

Water Services Development Plan



Water Services Development Plan

WSDP Compiled and submitted for approval

Municipal WSDP Coordinator: Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

WSDP Recommended for approval

Municipal Manager:  
Recommended: Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Not Recommended: Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Final Council approval:

Capacity: \_\_\_\_\_

Approved: Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Not Approved: Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Water Services Development Plan

Role Players Contact Details

Position	Name	Surname	Tel	Fax	Cell	E-mail	Interaction Acknowledgement Yes/No	Interaction Acknowledgement Signature
Municipal Manager	Joseph	Cloete	027 851 1111	027 851 1101		postmaster@richtersveld.co.za	N	N
Mayor	C	Knoph	027 851 1111	027 851 1101		postmaster@richtersveld.co.za	N	N
Technical Services Manager	Ivan	Cloete	027 851 1111	027 8511101	082 441 1009	ivan@richtersveld.gov.za	N	N

Water Services Development Plan

Professional Service Provider (PSP)

**Company** MVD Kalahari  
**Name of PSP WSDP Project Manager** B Bensley  
**Tel:** 053 831 1889      **Cell:** 083 320 2600      **Fax:**      **Email:** brian@mvdkalahari.co.za

Inputs

**Name of PSP WSDP Information Systems Operator** Edwin van den Berg  
**Tel:** 053 831 1889      **Cell:** 082 748 8002      **Fax:**      **Email:** edwin@mvdkalahari.co.za

Components	Chapter	Name	Designation	Role	Contact Address, and Number
All	All		Project Leader		

Water Services Development Plan

**Sector Integration**

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

Sector Plan	Sector Interaction	Area	WSA
Agriculture	No		Richtersveld
Mining	No		Richtersveld
Tourism	No		Richtersveld















Water Services Development Plan

Nr	Project Number	Project Name	Description	Project Type	Project Solution	Main Category	Sub Category	Component(Yes/No)																Project Cost (R'000)	Funding Source (R'000)						
								Bulk Pipeline	Reticulation Line	Pumpstation	WTW	Reservoir	Source Development	Power Installation	Feasibility	Operations	Maintenance	WCDM	WWTW	Water Bourne Sanitation	VIP Sanitation	Own	MIG		RBIG	ACIP	DR	MWIG	Other		
10	NA_Ric_07	Assessment and Refurbishment of Boreholes	Assessment and Refurbishment of Boreholes in Port Nolloth and Eksteensfontein	Refurbish Infrastructure	Functionality	Water	Internal Bulk	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	857	0	0	0	0	0	0	0
11	NA_Ric_08	Interim repairs to Infrastructure to lessen current water problems in Port Nolloth	Interim repairs to Infrastructure to lessen current water problems in Port Nolloth, including installation of isolation valves and repairs to boreholes.	Refurbish Infrastructure	Functionality	Water	Internal Bulk	N	N	N	N	N	Y	N	N	Y	Y	N	N	N	N	N	1,991	0	0	0	0	0	0	0	
12	NA_Ric_10	Refurbishment of Khubus Reservoir	Refurbishment of Khubus Reservoir	Refurbish Infrastructure	Functionality	Water	Internal Bulk	N	N	N	N	Y	N	N	N	Y	Y	N	N	N	N	N	307	0	0	0	0	0	0	0	
13	NA_Ric_12	Relocation of Sanddrift Raw Water Pump Station	Relocation of Sanddrift Raw Water Pump Station	Refurbish Infrastructure	Functionality	Water	Internal Bulk	N	N	Y	N	N	Y	Y	N	Y	Y	N	N	N	N	N	0	0	0	0	0	0	0	0	
14	NA_Ric_06	Eradication of Conservancy Tanks in Port Nolloth	Eradication of Conservancy Tanks in Port Nolloth	Refurbish Infrastructure	Functionality	Sanitation	Internal Sanitation	N	Y	Y	N	N	N	Y	N	N	N	N	N	N	Y	N	20,000	0	0	0	0	0	0	0	
15	NA_Ric_09	Refurbishment of 10 Port Nolloth Sewer Pumpstations	Refurbishment of 10 Port Nolloth Sewer Pumpstations	Refurbish Infrastructure	Functionality	Sanitation	Internal Bulk	N	N	Y	N	N	N	Y	N	N	N	N	N	N	N	N	2,618	0	0	0	0	0	0	0	
16	NA_Ric_14	Refurbishment of 3 Alexander Bay Sewer Pumpstations	Refurbishment of 3 Alexander Bay Sewer Pumpstations	Refurbish Infrastructure	Functionality	Sanitation	Internal Bulk	N	N	Y	N	N	N	Y	N	N	N	N	N	N	N	N	785	0	0	0	0	0	0	0	

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								Bulk Pipeline	Reticulation Line	Pumpstation	WTW	Reservoir	Source Development	Power Installation	Feasibility	Operations	Maintenance	WCDM	WWTW	Water Bourne Sanitation	VIP Sanitation		Own	MIG	RBIG	ACIP	DR	MWIG	Other		
17	NA_Ric_11	Construction of water treatment facility for Lekkersing	Construction of water treatment facility for Lekkersing	Local Scheme Solution	New Infrastructure	Water	Internal Bulk	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	6,380	0	0	0	0	0	0	0
18	NA_Ric_13	Construction of additional water storage for Sanddrift	Construction of additional water storage for Sanddrift	Local Scheme Solution	New Infrastructure	Water	Internal Bulk	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	355	0	0	0	0	0	0	0
19	NA_Ric_04	Construction of water treatment facility for Eksteensfontein	Construction of water treatment facility for Eksteensfontein	Local Scheme Solution	New Infrastructure	Water	Internal Bulk	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	5,000	0	0	0	0	0	0	0	
20	NA_Ric_03	Khubus bulk water pipeline from Sanddrift, WTW package plant and resource development.	Khubus bulk water pipeline from Sanddrift, WTW package plant and resource development.	Local Scheme Solution	New Infrastructure	Water	Internal Bulk	Y	N	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	16,901	0	0	0	0	0	0	0	
21	NA_Ric_05	Water pressure improvement in Sanddrift	Water pressure improvement in Sanddrift	Local Scheme Solution	New Infrastructure	Water	Internal Bulk	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	2,000	0	0	0	0	0	0	0	
22	NA_Ric_16	Construction of Oxidation Ponds for Eksteensfontein	Construction of Oxidation Ponds for Eksteensfontein	Local Scheme Solution	New Infrastructure	Sanitation	Sanitation Bulk	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	8,103	0	0	0	0	0	0	0	
23	NA_Ric_15	Construction of Oxidation Ponds for Khubus	Construction of Oxidation Ponds for Khubus	Local Scheme Solution	New Infrastructure	Sanitation	Sanitation Bulk	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	5,244	0	0	0	0	0	0	0	

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								Bulk Pipeline	Reticulation Line	Pumpstation	WTW	Reservoir	Source Development	Power Installation	Feasibility	Operations	Maintenance	WCDM	WWTW	Water Bourne Sanitation	VIP Sanitation		Own	MIG	RBIG	ACIP	DR	MWIG	Other		
24	RCT_GOV-029	Develop and implement infrastructure asset management strategies and plans	Develop and implement infrastructure asset management strategies and plans	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	9,000	0	0	0	0	0	0	0
25	RCT_GOV-021	Develop and implement a water resilience policy to improve water use efficacy.	Develop and implement a water resilience policy to improve water use efficacy.	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	1,500	0	0	0	0	0	0	0
26	RCT_GOV-018	Develop and implement an organizational performance management system	Develop and implement an organizational performance management system	Corporate Performance	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	3,000	0	0	0	0	0	0	0
27	RCT_GOV-010	Implement financial controls to ensure improved audit options	Implement financial controls to ensure improved audit options	Financial Management	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	0	0	0	0	0	0
28	RCT_GOV-011	Implementation of the credit control and dept collection policy	Implementation of the credit control and dept collection policy	Financial Management	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	3,500	0	0	0	0	0	0	0
29	RCT_GOV-013	Implement developed ITC master plan	Implement developed ITC master plan	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	2,000	0	0	0	0	0	0	0

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								Bulk Pipeline	Reticulation Line	Pumpstation	WTW	Reservoir	Source Development	Power Installation	Feasibility	Operations	Maintenance	WCDM	WWTW	Water Bourne Sanitation	VIP Sanitation		Own	MIG	RBIG	ACIP	DR	MWIG	Other		
30	RCT_GOV-016	Develop and implement water services infrastructure maintenance programme	Develop and implement water services infrastructure maintenance programme	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	9,000	0	0	0	0	0	0	0
31	RCT_GOV-027	Develop/ review and implement revenue enhancement strategy	Develop/ review and implement revenue enhancement strategy	Financial Management	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	2,500	0	0	0	0	0	0	0
32	RCT_GOV-007	Develop/ review and implement waste water risk abatement plans	Develop/ review and implement waste water risk abatement plans	Product & Service Quality	Governance	Sanitation	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	500	0	0	0	0	0	0	0
33	RCT_GOV-006	Develop/ improve water safety plans	Develop/ improve water safety plans	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	500	0	0	0	0	0	0	0
34	RCT_GOV-028	Develop and implement leak detection and repair program	Develop and implement leak detection and repair program	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	3,700	0	0	0	0	0	0	0
35	RCT_GOV-001	Develop and implement a comprehensive O&M plan to quantify a full resource schedule.	Develop and implement a comprehensive O&M plan to quantify a full resource schedule.	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	1,500	0	0	0	0	0	0	0	

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								Bulk Pipeline	Reticulation Line	Pumpstation	WTW	Reservoir	Source Development	Power Installation	Feasibility	Operations	Maintenance	WCDM	WWTW	Water Bourne Sanitation	VIP Sanitation		Own	MIG	RBIG	ACIP	DR	MWIG	Other		
36	RCT_GOV-002	Develop and implement a comprehensive WCDM plan	Develop and implement a comprehensive WCDM plan	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	7,000	0	0	0	0	0	0	0
37	RCT_GOV-020	Implement customer service system.	Implement customer service system manned by appropriate customer service representatives and using complaints register to address complaints and appropriately inform customers.	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	2,500	0	0	0	0	0	0	0	
38	RCT_GOV-019	Monitor Sanitation service delivery.	Monitor Sanitation service delivery to ensure sanitation services with minimal blockages resulting in overflows	Product & Service Quality	Governance	Sanitation	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	0	0	0	0	0	0	
39	RCT_GOV-030	Maintain and replace honey sucker tankers	Maintain and replace honey sucker tankers	Maintenance	Governance	Sanitation	Governance	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	5,000	0	0	0	0	0	0	0		
40	RCT_GOV-012	Review indigent policy and indigent register.	Review indigent policy and indigent register.	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	2,000	0	0	0	0	0	0	0		

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								Bulk Pipeline	Reticulation Line	Pumpstation	WTW	Reservoir	Source Development	Power Installation	Feasibility	Operations	Maintenance	WCDM	WWTW	Water Bourne Sanitation	VIP Sanitation		Own	MIG	RBIG	ACIP	DR	MWIG	Other		
41	RCT_GOV-009	Update compliance data on IRIS system on monthly basis	Update compliance data on IRIS system on monthly basis	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	500	0	0	0	0	0	0	0
42	RCT_GOV-025	Develop and implement skills development policy	Develop and implement skills development policy	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	1,200	0	0	0	0	0	0	0
43	RCT_GOV-023	Improve recourse quality monitoring process	Improve recourse quality monitoring process	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	1,000	0	0	0	0	0	0	0	
44	RCT_GOV-003	Introduce processes and procedures for improved customer metering management	Introduce processes and procedures for improved customer metering management	Human Resources	Governance	Water	Governance	N	N	N	N	N	N	N	Y	Y	Y	N	N	N	N	N	800	0	0	0	0	0	0	0	
45	RCT_GOV-015	Improve blue drop status and obtain certification	Improve blue drop status and obtain certification	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	0	0	0	0	0	0	0	0	
46	RCT_GOV-008	Improve green drop status and obtain certification	Improve green drop status and obtain certification	Product & Service Quality	Governance	Sanitation	Governance	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	0	0	0	0	0	0	0	0	
47	RCT_GOV-005	Introduce and maintain water balance performance monitoring.	Introduce and maintain water balance performance monitoring and submit up to date water balance to regulator	Product & Service Quality	Governance	Water	Governance	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	500	0	0	0	0	0	0	0	

