Incorporate into module 2

Strategies
 Obtain existing Plans & Strategies. Develop strategies identified as gaps in module 1. Incorporate into module 3

Development Plan

Reporting
 Extract to produce strategic overview & Interpretation Reports

Report to DWA
 Link reporting requirements to topics in

Inputs towards IDP & WSA Annual Business Plan

Module 1: Comprehensive Overview and Assessment
 All related enabling factors per water services topic listed in a tabular format to present an overall status quo of information on a WSA level. The section also references the enabling factors against Compliancy and Needs development plan criteria to provide an overall WSA WSDP assessment
 NB: This document should be completed on a pre-compiled electronic format available at www.dwa.gov.za and submitted as a data document, not image

Current Document

Module 2: Detail information on component level
 This module will provide detail information regarding the different topics as well as house all information regarding certain aspects within a topic.
Knowledge Base: Detail Geo-Database structure to house information that module 1 is build on
Knowledge Assessment: Report on completeness and correctness of data

In Process

Module 3: WSDP Index and Assessment per strategy:
 Development Planning Process Status Quo Assessment
 Executive Summary per strategy
WSDP Strategic Process Flow:
 Current Requirement Development Plans
 Future Requirement Development Plans
WS Component Strategy Plans
 Demographics, Service Levels, Socio Economic, WS Infrastructure, Operation & Maintenance, Associated Services, Conservation & Demand Management, Water Resources, Financial Profile, Water Services Institutional Arrangements, Social & Customer Service Requirements, Needs Development
Development Plan
 Total Execution Plan fore year 1,2 & 3

Status	Approval		
	Signature	Name	Date
In Process			
Completed			
Outstanding			
Approved			
Completed			
In Process			
In Process			
Completed			
In Process			
In Process			
Outstanding			

WSDP Status Quo Knowledge Interpretation Report
 Completed

Update Knowledge Base

THE WATER SERVICES BUSINESS

MOQHAKA LOCAL MUNICIPALITY

WSDP 2012

INDEX



WSDP TOPICS		Page Nr.
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What is the WSA's Vision & Mission Statement on Water Services?

Vision & Mission Statement:

Vision: To be a Municipality that creates enabling and safe environment for social economic growth and sustainable development
Mission: To maintain and enhance quality of life by providing effective, efficient and affordable services equitably and facilitating sustainable social economic growth through active community participation.



2
3
People
What are their needs regarding water?

Demographics	Total
Number of People	170601
Total Number of Settlements	7
Total Number People Urban	130298
Total Number People Rural	40303
Total Number of Settlements Urban	6
Total Number of Settlements Rural	1



Water Category	Water Need Description	Settlements	Population	Households
10	No Service			
7	Infrastructure Upgrade	3	94294	24178
7	Infrastructure Extension	3	17227	4306
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:	Stand Pipe			
Adequate:	Yard Connection			
Adequate:	House Connection	5	26636	6716
Informal Below	No Service			
Informal Adequate	Temporary Services Provided			

SALGA



What are their needs regarding sanitation?



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



Sanitation Category	Sanitation Need Description	Settlements	Population	Households
10	No Service			
7	Infrastructure Upgrade	3	17107	4079
7	Infrastructure Extension	3	10601	2524
7	Infrastructure Refurbishment	3	14905	3822
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	5	86485	21806
Adequate:	Waterborne Low Flush			
Adequate:	Septic Tanks / Conservancy			
Adequate:	Non-Waterborne	4	19837	4850
Informal Below	No Service			
Informal Adequate	Temporary Services Provided			

2

3

Water sources	Number of sources	Current abstraction (MI/Dav)	Licensed abstraction (MI/Dav)
Groundwater	18		
Surface Water	6	17057	
External Sources (Bulk purchase)			
Water returned to resources			
How much water is re-used (Recycled Water)	0	0	0

9

4. Water & Sanitation Infrastructure?

5

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	3
Total bulk pipeline km.	187
Total Number reservoirs	17
Total Number pump stations	36
Total Number of Water Treatment Works	3
Total Number of Waste Water Treatment Works	4

5. How sufficient is our Operation & Maintenance:

6

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?



The general condition of WWTW	Total
1. Estimated cost to Upgrade	R 214 000 000.00
2. Estimated cost to Refurbish	R 11 180 000.00
3. Existing Budget	R 11 180 000.00

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

Define the Problem

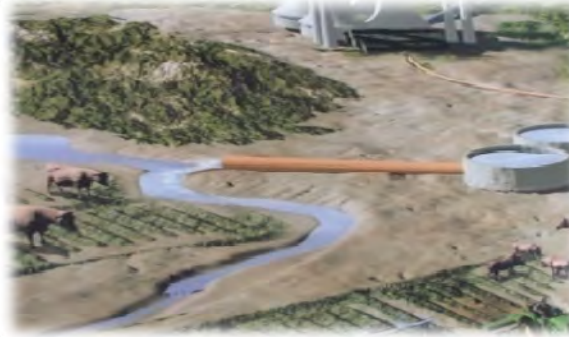
One of the prominent problems in the Municipality is the shortage of funds, lack of skill and technical staff. This municipality generally operates on crisis management with no water balance or WDM strategy in place. At present the chief priority for the personnel is to provide water for the consumers, and there appears to be no capacity or funds for much else. New posts are available, but not posted. O&M is performed, but not where needed. There is also a lack of equipment to perform tasks and there are no operating standards for the reservoirs in the towns and the reservoirs are operated purely on experience.

Statement on Pollution and Effluent Release

There are currently no WCWDM activities and/or plans or and active leakage control programme in place. Effluent is either treated and used for irrigation or discharged into the Vals River or a wetland.



6. Do I pollute my environment



Topic 8: Conservation & Demand Management

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

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 38 994 919.00
Is the budget enough to eradicate backlog and maintain the WS infrastructure? (Yes/No)	N
Shortfall:	R 3 500 000.00

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	9
Sufficient to eradicate backlog: (Yes/No)	N
Total Allocated Funds (Rm)	241

PROJECT NAME	Total Funds on Budget for Project	PROJECT NAME	Total Funds on Budget for Project
ACTIVE PROJECTS : MIG2011/2012 ; RBIG ; ACIP			
Kroonstad and Viljoenskroon:Upgrade Treatment Plants-Ph 2	R 3 350 000.00	Rammulotsi old GMS to be replaced	R 1 500 000.00
Matlwangtlwang: Lining of oxidation ponds phase 2	R 1 425 814.00	Matlwangtlwang add storage (600 stands possible)	R 1 600 000.00
Maokeng: Rehabilitation of main collector sewers	R 5 000 000.00	Kroonstad: Rehabilitation of pipeline-17.5km pipeline	R 10 653 477.00
Northleigh: Sewer netwk 4000 new res erf -42.4km main outflw ln	R 72 000 000.00	Rep of valves , Installing new meters, Rep faulty metres	R 8 000 000.00
Moqhaka:WTW (Kroonstad)	R 6 600 000.00		
Moqhaka Bulk Water Supply	R 130 000 000.00		
Constantia & Brentpark: Inst of Wet Services for 670 erven	R 6 030 000.00		
Moqhaka: Inst wet service 670 new erven	R 7 398 344.00		
Kroonstad, Viljoenskroon,Steynsrus: Rehab,upgrade puri plants	R 9 368 909.00		
CONCEPTUAL & AWAITING FUNDING PROJECTS			
Rammolotsi: Building of 650 toilet structures on existing slabs	R 2 021 052.00		
Moqhaka: Construction of toilet structures	R 2 200 000.00		
Matlwangtlwang:Upgrade VIPÆs to waterborne developed	R 32 000 000.00		
Bucket Eradication : 20 Matlwangtlwang	R 800 000.00		
Moqhaka:Rehabilitation of Sewage System	R 5 000 000.00		
Rammolotsi: Upgrade bulk sewerage infra for pumpstation	R 800 000.00		
Upgrading of Sewerage Network - Seeisoville / Marabastad	R 1 725 000.00		
Replacing of main outfall sewer line in Kroonstad	R -		
Northleigh:Sewer netwk 2200 new res erf -42.4km main outflw ln	R -		
Northleigh:Sewer netwk 2000 new res erf-42.4km main outflw ln	R -		
Moqhaka Municipality:San Internal Bulk Ref (group est)	R 78 502 000.00		
Matlwangtlwang: Constr of sewer outfall -1.15km outflow ln	R 1 970 664.00		
Upgrading of Kroonstad & Viljoenskroon WWTW phase 2	R 3 350 000.00		
Kroonstad & Viljoenskroon: Refurbishment of the WWTW ph 3	R 2 587 004.70		
Viljoenskroon 5-6 diam sewer line 160 diam	R 1 375 000.00		
Kroonstad STP not before 2010 (12 MI)	R 17 543 860.00		
Part of GW Development in Steynsrus	R 9 100 000.00		
Moqhaka Municipality - Water Internal Bulk Ref (group est)	R 61 680 000.00		
Relocation, upgrading 700m bulk water pipeln to Phomolong	R 2 756 400.00		
Viljoenskroon: Augmentation of water supply to the ind area	R 1 833 428.00		
10 MI reservoir in Maokeng	R 8 000 000.00		

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

Urban versus Rural Backlogs

Rural backlogs at this stage not looked at. All backlogs pertain to the urban areas.

Reliance on Water Resources available and Bulk Infrastructure

Crisis in Steynsrus and Viljoenskroon with major water shortages. In Steynsrus shortages due to increase in demand and the installation of waterbourne sanitation. Vips was replaced with waterbourne. Viljoenskroon due to higher demand.

Links between Water Supply & Sanitation

Crisis in Steynsrus and Viljoenskroon with major shortages. In Steynsrus shortages due to increase in demand and the installation of waterbourne sanitation. Vips was replaced with waterbourne. Viljoenskroon due to higher demand. With new erven being planned (4200 erven) the Waste treatment plant will not be sufficient and capacity will have to be increased.

Limited Implementation & Operating Capacity in Some Municipalities

Staffing is inadequate , budget restraints and skill amongst workers are concerns. New posts available but not posted. Operation and maintenance is performed but at this stage not where it is supposed to be. Also lack of equipment to perform tasks.

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

Available Funding

Operation and Maintenance budgets is available but not sufficient on all aspects of water. Funding for capital projects to attend to critical failures insufficient.

Affordability of Service Levels (O&M Costs)

Within acceptable standard. No issues.

Growing Backlog in Refurbishment of Existing Infrastructure

Due to capital funding not available for critical failures impact on infrastructure. Infrastructure aged and outdated and major refurbishment required such as replacement of AC pipes with new PVC pipes.

Major Economic Development

No new major economic development that will affect the water usage or the water quality.

Associated Population Growth & Water Demand

Problems in Steynsrus and Viljoenskroon due to the growth of the communities. This and the fact that the sanitation has been upgraded to waterbourne in Steynsrus creates huge water shortages in these areas. Kroonstad has positive growth but water is sufficient. No demand management programme in place but study was done 5 years ago that is being used for planning which is partially implemented.

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



OVERALL QUANTITY ASSESSMENT		68%	60%	41%	42%	50%	48%		27%	56%	17%	41%	60%	
OVERALL QUALITY ASSESSMENT		67%	60%	34%	35%	30%	40%		27%	54%	16%	41%	56%	

MOQHAKA LOCAL MUNICIPALITY

Status Tracking of WSDP

Status	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5		YEAR 6	
	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	Mr. MS Mqwathi	056 216 9378	056 216 9105	083 331 6413	mms@moqhaka.gov.za		
Executive Mayor	Mr. J Mohapi	056 216 9102	056 216 9145	083 627 2923	execmayor@moqhaka.gov.za		
Water services Councillor	Mr. P Thipane	056 216 9108	056 216 9145	073 819 7866			
WSDP Contact	Mr. H. Rautenbach	056 216 9255	056 216 9123	083 534 4274	hennie@moqhaka.gov.za		
IDP Manager	Mr T Leie	056 343 9400	056 343 2505	072 573 3782			
PIMSS Senior Planner							
Technical Services	Mr. TM Lelaka	056 216 9121	056 216 9123	083 619 1942	rentia@moqhaka.goc.za		
Treasurer	Mr. MP Mokoena	056 216 9141	056 216 9146	082 821 4682	monahengm@moqhaka.gov.za		
WSDP Data Custodian	Mr. H. Rautenbach	056 216 9255	056 216 9123	083 534 4274			
WSDP Custodian	Mr. H. Rautenbach	056 216 9255	056 216 9123	056 216 9123	hennie@moqhaka.gov.za		
Data official							
Acting Mayor							
Acting Municipal Manager							
PMU Manager	Me CP Botha(Coordinator)	056 216 9228	056 216 9123	056 216 9123	petro@moqhaka.gov.za		
Chief Financial Officer	Mr. MP Mokoena	056 216 9141	056 216 9146	082 821 4682	monahengm@moqhaka.gov.za		
Acting Chief Financial Officer							
Mayor							
Housing	Mr. H Nhlapo	056 216 9310	056 216 9117	056 216 9117	almarie@moqhaka.gov.za		
Environmental	Me MC Sepheka	056 216 9150	056 216 9308		soso@moqhaka.gov.za		
Infrastructure	Mr. TM Lelaka	056 216 9121	056 216 9123	083 619 1942	rentia@moqhaka.goc.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	80%	Main source of income.
Mining	80%	De Beers mining contributes towards projects in the area, i.e. Roads, etc. They have their own sewerage works and their is on-going interaction.
Tourism	75%	Their is considerable tourism in the area and ongoing interaction.
Other 1:	80%	Premier Foods has a large mill in the area and a very good relationship exists. There are talks about a large bakery. There are also a number of Abbatoirs
Other 2:		
Other 3:		
Other 4:		

Comments

SETTLEMENT DEMOGRAPHICS

Assessment

Assessment

* 2.1	Total Population	170601
* 2.2	Total number of households	43015
* 2.3	Average household size	3.93

Quality: Information Accuracy Assessment

Quantity: Assessment of Information Completeness

2.4 Settlement Type		Number of settlements	Population per settlements type	Assessment	Assessment
Farming	Farming	1	40303	60%	60%
Urban	Metropolitan Area			80	80
	Urban - Formal Town	3	27405	60	60
	Urban - Former Township	3	102894	60	60
	Urban - Informal Settlements (Squatter Camp)			80	80
	Working Towns & Service Centres - Mines, Prisons etc.			80	80
	Urban	6	130299	72%	72%
Rural	Rural - Dense Village > 5000			80	80
	Rural - Small Village <= 5000			80	80
	Rural Scattered			80	80
	Rural Scattered Dense			80	80
	Rural Scattered Low Density			80	80
	Rural Scattered Very Low Density			80	80
	Rural - Informal Settlements (Squatter Camp)			80	80
Rural	0	0	80%	80%	

Comments

Even with Kroonstad as the 3rd largest town area in the FS, all the CBDs in the Moqhaka are all visibly small and surrounded by urban free-standing housing and extensive lower-income housing. The Towns are largely formally laid out and no evidence of informal dwellings on the fringes. The Department of Correctional Services and the School of Engineers Military bases are situated in Kroonstad, hence the population of Kroonstad would regularly fluctuate depending on the intake by these institutions at every season. The Viljoenskroon/Rammulotsi urban unit, is located within an area of extreme agricultural significance and industrial complex of which Senwes are established in the Viljoenskroon industrial area. The Town Area plays a significant role in providing residential opportunities to the adjacent Goldfields and other mining activities in the North West Province.