Water Services Development Plan

Chapter 2:

**Topic 1: Settlement Demographics & Public Amenities**

Settlement Summary		
Section	Value	Assessment Score
1.1 Total Population	18762	90
1.2 Total Number of Households	5113	90
1.3 Average Household Size	3.61	90
1.4 Total Number of Settlements	8	90

Summary by Settlement Group			
Settlement Type	Settlements	Population	Households
Rural	6	6572	1826
Urban	2	12190	3287

Water Services Development Plan

Amenities Summary		
Description	Number per type	Assessment Score
Educational facilities	9	90
Health Facilities	5	90

Assessment Score						
Settlement Type		Number of settlements	Population per settlement type	Households per settlement type	Average Households size per settlement type	
Rural	Rural - Small Village <= 5000	6	6572	1826	3.56	90
Urban	Urban - Formal Town	1	12005	3238	3.71	90
Urban	Urban - Informal Settlements (Squatter Camp)	1	185	49	3.78	90
<b>Total</b>						<b>90.0%</b>

Topic 1 Master Plan		
Section	Is there a master plan to address this problem?	Does this plan address the plan address this problem 100%?
1.1 Settlements Summary	Yes	No
1.2 Summary by Settlement Group	Yes	No
1.3 Assessment Score by Settlement Type	Yes	No
1.4 Amenities Summary	Yes	No

## Water Services Development Plan

### Strategic Interpretation

#### Detail situation assessments per Topic element

##### 1.1 Settlements Summary

Interpret Situation Assessment:	Population figures are accurate in accordance to registered households per settlement and statistical analysis of current and future population as defined by STATS SA population densities.
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##### 1.2 Summary by Settlement Group

Interpret Situation Assessment:	Population figures are accurate in accordance to registered households per settlement and statistical analysis of current and future population as defined by STATS SA population densities.
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##### 1.3 Assessment Score by Settlement Type

Interpret Situation Assessment:	Population figures are accurate in accordance to registered households per settlement and statistical analysis of current and future population as defined by STATS SA population densities.
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##### 1.4 Amenities Summary

Interpret Situation Assessment:	
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Water Services Development Plan

Business Element Report Items	Compliance Score	Intervention Required	%	Solution description as identified by Master Plan	%	Is there an Existing project addressing this problem?	%	Does this current listed project address the problem totally?	%	Project Approved by Council as part of WSDP Database?	%	Approved by council, in project database and part of 5 yr IDP cycle projects	%	Project listed in 3 yr MTEF - cycle	%	Total Points	Current Demand Overall Scoring %
1.1 Settlements Summary	90	No	100		0	No	0	No	0	No	0	No	0	No	0	0	100
1.2 Summary by Settlement Group	0	No	100		0	No	0	No	0	No	0	No	0	No	0	0	100
1.3 Assessment Score by Settlement Type	90	No	100		0	No	0	No	0	No	0	No	0	No	0	0	100
1.4 Amenities Summary	90	No	100		0	No	0	No	0	No	0	No	0	No	0	0	100
<b>Demand Overall Scoring Average</b>																<b>100</b>	

WSDP FY2023: Strategies and Objectives

Richtersveld

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
<b>Settlement Demographics &amp; Public Amenities</b>									
<b>1 Demographics</b>									
1.1	Annual review of the housing and service level profile of the municipality	Annual update of WSDP Settlements Database	FY2022 settlement database		Demographics and service level profile as at 2023 recorded	Demographics and service level profile as at 2024 recorded	Demographics and service level profile as at 2025 recorded	Demographics and service level profile as at 2026 recorded	Demographics and service level profile as at 2027 recorded

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Topic 2: Service Levels Profile

Direct Backlog (Water & Sanitation)		
	Totals	Assessment Score
Direct settlement backlog water house holds. Total house hold of settlement with a water need (irrelevant the type of need)	380	70
Direct settlement backlog water population. Total population of settlement with a water need (irrelevant the type of need)	1474	70
Direct settlement backlog sanitation house holds. Total house hold of settlement with a sanitation need (irrelevant the type of need)	380	70
Direct settlement backlog sanitation population. Total population of settlement with a sanitation need (irrelevant the type of need)	1474	70

Water Profile		
	Totals	Assessment Score
<b>Water Services Infrastructure Supply Level Profile</b>		
Piped water inside the dwelling/house-Households	4269	90
Piped water inside yard-Households	335	80
Piped water distance <200m - Households	45	50
Piped water distance <201m - Households	0	90
Borehole in the yard - Households	0	80
Rain-water tank in yard - Households	0	80
Water vendor-carrier/tanker - Households	0	80
Stagnant water - dam/pool - Households	0	80
Flowing water/spring/ stream/river - Households	0	80
Water Other - Households	0	80
<b>Water Reliability Profile</b>		
Water Supply System - Single Type	0	90
Water Supply System - Scheme based	0	90

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<b>Water Profile</b>		
	<b>Totals</b>	<b>Assessment Score</b>
Total Number of Households having Reliable Service. (Interpret Direct Backlog field above)	4269	90
Total Number of Households NOT having Reliable Service. (Interpret Direct Backlog field above)	380	70
System Total Number of Households NOT having Reliable Service due to: Functionality (O&M and Management)	0	70
Total Number of Households NOT having Reliable Service due to: Resource	149	50
Total Number of Households NOT having Reliable Service due to: Infrastructure	3450	50
Total Number of Households NOT having Reliable Service due to: Resource - Conservation & Demand Management	0	70
Total Number of Households NOT having Reliable Service due to: Resource - New Source	149	50
Total Number of Households NOT having Reliable Service due to: Infrastructure – UPGRADE/REFURBISHMENT	3405	50
Total Number of Households NOT having Reliable Service due to: Infrastructure – EXTENSION	45	50
Total Number of Households NOT having Reliable Service due to: Infrastructure – NEW SCHEME	0	90
Total Number of Households NOT having Reliable Service due to: REPLACE OLD	0	90

<b>Sanitation Profile</b>		
	<b>Totals</b>	<b>Assessment Score</b>
<b>Sanitation Service Infrastructure Supply Level Profile</b>		
None - Households	45	40
Flush toilet (connected to sewerage system) - Households	2911	80
Flush toilet (with septic tank) - Households	1358	70
Chemical Toilet - Households	0	90
Pit toilet with ventilation (VIP) - Households	335	60
Pit without ventilation - Households	0	90
Bucket toilet - Households	0	90
<b>Sanitation Reliability Profile</b>		
Household requiring VIP Refurbishment	0	90
Household requiring Existing Scheme Refurbishment	0	90
Household not having reliable service due to Functionality	2500	90

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Sanitation Profile		
	Totals	Assessment Score
Household not having reliable service due to Resource - Water Security	0	90
Infrastructure to be upgraded: Pit to VIP (HH)	0	90
Infrastructure to be upgraded: Buckets to waterborne (HH)	0	90
Infrastructure requirement: None to to waterborne. (HH)	45	40
Infrastructure to be upgraded: Buckets to VIP (HH)	0	90
Infrastructure to be upgraded: None to VIP (HH)	0	90
Infrastructure to be upgraded: Pit to waterborne (HH)	0	90
Infrastructure to be upgraded: VIPs to waterborne (HH)	335	60

	Waterstatus
Consumer types	Adequate
Educational facilities	9
Health Facilities	5
Grand Total	14

Water Services Development Plan

2.1 Water Services						
Associated Services Facility	Number of facilities	Facilities with Adequate services	Facilities with No services	Facilities with Inadequate services	Total Potential Cost (basic level) (RM)	Assessment Score
<b>2.1.1 Education Plan</b>						
Pre-Primary School	0	0	0	0	0.00	50
Primary School	7	7	0	0	0.00	70
Secondary School	1	1	0	0	0.00	60
Tertiary	0	0	0	0	0.00	50
Combined	1	1	0	0	0.00	60
Special Needs	0	0	0	0	0.00	50
ABET	0	0	0	0	0.00	50
Other	0	0	0	0	0.00	50
<b>Total</b>	<b>9</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	
<b>2.1.2 Health Plan</b>						
Hospitals	0	0	0	0	0.00	50
Health Centers	1	1	0	0	0.00	70
Clinics	4	4	0	0	0.00	80
Other	0	0	0	0	0.00	50
<b>Total</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	
<b>2.2 Sanitation Services</b>						
<b>2.2.1 Education Plan</b>						
Pre-Primary School	0	0	0	0	0.00	50
Primary School	7	7	0	0	0.00	70
Secondary School	1	1	0	0	0.00	60
Tertiary	0	0	0	0	0.00	50

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Combined	1	1	0	0	0.00	60
Special Needs	0	0	0	0	0.00	50
ABET	0	0	0	0	0.00	50
Other	0	0	0	0	0.00	50
<b>Total</b>	<b>9</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	
<b>2.2.2 Health Plan</b>						
Hospitals	0	0	0	0	0.00	50
Health Centers	1	1	0	0	0.00	70
Clinics	4	4	0	0	0.00	80
Other	0	0	0	0	0.00	50
<b>Total</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	

<b>Topic 2 Master Plan</b>		
<b>Section</b>	<b>Is there a master plan to address this problem?</b>	<b>Does this plan address the plan address this problem 100%?</b>
Direct Backlog Water	Yes	No
Water Services Infrastructure Supply Level Profile	Yes	No
Sanitation Service Infrastructure Supply Level Profile	Yes	No
Water Services: Education	Yes	No
Sanitation Services: Education	Yes	No
Health and Educational Facilities	Yes	No
Direct Backlog Sanitation	Yes	No
Water Reliability Profile	Yes	No
Sanitation Reliability Profile	Yes	No
Water Services: Health	Yes	No
Sanitation Services: Health	Yes	No

## Water Services Development Plan

### Strategic Interpretation

#### Detail situation assessments per Topic element

##### Direct Backlog Water

Interpret Situation Assessment:	Communal water provided for 45 informal erven in Sanddrift.
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##### Water Services Infrastructure Supply Level Profile

Interpret Situation Assessment:	4269 Erven Supplied at higher level of service, 335 erven supplied at basic level of service, 45 informal erven supplied by communal water at lower than basic level of service.
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##### Sanitation Service Infrastructure Supply Level Profile

Interpret Situation Assessment:	45 Households not having access to any sanitation service in Sanddrift informal settlement.
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##### Water Services: Education

Interpret Situation Assessment:	Service provision for all facilities is adequate.
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##### Sanitation Services: Education

Water Services Development Plan

Interpret Situation Assessment:	Service provision for all facilities is adequate.
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Health and Educational Facilities

Interpret Situation Assessment:	Installation of JoJo Tanks at Schools and hospitals.
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Direct Backlog Sanitation

Interpret Situation Assessment:	45 Households not having access to any sanitation service in Sanddrift informal settlement.
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Water Reliability Profile

Interpret Situation Assessment:	3450 Households in Port Nolloth and McDougal's Bay not having reliable service due to lack of adequate supply of treated water from Alexander Bay due to degradation of bulk supply pipeline. 149 Households in Lekkersing not having reliable service due to lack of adequate supply of water from functional boreholes, borehole water also not suitable for long term human consumption (brackish) with no treatment facilities available. Eksteensfontein does not have treatment facilities available.
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Sanitation Reliability Profile

Interpret Situation Assessment:	2500 Households in Port Nolloth don't have reliable service due to dilapidation (functionality) of existing sewer pump stations. Port Nolloth oxidation ponds in state of disrepair due to vandalism of pond lining. No WWTW available for Eksteensfontein, Khubus, Sanddrift, and Lekkersing. Honey sucker are aged and in need of repair/ replacement.
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Water Services: Health