Public Amenities Consumer Types

2.5 Social Services type	No. of facilities	Area (Ha)	Assessment	Assessment
Police Stations	5		70	80
Magisterial Offices	3		70	80
Schools	124		70	80
Health Facilities	19		70	80
Prisons	4		70	80
Industries	2		70	80
Mining	12		70	80
Resorts and tourism			0	0
Agriculture dry land		332592	60	60
Agriculture irrigation		1177	60	60
Agr. Intensive livestock/grazing		678916	60	60
Agr. Extensive livestock/grazing		0	60	60
Conservation areas			0	0
TOTAL			56%	62%

OVERALL QUALITY ASSESSMENT

67%

OVERALL QUANTITY ASSESSMENT

68%



Topic 3: Service Levels Profile

Enabling Factors							Needs Development Plan														
3.1 SETTLEMENT WATER SERVICE LEVEL DEFINITIONS							ASSESSMENT	ASSESSMENT	Future plan (to address issues)						Strategy						
									Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT		
									1	3	5	N	RDP	Higher Level	Growth & Development						
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. 1.Network: too small pipes, 2.Storage: Add to exist / elevation 3.Source: Infra to increase exist yield	7 8 9	3	111521	28484	60	60	y	y	y	y		y	y	y	60	y	n	40	
	Infrastructure Extension	Communities have grown structurally and there are households that do not have water : TOTAL 1.Network: new infra 2.Storage: new & adjacent																			
	Infrastructure Refurbishment	Water can be restored to RDP by: Repair/Replace with same existing infra (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				3	111521	28484	60%	60%							60%			40%			
- ADEQUATE	StandPipe	Adequate Infra	1 (C) / 3		5918	1414	60	60	y	y	y	y		y	y	y	60	y	n	40	
	Yard Connection	Adequate Infra	1 (B) / 3	6	113563	28890	60	60	y	y	y	y		y	y	y	60	y	n	40	
	House Connection	Adequate Infra	1 (A) / 3		45072	11271	60	60	y	y	y	y		y	y	y	60	y	n	40	
TOTAL FORMAL ADEQUATE				6	164553	41575	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				3	111521	28484	61%	61%							30%			20%			
TOTAL ADEQUATE				6	164553	41575	61%	61%							30%			20%			



Enabling Factors

Needs Development Plan

3.2 SETTLEMENT SANITATION SERVICE LEVEL DEFINITIONS

Quality: Information Accuracy Assessment

Quantity: Assessment of Information Completeness

DEFINITION	CLASSIFICATION	DESCRIPTION	CATEGORY	SETTLEMENTS	POPULATION	HOUSEHOLDS	%	%	Future plan (to address issues)										Strategy		
									Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT		
									1	3	5	N	RDP	Higher Level	Growth & Development					In place?	Sufficient
Y / N / NA										%	Y / N	%									
FORMAL	No Service	Whole community never had any formal (municipal) sanitation supply system.	10				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	3	42612	10424	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																			
	- BELOW	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	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				3	42612	10424	60%	60%								60%			40%		
- ADEQUATE	Waterborne	Adequate Infra	1 (A) / 3	5			60	60	y	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	y	60	y	n	40	
	Septic Tanks / Conservancy	Adequate Infra	1 (C) / 3				60	60	y	y	y	y		y	y	y	60	y	n	40	
	Non Waterborne (VIP)	Adequate Infra	1 (D) / 3				60	60	y	y	y	y		y	y	y	60	y	n	40	
TOTAL FORMAL ADEQUATE				5	142816	36392	60%	60%								60%			40%		
INFORMAL	- BELOW	No Services	Permanent Housing must be provided	4			60%	60%	y	y	y	y		y	y	y	60%	y	n	40%	
	- ADEQUATE	Temporary Services Provided	Permanent Housing must be provided	2			60%	60%	y	y	y	y		y	y	y	60%	y	n	40%	
TOTAL NEED				3	42612	10424	60%	60%								60%			40%		
TOTAL ADEQUATE				5	142816	36392	60%	60%								60%			40%		



Enabling Factors		Compliance		Needs Development Plan			
		Status Quo		Future plan (to adress issues)		Strategy	
OVERALL TOPIC ASSESSMENT		ASSESSMENT	ASSESSMENT	ASSESSMENT	ASSESSMENT		
Quality: Information Accuracy Assessment							
Quantity: Assessment of Information Completeness							
3.1 SETTLEMENT WATER SERVICE LEVEL DEFINITIONS							
CATEGORY 10	- NO SERVICES (FORMAL)	60%	60%	60%		40%	
CATEGORY 7	- INFRASTRUCTURE UPGRADE, EXTENSION & REFURBISHMENT	60%	60%	60%		40%	
CATEGORY 6	- O&M NEED	60%	60%	60%		40%	
CATEGORY 4	- NO SERVICES (INFORMAL)	60%	60%	60%		40%	
3.2 SETTLEMENT SANITATION SERVICE LEVEL DEFINITIONS							
CATEGORY 10	- NO SERVICES (FORMAL)	60%	60%	60%		40%	
CATEGORY 7	- INFRASTRUCTURE UPGRADE, EXTENSION & REFURBISHMENT	60%	60%	60%		40%	
CATEGORY 6	- O&M NEED	60%	60%	60%		40%	
CATEGORY 4	- NO SERVICES (INFORMAL)	60%	60%	60%		40%	
3.3 RESIDENTIAL, PUBLIC INSTITUTIONS AND INDUSTRIES		60%	60%	60%		40%	
				NEEDS DEVELOPMENT PLAN ASSESSMENT			
				Future plan	60%		
					Strategy		40%
COMMENTS				OVERALL QUANTITY ASSESSMENT		60%	
				OVERALL QUALITY ASSESSMENT		60%	

Topic 4: Socio Economic Background

Socio Economics

Quality of Information Assessment

Quantity: Assessment of Information Completeness

4.1 General				4.5 Household income						
4.1.1 Present population	170601	60	60	Definition of poor household by the municipality	% Population		0	0		
4.1.2 Current population growth rates	0.006	20	60		0%					
4.1.3 Projected Population growth rate: 5 years	0.006	20	60							
4.1.4 Projected Population growth rate: 10 years	0.006	20	60							
		30%	60%							
4.2 Age and gender Profile				§ Monthly household Income (as per StatsOnline)						
4.2.1 Permanent resident population	170601	60	60	o R1 - R400	16613	50	60			
4.2.2 Aged Residents (>65yrs)	9499	50	60	o R401 – R800	19965	50	60			
4.2.3 Youth Residents (<18yrs)	64899	50	60	o R801 – R1600	8428	50	60			
4.2.4 Male Residents	84972	50	60	o R1601 or more	17417	50	60			
4.2.5 Female Residents	85628	50	60	o Collective living Quarters		0	0			
		52%	60%							
4.3 Employment Profile				Water Affordability (Population not able to afford water)						
4.3.1 Eligible Workforce (19 – 65 yrs)	42442	50	60	o Typical monthly Water Bill			0	0		
4.3.2 Permanent residents – without jobs	28228	50	60	o Average % of monthly income	0%		0	0		
4.3.3 Permanent farm workers	16121	50	60	Sanitation Affordability (Population not able to afford sanitation)			0	0		
4.3.4 Permanent Industry workers	1378	50	60	o Typical monthly Sanitation Bill			0	0		
4.3.5 Professional workers	0	0	0	o Average % of monthly income	0%		0	0		
		40%	48%					21%	25%	
4.4 Demographic trends and migration patterns				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		
				Agriculture, Forestry & Fishing	50%	9260			50	40
4.4.1 Permanent resident population	170601	60	60	Mining	28%	5148			50	40
4.4.2 Peak daily labour migration (-) out / (+) in	0	0	0	Manufacturing	16%	3072			50	40
4.4.3 Peak long-term labour migration (-) out / (+) in	0	0	0	Electricity, Gas & Water	0%	0			50	40
4.4.4 Permanent population changes (-) out / (+) in	0	0	0	Construction	6%	1194			50	40
4.4.5 Holiday Population	0	0	0	Insurance	0%	0			50	40
		12%	12%	Finance	0%	0			50	40
				Comments				50%	40%	
				The high number of population below the age of 18 will become a major challenge in future in terms of provision of employment. The average income levels are also very low						
				OVERALL QUALITY ASSESSMENT				34%		
				OVERALL QUANTITY ASSESSMENT					41%	

Topic 5: Water Services Infrastructure Profile

Enabling Factors	Compliance												Needs Development Plan																										
	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	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT															
														1	3	5	N	RDP	Higher Level	Growth & Development					In place?	Sufficient													
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	Y / N / NA												Y / N / NA					%		Y / N		%																	
													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													
													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													
													80	40	60	y	y	y	y		y	y	y	60	y	n	40												
Sub Topic 5.3 Compliancy & Needs Development Plans Assessment												28%	40%						56%			37%																	
5.4 Functionality	5.4.1 General physical condition (D: Dysfunctional, O: Operational, P: Prime Condition, V: Vandalised)												O	O	O	O	O	O	O	O	O	O	O	O	50	60	y	y	y	y		y	y	y	60	y	n	40	
	5.4.2 Number of breakages / failures per year												8	4	6	15	25	150	5	0	1451	2346			40	60	y	y	y	y		y	y	y	60	y	n	40	
	5.4.3 Total refurbishment needs %												2	40	25	20	50	10	35	10	5	20	25			40	60	y	y	y	y		y	y	y	60	y	n	40
	5.4.4 Total refurbishment needs cost (RM)												0.01	5	8	1.5	2.5	8.5	11	5	5	5	4			40	60	y	y	y	y		y	y	y	60	y	n	40
	5.4.5 Total replacement needs %												2	15	25	5	35	77	5	60	70	15	8			30	60	y	y	y	y		y	y	y	60	y	n	40
	5.4.6 Total replacement needs cost (RM)												0.04	3	15	2.5	3.8	45	3	80	75	10	8			40	60	y	y	y	y		y	y	y	60	y	n	40
	Sub Topic 5.4 Compliancy & Needs Development Plans Assessment														40%	60%						60%			40%														
5.5 Institutional Status	5.5.1 % Whereoff the WSA Self is the Current Owner												100	100	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												100	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)													760	69.4	850	450			79			25	40	50	y	y	y	y		y	y	y	60	y	n	40		
	Comments	Detailed investigation needs to be undertaken to determine the feasible options to augment the raw water requirements. The sources all appears to be licenced. The capacity of the WWTW seems sufficient at this stage. During peak period, however, the water purification works in Viljoenskroon is operated at its capacity. Water shortages are experienced in certain areas.																																					



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

Enabling Factors	Compliance											Needs Development Plan														
	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							
															Short (1)	Medium (3)	Long (5)	None	RDP	Higher Level	Growth & Development	ASSESSMENT	In place?	Sufficient	ASSESSMENT	
Y / N / NA											%	%	Y / N / NA				%	Y / N	%							
Quality: Information Accuracy Assessment																										
Quantity: Assessment of Information Completeness																										
5.7.2 Pipe material (Most common)	Water Pipeline:	AC										20	60													
	Sewer Pipeline:	AC										20	60													
5.7.3 How much capacity is still available for development? (%)												0	0	y	y	y	y		y	y	y	60	y	n	40	
5.7.4 Design Capacity - Hydraulic Load (Ml/day)												25	40	40	y	y	y	y		y	y	y	60	y	n	40
5.7.5 Design Capacity - Organic Load (COD kg/day)												0	0	y	y	y	y		y	y	y	60	y	n	40	
Sub Topic 5.7 Compliancy & Needs Development Plans Assessment												20%	35%					60%			40%					

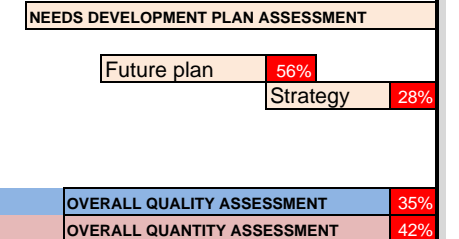
Comments

The distribution network consists of asbestos cement and uPVC pipelines, ranging in size from 63mm dia to 600mm dia. The conditions of the asbestos pipelines are poor and needs to be replaced, not only to curb water losses but also to comply with legislation regarding asbestos.

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

37%	40%
60%	60%
28%	40%
40%	60%
60%	60%
0%	0%
20%	35%



Topic 6: Operation & Maintenance

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				
		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	1	3	5	N	*	*	*	%	Y / N	%	
Quality: Information Accuracy Assessment										Y / N / NA						%	Y / N	%		
Quantity: Assessment of Information Completeness																%	Y / N	%		
* 6.1 IS THERE A OPERATION & MAINTENANCE PLAN? (Y / N):																%	Y / N	%		
6.2 WATER SERVICES INFRASTRUCTURE: OPERATIONAL& MAINTENANCE ASSESSMENT																				
6.2.1 Resources																				
6.2.1.1 Existing Groundwater Infrastructure		: OPERATION	1 M	2 M	2 M	1 M	2 C	30	60	y	y	y	y	y	y	y	60	y	n	40
		: MAINTENANCE	2 M	2 M	2 M	2 M	2 C	40	60	y	y	y	y	y	y	y	60	y	n	40
6.2.1.2 Existing Surface water Infrastructure		: OPERATION	2 M	2 M	2 M	1 M	2 C	40	60	y	y	y	y	y	y	y	60	y	n	40
		: MAINTENANCE	2 M	2 M	2 M	2 M	2 C	40	60	y	y	y	y	y	y	y	60	y	n	40
6.2.1.3 Existing Waste Water Treatment Works Infrastructure		: OPERATION	1 M	2 M	1 M	1 M	2 C	30	60	y	y	y	y	y	y	y	60	y	n	40
		: MAINTENANCE	2 M	3 C	2 M	2 M	2 C	45	60	y	y	y	y	y	y	y	60	y	n	40
6.2.1.4 Existing Water Treatment Works Infrastructure		: OPERATION	1 M	2 M	2 M	1 M	2 C	40	60	y	y	y	y	y	y	y	60	y	n	40
		: MAINTENANCE	2 M	3 C	2 M	2 M	2 C	45	60	y	y	y	y	y	y	y	60	y	n	40
6.2.1.5 Existing Pump Station Infrastructure		: OPERATION	1 M	2 M	1 M	1 M	2 C	30	60	y	y	y	y	y	y	y	60	y	n	40
		: MAINTENANCE	2 M	2 M	2 M	2 M	2 C	40	60	y	y	y	y	y	y	y	60	y	n	40
6.2.1.6 Existing Bulk Pipeline Infrastructure		: OPERATION	2 M	2 M	2 M	1 M	2 C	40	60	y	y	y	y	y	y	y	60	y	n	40
		: MAINTENANCE	2 M	2 M	2 M	2 M	2 C	45	60	y	y	y	y	y	y	y	60	y	n	40
6.2.1.7 Existing Tower & Reservoir Infrastructure		: OPERATION	2 M	2 M	1 M	1 M	2 C	40	60	y	y	y	y	y	y	y	60	y	n	40
		: MAINTENANCE	2 M	2 M	2 M	2 M	2 C	45	60	y	y	y	y	y	y	y	60	y	n	40
6.2.1.8 Existing Reticulation Infrastructure		: OPERATION	1 M	2 M	1 M	1 M	2 C	35	60	y	y	y	y	y	y	y	60	y	n	40
		: MAINTENANCE	2 M	2 M	2 M	2 M	2 C	45	60	y	y	y	y	y	y	y	60	y	n	40
Sub Topic 6.2.1 Compliancy & Needs Development Plans Assessment								39%	60%							60%		40%		

COMMENTS



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				
								1	3	5	N	RDP	Higher Level	Growth & Development								
																			Short (1)			
																			Medium (3)			
S	I	S	I	S	I	S	I					*	*	*								

6.2.2 Information

6.2.2.1 Existing Groundwater Infrastructure	: OPERATION	1	M	2	M	2	M	1	L	2	M	35	60	y	y	y	y	y	y	y	60	y	n	40	
	: MAINTENANCE	2	M	2	M	2	M	1	M	2	M	40	60	y	y	y	y	y	y	y	60	y	n	40	
6.2.2.2 Existing Surface water Infrastructure	: OPERATION	1	M	2	M	2	M	1	L	2	M	40	60	y	y	y	y	y	y	y	60	y	n	40	
	: MAINTENANCE	2	M	2	M	2	M	1	M	2	M	40	60	y	y	y	y	y	y	y	60	y	n	40	
6.2.2.3 Existing Water Treatment Works Infrastructure	: OPERATION	1	M	2	M	2	M	1	L	2	M	40	60	y	y	y	y	y	y	y	60	y	n	40	
	: MAINTENANCE	2	M	2	M	2	M	1	M	2	M	40	60	y	y	y	y	y	y	y	60	y	n	40	
6.2.2.4 Existing Waste Water Treatment Works Infrastructure	: OPERATION	1	M	2	M	2	M	1	L	2	M	35	60	y	y	y	y	y	y	y	60	y	n	40	
	: MAINTENANCE	2	M	2	M	2	M	1	M	2	M	40	60	y	y	y	y	y	y	y	60	y	n	40	
6.2.2.5 Existing Pump Station Infrastructure	: OPERATION	1	M	2	M	2	M	1	L	2	M	35	60	y	y	y	y	y	y	y	60	y	n	40	
	: MAINTENANCE	2	M	2	M	2	M	1	M	2	M	40	60	y	y	y	y	y	y	y	60	y	n	40	
6.2.2.6 Existing Bulk Pipeline Infrastructure	: OPERATION	1	M	2	M	2	M	1	L	2	M	35	60	y	y	y	y	y	y	y	60	y	n	40	
	: MAINTENANCE	2	M	2	M	2	M	1	M	2	M	40	60	y	y	y	y	y	y	y	60	y	n	40	
6.2.2.7 Existing Tower & Reservoir Infrastructure	: OPERATION	1	M	2	M	2	M	1	L	2	M	35	60	y	y	y	y	y	y	y	60	y	n	40	
	: MAINTENANCE	2	M	2	M	2	M	1	M	2	M	40	60	y	y	y	y	y	y	y	60	y	n	40	
6.2.2.8 Existing Reticulation Infrastructure	: OPERATION	1	M	2	M	2	M	1	L	2	M	35	60	y	y	y	y	y	y	y	60	y	n	40	
	: MAINTENANCE	2	M	2	M	2	M	1	M	2	M	40	60	y	y	y	y	y	y	y	60	y	n	40	
Sub Topic 6.2.2 Compliancy & Needs Development Plans Assessment												38%	60%								60%				40%

COMMENTS



Topic 6: Operation & Maintenance

Enabling Factors	Compliance												Needs Development Plan																			
	Status Quo												Future plan (to address issues)						Strategy													
	Procedures	Record keeping in place		Quality control procedures establ.		Risk Management		Reporting (data analysis & report generation establ.		ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT									
		1	3	5	N	RDP	Higher Level	Growth & Development																								
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																														
Quantity: Assessment of Information Completeness												S	I	S	I	S	I	S	I	S	I	%	%	Y / N / NA						%	Y / N	%
Quality: Information Accuracy Assessment																																

6.2.3 Activity Control & Management

6.2.3.1 Existing Groundwater Infrastructure	: OPERATION	1	M	1	M	1	M	1	M	1	M	20	60	y	y	y	y		y	y	y	60	y	n	40
	: MAINTENANCE	2	M	2	M	2	M	2	M	2	C	40	60	y	y	y	y		y	y	y	60	y	n	40
6.2.3.2 Existing Surface water Infrastructure	: OPERATION	2	M	1	M	2	M	1	M	2	M	35	60	y	y	y	y		y	y	y	60	y	n	40
	: MAINTENANCE	2	M	3	C	2	M	2	M	2	C	45	60	y	y	y	y		y	y	y	60	y	n	40
6.2.3.3 Existing Water Treatment Works Infrastructure	: OPERATION	1	M	1	M	2	M	1	M	2	M	30	60	y	y	y	y		y	y	y	60	y	n	40
	: MAINTENANCE	2	M	3	C	2	M	2	M	2	C	40	60	y	y	y	y		y	y	y	60	y	n	40
6.2.3.4 Existing Waste Water Treatment Works Infrastructure	: OPERATION	1	M	1	M	1	M	1	M	2	M	25	60	y	y	y	y		y	y	y	60	y	n	40
	: MAINTENANCE	2	M	3	C	2	M	2	M	2	C	45	60	y	y	y	y		y	y	y	60	y	n	40
6.2.3.5 Existing Pump Station Infrastructure	: OPERATION	2	M	1	M	2	M	1	M	2	M	35	60	y	y	y	y		y	y	y	60	y	n	40
	: MAINTENANCE	2	M	2	M	2	M	2	M	2	C	40	60	y	y	y	y		y	y	y	60	y	n	40
6.2.3.6 Existing Bulk Pipeline Infrastructure	: OPERATION	2	M	1	M	2	M	1	M	2	M	35	60	y	y	y	y		y	y	y	60	y	n	40
	: MAINTENANCE	2	M	2	M	2	M	2	M	2	C	40	60	y	y	y	y		y	y	y	60	y	n	40
6.2.3.7 Existing Tower & Reservoir Infrastructure	: OPERATION	2	M	1	M	2	M	1	M	2	M	35	60	y	y	y	y		y	y	y	60	y	n	40
	: MAINTENANCE	2	M	2	M	2	M	2	M	2	C	40	60	y	y	y	y		y	y	y	60	y	n	40
6.2.3.8 Existing Reticulation Infrastructure	: OPERATION	2	M	1	M	2	M	1	M	2	M	35	60	y	y	y	y		y	y	y	60	y	n	40
	: MAINTENANCE	2	M	2	M	2	M	2	M	2	C	40	60	y	y	y	y		y	y	y	60	y	n	40
Sub Topic 6.2.3 Compliancy & Needs Development Plans Assessment												36%	60%							60%				40%	

COMMENTS

Most of the pumpstation problems pertain to the sewer pump stations due to the fact that the equipment is outdated. Spare parts are available but the tools and equipment is not enough. Manuals are not available and there are no information on the tools and equipment. Record keeping and risk management is not in place yet.

Spare parts on the water treatment works is a problem due to the age of the infrastructure.

There is a serious staff shortage as well as skills amongs existing staff.

Specilised equipment and vehicles is a big factor hampering the water services section.



Topic 7: Associated Services

Enabling Factors						Compliance		Needs Development Plan											
Resources available to perform function? (Yes: Y, No: N, Not Applicable: NA):						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
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	37	36	0	1		50	60	y	y	y	y		y	y	y	60	y	n	40
Tertiary education facility	0	0	0	0		0	0	y	y	y	y		y	y	y	60	y	n	40
Total	37	36	0	1	0														
* 7.1.2 Health Plan																			
* Hospitals	3	3	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	6	2	0	4		40	60	y	y	y	y		y	y	y	60	y	n	40
Total	9	5	0	4	0														
Sub Topic 7.1 Compliancy & Needs Development Plans Assessment						42%	48%							60%		40%			
7.2 Sanitation Services																			
7.2.1 Education Plan																			
* Schools	20	2	17	0		30	60	y	y	y	y		y	y	y	60	y	n	40
Tertiary education facility	0	0	0	0		0	0	y	y	y	y		y	y	y	60	y	n	40
Total	20	2	17	0	0														
* 7.2.2 Health Plan																			
* Hospitals	3	3	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	6	3	0	3		40	60	y	y	y	y		y	y	y	60	y	n	40
Total	9	6	0	3	0														
Sub Topic 7.2 Compliancy & Needs Development Plans Assessment						38%	48%							60%		40%			



Enabling Factors

Compliance

Needs Development Plan



OVERALL TOPIC ASSESSMENT

ASSESSMENT

ASSESSMENT

Future plan (to address issues)

Strategy

ASSESSMENT

ASSESSMENT

Quality: Information Accuracy Assessment

Quantity: Assessment of Information Completeness

7.1 WATER SERVICES

7.2 SANITATION SERVICES

42% 48%

38% 48%

GENERAL COMMENTS

- 1.Lovedale school situated on a trust area near Maokeng uses water from a borehole but cannot extract water most of the time because of non payment of their ESCOM bill resulting in the municipality having to transfer water to the school.
- 2.All schools within municipal (urban area) provided with all services. Fezile Dabi district municipality still operating in rural areas.

NEEDS DEVELOPMENT PLAN ASSESSMENT

Future plan 60%
Strategy 40%

OVERALL QUANTITY ASSESSMENT 48%

OVERALL QUALITY ASSESSMENT 40%

Topic 8: Conservation & Demand Management

Enabling Factors		Compliance						Needs Development Plan													
		Status Quo						Future plan (to address issues)						Strategy							
Quality: Information Accuracy Assessment Quantity: Assessment of Information Completeness		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	
			Number Of	% of Total	Number Of	% of Total				Short (1) Medium (3) Long (5) None	RDP	Higher Level	Growth & Development	ASSESSMENT	In place?	Sufficient					ASSESSMENT
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	
8.1.1.2 Day flow metering		n					0	0										0		0	
8.1.1.3 Reticulation leaks		n					0	0										0		0	
8.1.1.4 Illegal connections		n					0	0										0		0	
8.1.1.5 Un-metered connections		n					0	0										0		0	
8.1.1.6 Internal plumbing leaks		n					0	0										0		0	
* 8.1.2 Reducing high pressures for residential consumers																					
Number of consumer units with water supply pressure of:																					
8.1.2.1 <300kPa		n					0	0													
8.1.2.2 300 –600kPa		n					0	0													
8.1.2.3 600 –900kPa		n					0	0										0		0	
8.1.2.4 >900kPa (>9Bar)		n					0	0										0		0	
* 8.1.3 Leak and meter repair programmes																					
Consumer units targeted by:																					
8.1.3.1 Leak repair assistance programme		n					0	0										0		0	
8.1.3.2 Retro-fitting of water efficient toilets		n					0	0										0		0	
8.1.3.3 Meter repair programme		Y / N : n	n				0	0										0		0	
8.1.4 Consumer/end-use demand management: Public Information & Education Programmes																					
8.1.4.1 Schools targeted by education programmes		n					0	0										0		0	
8.1.4.2 Consumers targeted by public information programmes		n					0	0										0		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							0%	0%										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				
					1	3	5	N	RDP	Higher Level	Growth & Development	ASSESSMENT	In place?
				Short (1) Medium (3) Long (5) None				*	*	*			
				Y / N / NA							%	Y / N	%
Quality: Information Accuracy Assessment													
Quantity: Assessment of Information Completeness													
8.1.5 Conjunctive use of surface – and groundwater													
Ground Water	2												
Surface Water	4												
Conjunctive Use													
Artificial Recharge	0												
Rain Water Harvesting	0												
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>Moqhaka does not have a formal Water Conservation and Development Plan in place but a study was done 5 years ago which is being used for the implementation of water demand and development. This document is becoming outdated though. There are also no bulk meters in place in the system for accurate figures and demand management.</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: 71.128

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

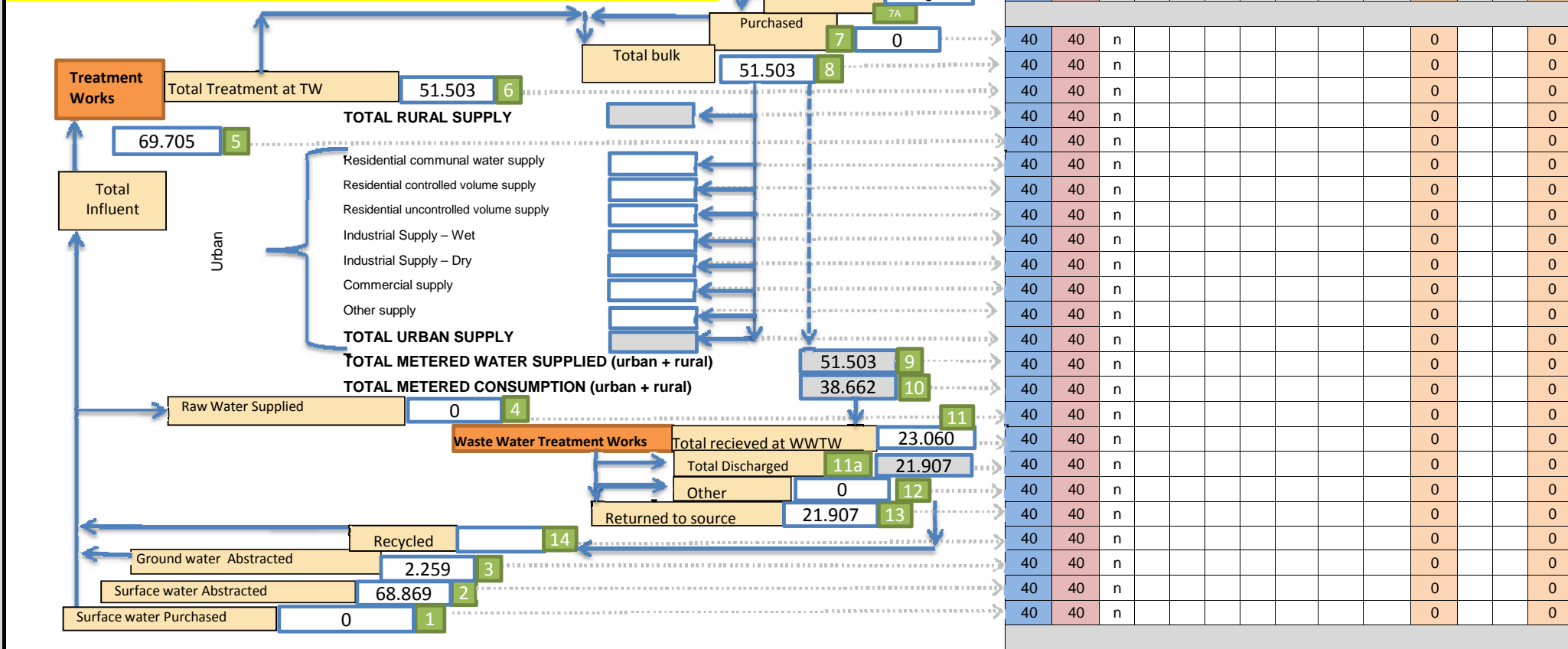
Future plan (to address issues)

Strategy

Quality: Information Accuracy Assessment

Quantity: Assessment of Information Completeness

8.2 Water Balance (Volume Units in Mℓ/d)



Sub Topic 8.2 Compliancy & Needs Development Plans Assessment

40% 40% 0% 0%



Enabling Factors	Compliance	Needs Development Plan												
General Notes: The compliancy and needs development plan section must be completed for each aspect listed TOTAL: 71.128 Must be completed for Total. If required this page can be completed in multi copies to list and describe more than one system	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	=	
69.705	-	71.128	-	0.000	=	-2%

40	40	n								0			0
----	----	---	--	--	--	--	--	--	--	---	--	--	---

8.3.2 - Treated Water Loss :Bulk

Total Metered Supplied	-	(Total Treated at Treated Water + Purchased Treated Water)	=	% LOSS
9	-	8	=	
51.503	-	51.503	=	0%

40	40	n								0			0
----	----	---	--	--	--	--	--	--	--	---	--	--	---

8.3.3 - Treated Water Loss :Internal

Metered Consumption	-	Metered Supplied	=	% LOSS
10	-	9	=	
38.662	-	51.503	=	-18%

40	40	n								0			0
----	----	---	--	--	--	--	--	--	--	---	--	--	---

8.3.4 - Water Balance

Bulk Input	-	Usage	+	Discharged	=	Value
(1+2+3+7+7a)-4	-	9	+	13	=	
71.128	-	51.503	+	21.907	=	58%

40	40	n								0			0
----	----	---	--	--	--	--	--	--	--	---	--	--	---

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

Quality: Information Accuracy Assessment

Quantity: Assessment of Information Completeness

8.2 Water Balance (Volume Units in Mℓ/d)

	ASSESSMENT		In place?				ASSESSMENT			In place?		ASSESSMENT	
	%	%	1	3	5	N	*	*	*	%	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%	

Sub Topic 8.2 Compliancy & Needs Development Plans Assessment



Enabling Factors	Compliance	Needs Development Plan												
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	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	=	[]	[]
[]	-	[]	-	[]	=	[]	[]

8.3.2 - Treated Water Loss :Bulk

Total Metered Supplied	-	(Total Treated at Treated Water + Purchased Treated Water)	=	%	LOSS
9	-	8	=	[]	[]
[]	-	[]	=	[]	[]

8.3.3 - Treated Water Loss :Interna

Metered Consumption	-	Metered Supplied	=	%	LOSS
10	-	9	=	[]	[]
[]	-	[]	=	[]	[]

8.3.4 - Water Balance

Bulk	+	Usage	+	Discharged	=	%	Value
Input (1+2+3+7+7a)-4	+	9	+	13	=	[]	[]
[]	+	[]	+	[]	=	[]	[]

Sub Topic 8.3 Compliancy & Needs Development Plans Assessment

0% 0% 0% 0%



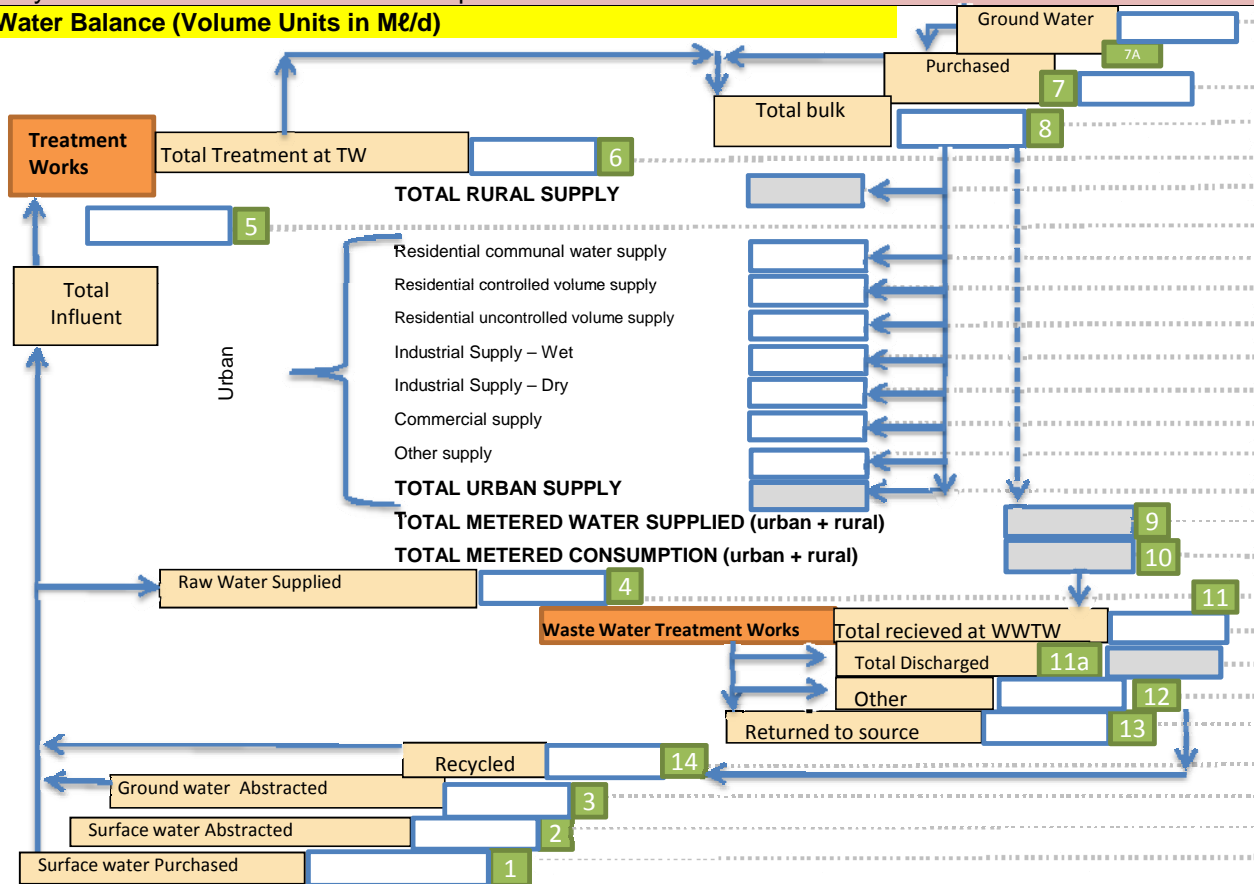
Topic 8: Conservation & Demand Management