Water Services Development Plan

Interpret Situation Assessment:	Service provision for all facilities is adequate.
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Sanitation Services: Health

Interpret Situation Assessment:	Service provision for all facilities is adequate.
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Business Element Report Items	Compliance Score	Intervention Required	%	Solution description as identified by Master Plan	%	Is there an Existing project addressing this problem?	%	Does this current listed project address the problem totally?	%	Project Approved by Council as part of WSDP Database?	%	Approved by council, in project database and part of 5 yr IDP cycle projects	%	Project listed in 3 yr MTEF - cycle	%	Total Points	Current Demand Overall Scoring %
Direct Backlog Water	70	Yes	100	Formalization of 45 Sanddrift informal erven and implementation of water distribution and reticulation network infrastructure and minimum yard connections for basic water service provision.	100	No	0		0		0		0		0	200	28.57
Water Services Infrastructure Supply Level Profile	73.91	Yes	100	Formalization of 45 Sanddrift informal erven and implementation of water distribution and reticulation network infrastructure and minimum yard connections for basic water service provision.	100	No	0		0		0		0		0	200	28.57
Sanitation Service Infrastructure Supply Level Profile	79.44	Yes	100	Formalization and implementation of minimum flush sanitation with conservancy tanks for 45 Sanddrift informal erven.	100	No	0		0		0		0		0	200	28.57
Water Services: Education	53.85	No	100		0		0		0		0		0		0	0	100
Sanitation Services: Education	53.85	No	100		0		0		0		0		0		0	0	100
Health and Educational Facilities	0	Yes	100	Convince Dept of Education / Health to install JoJo tanks and cleaning of it every 2 years.	100	No	0		0		0		0		0	200	28.57
Direct Backlog Sanitation	0	Yes	100	Formalization and implementation of minimum flush sanitation with conservancy tanks for 45 Sanddrift informal erven.	100	No	0		0		0		0		0	200	28.57

Water Services Development Plan

Water Reliability Profile	0	Yes	100	Upgrading and refurbishment/ replacement of Alexander Bay to Port Nolloth bulk supply pipeline inclusive of Alexander Bay booster pumpstation and Holgat balancing reservoir. Investigate, supply and construct additional water sources for Lekkersing inclusive of treatment facilities. Supply and construct water treatment facilities for Eksteensfontein.	100	Yes	100	Yes	100	Yes	100	Yes	100	No	0	600	85.71
Sanitation Reliability Profile	0	Yes	100	Refurbish and upgrade existing sewer pump stations (9 of) in Port Nolloth. Refurbish pond lining at Port Nolloth oxidation ponds. Provide WWTW facilities for Eksteensfontein, Sanddrift, Khubus and Lekkersing. Provide for repair and/or replacement of aged honey sucker tankers.	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57
Water Services: Health	0	No	100		0		0		0		0		0		0	0	100
Sanitation Services: Health	0	No	100		0		0		0		0		0		0	0	100

Demand Overall Scoring Average

64.28

WSDP FY2023: Strategies and Objectives

Richtersveld

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP	
					FY2023	FY2024	FY2025	FY2026	FY2027	
					Target	Target	Target	Target	Target	
<b>Service Levels Profile</b>										
<b>2 Service Levels</b>										
2.01	Source development and development of bulk treatment and storage infrastructure to resolve potable water shortage in Lekkersing.	Implementation progress		NA_Ric_01, Lekkersing source development	Planning Feasibility/ RS Secure Funding	Implementation of Treatment Facilities 50%	Implementation of Treatment Facilities 100%	Implementation of Source development 50%	Implementation of Source development 100%	

Water Services Development Plan

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
2.01	Source development and development of bulk treatment and storage infrastructure to resolve potable water shortage in Lekkersing.	Implementation progress		NA_Ric_11, Construction of water treatment facility for Lekkersing	Planning Feasibility/RS Secure Funding	Implementation of Treatment Facilities 50%	Implementation of Treatment Facilities 100% Implementation of Source development 50%	Implementation of Source development 100%	
2.02	Develop Waste Water Treatment Works for Lekkersing.	Implementation progress	No sanitation disposal and treatment available to settlement	MIG/NC0372/s/10/11, 1064: Port Nolloth, Eksreensfontein, Lekkersing, Kuboes & Sanddrift Feasibility studies Oxidation Pond sites	Planning according to feasibility findings/RS Secure funding	Implementation 50%	Implementation 100%		
2.03	Repair/ refurbish and upgrading of Port Nolloth bulk water supply from Alexander Bay to resolve water shortages to Port Nolloth and McDougal's Bay. Refurbish, repair and upgrade Alexander bay abstraction and treatment works.	Implementation Progress	Water shortage due to lack of treated potable water to Port Nolloth due to degradation of bulk supply infrastructure from Alexander Bay.	NCR017, Bulk water supply to Port Nolloth	Planning Feasibility Study	IRSSecure Funding	Implementation 30%	Implementation 70%	Implementation 100%
2.04	Refurbish Port Nolloth oxidation ponds to resolve vandalized pond lining	Implementation progress	Pond lining heavily damaged due to high rate of vandalism and theft, resulting in high risk of subsoil contamination.	MIG/NC0779/S/21/24, Construction of Oxidation Ponds for Port Nolloth	Implementation 100%				
2.04	Refurbish Port Nolloth oxidation ponds to resolve vandalized pond lining	Implementation progress	Pond lining heavily damaged due to high rate of vandalism and theft, resulting in high risk of subsoil contamination.	MIG1286, Upgrading of Port Nolloth WWTW	Implementation 100%				

Water Services Development Plan

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
2.05	Refurbish and repair/replace Port Nolloth bulk sewer pumpstations (10 off)	Implementation progress	Existing pumpstations in Port Nolloth in varying states of disrepair and disfunction.	NA_Ric_09, Refurbishment of 10 Port Nolloth Sewer Pumpstations	PlanningSecure FundingImplementation 50%	Implementation 100%			
2.06	Refurbish and repair/replace Alexander Bay bulk sewer pumpstations (3 off)	Implementation progress	Alexander Bay bulk sewer pumpstations to be refurbished to restore 100% functionality	NA_Ric_14, Refurbishment of 3 Alexander Bay Sewer Pumpstations	PlanningSecure fundingImplementation 50%	Implementation 100%			
2.07	Refurbish and repair McDougal's Bay reservoir and booster pump station.	Implementation progress	McDougal's Bay reservoir in state of disrepair. Booster pumpstation completely destitute due to vandalism and theft.		PlanningFeasibility StudyIRSSecure funding	Implementation 50%	Implementation 100%		
2.08	Construction of new minimum 530kl reservoir for Sanddrift, and decommission existing reservoir due to lack of capacity and state of disrepair.	Implementation progress	Existing reservoir in Sanddrift is in state of disrepair and lacks sufficient capacity to serve current demand requirements at 1.6 days storage factor.	NA_Ric_13, Construction of additional water storage for Sanddrift	PlanningSecure fundingImplementation 50%	Implementation 100%			

Water Services Development Plan

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
2.09	Water pressure improvement in Sanddrift.	Implementation progress	Existing deficiencies in water pressure experienced in Sanddrift due to dysfunctionality and lack of sufficient capacity of existing elevated storage tank (pressure tower).	NA_Ric_05, Water pressure improvement in Sanddrift				PlanningSecure funding	Implementation 100%
2.010	Develop Waste Water Treatment Works for Sanddrift.	Implementation progress	No sanitation disposal and treatment facilities available to settlement.	MIG/NC0372/s/10/11, 1064: Port Nolloth, Eksreensfontein, Lekkersing, Kuboes & Sanddrift Feasibility studies Oxidation Pond sites	Planning according to feasibility findingsIRS Secure funding	Implementation 50%	Implementation 100%		
2.011	Development of Waste Water Treatment Works for Khubus.	Implementation Progress	No sanitation disposal and treatment available for settlement.	MIG/NC0372/s/10/11, 1064: Port Nolloth, Eksreensfontein, Lekkersing, Kuboes & Sanddrift Feasibility studies Oxidation Pond sites	Planning according to feasibility study findingsIRS Secure funding	Implementation 50%	Implementation 100%		
2.011	Development of Waste Water Treatment Works for Khubus.	Implementation Progress	No sanitation disposal and treatment available for settlement.	NA_Ric_15, Construction of Oxidation Ponds for Khubus	Planning according to feasibility study findingsIRS Secure funding	Implementation 50%	Implementation 100%		

Water Services Development Plan

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
2.01 2	Refurbish abstraction pumps and Water Treatment Works in Sanddrift.	Implementation Progress	Existing infrastructure shows signs of low to medium levels of degradation and must be refurbished and repaired to ensure continued optimal operation.			Planning Feasibility Study	IRSSecure Funding	Implementation 50%	Implementation 100%
2.01 3	Refurbishment and commissioning of abstraction pumps, booster pump station, and water treatment works for Khubus.	Implementation progress	Existing infrastructure shows signs of low to medium levels of degradation and must be refurbished or repaired.	NA_Ric_03, Khubus bulk water pipeline from Sanddrift, WTW package plant and resource development.		Planning Feasibility Study	IRSSecure Funding	Implementation 50%	Implementation 100%
2.01 3	Refurbishment and commissioning of abstraction pumps, booster pump station, and water treatment works for Khubus.	Implementation progress	Existing infrastructure shows signs of low to medium levels of degradation and must be refurbished or repaired.	NA_Ric_10, Refurbishment of Khubus Reservoir		Planning Feasibility Study	IRSSecure Funding	Implementation 50%	Implementation 100%
2.01 4	Develop Waste Water Treatment Works for Eksteensfontein.	No sanitation disposal facilities available for settlement.	Implementation progress	MIG/NC0372/s/10/11, 1064: Port Nolloth, Eksreensfontein, Lekkersing, Kuboes & Sanddrift Feasibility studies Oxidation Pond sites	Planning according to findings of feasibility study findings IRSSecure Funding	Implementation 50%	Implementation 100%		
2.01 4	Develop Waste Water Treatment Works for Eksteensfontein.	No sanitation disposal facilities available for settlement.	Implementation progress	NA_Ric_16, Construction of Oxidation Ponds for Eksteensfontein	Planning according to findings of feasibility study findings IRSSecure Funding	Implementation 50%	Implementation 100%		

Water Services Development Plan

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
2.015	Develop water treatment works for Eksteensfontein.	Implementation Progress	No water treatment facilities for purification of ground water for settlement.	NA_Ric_04, Construction of water treatment facility for Eksteensfontein		PlanningFeasibility Study	IRSSecure Funding	Implementation 50%	Implementation 100%
2.016	Refurbish and repair reservoirs 1 to 6 and boreholes in Eksteensfontein.	Implementation progress	Infrastructure shows low levels of levels of deterioration and will require refurbishment and repair within the next 5 to 10 years.			PlanningFeasibility Study	IRSSecure Funding	Implementation 50%	Implementation 100%
2.017	Replacement of AC water network and bulk pipelines in Port Nolloth.	Implementation progress	Old and damaged AC pipelines result in high rate of water leaks	NA_Ric_02, Port Nolloth WCDM and AC pipe replacement	PlanningFeasibility Study	IRSSecure Funding	Implementation 50%	Implementation 100%	
2.018	Eradication of conservancy tanks in Port Nolloth.	Implementation progress		NA_Ric_06, Eradication of Conservancy Tanks in Port Nolloth		PlanningFeasibility Study	IRSSecure Funding	Implementation 50%	Implementation 100%

Water Services Development Plan

Topic 3: Water Services Asset Management

Yes No Grid		
Question	Yes	Assessment Score

3.1 General Information		
3.1.1 Is there an Asset Management plan	False	10
3.1.2 Is there a disaster management plan	False	10
3.1.3 Is there a plan in place to manage untreated effluent	False	10