Enabling Factors	Compliance	Needs Development Plan										
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	Status Quo	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
%	%	Y / N / NA					%	Y / N	%			

Quality: Information Accuracy Assessment

Quantity: Assessment of Information Completeness

8.2 Water Balance (Volume Units in Mℓ/d)



Sub Topic 8.2 Compliancy & Needs Development Plans Assessment

0%	0%									0%	0%
----	----	--	--	--	--	--	--	--	--	----	----



Enabling Factors	Compliance		Needs Development Plan										
	Status Quo		Future plan (to address issues)					Strategy					
	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for					
				Short (1)	Medium (3)	Long (5)	None	Basic	Higher Level	Growth & Development	ASSESSMENT	In place?	Sufficient
General Notes: The compliancy and needs development plan section must be completed for each aspect listed				1	3	5	N	*	*	*	%	Y / N	%
TOTAL: _____				Y / N / NA									
Must be completed for Total. If required this page can be completed in multi copies to list and describe more than one system													
Quality: Information Accuracy Assessment													
Quantity: Assessment of Information Completeness													

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"/>

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"/>	=	<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"/>	=	<input type="text"/>	<input type="text"/>

8.3.4 - Water Balance

Bulk	+	Usage	+	Discharged	=	Value
Input (1+2+3+7+7a)-4	+	9	+	13	=	<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

Quality: Information Accuracy Assessment

Quantity: Assessment of Information Completeness

8.2 Water Balance (Volume Units in Mℓ/d)										ASSESSMENT			ASSESSMENT			ASSESSMENT			ASSESSMENT		
										%	%	Y / N / NA			%	Y / N	%				
												1	3	5	N	*	*	*			
Sub Topic 8.2 Compliancy & Needs Development Plans Assessment										0%	0%								0%		0%



Enabling Factors	Compliance	Needs Development Plan												
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 Quality: Information Accuracy Assessment Quantity: Assessment of Information Completeness	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	=	[]	[]
[]	-	[]	-	[]	=	[]	[]

8.3.2 - Treated Water Loss :Bulk

Total Metered Supplied	-	(Total Treated at Treated Water + Purchased Treated Water)	=	%	LOSS
9	-	8	=	[]	[]
[]	-	[]	=	[]	[]

8.3.3 - Treated Water Loss :Interna

Metered Consumption	-	Metered Supplied	=	%	LOSS
10	-	9	=	[]	[]
[]	-	[]	=	[]	[]

8.3.4 - Water Balance

Bulk Input	-	Usage	+	Discharged	=	%	Value
(1+2+3+7+7a)-4	-	9	+	13	=	[]	[]
[]	-	[]	+	[]	=	[]	[]

Sub Topic 8.3 Compliancy & Needs Development Plans Assessment

0% 0% 0% 0%



Enabling Factors	Compliance	Needs Development Plan													
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	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	*	*	*				
Quality: Information Accuracy Assessment	%	%	Y / N / NA							%	Y / N	%			
Quantity: Assessment of Information Completeness	%	%	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	=	[]	[]
[]	-	[]	-	[]	=	[]	[]

8.3.2 - Treated Water Loss :Bulk

Total Metered Supplied	-	(Total Treated at Treated Water + Purchased Treated Water)	=	%	LOSS
9	-	8	=	[]	[]
[]	-	[]	=	[]	[]

8.3.3 - Treated Water Loss :Interna

Metered Consumption	-	Metered Supplied	=	%	LOSS
10	-	9	=	[]	[]
[]	-	[]	=	[]	[]

8.3.4 - Water Balance

Bulk	+	Usage	+	Discharged	=	Value	LOSS
Input (1+2+3+7+7a)-4	+	9	+	13	=	[]	[]
[]	+	[]	+	[]	=	[]	[]

Sub Topic 8.3 Compliancy & Needs Development Plans Assessment

0% 0% 0% 0%



Topic 8: Conservation & Demand Management

Enabling Factors		Compliance		Needs Development Plan		
		Status Quo		Future plan (to address issues)		Strategy
<u>OVERALL TOPIC ASSESSMENT</u>		ASSESSMENT	ASSESSMENT		ASSESSMENT	ASSESSMENT
		Quality: Information Accuracy Assessment				
Quantity: Assessment of Information Completeness						
8.1 WATER RESOURCE MANAGEMENT INTERVENTIONS		0%	0%			
8.2 WATER BALANCE		40%	40%			
8.3 WATER LOSSES		40%	40%			
Comments				NEEDS DEVELOPMENT PLAN ASSESSMENT		
				Future plan	0%	
				Strategy	0%	
				OVERALL QUALITY ASSESSMENT		27%
				OVERALL QUANTITY ASSESSMENT		27%



*** 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	18					20	20	Groundwater			
Surface Water	6	17057				40	40	Surface Water			
External Sources (Bulk purchase)	0					60	60	External Sources (Bulk purchase)			
Water returned to source	0					20	20				
Sub Topic 9.1 Compliancy & Needs Development Plans Assessment						35%	35%				

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%	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				
		Quality: Information Accuracy Assessment		Y / N / NA		%	%	1	3	5	N	*	*	*	%	Y / N
Quantity: Assessment of Information Completeness		Y / N / NA		%	%	Y / N / NA						%	Y / N	%		
9.2 Monitoring		Is there a Monitoring Plan in Place (Y / N):														
9.2.1 % of water abstracted monitored: Surface water		n/a	60	60	y	y	y	y		y	y	y	60	y	n	40
9.2.2 % of water abstracted monitored: Groundwater		n/a	60	60	y	y	y	y		y	y	y	60	y	n	40
9.2.3 % of water abstracted monitored: External Sources (Bulk purchase)		20%	60	60	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)		n/a	60	60	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)		80%	60	60	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)		n/a	60	60	y	y	y	y		y	y	y	60	y	n	40
* 9.2.7 % Compliance to drinking water acceptable limits			60	60	y	y	y	y		y	y	y	60	y	n	40
* 9.2.8 % Compliance to effluent release acceptable limits		40%	60	60	y	y	y	y		y	y	y	60	y	n	40
9.2.9 Number of monitoring points for drinking water sufficient		70%	60	60	y	y	y	y		y	y	y	60	y	n	40
9.2.10 Number of monitoring points for effluent release sufficient		70%	60	60	y	y	y	y		y	y	y	60	y	n	40
Sub Topic 9.2 Compliancy & Needs Development Plans Assessment			60%	60%							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	ASSESSMENT	In place?	Sufficient					ASSESSMENT
Y / N / NA	%	%	Y / N / NA					%	Y / N	%								
Quality: Information Accuracy Assessment																		
Quantity: Assessment of Information Completeness																		
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	40	
9.3.2 Quality of water returned to the resource: urban	20%			20	60	y	y	y	y		y	y	y	60	y	n	40	
9.3.3 Quality of water returned to the resource: rural	0%			20	60	y	y	y	y		y	y	y	60	y	n	40	
9.3.4 Is there a Pollution contingency measures plan in place?		n	n	0	0	y	y	y	y		y	y	y	60	y	n	40	
9.3.5 Quality of water taken from source: urban - % monitored by WSA self?	40%		n	40	60	y	y	y	y		y	y	y	60	y	n	40	
9.3.6 Quality of water taken from source: rural - % monitored by WSA self?	40%		n	40	60	y	y	y	y		y	y	y	60	y	n	40	
9.3.7 Quality of water returned to the source: urban - % monitored by WSA self?	100%		y	60	60	y	y	y	y		y	y	y	60	y	n	40	
9.3.8 Quality of water returned to the source: rural - % monitored by WSA self?	100%		y	60	60	y	y	y	y		y	y	y	60	y	n	40	
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	40	
9.3.10 % Time (days) within SABS 241 standards per year	80%			60	60	y	y	y	y		y	y	y	60	y	n	40	
Sub Topic 9.3 Compliancy & Needs Development Plans Assessment						42%	54%						60%			40%		

General Comments

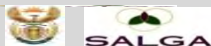
Water abstraction points indicated as 6 consist of: Kroonstad- Water from river & water released from storage dam that is filled from river, Steynsrus- Water from river & water extracted from storage dam that is filled from river, Viljoenskroon- Water from Renoster river & water transferred from Vaal River to renoster during drought periods.
 Surface water abstraction combined for all three towns.
 Budgets are available but cash flow restraints delay work.
 Qualified staff to do quality monitoring not available.

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						60%	60%	y	y	y	y	y	y	y	y	60%	y	n	40%
Monthly Water use (ml/d) (Total)	Water Quality Received				Reliability (inadequate adequate, special treatment) (Total)														
n/a	Raw (Total)	Filtered (Total)	Chlorinated (Total)	Fully Treated (Total)	n/a	n/a													
9.5 'Raw' Water Consumers: Urban and Rural						60%	60%	y	y	y	y	y	y	y	y	60%	y	n	40%
Monthly Water use (ml/d) (Total)	Raw (Total)	Filtered (Total)	Other (Total)	Tariff (R/ml) Total	Reliability (inadequate adequate, special treatment) (Total)														
n/a	n/a	n/a	n/a	n/a	n/a	n/a													
9.6 Industrial Consumer Units for Sanitation: Urban and Rural						60%	60%	y	y	y	y	y	y	y	y	60%	y	n	40%
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)														
1710	n/a	n/a	n/a	n/a	n/a														
9.7 Industries and their permitted effluent releases						60%	60%	y	y	y	y	y	y	y	y	60%	y	n	40%
Permitted volume (Mℓ/yr) (Total)	Permitted effluent quality (units) (Total)																		
n/a	n/a																		



Topic 9: Water Resources

Enabling Factors		ASSESSMENT		Needs Development Plan	
<u>OVERALL TOPIC ASSESSMENT</u>		ASSESSMENT	ASSESSMENT	Future plan (to address issues)	
				ASSESSMENT	Strategy
Quality: Information Accuracy Assessment					
Quantity: Assessment of Information Completeness					
9.1 Sources & Volumes		35%	35%		
9.2 Monotoring		60%	60%		
9.3 Water Quality		42%	54%		
9.4 Wet Industries: Urban & Rural		60%	60%		
9.5 'Raw' Water Consumers: Urban & Rural		60%	60%		
9.6 Industrial Consumer Units for Sanitation: Urban & Rural		60%	60%		
9.7 Industries and their permitted effluent releases		60%	60%		
Comments				NEEDS DEVELOPMENT PLAN ASSESSMENT	
Water licences appear to be in place for all sources, however the volumes in all aspects was not available. Moqhaka does not have a formal Water Conservation and Development Plan in place but a study was done 5 years ago which is being used for the implementation of water demand and development. The treated effluent is used for irrigation. Outflow from industries not measured, levy based on factor of stand size				Future plan	60%
				Strategy	40%
				OVERALL QUANTITY ASSESSMENT	
				56%	
				OVERALL QUALITY ASSESSMENT	
				54%	



10.1 Capital Funds

		Housing	Trading Services						Grand Total	
			Environmental Protection	Waste Management (solid waste)	Waste water management	Road transport	Water	Electricity		Other Trading Services
		RM	RM	RM	RM	RM	RM	RM	RM	
10.1.1 Income										
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									
10.1.1.8	Provincial Government				1.48				1.48	
10.1.1.9	Local Government					0.02			0.02	
10.1.1.10	Other									
10.1.1.11	Spent conditional grants									
10.1.1.12	Metering & Billing Income				11.4	15.5			26.95	
10.1.1.13	Other Income						18.18		18.18	
10.1.1.14	Deficit									
Total Income		0	0	0	12.9	0	15.53	18.18	0	46.63

Comments

Empty space for 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							
	Urban		Rural		Urban		Rural					Short (1)	Medium (3)	Long (5)	None	RDP	Higher Level	Growth & Development	ASSESSMENT	In place?	Sufficient	ASSESSMENT	
Value Spend	% of Allocation	Value Spend	% of Allocation	Value Spend	% of Allocation	Value Spend	% of Allocation	%	%	Y / N / NA							%	Y / N	%				
Quality: Information Accuracy Assessment																							
Quantity: Assessment of Information Completeness																							
* 10.1.2 Capital Expenditure % Allocation spend in last financial year																							
Values to be given in R million																							
Regional Bulk										0	0	y	y	y	y		y	y	y	60	y	n	40
Internal Bulk										0	0	y	y	y	y		y	y	y	60	y	n	40
Reticulation										0	0	y	y	y	y		y	y	y	60	y	n	40
Backlog Eradication										0	0	y	y	y	y		y	y	y	60	y	n	40
Total cost										0	0	y	y	y	y		y	y	y	60	y	n	40
Sub Topic 10.1 Compliancy & Needs Development Plans Assessment										0%	0%								60%		40%		
10.2 Operation & Maintenance Budget																							

WATER		BUDGET	
ITEM		(R million)	
Income:	Sales, other	R	-
	Grants, subsidies, and other	R	-
	Other income	R	-
	Total Income	R	-
Expenditure:	Employee related cost (salaries, allowances, bonuses, medical, pension etc.)	R	9.16
	Bulk water purchases	R	-
	General expenditure	R	10.13
	Municipal rates and services	0	0
	Operation and Maintenance cost	0	0
	Depreciation and financial cost	0	0
	Total Expenditure	R	19.29
Surplus/Deficit	R	-19.29	

SANITATION		BUDGET	
ITEM		(R million)	
Income:	Sales, other	R	-
	Grants, subsidies, and other	R	-
	Other income	R	-
	Total Income	R	-
Expenditure:	Employee related cost (salaries, allowances, bonuses, medical, pension etc.)	R	11.39
	Bulk waste water charges (external waste water treatment)	R	-
	General expenditure	R	2.27
	Municipal rates and services	R	-
	Operation and Maintenance cost	R	-
	Depreciation and financial cost	R	-
	Total Expenditure	R	13.66
Surplus/Deficit	R	-13.66	

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										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 6		Block Definition 2 KI per month from: 6 to 20		Block Definition 3 KI per month from: 20 to 40		Block Definition 4 KI per month from: 40 to 60					Short (1) Medium (3) Long (5) None	RDP	Higher Level	Growth & Development	ASSESSMENT	In place?					Sufficient	ASSESSMENT
		Year 2011	Year 2010	Current	Previous	Current	Previous	Current	Previous	Current	Previous					1	3									
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	%				
10.3 Tariff & Charges		Is there a Tariff & Charges Plan in Place for (Y / N):										60	60	y	y	y	y	y	y	y	60	y	n	60		
10.3.1 Residential		Values to be given in R / kl for Current and Previous Financial Years																								
Water	Communal Water Supply			0	0	6.6	5.28	7.25	5.8	9.88	6.36	60	60	y	y	y	y	y	60	y	n	40				
	Controlled Volume Supply											60	60	y	y	y	y	y	60	y	n	40				
	Uncontrolled Volume Supply	34.92	27.93									60	60	y	y	y	y	y	60	y	n	40				
Sanitation	On site dry											60	60	y	y	y	y	y	60	y	n	40				
	On site wet (conservancy tanks etc.)	321.71	238.26									60	60	y	y	y	y	y	60	y	n	40				
	Water borne reticulated sanitation	70.57	54.26									60	60	y	y	y	y	y	60	y	n	40				
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
		Year 2011	Year 2010	Current	Previous	Current	Previous	Current	Previous	Current	Previous					1	3									
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	%				
10.3.2 Industrial		Values to be given in R / kl for Current and Previous Financial Years																								
	Water Industrial			7.81	6.25							60	60	y	y	y	y	y	60	y	n	40				
	Sanitation Industrial											60	60	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														
Year	Year	Current	Previous	Current	Previous	Current	Previous	Current	Previous		Current	Previous	Current	Previous	Current	Previous				Current	Previous	Current	Previous															
Quality: Information Accuracy Assessment			2011	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					7.81	6.25															60	60	y	y	y	y			y	y	y	60	y	n	40			
Sanitation Commercial			66.35	51.02																	60	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: 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											
Quality: Information Accuracy Assessment			Year	Year	Current	Previous	Current	Previous	Current	Previous	Current	Previous	Current	Previous	Current		Previous	Current	Previous	Current	Previous																	
Quantity: Assessment of Information Completeness			2011	2010																	%	%	Y / N / NA						%	Y / N	%							
10.3.4 Other			Values to be given in R / kl for Current and Previous Financial Years																																			
Water					7.64	6.11															60	60	y	y	y	y			y	y	y	60	y	n	40			
Sanitation																					60	60	y	y	y	y			y	y	y	60	y	n	40			
Sub Topic 10.3 Compliancy & Needs Development Plans Assessment																				60%	60%							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

There is currently no differentiation between Urban and Rural Usage.
 All Tariffs are inclusive of VAT. FBW applies to all. There are 7 block tariffs in place and a different tariff is applied on 'other'. The tariff provided is relevant to schools which is the highest. The Waterborne tariff varies depending on the loadsize category. The indicated tariff is for the maximum size. The tariff for Septic tanks and Conservancy tanks also varies, and the indicated tariff is for Septic Tanks.
 All figures cannot be specified as our financial system combines consumers in groups such as Commerce and Industry, Public Institutions, Schools and Government Departments.

Enabling Factors	Compliance					Needs Development Plan														
WATER	Status Quo					Future plan (to address issues)							Strategy							
	Urban		Rural			TOTAL	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT
	Current	Previous	Current	Previous	1					3	5	N	RDP	Higher Level	Growth & Development	%				
	Resources available to perform function? (Yes: Y, No: N, Not Applicable: NA):					%	%	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	4521860					40	60	y	y	y	y		y	y	y	60	y	n	40
* Metered %	100					60	60	y	y	y	y		y	y	y	60	y	n	40
* Billed %	100					60	60	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	4715466					40	60	y	y	y	y		y	y	y	60	y	n	40
Metered %	100					60	60	y	y	y	y		y	y	y	60	y	n	40
Billed %	100					60	60	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

There is no differentiation between Urban and Rural usage.



Topic 10: Financial Profile

Enabling Factors	Compliance				Needs Development Plan																																																				
	Status Quo				Future plan (to address issues)						Strategy																																														
	Urban	Value	Rural	TOTAL	ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT																																							
								1	3	5	N	RDP	Higher Level	Growth & Development																																											
SANITATION																																																									
Resources available to perform function? (Yes: Y, No: N, Not Applicable: NA):																																																									
Quality: Information Accuracy Assessment																																																									
Quantity: Assessment of Information Completeness																																																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"></td> <td style="width: 10%;">Fixed Charge</td> <td style="width: 10%;">Value Charge</td> <td style="width: 10%;">Fixed Charge</td> <td style="width: 10%;">Value Charge</td> <td style="width: 5%;">TOTAL</td> <td style="width: 5%;">ASSESSMENT</td> <td style="width: 5%;">ASSESSMENT</td> <td style="width: 5%;">In place?</td> <td style="width: 5%;">1</td> <td style="width: 5%;">3</td> <td style="width: 5%;">5</td> <td style="width: 5%;">N</td> <td style="width: 5%;">RDP</td> <td style="width: 5%;">Higher Level</td> <td style="width: 5%;">Growth & Development</td> <td style="width: 5%;">ASSESSMENT</td> <td style="width: 5%;">In place?</td> <td style="width: 5%;">Sufficient</td> <td style="width: 5%;">ASSESSMENT</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>%</td> <td>%</td> <td></td> <td></td> <td colspan="4">Y/ N / NA</td> <td></td> <td></td> <td></td> <td>%</td> <td>Y / N</td> <td></td> <td>%</td> </tr> </table>																			Fixed Charge	Value Charge	Fixed Charge	Value Charge	TOTAL	ASSESSMENT	ASSESSMENT	In place?	1	3	5	N	RDP	Higher Level	Growth & Development	ASSESSMENT	In place?	Sufficient	ASSESSMENT						%	%			Y/ N / NA							%	Y / N		%
	Fixed Charge	Value Charge	Fixed Charge	Value Charge	TOTAL	ASSESSMENT	ASSESSMENT	In place?	1	3	5	N	RDP	Higher Level	Growth & Development	ASSESSMENT	In place?	Sufficient	ASSESSMENT																																						
					%	%			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

Sub Topic 10.5 Compliancy & Needs Development Plans Assessment 14% 16% 60% 40%

Comments

There is no differentiation between Urban and Rural Usage.



Enabling Factors	Compliance		Needs Development Plan					
	Status Quo		Future plan (to address issues)		Strategy			
<u>OVERALL TOPIC ASSESSMENT</u>			ASSESSMENT	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%				
			60%	60%				
			8%	8%				
			14%	16%				
Comments								
					NEEDS DEVELOPMENT PLAN ASSESSMENT			
					Future plan	48%		
					Strategy		32%	
					OVERALL QUALITY ASSESSMENT		16%	
					OVERALL QUANTITY ASSESSMENT		17%	

Topic 11: Water Services Institutional Arrangements Profile

Enabling Factors	Compliance				Needs Development Plan														
WSA functions and outputs Resources available to perform function? (Yes: Y, No: N, Not Applicable: NA):	Status Quo				Future plan (to address issues)							Strategy							
	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				
Y / N / NA	%	%	Y / N / NA							%	Y / N	%							
Quality: Information Accuracy Assessment																			
Quantity: Assessment of Information Completeness																			
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	n				n	0	0	n								0			0
* 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																			
* Water Services bylaws with conditions as required by the Water Services Act	y				y	60	60	y	y	y	y		y	y	y	60	y	n	40
* Mechanisms to ensure compliance with bylaws	n	n	n		n	0	0	n								0			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)																			
Mechanisms to undertake project / feasibility studies																			
Mechanisms to undertake project / feasibility studies		n/a	n/a			60	60	n								60			60
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																			
Performance management systems																			
Performance management systems	y	y	y		y	60	60	y	y	y	y		y	y	y	60	y	n	40
Water service monitoring and evaluation (M&E) system																			
Water service monitoring and evaluation (M&E) system	n	n	n		n	0	0	n								0			0
11.1.5 WSDP																			
WSDP information system																			
WSDP information system	Yes:	y	No:			60	60	n								0			0
Mechanisms to monitor and report on WSDP implementation																			
Mechanisms to monitor and report on WSDP implementation	Yes:	y	No:			60	60	n								0			0
Mechanisms for stakeholder participation																			
Mechanisms for stakeholder participation	Yes:	y	No:			60	60	n								0			0
Summary																			
						60%	60%								0%		0%		



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)				
11.2.2 Water service providers (sanitation)				
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

0%

0%

0%

0%

Comments

Feasibility studies are done as and when required.

NEEDS DEVELOPMENT PLAN ASSESSMENT

11.1.1 POLICY DEVELOPMENT	48%	48%	Future plan	31%
11.1.2 REGULATION AND TARIFFS	45%	45%	Strategy	21%
11.1.3 INFRASTRUCTURE DEVELOPMENT (PROJECTS)	60%	60%		
11.1.4 PERFORMANCE MANAGEMENT AND MONITORING	30%	30%		
11.1.5 WSDP	60%	60%		
11.2 BULK AND RETAIL FUNCTIONS	0%	0%		
OVERALL QUALITY ASSESSMENT				41%
OVERALL QUANTITY ASSESSMENT				41%

Topic 12: Social & Customer Service Requirements

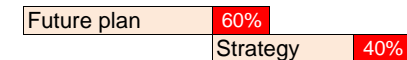
Enabling Factors	Compliance						Needs Development Plan													
	Status Quo						Future plan (to address issues)									Strategy				
	Urban Households			Rural Households			ASSESSMENT	ASSESSMENT	In place?	Time Frame				Sufficient for			ASSESSMENT	In place?	Sufficient	ASSESSMENT
	Budget	Physical Resources	Personnel	Budget	Physical Resources	Personnel				1	3	5	N	RDP	Higher Level	Growth & Development				
Short (1)																				
Resources available to perform function? (Yes: Y, No: N, Not Applicable: NA):							%	%									%	Y / N	%	
Quality: Information Accuracy Assessment	Y / N																			
Quantity: Assessment of Information Completeness	Y / N																			
12.1 Resources available to Perform this Function: Water & Sanitation	Y / N																			
12.1.1 Attending to Complaints for Water	y	y	y	n	n	n	60	60	y	y	y	y		y	y	y	60	y	n	40
12.1.2 Attending to Complaints for Sanitation	y	y	y	n	n	n	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	n	n	n	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	37946						60	60	y	y	y	y		y	y	y	60	y	n	40
12.2.2 Number of queries/complaints received within the year	1451						60	60	y	y	y	y		y	y	y	60	y	n	40
* 12.2.3 % Queries responded to within 24 hours	60						60	60	y	y	y	y		y	y	y	60	y	n	40
12.2.4 Number of major or visible leaks reported within the year	1451						60	60	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	100						60	60	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						60	60	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						60	60	y	y	y	y		y	y	y	60	y	n	40
Sub Topic 12.2 Compliancy & Needs Development Plans Assessment							60%	60%							60%				40%	
12.3 Attending to Complaints for Sanitation: Discharge to Treatment Works	Number Of:																			
12.3.1 Total number of consumer units	37946						60	60	y	y	y	y		y	y	y	60	y	n	40
12.3.2 Number of queries/complaints received within the year	2346						60	60	y	y	y	y		y	y	y	60	y	n	40
* 12.3.3 % Queries responded to within 24 hours	50						40	60	y	y	y	y		y	y	y	60	y	n	40
12.3.4 Number of blockages reported within the year	2346						60	60	y	y	y	y		y	y	y	60	y	n	40
12.3.5 % Blockages repaired within 48 hours after being reported	35						40	60	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						60	60	y	y	y	y		y	y	y	60	y	n	40
12.3.7 Sanitation promotion and health and hygiene awareness	0						60	60	y	y	y	y		y	y	y	60	y	n	40
Sub Topic 12.3 Compliancy & Needs Development Plans Assessment							54%	60%							60%				40%	
12.4 Attending to Complaints for Sanitation: Pit/Tank Pumping	Number Of:																			
12.4.1 Number of pits/ tanks	210						50	60	y	y	y	y		y	y	y	60	y	n	40
12.4.2 Number of calls received within the year for emptying	240						50	60	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						60	60	y	y	y	y		y	y	y	60	y	n	40
12.4.4 % Queries responded to within 24 hours	70						40	60	y	y	y	y		y	y	y	60	y	n	40
12.4.5 % Pits/tanks pumped within 48 hours of being reported	85						40	60	y	y	y	y		y	y	y	60	y	n	40
Sub Topic 12.4 Compliancy & Needs Development Plans Assessment							48%	60%							60%				40%	

OVERALL TOPIC ASSESSMENT

NEEDS DEVELOPMENT PLAN ASSESSMENT

- 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

60%	60%
60%	60%
54%	60%
48%	60%



OVERALL QUALITY ASSESSMENT	56%
OVERALL QUANTITY ASSESSMENT	60%

Comments

Pits are privately owned and as such R & M is done by owners, not municipality.
 Staff and equipment remain a challenge to attend to complaints.
 Response time for water does not include meter complaints.
 Sewer spillages referred to are normal complaints, rectification on bulk sewer line often take longer to attend to due to processes to be followed (Supply chain and tender procedures).

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				
Kroonstad and Viljoenskroon: Upgrade Treatment Plant	MIG/FS/140/S/06/06	Internal Sanitation	42001003;42001004;42001005;42	17,23
Matlwangtlwang: Lining of oxidation ponds phase 2	MIG/FS0614/S/08/08	Internal Sanitation		1
Maokeng: Rehabilitation of main collector sewers	MIG/FS0499/S/08/09	Internal Sanitation		14
Northleigh: Sewer netwk 4000 new res erf -42.4km m	MIG/FS0644/S/08/11	Internal Sanitation		21
Moqhaka: WTW (Kroonstad)	FS_ACIP_002	Water Internal Bulk		
Moqhaka Bulk Water Supply	FSR010	Water Regional Bulk		
Constantia & Brentpark: Inst of Wet Services for 670	MIG/FS/0500/S/08/10	Water Reticulation		13
Moqhaka: Inst wet service 670 new erven	MIG/FS/0501/W/08/10	Water Reticulation		8-10
Kroonstad, Viljoenskroon, Steynsrus: Rehab, upgrade	MIG/FS0762/W/09/11	Water Treatment Works	42001007	2,16,25
CONCEPTUAL & AWAITING FUNDING PROJECTS				
Rammolotsi: Building of 650 toilet structures on existi	MIG/FS0607/S/07/07	Internal Sanitation		
Moqhaka: Construction of toilet structures	Temp_Actpl_00028	Internal Sanitation		
Matlwangtlwang: Upgrade VIP/AEs to waterborne deve	Temp_MTASret_00049	Internal Sanitation		
Bucket Eradication : 20 Matlwangtlwang	Temp_MTASret_00050	Internal Sanitation		
Moqhaka: Rehabilitation of Sewage System	ID: 153087	Internal Sanitation		
Rammolotsi: Upgrade bulk sewerage infra for pumpst	MIG/FS0439/S/07/07	Internal Sanitation		
Upgrading of Sewerage Network - Seeisoville / Marak	MIG/FS/0324/S/07/07	Internal Sanitation		
Replacing of main outfall sewer line in Kroonstad	UID_17756635	Internal Sanitation		
Northleigh: Sewer netwk 2200 new res erf -42.4km m	UID_16483783	Internal Sanitation		
Northleigh: Sewer netwk 2000 new res erf-42.4km m	UID_16483780	Internal Sanitation		
Moqhaka Municipality: San Internal Bulk Ref (group e	fs_temp0910_0279	Sanitation Bulk		
Matlwangtlwang: Constr of sewer outfall -1.15km outfl	MIG/FS0056/S/05/06	Sanitation Bulk		
Upgrading of Kroonstad & Viljoenskroon WWTW pha	MIG/FS0140/S/06/06	Sanitation Bulk		
Kroonstad & Viljoenskroon: Refurbishment of the WW	MIG/FS0204/S/06/07	Sanitation Bulk		
Viljoenskroon 5-6 diam sewer line 160 diam	fs_temp0910_0198	Sanitation Bulk		
Kroonstad STP not before 2010 (12 MI)	fs_temp0910_0193	Sanitation Bulk		
Part of GW Development in Steynsrus	fs_temp_0292	Water Internal Bulk	42001001	
Moqhaka Municipality - Water Internal Bulk Ref (grou	fs_temp0910_0300	Water Internal Bulk		
Relocation, upgrading 700m bulk water pipeln to Pho	MIG/FS0009/S/04/05	Water Internal Bulk		
Viljoenskroon: Augmentation of water supply to the in	MIG/FS0076/W/05/06	Water Internal Bulk		
10 MI reservoir in Maokeng	fs_temp0910_0184	Water Internal Bulk		
Rammulotsi old GMS to be replaced	fs_temp0910_0185	Water Internal Bulk		
Matlwangtlwang add storage (600 stands possible)	fs_temp0910_0190	Water Internal Bulk		



Topic 14: Reporting

MOQHAKA 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 & Submitted		
3	WSA Checklist April2005	Not existing		
4	Blue Drop 2010 Assessment	Completed & Submitted		
5	Green Drop 2010 Assessment	Completed & Submitted		
6	Water Conservation & Demand Management	Needs review		
		Options In process Not existing Completed Completed & Submitted Needs review Completed	Options Not included Included (not complete) Included (complete)	

General Comments

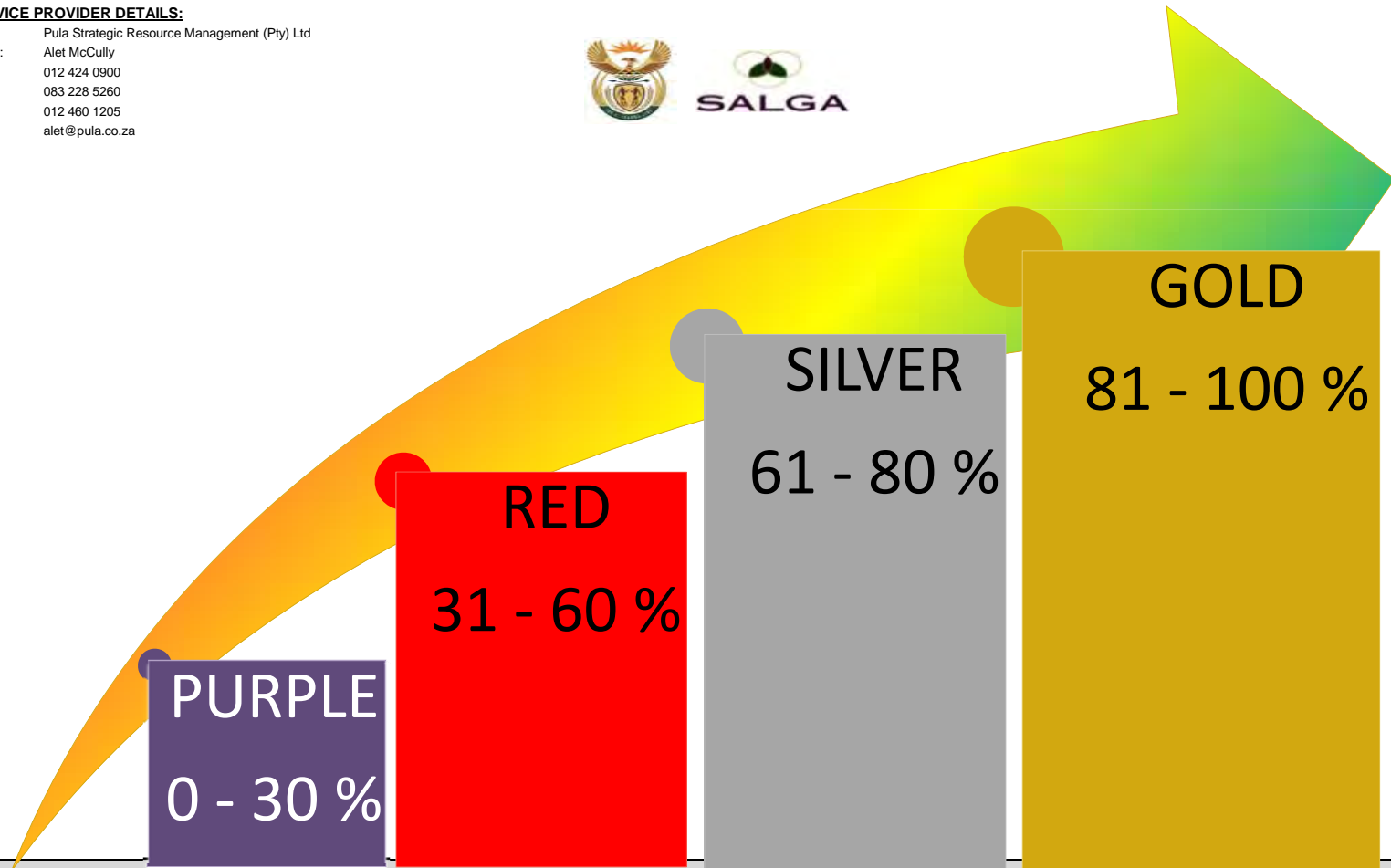
WSDP Status Quo Knowledge Interpretation Report