Questions										
Question	B	AP	WTW	WP	SP	WL	SL	R	WWTW	Assessment

Water Services Development Plan

											Score
[section]											
3.1.1 Total number of components / km of pipeline / units	27	3	3	5	14	224.12	0	14	2		50
3.2.1.1 Previous incidents including Security Problems (Regular)		0	0	0	9			0	0		50
3.2.1.2 Previous incidents including Security Problems (Periodic)		0	1	0	0			13	0		50
3.2.1.3 Previous incidents including Security Problems (Sporadic)		3	2	4	4			0	2		50
3.2.1.4 Previous incidents including Security Problems (None)		0	0	1	1			1	0		50
3.2.2.1 Safety inspection performed (Regular)		0	0	0	0			0	0		50
3.2.2.2 Safety inspection performed (Periodic)		0	0	0	0			0	0		50
3.2.2.3 Safety inspection performed (Sporadic)		3	3	4	13			0	1		50
3.2.2.4 Safety inspection performed (None)		0	0	1	1			14	0		50
3.2.5 Average Operating hours per day (X hrs)			12						12		50
3.3.1.1 General physical condition: Dysfunctional	5	0	0	1	9	0	0	1	0		50

Water Services Development Plan

3.3.1.2 General physical condition: Operational	19	3	3	4	4	0	0	13	2	50
3.3.1.3 General physical condition: Prime Condition	0	0	0	0	0	0	0	0	0	50
3.3.1.4 General physical condition: Vandalised	0	0	0	0	0	0	0	0	0	50
3.3.2 Number of breakages / failures per year	0	0	0	0	0	0	0	0	0	50
3.3.3 Total refurbishment needs %	0%	0	0	0	0	0	0	0	0	50
3.3.4 Total refurbishment needs cost (RM)	11.09	2.10	4.28	7.86	23.57	175.11	0	67.66	2.09	50
3.3.4.1 Refurbishment cost for 5 year	3.08	0.8	0.82	2.36	1.6	35.52	0	13.33	0.4	50
3.3.4.2 Refurbishment cost for 10 year	6.21	1.3	1.32	4.45	8.45	88.78	0	19.94	0.65	50
3.3.4.3 Refurbishment cost for 15 year	1.85	0	2.14	1.04	13.52	50.82	0	34.34	1.04	50
3.3.5 Total replacement needs %	0%	0	0	0	0	0	0	0	0	50
3.3.6 Total replacement needs cost (RM)	13.63	1.12	6.90	9.22	38.96	91.88	0	0.00	8.74	50
3.3.6.1 Replacement cost for 5 year	3.8	0	0	1.61	14.49	0	0	0	5.36	50

Water Services Development Plan

3.3.6.2 Replacement cost for 10 year	6.72	1.12	2.64	7.61	5.2	0	0	0	1.29	50
3.3.6.3 Replacement cost for 15 year	2.08	0	4.26	0	18.81	92.15	0	0	2.09	50
3.3.7 Total New development cost required	24.88	0	0	0	0	0	0	0	0	50
3.3.7.1 New development cost for 5 year	2	0	0	0	0	156.74	0	16.22	0	50
3.3.7.2 New development cost for 10 year	0	0	0	0	0	0	0	0	0	50
3.3.7.3 New development cost for 15 year	22.88	8.36	0	24.51	0	0	0	0	0	50
3.3.8 % Of Components already reached useful life	19%	0%	0%	20%	64%	21%	0	14%	0%	50
3.3.9 % Whereoff the WSA Self is the Current Owner	96%	67%	67%	60%	71%	86%	0	93%	50%	50
3.3.10 % Whereoff the WSA Self is Current Operator	96%	67%	67%	40%	71%	86%	0	93%	50%	50
3.4.1 % Expected total lifespan: Short (1-3 yrs)	18.52	0	0	20	64.29	21.43	0	35.71	0	50
3.4.2 % Expected total lifespan: Medium (3 - 10 yrs)	81.48	100	0	80	28.57	42.86	0	0	0	50
3.4.3 % Expected total lifespan: Long (10 - 20 yrs)	0	0	100	0	0	35.71	0	64.29	50	50

Water Services Development Plan

Sanitation Schemes		
Sanitation Schemes	Green Drop	Assessment Score
ALEXANDER BAY	False	10
PORT NOLLOTH	False	10

Water Services Development Plan

Water Schemes		
Water Schemes	Blue Drop	Assessment Score
ALEXANDER BAY	No	10
EKSTEENFONTEIN	False	10
KHUBUS	No	10
LEKKERSING	False	10
McDOUGLESBAY	False	10
PORT NOLLOTH	False	10
SANDDRIFT	No	10
WSA Level		

Topic 3 Master Plan

Water Services Development Plan

Section	Is there a master plan to address this problem?	Does this plan address the plan address this problem 100%?
3.1 General Information	Yes	No
3.2 Operation	Yes	No
3.3 Functionality Observation	Yes	No
3.4 Asset Assessment Spectrum	Yes	No
3.5 Water and Sanitation schemes	Yes	No

Strategic Interpretation

Detail situation assessments per Topic element

3.1 General Information

Interpret Situation Assessment:	No Asset and Disaster Management plans, inclusive of effluent plan in place. Limited Infrastructure information and data available, inclusive of as-built infrastructure drawings and O & M manuals.
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3.2 Operation

Interpret Situation Assessment:	Inadequate security measures implemented at accessible infrastructure components (pump stations; treatment works e.c.t.). Insufficient inspections preformed to assess safe operation of infrastructure.
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3.3 Functionality Observation

Interpret Situation Assessment:	Approximately 25% of water infrastructure is in state of disfunction with approximately 20% of infrastructure already at the useful life expectancy. Of particular concern is borehole, water and sewer pump station, water pipeline, and reservoir infrastructure. Very limited information is available regarding sewer pipeline infrastructure.
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3.4 Asset Assessment Spectrum

Water Services Development Plan

Interpret Situation Assessment:	Approximately 25% of water infrastructure is in state of disfunction with approximately 20% of infrastructure already at the useful life expectancy. Of particular concern is borehole, water and sewer pump station, water pipeline, and reservoir infrastructure. Very limited information is available regarding sewer pipeline infrastructure.
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3.5 Water and Sanitation schemes

Interpret Situation Assessment:	Poor GDS / BDS score. No capacity to take samples or capturing.
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Business Element Report Items	Compliance Score	Intervention Required	%	Solution description as identified by Master Plan	%	Is there an Existing project addressing this problem?	%	Does this current listed project address the problem totally?	%	Project Approved by Council as part of WSDP Database?	%	Approved by council, in project database and part of 5 yr IDP cycle projects	%	Project listed in 3 yr MTEF - cycle	%	Total Points	Current Demand Overall Scoring %
3.1 General Information	20	Yes	100	Develop all require management plans. Comprehensive survey of all infrastructure components and develop detailed as-built drawings, updated asset registers, and comprehensive operation and maintenance manuals.	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57
3.2 Operation	50	Yes	100	Implement improved security measures for accessible infrastructure including intrusion detection and deterrent measures. Implement response program for security related incidents. Implement regular inspection program for safety and functionality assessments of infrastructure components.	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57
3.3 Functionality Observation	50	Yes	100	Detailed conditional and demand analysis to be conducted on infrastructure to determine detailed needs for individual infrastructure components. Detailed refurbishment, repair, replacement, and upgrade plans and schedules must be formalized and implemented to correct deficiencies.	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57

Water Services Development Plan

3.4 Asset Assessment Spectrum	50	Yes	100	Detailed conditional and demand analysis to be conducted on infrastructure to determine detailed needs for individual infrastructure components. Detailed refurbishment, repair, replacement, and upgrade plans and schedules must be formalized and implemented to correct deficiencies and replace old or outdated infrastructure	100	Yes	0	Partial	0	Yes	0	Yes	0	Yes	0	200	28.57
3.5 Water and Sanitation schemes	9	Yes	100	Develop a turnaround strategy with action, timeframes, budget	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57
<b>Demand Overall Scoring Average</b>																<b>68.57</b>	

WSDP FY2023: Strategies and Objectives

Richtersveld

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
<b>Water Services Asset Management</b>									
<b>3 Water Services Infrastructure Management</b>									
3.01	Review of Water Services Development Plan	Quarterly review and update	Review and update Water Services Development Plan quarterly intervals.	RCT_GOV-024, Review of WSDP and bulk water master plan	Update WSDP and review every 3 months	Update WSDP and review every 3 months	Update WSDP and review every 3 months	Update WSDP and review every 3 months	Update WSDP and review every 3 months
3.02	Development and implementation of water services infrastructure maintenance and rehabilitation program.	Development and implementation	No program in place.	RCT_GOV-016, Develop and implement water services infrastructure maintenance programme	Development of plan 100% Council approval 100%	Implementation 100%			
3.03	Implement processes and procedures to improve meter management.	Implementation progress		RCT_GOV-003, Introduce processes and procedures for improved customer metering management	Development 100% Council Approval 100%	Implementation 100%			

Water Services Development Plan

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
3.04	Development and implementation of infrastructure asset management plans and strategies.	Development and implementation.Im proved asset management and asset performance	Sub-standard asset management.	RCT_GOV-029, Develop and implement infrastructure asset management strategies and plans	Development 100% Council Approval 100%	Development 100% Council Approval 100%	Implementation 100%		

Water Services Development Plan

Topic 4: Water Services O&M

In Place	Assesement Score			
4.1 Operation & Maintenance Plan				
Is There a Operation and Maintenance Plan?				
False	10			
Phase	Compliance	StatusQuo	Impact	Assesement Score
4.2 Resources				
4.2.1 Existing Groundwater Infrastructure				
Operation	Staff	Below Minimum requirement	Critical	30
Maintenance	Staff	Below Minimum requirement	Critical	30
Operation	External resources	Below Minimum requirement	Critical	30
Maintenance	External resources	Below Minimum requirement	Critical	30
Operation	Spare Parts	Below Minimum requirement	Critical	30
Maintenance	Spare Parts	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Budget	Below Minimum requirement	Critical	30
Maintenance	Budget	Below Minimum requirement	Critical	30
4.2 Resources				
4.2.2 Existing Surface Water Infrastructure				
Operation	Staff	Below Minimum requirement	Critical	30

Water Services Development Plan

Maintenance	Staff	Below Minimum requirement	Critical	30
Operation	External resources	Below Minimum requirement	Critical	30
Maintenance	External resources	Below Minimum requirement	Critical	30
Operation	Spare Parts	Below Minimum requirement	Critical	30
Maintenance	Spare Parts	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Budget	Below Minimum requirement	Critical	30
Maintenance	Budget	Below Minimum requirement	Critical	30
4.2 Resources				
4.2.3 Existing Waste Water Treatment Works Infrastructure				
Operation	Staff	Below Minimum requirement	Critical	30
Maintenance	Staff	Below Minimum requirement	Critical	30
Operation	External resources	Below Minimum requirement	Critical	30
Maintenance	External resources	Below Minimum requirement	Critical	30
Operation	Spare Parts	Below Minimum requirement	Critical	30
Maintenance	Spare Parts	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Budget	Below Minimum requirement	Critical	30
Maintenance	Budget	Below Minimum requirement	Critical	30
4.2 Resources				
4.2.4 Existing Water Treatment Works Infrastructure				
Operation	Staff	Below Minimum requirement	Critical	30
Maintenance	Staff	Below Minimum requirement	Critical	30
Operation	External resources	Below Minimum requirement	Critical	30
Maintenance	External resources	Below Minimum requirement	Critical	30
Operation	Spare Parts	Below Minimum requirement	Critical	30
Maintenance	Spare Parts	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30