Overall Water Services Planning Status Bar Legend

MOQHAKA 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

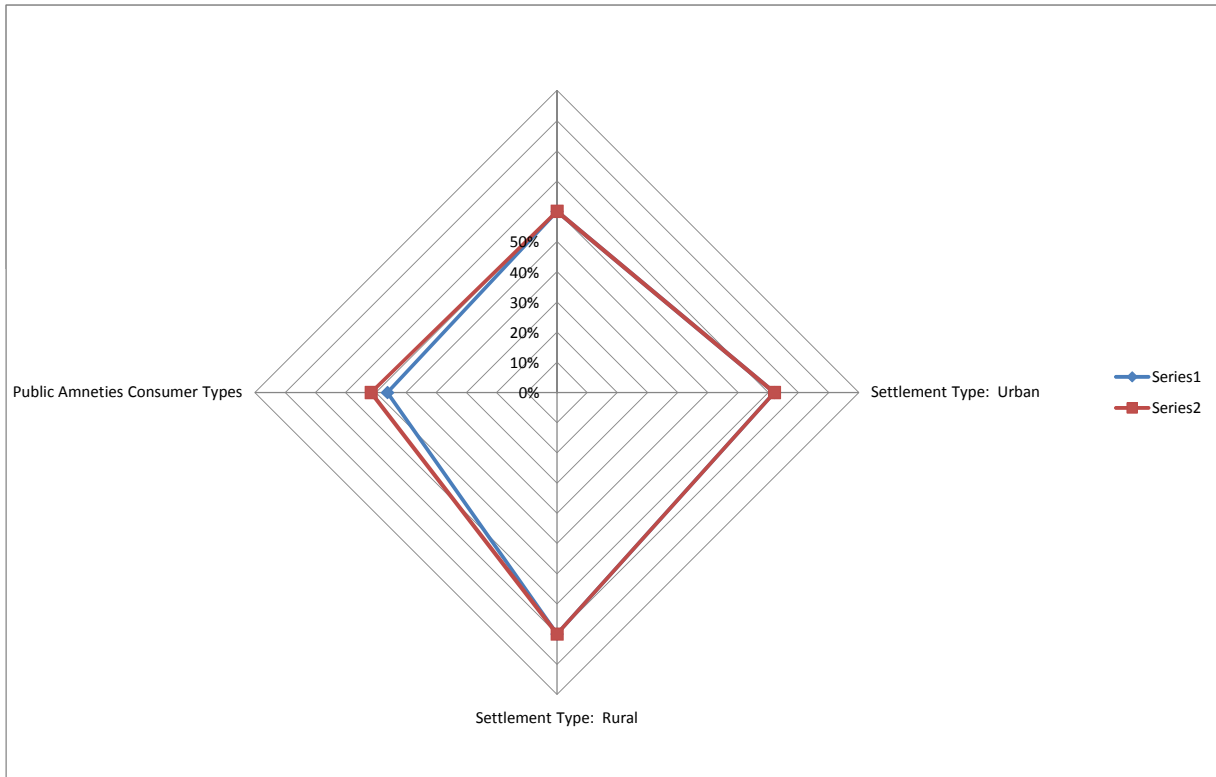
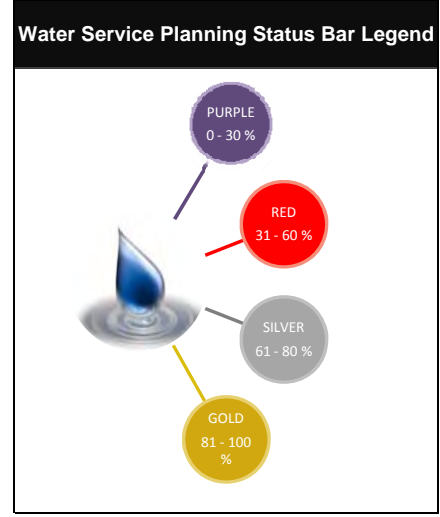


WSDP Status Quo Knowledge Interpretation Report: Demographics Profile (Topic 2)

Assessment	
Quality	Quantity
SERIES 1	SERIES 2
60%	60%
72%	72%
80%	80%
56%	62%

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

67% **68%**



Service Levels Profile Average Total **68%**

Topic 2 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

Settlement Type: FARMING

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

Settlement Type: URBAN

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

Settlement Type: RURAL

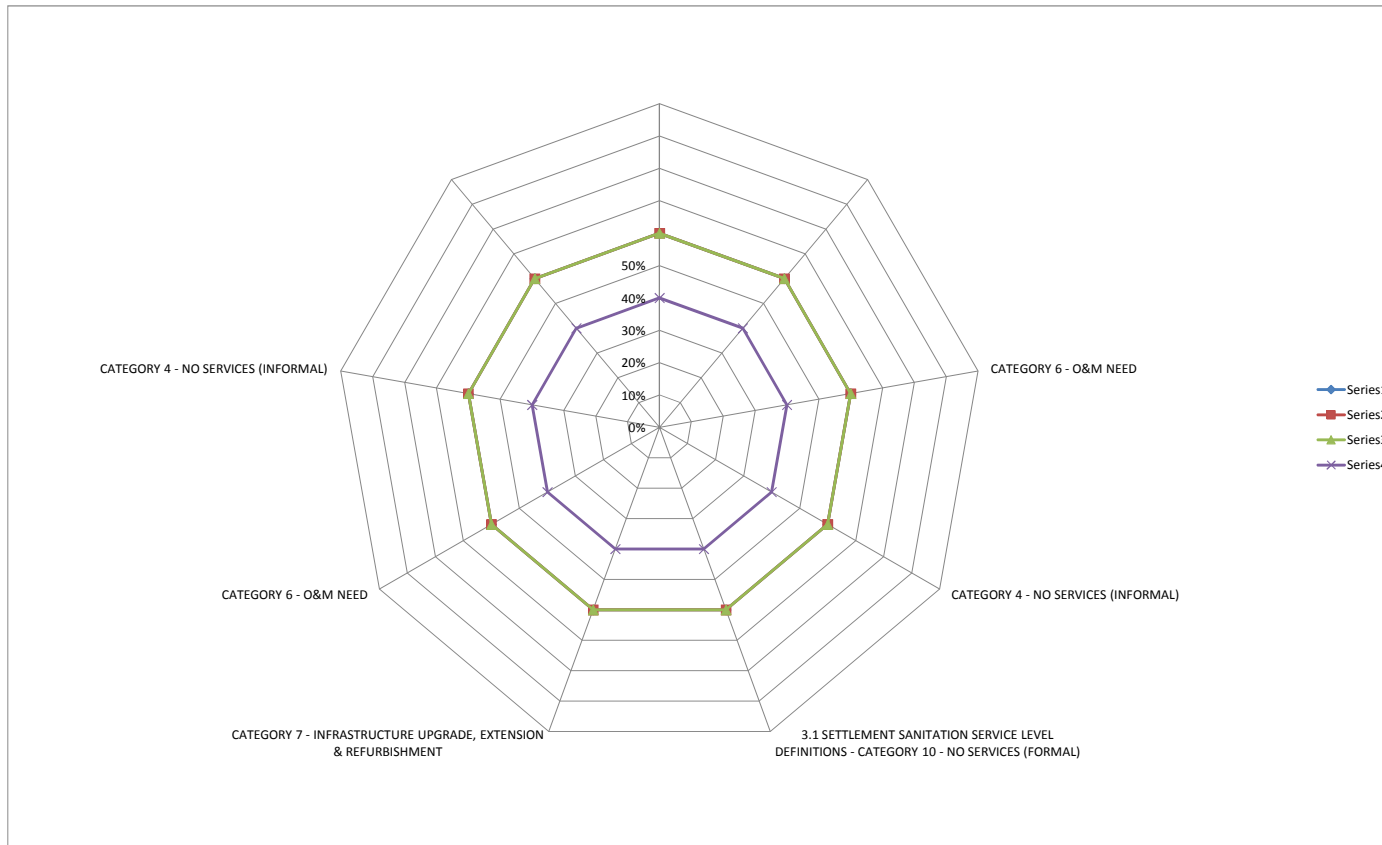
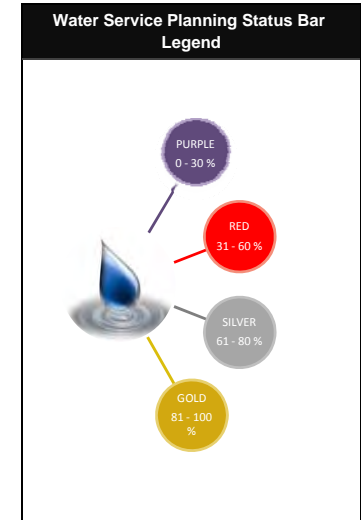
Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

Public Amneties Consumer Types

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

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%
60%	60%	60%	40%



Series1
Series2
Series3
Series4

Service Levels Profile Average Total **55%**

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:	
Define Strategy:	
List Possible Projects:	

3.2 SETTLEMENT WATER SERVICE LEVEL DEFINITIONS: WATER INFORMAL

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

3.2 SETTLEMENT SANITATION SERVICE LEVEL DEFINITIONS: SANITATION FORMAL

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

3.2 SETTLEMENT SANITATION SERVICE LEVEL DEFINITIONS: SANITATION INFORMAL

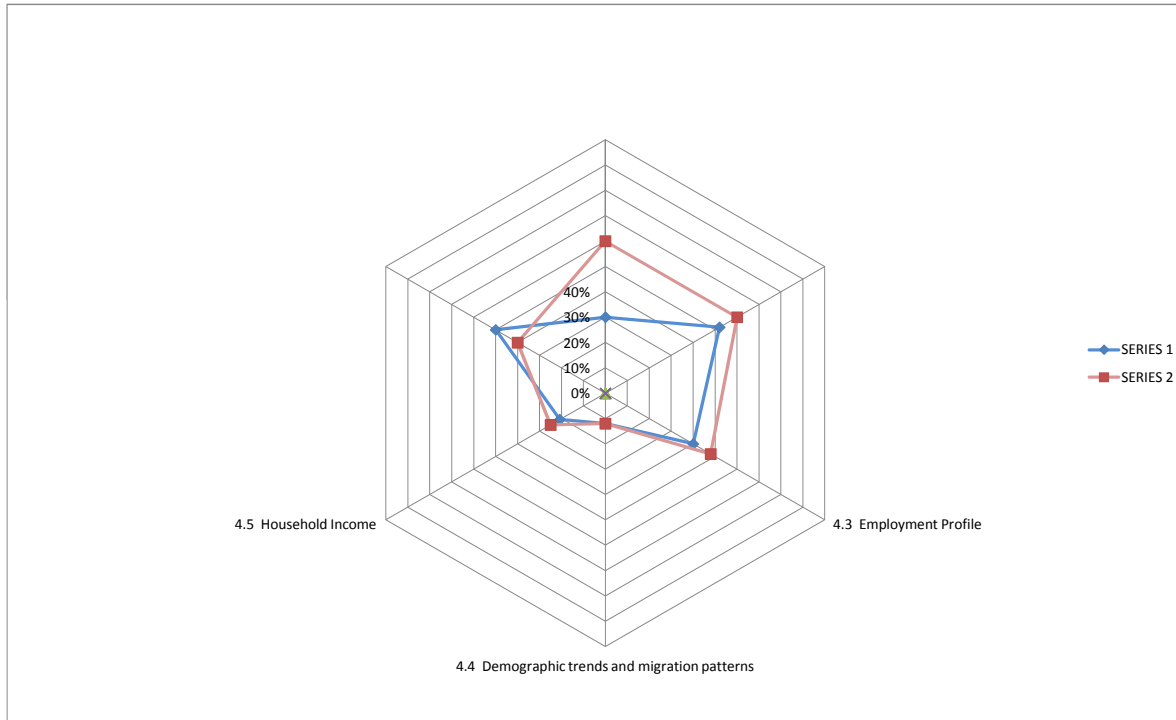
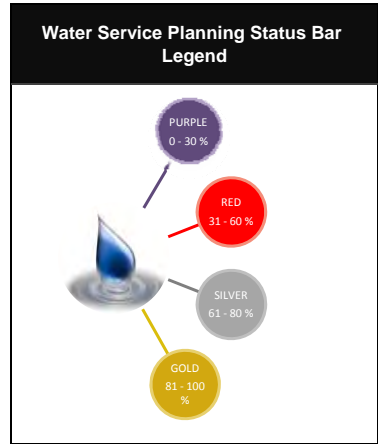
Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

3.3 RESIDENTIAL, PUBLIC INSTITUTIONS AND INDUSTRIES

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

- 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
30%	60%
52%	60%
40%	48%
12%	12%
21%	25%
50%	40%
34%	41%



Water Services Infrastructure Average Total **37%**

Topic 4 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

4.1 General

Interpret Situation Assessment:
Define Strategy:
List Possible Projects:

4.2 Age and Gender Profile

Interpret Situation Assessment:
Define Strategy:
List Possible Projects:

4.3 Employment Profile

Interpret Situation Assessment:
Define Strategy:
List Possible Projects:

4.4 Demographic trends and migration patterns

Interpret Situation Assessment:
Define Strategy:
List Possible Projects:

5.5 Household Income

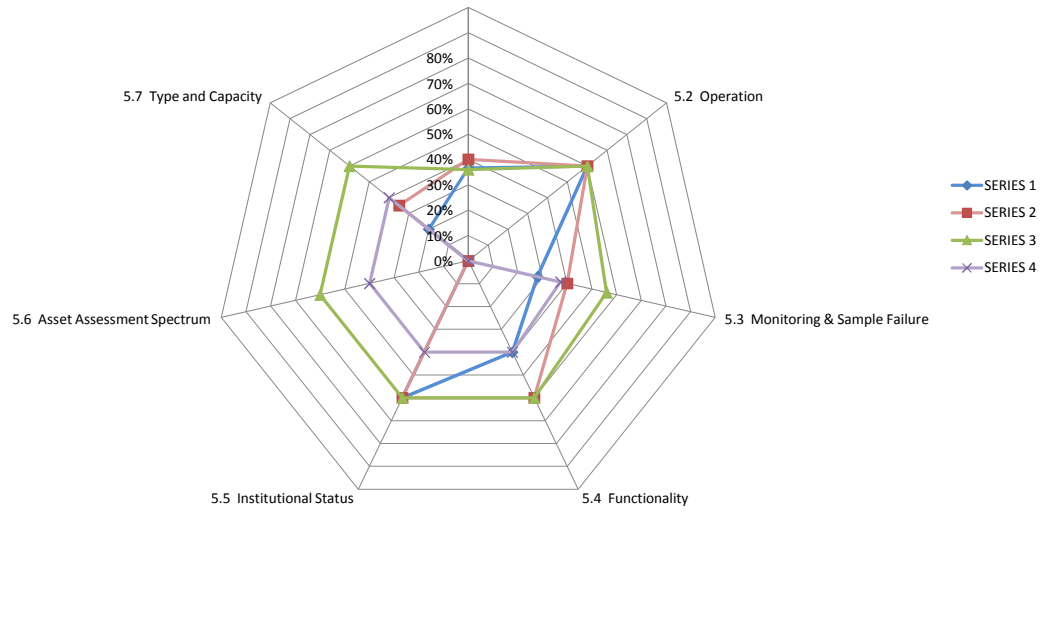
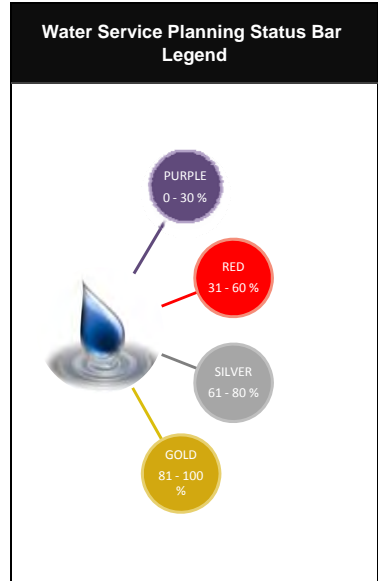
Interpret Situation Assessment:
Define Strategy:
List Possible Projects:

4.6 Economics

Interpret Situation Assessment:
Define Strategy:
List Possible 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
37%	40%	36%	0%
60%	60%	60%	0%
28%	40%	56%	37%
40%	60%	60%	40%
60%	60%	60%	40%
0%	0%	60%	40%
20%	35%	60%	40%
35%		42%	56%
42%		56%	28%



Water Services Infrastructure Average Total **40%**

Topic 5 - WSDP Strategic Interpretation Report.

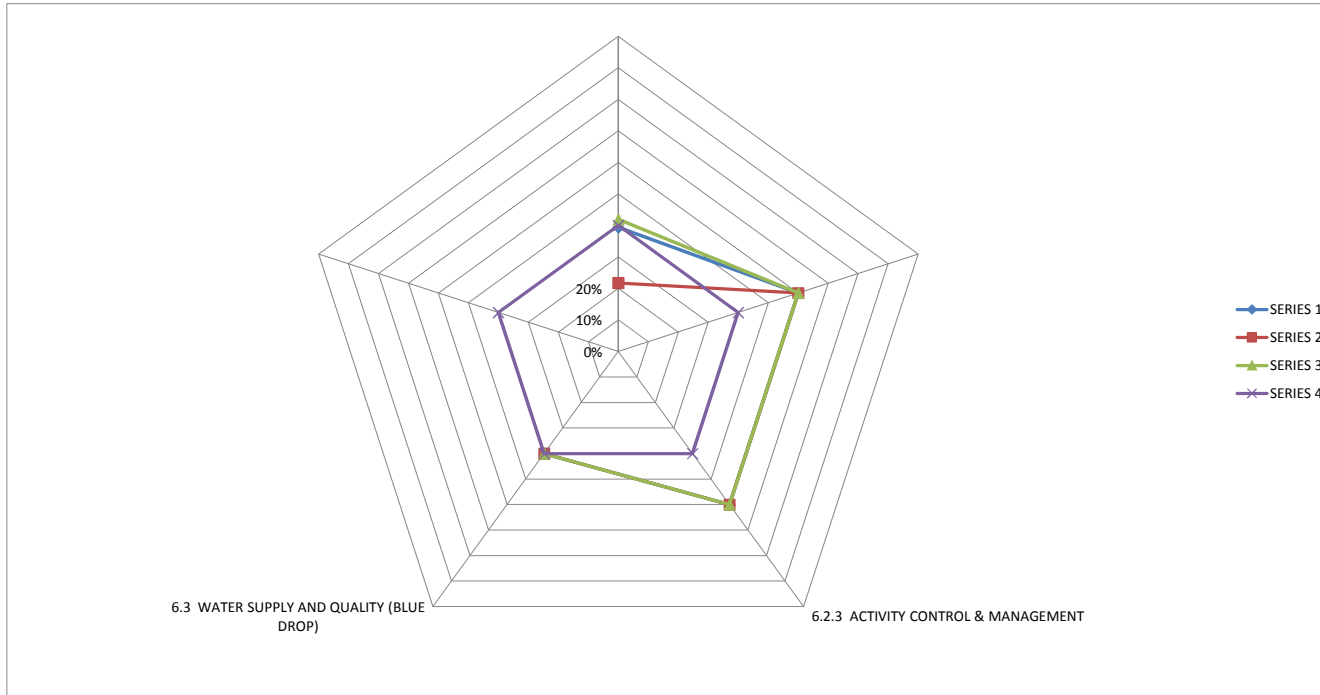
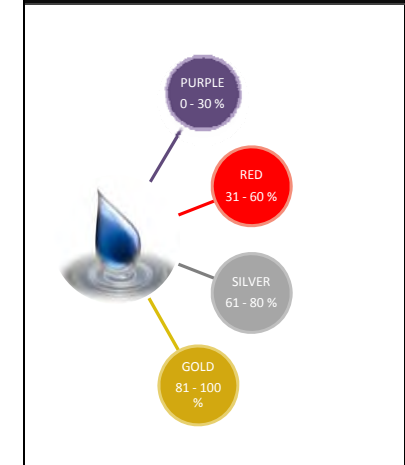
Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

5.1 General Information:		
Interpret Status Assessment	Define Strategy	List Possible Projects
5.2 Operation:		
Interpret Status Assessment	Define Strategy	List Possible Projects
5.3 Monitoring & Sample Failure:		
Interpret Status Assessment	Define Strategy	List Possible Projects
5.4 Functionality:		
Interpret Status Assessment	Define Strategy	List Possible Projects
5.5 Institutional Status:		
Interpret Status Assessment	Define Strategy	List Possible Projects
5.6 Asset Assessment Spectrum:		
Interpret Status Assessment	Define Strategy	List Possible Projects
5.7 Type and Capacity:		
Interpret Status Assessment	Define Strategy	List Possible Projects

- 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
0%	0%		
39%	60%	60%	40%
38%	60%	60%	40%
36%	60%	60%	40%
22%	60%	60%	40%
42%	60%	60%	40%
30%		50%	40%

Water Service Planning Status Bar Legend



Water Services Infrastructure Average Total

45%

Topic 6 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

6.1 OPERATION & MAINTENANCE PLAN

Interpret Situation Assessment	Define Strategy	List Possible Projects

6.2.1 RESOURCES

Interpret Situation Assessment	Define Strategy	List Possible Projects

6.2.2 INFORMATION

Interpret Situation Assessment	Define Strategy	List Possible Projects

6.2.3 ACTIVITY CONTROL & MANAGEMENT

Interpret Situation Assessment	Define Strategy	List Possible Projects

6.3 WATER SUPPLY AND QUALITY (BLUE DROP)

Interpret Situation Assessment	Define Strategy	List Possible Projects

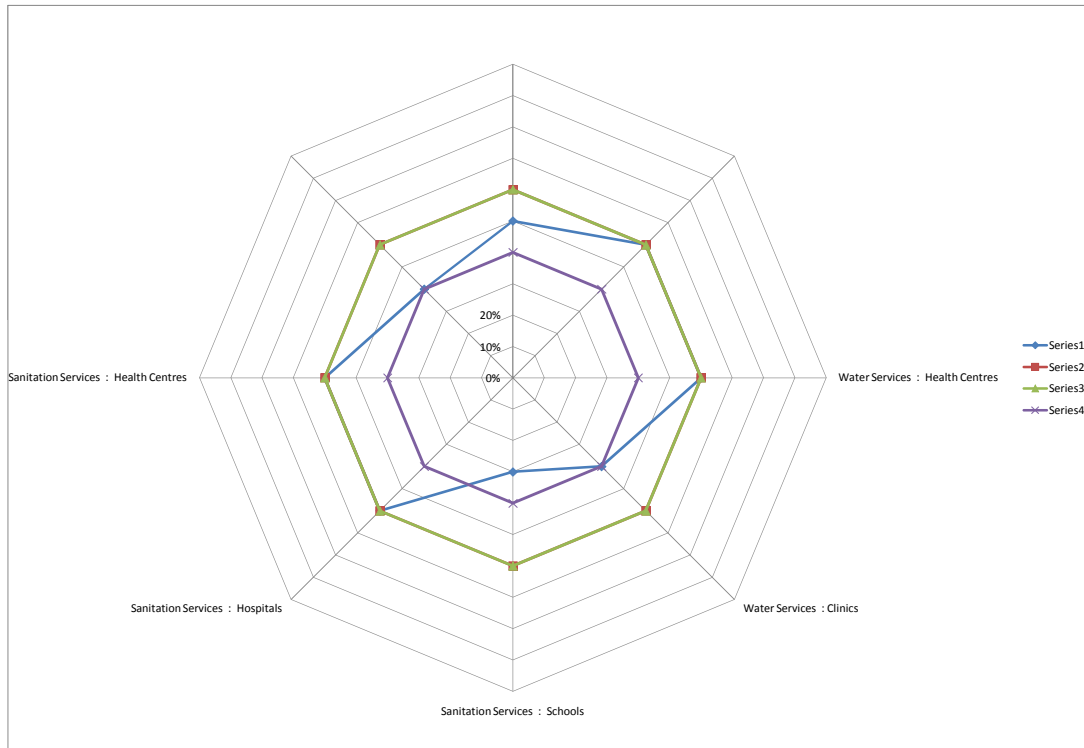
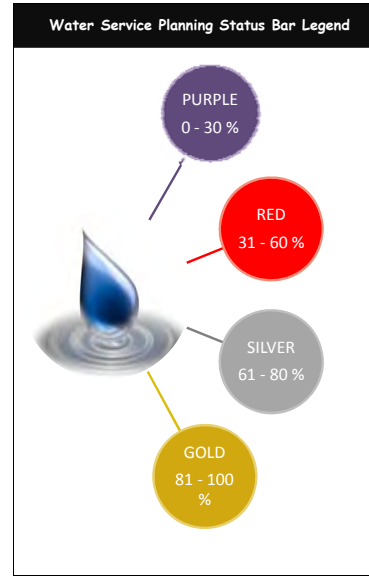
6.4 WASTE WATER SUPPLY AND QUALITY (GREEN DROP)

Interpret Situation Assessment	Define Strategy	List Possible Projects

	Assessment		Future Plan Assessment	Strategy Assessment
	Quality	Quantity		
Water Services : Schools	SERIES 1 50%	SERIES 2 60%	SERIES 3 60%	SERIES 4 40%
Water Services : Hospitals	60%	60%	60%	40%
Water Services : Health Centres	60%	60%	60%	40%
Water Services : Clinics	40%	60%	60%	40%
Sanitation Services : Schools	30%	60%	60%	40%
Sanitation Services : Hospitals	60%	60%	60%	40%
Sanitation Services : Health Centres	60%	60%	60%	40%
Sanitation Services : Clinics	40%	60%	60%	40%

50%	60%	60%	40%
-----	-----	-----	-----

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



Water Services Infrastructure Average Total **53%**

Topic 7 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

Water Services: Schools

Interpret Assessment

Define Strategy

List Possible Projects

Water Services: Hospitals

Interpret Assessment

Define Strategy

List Possible Projects

Water Services: Health Centres

Interpret Assessment

Define Strategy

List Possible Projects

Water Services: Clinics

Interpret Assessment

Define Strategy

List Possible Projects

Sanitation Services: Schools

Interpret Assessment

Define Strategy

List Possible Projects

Sanitation Services: Hospitals

Interpret Assessment

Define Strategy

List Possible Projects

Sanitation Services: Health Centres

Interpret Assessment

Define Strategy

List Possible Projects

Sanitation Services: Clinics

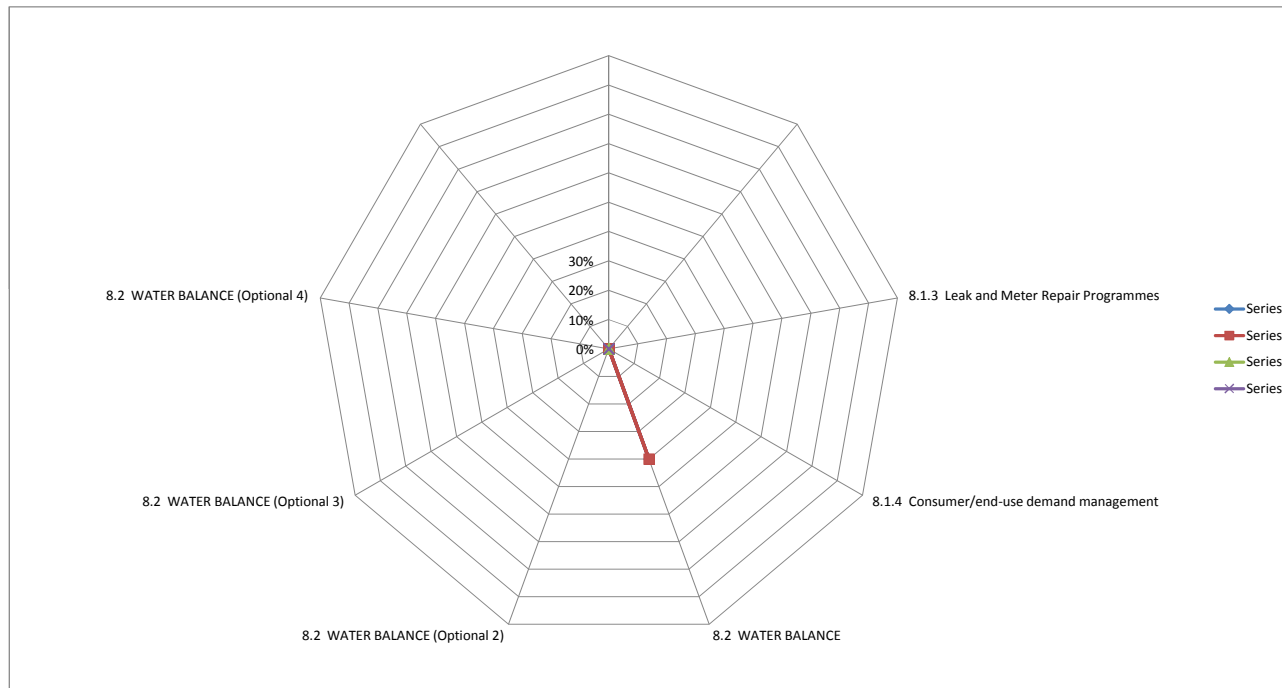
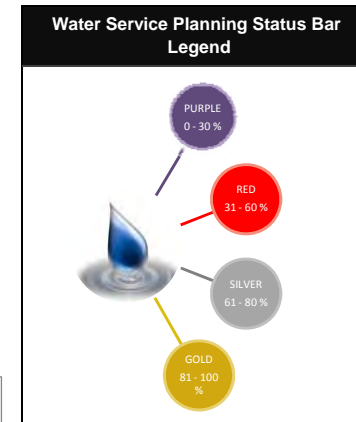
Interpret Assessment

Define Strategy

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
0%	0%	0%	0%
0%	0%	0%	0%
0%	0%	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%
4%		0%	0%



Topic 8 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

8.1.1 Reducing unaccounted water and water inefficiencies

Network Situation Assessment:	
Define Strategy:	
List Possible Projects:	

8.1.2 Reducing high pressures for residential consumers

Network Situation Assessment:	
Define Strategy:	
List Possible Projects:	

8.1.3 Leak and Meter Repair Programmes

Network Situation Assessment:	
Define Strategy:	
List Possible Projects:	

8.1.4 Consumer/end-use demand management

Network Situation Assessment:	
Define Strategy:	
List Possible Projects:	

8.2 WATER BALANCE :

Network Situation Assessment:	
Define Strategy:	
List Possible Projects:	

8.2 WATER BALANCE (Optional 2):

--

8.2 WATER BALANCE (Optional 3):

--

8.2 WATER BALANCE (Optional 4):

--

8.2 WATER BALANCE (Optional 5):

--

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:

8.3.2 Treated Water Loss :Bulk

Interpret Situation Assessment:
Define Strategy:
List Possible Projects:

8.3.3 Treated Water Loss :Internal

Interpret Situation Assessment:
Define Strategy:
List Possible Projects:

8.3.4 Water Balance

Interpret Situation Assessment:
Define Strategy:
List Possible Projects:

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

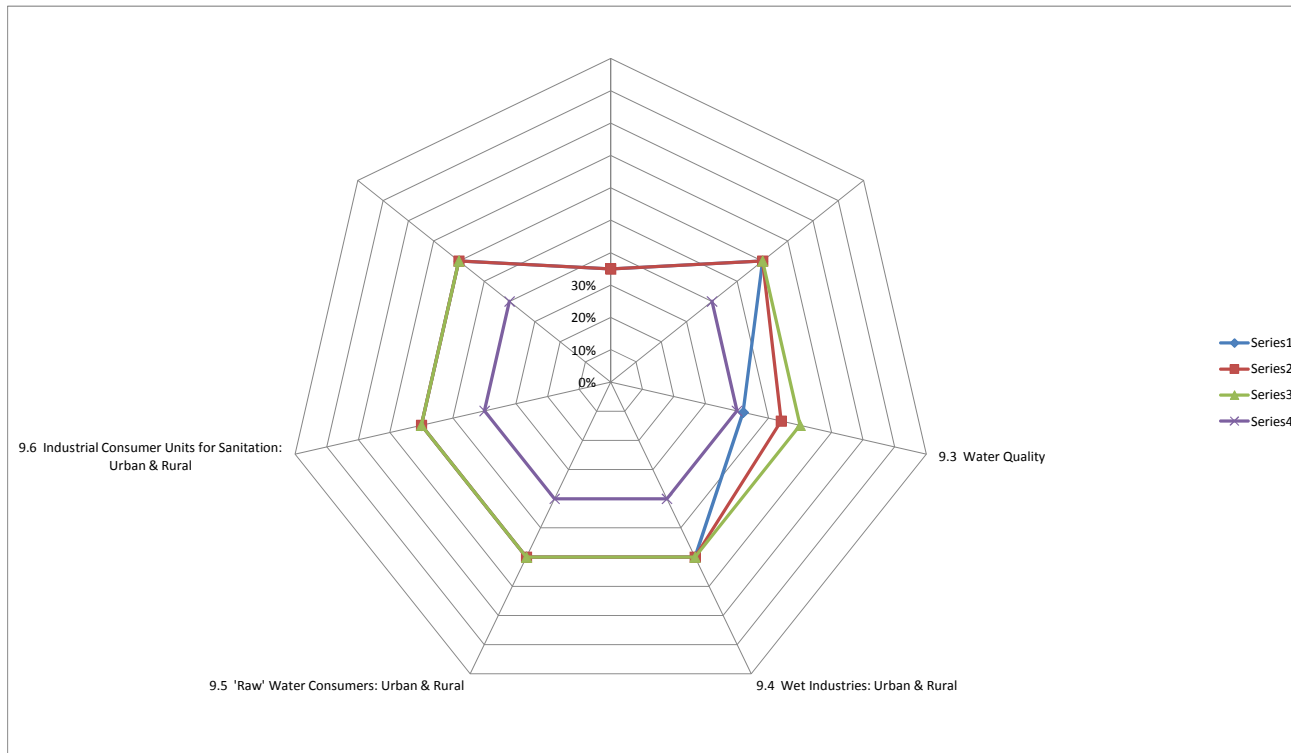
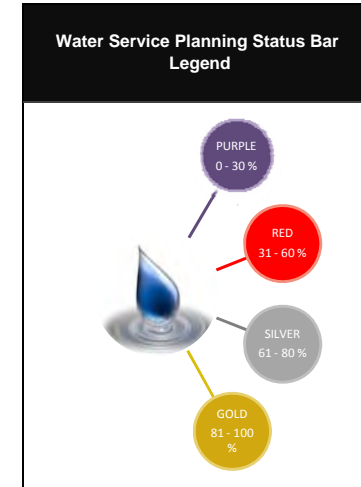
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8.3.4 Water Balance