Water Services Development Plan

Operation	Budget	Below Minimum requirement	Critical	30
Maintenance	Budget	Below Minimum requirement	Critical	30
4.2 Resources				
4.2.5 Existing Pump Station Infrastructure				
Operation	Staff	Below Minimum requirement	Critical	30
Maintenance	Staff	Below Minimum requirement	Critical	30
Operation	External resources	Below Minimum requirement	Critical	30
Maintenance	External resources	Below Minimum requirement	Critical	30
Operation	Spare Parts	Below Minimum requirement	Critical	30
Maintenance	Spare Parts	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Budget	Below Minimum requirement	Critical	30
Maintenance	Budget	Below Minimum requirement	Critical	30
4.2 Resources				
4.2.6 Existing Bulk Pipeline Infrastructure				
Operation	Staff	Below Minimum requirement	Critical	30
Maintenance	Staff	Below Minimum requirement	Critical	30
Operation	External resources	Below Minimum requirement	Critical	30
Maintenance	External resources	Below Minimum requirement	Critical	30
Operation	Spare Parts	Below Minimum requirement	Critical	30
Maintenance	Spare Parts	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Budget	Below Minimum requirement	Critical	30
Maintenance	Budget	Below Minimum requirement	Critical	30
4.2 Resources				
4.2.7 Existing Tower & Reservoir Infrastructure				
Operation	Staff	Below Minimum requirement	Critical	30
Maintenance	Staff	Below Minimum requirement	Critical	30
Operation	External resources	Below Minimum requirement	Critical	30

Water Services Development Plan

Maintenance	External resources	Below Minimum requirement	Critical	30
Operation	Spare Parts	Below Minimum requirement	Critical	30
Maintenance	Spare Parts	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Budget	Below Minimum requirement	Critical	30
Maintenance	Budget	Below Minimum requirement	Critical	30
<b>4.2 Resources</b>				
<b>4.2.8 Existing Reticulation Infrastructure</b>				
Operation	Staff	Below Minimum requirement	Critical	30
Maintenance	Staff	Below Minimum requirement	Critical	30
Operation	External resources	Below Minimum requirement	Critical	30
Maintenance	External resources	Below Minimum requirement	Critical	30
Operation	Spare Parts	Below Minimum requirement	Critical	30
Maintenance	Spare Parts	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Budget	Below Minimum requirement	Critical	30
Maintenance	Budget	Below Minimum requirement	Critical	30
<b>4.3 Information</b>				
<b>4.3.1 Existing Groundwater Infrastructure</b>				
Operation	Manuals Available	Below Minimum requirement	Critical	30
Maintenance	Manuals Available	Below Minimum requirement	Critical	30
Operation	Asset Register	Below Minimum requirement	Critical	30
Maintenance	Asset Register	Below Minimum requirement	Critical	30
Operation	As-Built info.	Below Minimum requirement	Critical	30
Maintenance	As-Built info.	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Contingency & Safety Plan	Below Minimum requirement	Critical	30
Maintenance	Contingency & Safety Plan	Below Minimum requirement	Critical	30

Water Services Development Plan

4.3 Information				
4.3.2 Existing Surface Water Infrastructure				
Operation	Manuals Available	Below Minimum requirement	Critical	30
Maintenance	Manuals Available	Below Minimum requirement	Critical	30
Operation	Asset Register	Below Minimum requirement	Critical	30
Maintenance	Asset Register	Below Minimum requirement	Critical	30
Operation	As-Built info.	Below Minimum requirement	Critical	30
Maintenance	As-Built info.	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Contingency & Safety Plan	Below Minimum requirement	Critical	30
Maintenance	Contingency & Safety Plan	Below Minimum requirement	Critical	30
4.3 Information				
4.3.3 Existing Water Treatment Works Infrastructure				
Operation	Manuals Available	Below Minimum requirement	Critical	30
Maintenance	Manuals Available	Below Minimum requirement	Critical	30
Operation	Asset Register	Below Minimum requirement	Critical	30
Maintenance	Asset Register	Below Minimum requirement	Critical	30
Operation	As-Built info.	Below Minimum requirement	Critical	30
Maintenance	As-Built info.	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Contingency & Safety Plan	Below Minimum requirement	Critical	30
Maintenance	Contingency & Safety Plan	Below Minimum requirement	Critical	30
4.3 Information				
4.3.4 Existing Waste Water Treatment Works Infrastructure				
Operation	Manuals Available	Below Minimum requirement	Critical	30
Maintenance	Manuals Available	Below Minimum requirement	Critical	30
Operation	Asset Register	Below Minimum requirement	Critical	30
Maintenance	Asset Register	Below Minimum requirement	Critical	30
Operation	As-Built info.	Below Minimum requirement	Critical	30

Water Services Development Plan

Maintenance	As-Built info.	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Contingency & Safety Plan	Below Minimum requirement	Critical	30
Maintenance	Contingency & Safety Plan	Below Minimum requirement	Critical	30
4.3 Information				
4.3.5 Existing Pump Station Infrastructure				
Operation	Manuals Available	Below Minimum requirement	Critical	30
Maintenance	Manuals Available	Below Minimum requirement	Critical	30
Operation	Asset Register	Below Minimum requirement	Critical	30
Maintenance	Asset Register	Below Minimum requirement	Critical	30
Operation	As-Built info.	Below Minimum requirement	Critical	30
Maintenance	As-Built info.	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Contingency & Safety Plan	Below Minimum requirement	Critical	30
Maintenance	Contingency & Safety Plan	Below Minimum requirement	Critical	30
4.3 Information				
4.3.6 Existing Bulk Pipeline Infrastructure				
Operation	Manuals Available	Below Minimum requirement	Critical	30
Maintenance	Manuals Available	Below Minimum requirement	Critical	30
Operation	Asset Register	Below Minimum requirement	Critical	30
Maintenance	Asset Register	Below Minimum requirement	Critical	30
Operation	As-Built info.	Below Minimum requirement	Critical	30
Maintenance	As-Built info.	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Contingency & Safety Plan	Below Minimum requirement	Critical	30
Maintenance	Contingency & Safety Plan	Below Minimum requirement	Critical	30
4.3 Information				
4.3.7 Existing Tower & Reservoir Infrastructure				

Water Services Development Plan

Operation	Manuals Available	Below Minimum requirement	Critical	30
Maintenance	Manuals Available	Below Minimum requirement	Critical	30
Operation	Asset Register	Below Minimum requirement	Critical	30
Maintenance	Asset Register	Below Minimum requirement	Critical	30
Operation	As-Built info.	Below Minimum requirement	Critical	30
Maintenance	As-Built info.	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Contingency & Safety Plan	Below Minimum requirement	Critical	30
Maintenance	Contingency & Safety Plan	Below Minimum requirement	Critical	30
4.3 Information				
4.3.8 Existing Reticulation Infrastructure				
Operation	Manuals Available	Below Minimum requirement	Critical	30
Maintenance	Manuals Available	Below Minimum requirement	Critical	30
Operation	Asset Register	Below Minimum requirement	Critical	30
Maintenance	Asset Register	Below Minimum requirement	Critical	30
Operation	As-Built info.	Below Minimum requirement	Critical	30
Maintenance	As-Built info.	Below Minimum requirement	Critical	30
Operation	Tools & Equipment	Below Minimum requirement	Critical	30
Maintenance	Tools & Equipment	Below Minimum requirement	Critical	30
Operation	Contingency & Safety Plan	Below Minimum requirement	Critical	30
Maintenance	Contingency & Safety Plan	Below Minimum requirement	Critical	30
4.4 Activity Control & Management				
4.4.1 Existing Groundwater Infrastructure				
Operation	Procedures	Below Minimum requirement	Critical	30
Maintenance	Procedures	Below Minimum requirement	Critical	30
Operation	Record keeping in place	Below Minimum requirement	Critical	30
Maintenance	Record keeping in place	Below Minimum requirement	Critical	30
Operation	Quality Control procedures established	Below Minimum requirement	Critical	30
Maintenance	Quality Control procedures established	Below Minimum requirement	Critical	30
Operation	Risk Management	Below Minimum requirement	Critical	30

Water Services Development Plan

Maintenance	Risk Management	Below Minimum requirement	Critical	30
Operation	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
Maintenance	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
4.4 Activity Control & Management				
4.4.2 Existing Surface water infrastructure				
Operation	Procedures	Below Minimum requirement	Critical	30
Maintenance	Procedures	Below Minimum requirement	Critical	30
Operation	Record keeping in place	Below Minimum requirement	Critical	30
Maintenance	Record keeping in place	Below Minimum requirement	Critical	30
Operation	Quality Control procedures established	Below Minimum requirement	Critical	30
Maintenance	Quality Control procedures established	Below Minimum requirement	Critical	30
Operation	Risk Management	Below Minimum requirement	Critical	30
Maintenance	Risk Management	Below Minimum requirement	Critical	30
Operation	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
Maintenance	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
4.4 Activity Control & Management				
4.4.3 Existing Water Treatment Works infrastructure				
Operation	Procedures	Below Minimum requirement	Critical	30
Maintenance	Procedures	Below Minimum requirement	Critical	30
Operation	Record keeping in place	Below Minimum requirement	Critical	30
Maintenance	Record keeping in place	Below Minimum requirement	Critical	30
Operation	Quality Control procedures established	Below Minimum requirement	Critical	30
Maintenance	Quality Control procedures established	Below Minimum requirement	Critical	30
Operation	Risk Management	Below Minimum requirement	Critical	30
Maintenance	Risk Management	Below Minimum requirement	Critical	30
Operation	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
Maintenance	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
4.4 Activity Control & Management				
4.4.4 Existing Waste Water Treatment Works infrastructure				
Operation	Procedures	Below Minimum requirement	Critical	30
Maintenance	Procedures	Below Minimum requirement	Critical	30

Water Services Development Plan

Operation	Record keeping in place	Below Minimum requirement	Critical	30
Maintenance	Record keeping in place	Below Minimum requirement	Critical	30
Operation	Quality Control procedures established	Below Minimum requirement	Critical	30
Maintenance	Quality Control procedures established	Below Minimum requirement	Critical	30
Operation	Risk Management	Below Minimum requirement	Critical	30
Maintenance	Risk Management	Below Minimum requirement	Critical	30
Operation	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
Maintenance	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
4.4 Activity Control & Management				
4.4.5 Existing Pump Station infrastructure				
Operation	Procedures	Below Minimum requirement	Critical	30
Maintenance	Procedures	Below Minimum requirement	Critical	30
Operation	Record keeping in place	Below Minimum requirement	Critical	30
Maintenance	Record keeping in place	Below Minimum requirement	Critical	30
Operation	Quality Control procedures established	Below Minimum requirement	Critical	30
Maintenance	Quality Control procedures established	Below Minimum requirement	Critical	30
Operation	Risk Management	Below Minimum requirement	Critical	30
Maintenance	Risk Management	Below Minimum requirement	Critical	30
Operation	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
Maintenance	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
4.4 Activity Control & Management				
4.4.6 Existing Bulk Pipeline infrastructure				
Operation	Procedures	Below Minimum requirement	Critical	30
Maintenance	Procedures	Below Minimum requirement	Critical	30
Operation	Record keeping in place	Below Minimum requirement	Critical	30
Maintenance	Record keeping in place	Below Minimum requirement	Critical	30
Operation	Quality Control procedures established	Below Minimum requirement	Critical	30
Maintenance	Quality Control procedures established	Below Minimum requirement	Critical	30
Operation	Risk Management	Below Minimum requirement	Critical	30
Maintenance	Risk Management	Below Minimum requirement	Critical	30
Operation	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30

Water Services Development Plan

Maintenance	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
4.4 Activity Control & Management				
4.4.7 Existing Tower & Reservoir infrastructure				
Operation	Procedures	Below Minimum requirement	Critical	30
Maintenance	Procedures	Below Minimum requirement	Critical	30
Operation	Record keeping in place	Below Minimum requirement	Critical	30
Maintenance	Record keeping in place	Below Minimum requirement	Critical	30
Operation	Quality Control procedures established	Below Minimum requirement	Critical	30
Maintenance	Quality Control procedures established	Below Minimum requirement	Critical	30
Operation	Risk Management	Below Minimum requirement	Critical	30
Maintenance	Risk Management	Below Minimum requirement	Critical	30
Operation	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
Maintenance	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
4.4 Activity Control & Management				
4.4.8 Existing Reticulation infrastructure				
Operation	Procedures	Below Minimum requirement	Critical	30
Maintenance	Procedures	Below Minimum requirement	Critical	30
Operation	Record keeping in place	Below Minimum requirement	Critical	30
Maintenance	Record keeping in place	Below Minimum requirement	Critical	30
Operation	Quality Control procedures established	Below Minimum requirement	Critical	30
Maintenance	Quality Control procedures established	Below Minimum requirement	Critical	30
Operation	Risk Management	Below Minimum requirement	Critical	30
Maintenance	Risk Management	Below Minimum requirement	Critical	30
Operation	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30
Maintenance	Reporting (data analysis & report generation est.)	Below Minimum requirement	Critical	30

Water Services Development Plan

Topic 4 Master Plan		
Section	Is there a master plan to address this problem?	Does this plan address the plan address this problem 100%?
4.1 Operation & Maintenance Plan	Yes	No
4.1.1 Is There an Operation and Maintenance Plan?	Yes	No
4.2 Resources	Yes	No
4.3 Information	Yes	No
4.4 Activity Control & Management	Yes	No

Strategic Interpretation

Detail situation assessments per Topic element

4.1 Operation & Maintenance Plan

Interpret Situation Assessment:	No / Lack of O&M on infrastructure.
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4.1.1 Is There an Operation and Maintenance Plan?

Interpret Situation Assessment:	No O&M plan in place
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4.2 Resources

Interpret Situation Assessment:	Lack of skilled O&M staff, lack of tools and budget to preform daily operations
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Water Services Development Plan

4.3 Information

Interpret Situation Assessment:	As-builts / manuals of infrastructure is missing
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4.4 Activity Control & Management

Interpret Situation Assessment:	No proper record-keeping or Monitor and evaluation
---------------------------------	--

Business Element Report Items	Compliance Score	Intervention Required	%	Solution description as identified by Master Plan	%	Is there an Existing project addressing this problem?	%	Does this current listed project address the problem totally?	%	Project Approved by Council as part of WSDP Database?	%	Approved by council, in project database and part of 5 yr IDP cycle projects	%	Project listed in 3 yr MTEF - cycle	%	Total Points	Current Demand Overall Scoring %
4.1 Operation & Maintenance Plan	10	Yes	100	Develop and implement adequate O&M plans and strategies.	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57
4.1.1 Is There an Operation and Maintenance Plan?	30	Yes	100	Budget for develop of O&M plan	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57
4.2 Resources	30	Yes	100	Budget for O&M	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57
4.3 Information	30	Yes	100	Develop a proper registry / archive to safe-keep information	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57
4.4 Activity Control & Management	0	Yes	100	Improve on customer care systems	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57

**Demand Overall Scoring Average** 78.57

WSDP FY2023: Strategies and Objectives

Richtersveld

Nr	Objective	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
Water Services O&M									

Water Services Development Plan

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
<b>4 Water Services</b>									
4.03	Develop a comprehensive O&M Plan to quantify the full resource (tools, equipment, staff and funds) requirements for the operations and maintenance function	Adopted O&M Plan	None		Commitments in place to develop O&M Plan	O&M Plan developed and approved 25%	O&M Plan developed and approved 50%	O&M Plan developed and approved 75%	O&M Plan developed and approved 100%
4.05	Improve Blue Drop status and obtain Blue Drop Certification	Blue Drop Status / Score	2012 Blue Drop Status: 36.77%	RCT_GOV-015, Improve blue drop status and obtain certification	Blue Drop Status: 50%	Blue Drop Status: 75%	Blue Drop Status: 90%	Blue Drop Certification (95%)	Maintain Blue Drop Certification
4.06	Improve Green Drop Status and obtain Green Drop Certification	Green Drop Status / Score	2013 Green Drop Status: 8.62%	RCT_GOV-008, Improve green drop status and obtain certification	Green Drop Status: 35%	Green Drop Status: 75%	Green Drop Status: 90%	Green Drop Status: 95%	Maintain Green Drop Certification
4.01	Develop and improve water safety plans.	Plan implementation.	Develop, implement, review and update plan as required.	RCT_GOV-006, Develop/ improve water safety plans	Development/Implementation 100%				
4.02	Development and review of wastewater risk abatement plans.	Development. Council approval. Implementation	Plans to be developed and implemented.	RCT_GOV-007, Develop/ review and implement waste water risk abatement plans	Development of plan 100% Council Approval 100%	Implementation 100%	Review and amend for evolving conditions.	Review and amend for evolving conditions.	Review and amend for evolving conditions.
4.04	Implementation of credit control and debt collection policy.	Implementation	Policy not implemented	RCT_GOV-011, Implementation of the credit control and debt collection policy	Implementation 100%				
4.07	Maintenance, repair and replacement of sewerage suction (honeysucker) tankers.	Implementation progress	Suction tankers in state of disrepair.	RCT_GOV-030, Maintain and replace honey sucker tankers	Implementation 25%	Implementation 50%	Implementation 75%	Implementation 100%	

Water Services Development Plan

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
4.08	Develop and implement leak detection and repair program	Development and implementation. Monthly reduction in water loss	Sub-standard leak detection and repair response	RCT_GOV-028, Develop and implement leak detection and repair program	Development 100% Council Approval 100%	Implementation 50%	Implementation 100% Reduction in water loss 25%	Reduction in water loss 50%	Reduction in water loss 75%
4.09	Development and implementation of skills development policies	Development and implementation. Improved skills in water services O and M staff	Sub-standers skill amongst O and M staff	RCT_GOV-025, Develop and implement skills development policy			Development of policy 100% Council approval 100%	Implementation 100% Training and skills development for water services O and M staff	Training and skills development for water services O and M staff

Water Services Development Plan

Topic 5: Conservation & Demand Management

Topic 5.1: Water Resource Management

Demand Info		
Question	Resource Available	Assessment Score
5.1 Reducing unaccounted water and water inefficiencies		
5.1.1 Night flow metering	3	50
5.1.2 Day flow metering	3	50
5.1.3 Reticulation leaks	3	50
5.1.4 Illegal connections	0	10
5.1.5 Un-metered connections	0	10
5.2 Leak and meter repair programmes. Consumer units targeted by:		

Water Services Development Plan

5.2.1 Leak repair assistance programme	0	10
5.2.2 Retro-fitting of water inefficient toilets	0	10
5.2.3 Meter repair programme	0	10
5.3 Consumer/end-use demand management: Public Information & Education Programmes		
5.3.1 Schools targeted by education programmes	0	10
5.3.2 Consumers targeted by public information programmes	0	10

Demand Info Question 8		
Question	Number of Settlements	Assessment Score

Conjunctive use of surface - and groundwater		
890	2	80
891	3	80
892	3	80

Water Services Development Plan

893	0	40
894	0	40

Demand Info Question 9		
Question	Yes/No	Assessment Score

5.5 Working for Water		
Is there a Working for Water Programme in place:	0	10

Demand Info Question 10	
Project Name	Assessment Score

Provide List of Projects	

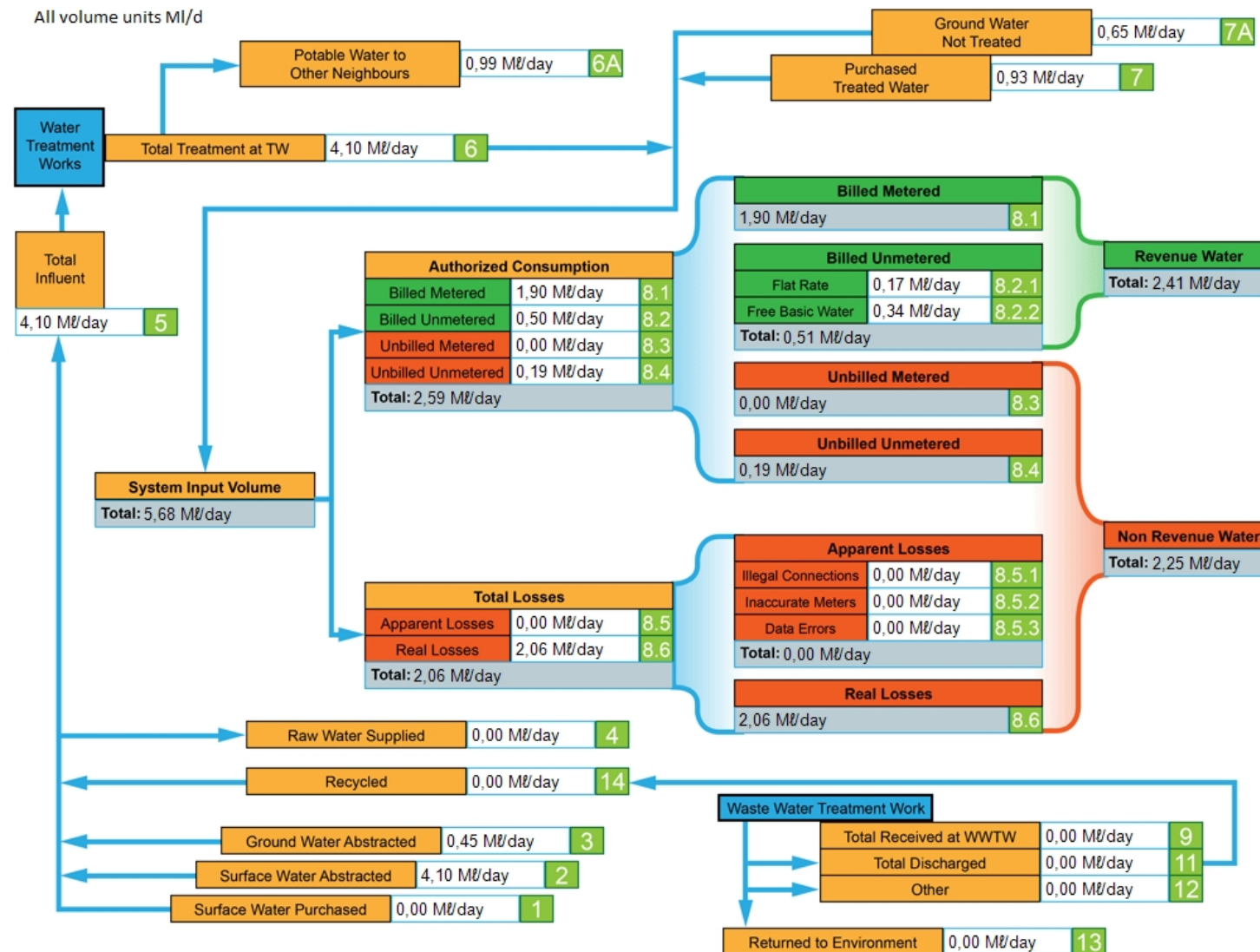
Water Services Development Plan

	90

Topic 5.1 Master Plan		
Section	Is there a master plan to address this problem?	Does this plan address the plan address this problem 100%?
5.1 Reducing unaccounted water and water inefficiencies	Yes	No
5.2 Leak and meter repair programmes.	Yes	No
5.3 Consumer/end-use demand management: Public Information & Education Programmes	Yes	No
5.4: Conjunctive use of surface - and groundwater	Yes	No
5.5 Working for Water	Yes	No

Water Services Development Plan

Topic 5.2: Water Balance



Water Services Development Plan

Topic 5.2: Water Balance	
Questions	Assessment Score
5.2.1 Amount of surface water purchased.	
5.2.2 Amount of surface water abstracted.	
5.2.3 Amount of ground water abstracted.	
5.2.4 Amount of raw water supplied.	
5.2.5 Total influent of water to water treatment plants.	
5.2.6 Total water treated at water treatment plants.	
5.2.6A Potable water sent to neighbours.	
5.2.7 Total amount of treated water purchased.	
5.2.7A Amount of untreated water pumped directly into reticulation system.	
5.2.8.1 Amount of billed and metered water consumed.	
5.2.8.2 Amount of billed, but not metered, water consumed.	
5.2.8.3 Amount of unbilled metered water consumed.	
5.2.8.4 Amount of unbilled and unmetered water consumed.	
5.2.8.5 Apparent loss of water.	
5.2.8.6 Real loss of water.	
5.2.8.2.1 Water is billed for based on a flat rate tariff (i.e. not based on a meter reading).	
5.2.8.2.2 Free basic water used through unbilled unmetered stand pipes or yard connections.	
5.2.8.5.1 Water used through illegal connections.	
5.2.8.5.2 Water used but not billed for because of inaccurate meters.	
5.2.8.5.3 Water used but not billed for because of data transfer errors, low estimated readings or any administrative errors.	
5.2.9 Total amount of water received at waste water treatment works.	
5.2.11 Total amount of water discharged from waste water treatment works.	
5.2.12 Other	
5.2.13 Amount of water returned to the environment.	
5.2.14 Amount of recycled water supplied.	