--

- 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
35%	35%		
60%	60%	60%	40%
42%	54%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%
60%	60%	60%	40%
54%		60%	40%



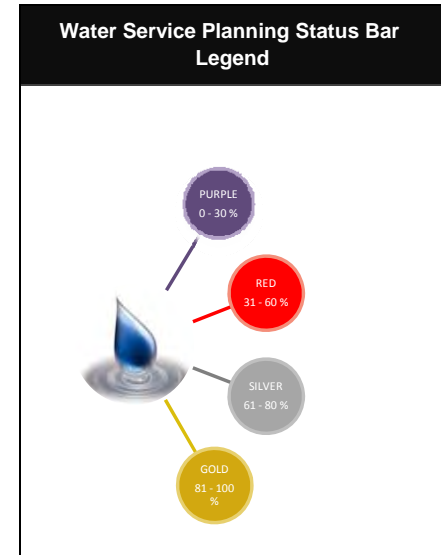
Water Services Infrastructure Average Total **52%**

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%	60%	40%
0%	0%	0%	0%
60%	60%	60%	40%
8%	8%	60%	40%
14%	16%	60%	40%

16%	17%	48%	32%
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Water Services Infrastructure Average Total **28%**

Topic 10 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

10.1.2 CAPITAL EXPENDITURE:

Interpret Situation Assessment:

Define Strategy:

List Possible Projects:

10.2 OPERATION & MAINTENANCE BUDGET:

Interpret Situation Assessment:

Define Strategy:

List Possible Projects:

10.3 TARIFF & CHARGES:

Interpret Situation Assessment:

Define Strategy:

List Possible Projects:

10.4 FREE BASIC SERVICES:

Interpret Situation Assessment:

Define Strategy:

List Possible Projects:

10.5 METERING, BILLING, INCOME & SALES:

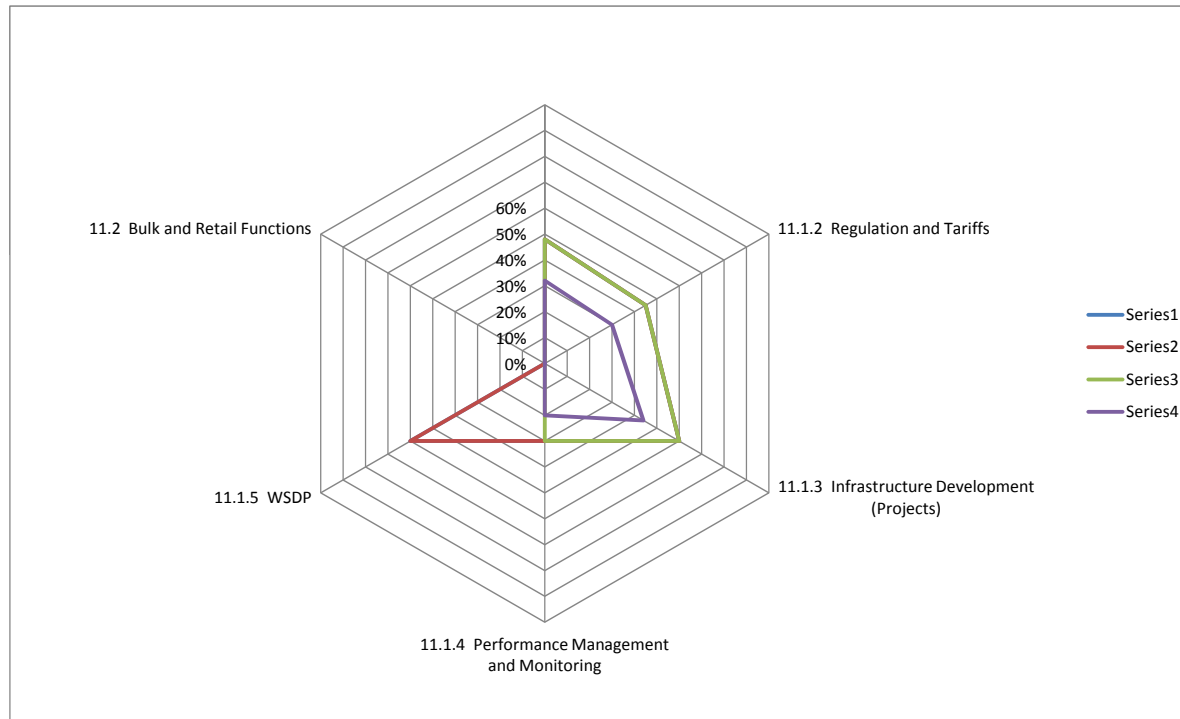
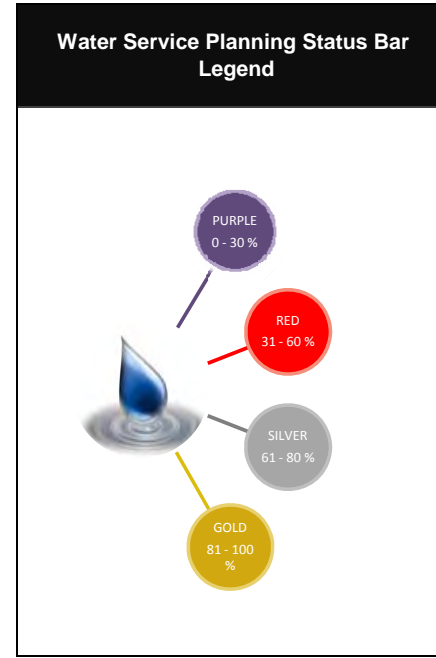
Interpret Situation Assessment:

Define Strategy:

List Possible Projects:

- 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
48%	48%	48%	32%
45%	45%	45%	30%
60%	60%	60%	44%
30%	30%	30%	20%
60%	60%	0%	0%
0%	0%	0%	0%
41%		31%	21%



Water Services Infrastructure Average Total **33%**

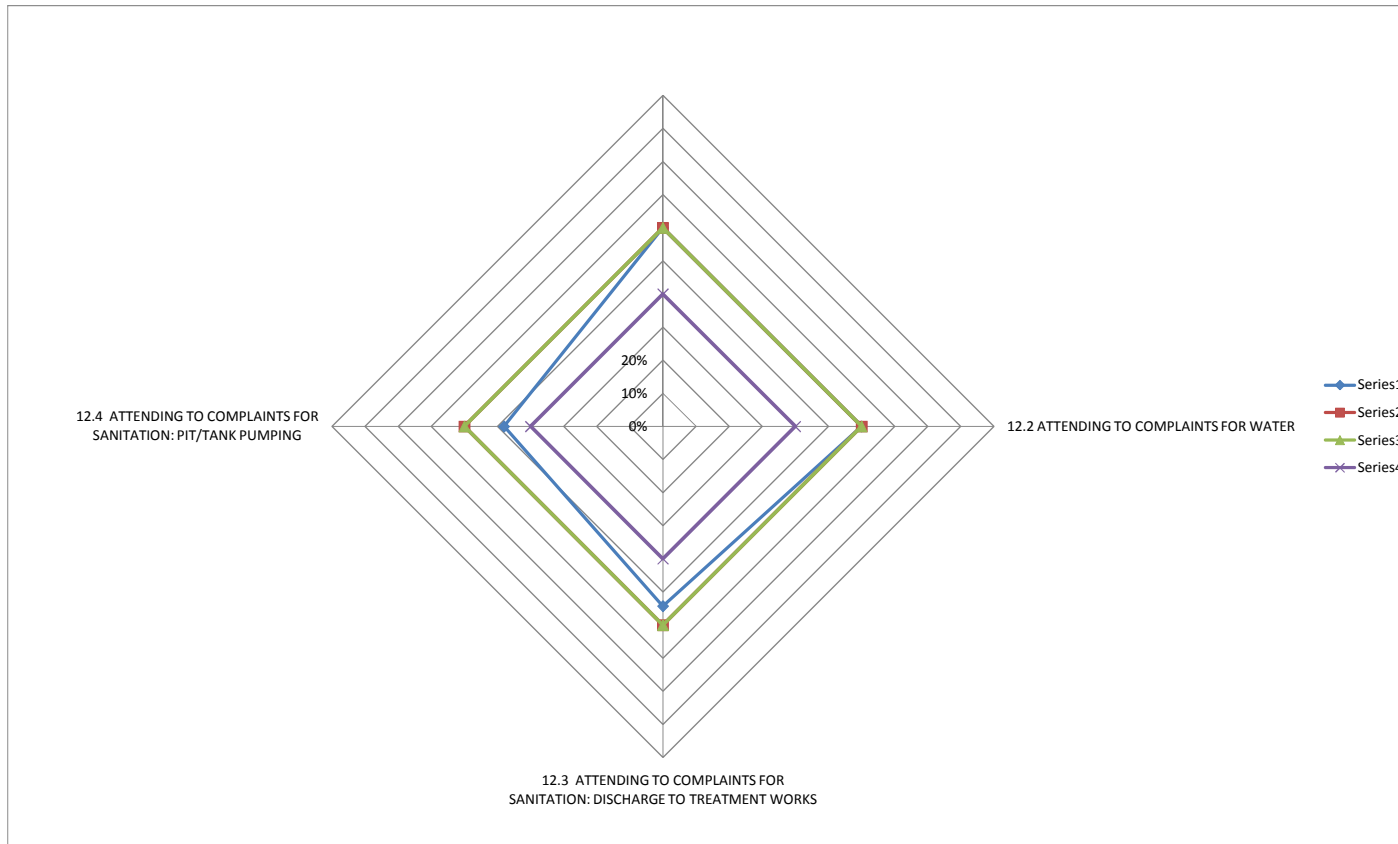
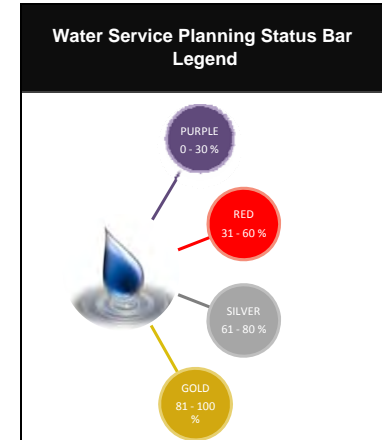
Topic 11 - WSDP Strategic Interpretation Report

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

11.1.1 Policy Development		
Interpret Situation Assessment		
Define Strategy		
List Possible Projects		
11.1.2 Regulation and Tariffs		
Interpret Situation Assessment		
Define Strategy		
List Possible Projects		
11.1.3 Infrastructure Development (Projects)		
Interpret Situation Assessment		
Define Strategy		
List Possible Projects		
11.1.4 Performance Management and Monitoring		
Interpret Situation Assessment		
Define Strategy		
List Possible Projects		
11.1.5 WSDP		
Interpret Situation Assessment		
Define Strategy		
List Possible Projects		
11.2 Bulk and Retail Functions		
Interpret Situation Assessment		
Define Strategy		
List Possible Projects		

- 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%
60%	60%	60%	40%
54%	60%	60%	40%
48%	60%	60%	40%
56%		60%	40%



Water Services Infrastructure Average Total **54%**

Strategic Interpretation, Implications and Solutions Derived from Spider Diagram

12.1 RESOURCES AVAILABLE TO PERFORM THIS FUNTION

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

12.2 ATTENDING TO COMPLAINTS FOR WATER

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

12.3 ATTENDING TO COMPLAINTS FOR SANITATION: DISCHARGE TO TREATMENT WORKS

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

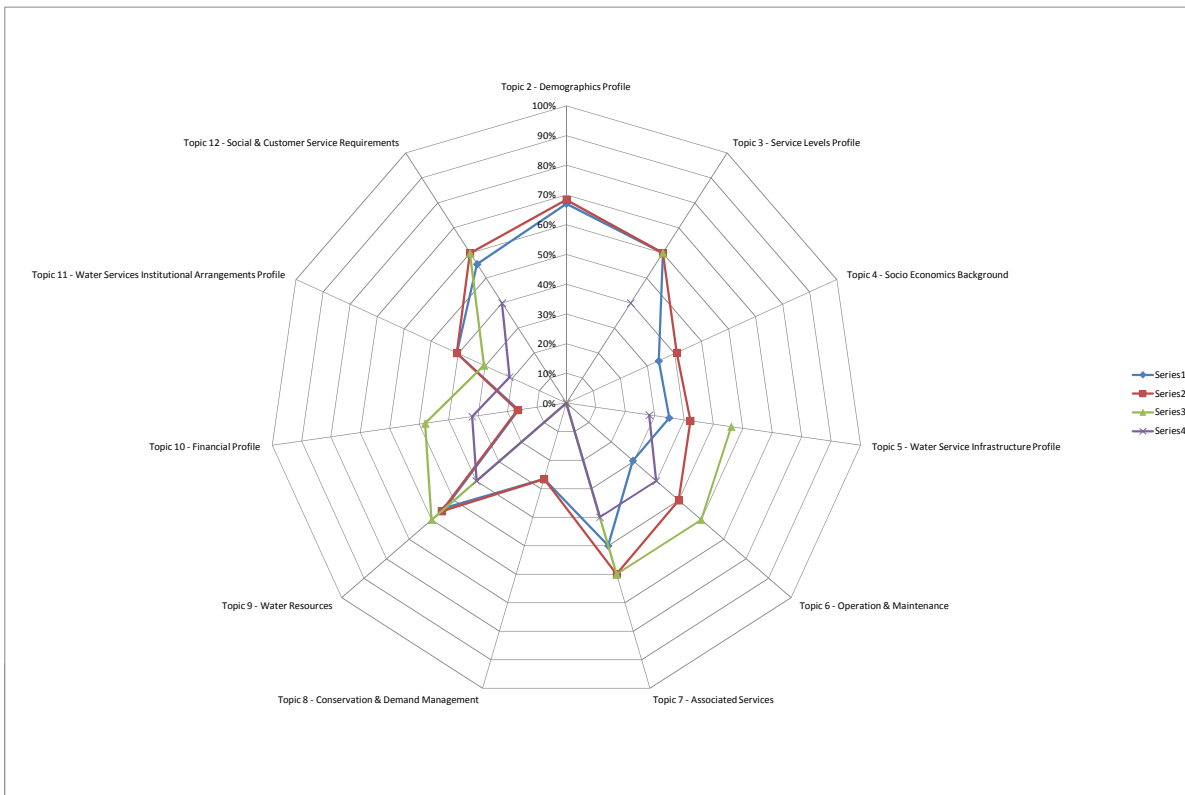
12.4 ATTENDING TO COMPLAINTS FOR SANITATION: PIT/TANK PUMPING

Interpret Situation Assessment:	
Define Strategy:	
List Possible Projects:	

WSDP Status Quo Knowledge Interpretation Report

TOTAL AVERAGES OF TOPICS				
	SERIES 1	SERIES 2	SERIES 3	SERIES 4
Topic 2 - Demographics Profile	67%	68%		
Topic 3 - Service Levels Profile	60%	60%	60%	40%
Topic 4 - Socio Economics Background	34%	41%		
Topic 5 - Water Service Infrastructure Profile	35%	42%	56%	28%
Topic 6 - Operation & Maintenance	30%	50%	60%	40%
Topic 7 - Associated Services	50%	60%	60%	40%
Topic 8 - Conservation & Demand Management	27%	27%	0%	0%
Topic 9 - Water Resources	54%	56%	60%	40%
Topic 10 - Financial Profile	16%	17%	48%	32%
Topic 11 - Water Services Institutional Arrangements Profile	41%	41%	31%	21%
Topic 12 - Social & Customer Service Requirements	56%	60%	60%	40%
	40%	45%	48%	31%

- 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



Water Services Infrastructure Average Total **41%**

Overall Water Services Planning Status Bar Legend