Topic 5.2 Master Plan

Topic 5.2 Master Plan
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Water Services Development Plan

Section	Is there a master plan that addresses this problem?	Does this plan address this problem 100% ?
5.2 Water Balance	Yes	No

Strategic Interpretation

Detail situation assessments per Topic element

5.1 Reducing unaccounted water and water inefficiencies

Interpret Situation Assessment:	Low rate of consumer metering and lack of zonal metering for leak detection, in conjunction with high rates of flat rate and free basic water supply with no provision for controlled volume supply has resulted in high rate of non revenue water at approximately 40% of total bulk input.
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5.2 Leak and meter repair programmes.

Interpret Situation Assessment:	Lack of O&M budget to decrease broken meters, repair and/or replace aged pipe infrastructure.
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5.3 Consumer/end-use demand management: Public Information & Education Programmes

Interpret Situation Assessment:	No Intervention required
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5.4: Conjunctive use of surface - and groundwater

Water Services Development Plan

Interpret Situation Assessment:	No Intervention required
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5.5 Working for Water

Interpret Situation Assessment:	No Intervention required
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5.2 Water Balance

Interpret Situation Assessment:	Low rate of consumer metering and lack of zonal metering for leak detection, in conjunction with high rates of flat rate and free basic water supply with no provision for controlled volume supply has resulted in high rate of non revenue water at approximately 40% of total bulk input.
---------------------------------	--

Business Element Report Items	Compliancy Score	Intervention Required	%	Solution description as identified by Master Plan	%	Is there an Existing project addressing this problem?	%	Does this current listed project address the problem totally?	%	Project Approved by Council as part of WSDP Database?	%	Approved by council, in project database and part of 5 yr IDP cycle projects	%	Project listed in 3 yr MTEF - cycle	%	Total Points	Current Demand Overall Scoring %
5.1 Reducing unaccounted water and water inefficiencies	22	Yes	100	Improve metering program with discontinuation of flat rate supply system. Implementation of prepaid or smart metering systems to ensure revenue recovery of consumption beyond free basic water is achieved. Implementation of zonal metering to ensure leak and illegal connection identification and elimination is achieved to minimize losses. Repair and replacement of aged and damaged bulk and network pipe infrastructure. Improve billing and debt collection systems	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57

Water Services Development Plan

5.2 Leak and meter repair programmes.	64	Yes	100	Improve metering program with discontinuation of flat rate supply system. Implementation of prepaid or smart metering systems to ensure revenue recovery of consumption beyond free basic water is achieved. Implementation of zonal metering to ensure leak and illegal connection identification and elimination is achieved to minimize losses. Repair and replacement of aged and damaged bulk and network pipe infrastructure. Improve billing and debt collection systems	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57
5.3 Consumer/end-use demand management: Public Information & Education Programmes	10	No	100		0	No	0	No	0	No	0	No	0	No	0	0	100
5.4: Conjunctive use of surface - and groundwater	90	No	100		0	No	0	No	0	No	0	No	0	No	0	0	100
5.5 Working for Water	0	No	100		0	No	0	No	0	No	0	No	0	No	0	0	100
5.2 Water Balance	0	Yes	100	Improve metering program with discontinuation of flat rate supply system. Implementation of prepaid or smart metering systems to ensure revenue recovery of consumption beyond free basic water is achieved. Implementation of zonal metering to ensure leak and illegal connection identification and elimination is achieved to minimize losses. Improve billing and debt collection systems	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57

Demand Overall Scoring Average

89.29

WSDP FY2023: Strategies and Objectives

Richtersveld

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
Water Resource Management									
	5.1 Water Resource Management								

Water Services Development Plan

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
5.1.1	Development, implementation and review of revenue enhancement strategy.	Implementation/Increased yearly revenue recovery	Low rate of revenue recovery due to high rates of flat rate and free basic water supply with no metering and billing for excess supply over flat rate and free basic water.	RCT_GOV-027, Develop/ review and implement revenue enhancement strategy	Development and council approval/Implementation 50%	Implementation 100%/Improved revenue recovery by 25%	Review for evolving conditions./Improved revenue recovery by 50%	Review for evolving conditions./Improved revenue recovery by 75%	Review for evolving conditions./Improved revenue recovery by 100%
5.1.2	Development and implementation of WCDM plan	Development and Implementation	No plan in place	RCT_GOV-002, Develop and implement a comprehensive WCDM plan	Development 100% Council Approval 100%	Implementation 100%	Review for evolving conditions	Review for evolving conditions	Review for evolving conditions
5.1.3	Review Indigent policy and indigent register.	Review and approval by council./Implementation	Indigent policy to be reviewed	RCT_GOV-012, Review indigent policy and indigent register.	Policy review 100% Council approval 100%	Implementation 100%			

WSDP FY2023: Strategies and Objectives

Richtersveld

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
<b>Water Balance</b>									
<b>5.2 Water Balance</b>									
5.2.1	Implement and maintain water balance performance monitoring and reporting to regulator.	Monthly water balance monitoring and reporting.	Monitoring and reporting not implemented.	RCT_GOV-005, Introduce and maintain water balance performance monitoring.	Implementation of procedures./Reporting on monthly basis.	Reporting on monthly basis.	Reporting on monthly basis.	Reporting on monthly basis.	Reporting on monthly basis.

Water Services Development Plan

Topic 6: Water Resources

* Current Water Sources	* Number of sources	* Current abstraction (Mm3/A)	Components abstraction registered	Components abstraction recorded	* Licensed abstraction (Mm3/A)	* Community water supply		Assesment Score
						Rural	Urban	
Boreholes	27	0	27	27	0	2		50
Surface Water Abstract	3	1.48	3	3	0	2	1	50
External Sources (Bulk Purchase)								50
Water returned to source								10
Conjunctive Use						2	1	50

Additional Source Available	* Number of sources	Potential Volume	* Licensed abstraction (Mm3/A)	Assessment Score
Ground Water				10

Water Services Development Plan

Surface Water				10
External Sources (Bulk Purchase)				10

Question	In Place	Assessment Score
6.2 Monitoring		
Is there a monitoring plan in place?	Yes	90

Question	General Assessment	Status Quo	Assessment Score
6.2 Monitoring			
6.2.1 % of water abstracted monitored: Surface water	100	No	90
6.2.2 % of water abstracted monitored: Ground water	100	No	90
6.2.4 Surface water levels (1: daily, 2: weekly, 3: monthly, 4: annually, 5: never)	4	No	80
6.2.5 Ground water levels (1: daily, 2: weekly, 3: monthly, 4: annually, 5: never)	1	No	80

Water Services Development Plan

6.2.6 Water quality for formal schemes? (1: daily, 2: weekly, 3: monthly, 4: annually, 5: never)	3	No	80
6.2.7 Water quality for rudimentary schemes? (1: daily, 2: weekly, 3: monthly, 4: annually, 5: never)	2	No	80
6.2.8 Borehole abstraction? (1: daily, 2: weekly, 3: monthly, 4: annually, 5: never)	1	No	90

Question	In Place	Assessment Score
6.3 Water Quality		
Is there a Water Safety Plan in Place?	Yes	90

Question	General Assessment	Status Quo	Assessment Score
6.3 Water Quality			
6.3.1 Reporting on quality of water taken from source: urban & rural		Yes	
6.3.2 Quality of water returned to the resource: urban		No	
6.3.3 Quality of water returned to the resource: rural		No	

Water Services Development Plan

6.3.4 Is there a Pollution contingency measures plan in place?		Yes	
6.3.5 Quality of water taken from source: urban - % monitored by WSA self?	0	No	
6.3.6 Quality of water taken from source: rural - % monitored by WSA self?	100	No	
6.3.7 Quality of water returned to the source: urban - % monitored by WSA self?		No	
6.3.8 Quality of water returned to the source: rural - % monitored by WSA self?		No	
6.3.9 Are these results available in electronic format? (Yes/no)		No	
6.3.10 % Time (days) within SANS 241 standards per year	95	No	

Question	B	AP	WTW	WP	SP	WL	SL	R	WWTW	Assessment Score
[section]										
6.4.1.1 The abstraction IS registered with DWS	27	3								90
6.4.1.2 The abstraction IS NOT registered with DWS	0	0								90

Water Services Development Plan

6.4.2.1 The abstraction IS recorded	19	3								90
6.4.2.2 The abstraction IS NOT recorded	8	0								10

Topic 6 Master Plan		
Section	Is there a master plan to address this problem?	Does this plan address the plan address this problem 100%?
6.1.1 Current Water Sources	Yes	No
6.2 Monitoring	Yes	No
6.3 Water Quality	Yes	No
6.4 Operation	Yes	No
6.1.2 Additional Sources Available	Yes	No

Strategic Interpretation

Detail situation assessments per Topic element

6.1.1 Current Water Sources

Interpret Situation Assessment:	Inadequate metering and recording of borehole abstraction with limited information with regards to safe operating parameters of boreholes recorded.
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6.2 Monitoring

Water Services Development Plan

Interpret Situation Assessment:	Monitor plan in place, but municipality don't follow / implement the plan. Lack of monitoring can result in human health problems
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6.3 Water Quality

Interpret Situation Assessment:	A Water Safety Plan is in place, but municipality don't implement the recommendations / processes.
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6.4 Operation

Interpret Situation Assessment:	No Intervention required
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6.1.2 Additional Sources Available

Interpret Situation Assessment:	No Intervention Required
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Business Element Report Items	Compliancy Score	Intervention Required	%	Solution description as identified by Master Plan	%	Is there an Existing project addressing this problem?	%	Does this current listed project address the problem totally?	%	Project Approved by Council as part of WSDP Database?	%	Approved by council, in project database and part of 5 yr IDP cycle projects	%	Project listed in 3 yr MTEF - cycle	%	Total Points	Current Demand Overall Scoring %
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Water Services Development Plan

6.1.1 Current Water Sources	30	Yes	100	Compile O&M manuals for all boreholes, recording safe operating limits to ensure over taxation of boreholes does not occur and lifespans are not unduly shortened. Metering and daily monitoring of abstraction must be implemented to ensure that use remains within safe operating limits.	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57
6.2 Monitoring	85	Yes	100	Municipality must budget for water monitoring. A proper plan must be developed according to SANS	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57
6.3 Water Quality	90	Yes	100	Plan must be reviewed and implemented according to requirements as specified.	100	Yes	100	Partial	50	Yes	100	Yes	100	No	0	550	78.57
6.4 Operation	70	No	100		0	No	0	No	0	No	0	No	0	No	0	0	100
6.1.2 Additional Sources Available	0	No	100		0	No	0	No	0	No	0	No	0	No	0	0	100

Demand Overall Scoring Average

87.14

WSDP FY2023: Strategies and Objectives

Richtersveld

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP
					FY2023	FY2024	FY2025	FY2026	FY2027
					Target	Target	Target	Target	Target
<b>Water Resources</b>									
<b>6 Water Resource</b>									
6.1	Improve water recourse quality monitoring process.	Quality monitoring and reporting on monthly basis	Sub-standard quality monitoring and reporting	RCT_GOV-023, Improve recourse quality monitoring process	Monitoring and reporting on monthly basis	Monitoring and reporting on monthly basis	Monitoring and reporting on monthly basis	Monitoring and reporting on monthly basis	Monitoring and reporting on monthly basis
6.2	Development and implementation of water resilience policy to manage water use efficiency.	Development and Implementation.		RCT_GOV-021, Develop and implement a water resilience policy to improve water use efficacy.		Development 100% Council approval 100%	Implementation 100%		

Water Services Development Plan

Nr	Objective Strategy	Key Performance Indicator	Baseline (2022 status quo)	Linked Project	WSDP	WSDP	WSDP	WSDP	WSDP	
					FY2023	FY2024	FY2025	FY2026	FY2027	
					Target	Target	Target	Target	Target	
6.3	Development and implementation of disaster management plans.	Development and implementation		RCT_GOV-017, Develop plans, policies, and procedures to address disaster management/emergencies and other issues.					Development 100% Council Approval 100%	Implementation 100%

Water Services Development Plan

Topic 7: Finance

Expenditure Cost Standards & Ratios (Rand Million)

		2023	2024	2025	2026				
Ratios and efficacy indicators	Sanitation service O&M [and repair] as a % of budget								
	Sanitation service O&M [and repair] as a % Asset value [PPE]								
	Water service O&M [and repair] Cost as % of budget value								
	Water service O&M [and repair] Cost as % of Asset value [PPE]								
	Untreated waste water units released								
	Cost to purify water								
	Cost to deliver water to consumer								
	Cost to treat waste water								
	Cost to deliver waste water to treatment facility								
	Blue drop cost								
	Blue drop number WTW								
	Green drop cost								
	Green drop WWTW number of plants								
<b>Water balance cost [Non Revenue Water]</b>									
MTEF		2023		2024		2025		2026	
		R/c	Units	R/c	Units	R/c	Units	R/c	Units
Operation /Function / Process: Water Balance Cost / Revenue	Metered units bulk-raw water, or bulk potable water purchased and- or produced. Water that goes into a water supply system								
	Billed Metered Consumption								
	Billed Un Metered Consumption								
	Un Billed Metered Consumption								
	Un Billed Un Metered Consumption								
	Apparent (commercial) losses								
	Real (physical) losses								
	Water used [lost] during the process of Operation, Repair and Maintenance								

Water Services Development Plan

Operational Resource Costs [Cost to operate & or deliver service]						
MTEF		2023		2024	2026	2027
Resource (Required/used for Service delivery activities - In Public Procurement there are generally three procurement categories: goods, works and services.)	Staff					
	Vehicles / transport					
	Chemicals					
	Materials					
	Equipment					
	Tools					
	Operation					
	Administration					
	Maintenance (corrective; adaptive; preventative)					
	Billing					
	Revenue collection					
	Management					

Water Services Development Plan

MTEF Expenditure Million				
MTEF	2023	2024	2025	2026
Property - WTW				
Dams - WTW				
Springs - WTW				
Weirs - WTW				
Boreholes - WTW				
Reservoirs - WTW				
Water Treatment Works (WTW) Civil works				
Water Treatment Works (WTW) Mechanical works				
Water Treatment Works (WTW) Electrical works				
Pump Station (PS) Civil works				
Pump Station (PS) Mechanical works				
Pump Station (PS) Electrical works				
Internal [water] reticulation - WTW				
Bulk [water] reticulation - WTW				
Meters Bulk - WTW				
Meters Household - WTW				
Property - WWTW				
Waste Water Treatment Works (WWTW) Civil works				
Waste Water Treatment Works (WWTW) Mechanical works				
Waste Water Treatment Works (WWTW) Electrical works				
Pump Station (PS) Civil works - WWTW				
Pump Station (PS) Mechanical works - WWTW				
Pump Station (PS) Electrical works - WWTW				
Internal sanitation reticulation				
Bulk sanitation reticulation - WWTW				
Meters Bulk - WWTW				
Ponds - WWTW				
				<b>Total</b>
Notes:	1	Pump stations should be included separate itemised in asset registers due to the impact of type of station [e.g. diesel costs;Distance; Etc.]		
	2	NRW excludes FBS and is a MTEF cost to service		

Water Services Development Plan

CAPEX Million															
Assets per Class	Fund source name	Transfers recognised - operational	Local Government Equitable Share	Municipal Infrastructure Grant	Municipal Water Infrastructure Grant	Expanded Public Works Programme Integrated Grant (Municipality)	Urban Settlement Development Grant	Rural Households Infrastructure Grant	Backlogs in Water and Sanitation at Clinics and Schools Grant	Implementation of Water Services Projects [ACIP; Etc.]	Regional Bulk Infrastructure Grant	Water Services Operating and Transfer Subsidy Grant (Schedule 6)	Water Services Operating and Transfer Subsidy Grant (Schedule 7)	Municipal Drought Relief Grant	Accelerated Community Infrastructure Programme
	Votes														
Property - Plant and Equipment - Water Treatment System	Property - WTW														
	Dams - WTW														
	Springs - WTW														
	Weirs - WTW														
	Boreholes - WTW														
	Reservoirs - WTW														
	WTW Civil works														
	WTW Mechanical works														
	WTW Electrical works														
	Pump Station (PS) Civil works														
	Pump Station (PS) Mechanical works														
	Pump Station (PS) Electrical works														
	Internal [water] reticulation - WTW														
	Bulk [water] reticulation - WTW														
	Meters Bulk - WTW														
Meters Household - WTW															
Property - Plant and Equipment - Waste Water Treatment System	Property														
	WWTW Civil works														
	WWTW Mechanical works														
	WWTW Electrical works														
	Pump Station (PS) Civil works - WWTW														
	Pump Station (PS) Mechanical works - WWTW														
	Pump Station (PS) Electrical works - WWTW														
	Internal sanitation reticulation														
	Bulk sanitation reticulation														
	Meters Bulk WWTW														
Ponds - WWTW															

Water Services Development Plan

Assets per Class	Fund source name	Transfers recognised - operational	Local Government Equitable Share	Municipal Infrastructure Grant	Municipal Water Infrastructure Grant	Expanded Public Works Programme Integrated Grant (Municipality)	Urban Settlement Development Grant	Rural Households Infrastructure Grant	Backlogs in Water and Sanitation at Clinics and Schools Grant	Implementation of Water Services Projects (ACIP, Etc.)	Regional Bulk Infrastructure Grant	Water Services Operating and Transfer Subsidy Grant (Schedule 6)	Water Services Operating and Transfer Subsidy Grant (Schedule 7)	Municipal Drought Relief Grant	Accelerated Community Infrastructure Programme	Total

Water Services Development Plan

REVENUE Million									
Fund source name	Service charges - service	Water Services Operating and Transfer Subsidy Grant (Sch 6)	Water Services Operating and Transfer Subsidy Grant (Sch 7)	Transfers recognised - operational	Agency services	Interest earned - outstanding debtors	Equitable Share	Trading Entities (e.g. Rand Water; Pikitup; Etc.)	Partnership Funds
Votes									
Agency services									
Agriculture + rural water services									
Agriculture + rural sanitation service									
FBS Sanitation									
FBS Water									
Urban HLS Water									
Sanitation Urban HLS									
Industrial Water									
Industrial Waste Water									
NRW									
<b>Total</b>									
The assumption is that rural and urban costs are differentiated and that Assumption is made that potable water and industrial water tariffs differ									
NRW excludes FBS and is a MTEF cost to service									
Pump stations should be included separate itemised in asset registers due to the impact of type of station [e.g. diesel costs; Etc.]									

**Topic 8: Water Services Institutional Arrangements and Customer Services**

Context Information

Water Services Development Plan

Questions	Answers						
Date of completion	2022-11-02						
Municipality type (C1)	A - Metro	B1 - LM	B2 - LM	B3 - LM	B4 - LM	C2 - DM	
Water service provider type (C2)	Combination of internal and external	External (e.g. Water Board, service provider)	Internal (i.e. municipality)				
Wastewater service provider type (C3)	Combination of internal and external	External (e.g. Water Care Company, service provider)	Internal (i.e. municipality)				
Water system maintenance (C4)	Combination of internal and external	External (e.g. service provider)	Internal (i.e. municipality)				
Wastewater system maintenance (C5)	Combination of internal and external	External (e.g. service provider)	Internal (i.e. municipality)				
Bulk water provision (C6)	Combination of internal and external	Municipality (i.e. internal)	Other municipality (i.e. external)	Water Board (i.e. external)			
The key staff (i.e. managerial) turnover in your WSA (C7)	Don't know	High: >25% (i.e. problematic, frequently lose staff)	Low: <10% (i.e. not an issue, good staff retention)	Moderate: 10 - 25% (i.e. occasionally lose staff)			
Your WSA has developed and implemented a scarce skills policy (C8)	Don't know	In development	No, not developed	Yes, developed and implemented	Yes, developed and partially implemented		
Your WSA actively provides required drinking water related data to the Regulator (e.g. Blue Drop participation, data loading to IRIS) (C9)	Don't know	In place, with occasional non-optimal response	In process	No, disagree	Yes, strongly agree		
Regular drinking-water quality monitoring and management (including boreholes) is performed for ALL communities/towns/private providers in the WSA (C10)	<50% of WSA population	Almost all (i.e. >95% of WSA population)	Don't know	Most (i.e. >75% of WSA population)	None (i.e. 0% of WSA population)	Some (i.e. >50% of WSA population)	Yes, all (i.e. close to 100% of WSA population)
WTWs operational capacity as a function of total design capacity (NOTE: Combine for ALL WTWs within your WSA) (C11)	<90%	>100% - 105%	>105%	>95% - 100%	90% - 95%	Don't know	Not applicable
Your WSA actively provides required wastewater related data to the Regulator (e.g. Green Drop participation, data loading onto IRIS) (C12)	Don't know	In place, with occasional non-optimal response	In process	No, disagree	Yes, strongly agree		
Regular wastewater quality monitoring and management is performed for ALL wastewater systems in the WSA (C13)	<50%	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Some (i.e. >50%)	Yes, all (i.e. close to 100%)
WWTWs operational flow capacity as a function of total design capacity (NOTE: Combine for ALL WWTWs within your WSA) (C14)	<90%	>100% - 105%	>105%	>95% - 100%	90% - 95%	Don't know	Not applicable

Water Services Development Plan

WWTWs operational COD load as a function of total design load (NOTE: Combine for ALL WWTWs within your WSA) (C15)	<90%	>100% - 105%	>105%	>95% - 100%	90% - 95%	Don't know	Not applicable
Your WSA actively provides required water conservation and water demand management related data to the Regulator (e.g. No Drop participation) (C16)	Don't know	In place, with occasional non-optimal response	In process	No, disagree	Yes, strongly agree		
Your municipality has a water resilience policy in place, which includes optimisation of existing water resources, diversifying supply to increase water security, and optimisation of the "water mix" (C17)	Don't know	In process	No, disagree	Yes, strongly agree			
Your municipality has a policy and procedures in place to encourage rainwater harvesting (C18)	Don't know	In process	No, disagree	Yes, strongly agree			
Your municipality has desalination facilities for augmenting drinking-water supply (C19)	>10% of total supply	>25% of total supply	Don't know	In process (e.g. developing, feasibility studies)	No, none (i.e. 0%)	Not applicable	Small proportion/pilot scale (<10%)
Your municipality recovers and reuses treated wastewater either directly (e.g. for potable purposes) or indirectly (e.g. for irrigation, feed to industry, aquifer recharge) (C20)	>10% of total wastewater generated	>25% of total wastewater generated	Don't know	In process (e.g. developing, feasibility studies)	No, none (i.e. 0%)	Not applicable	Small proportion/pilot scale (<10%)
Your municipality recovers and reuses stormwater either directly (e.g. for potable purposes) or indirectly (e.g. recharging river for ecological functioning, nature based systems) (NOTE: This does not aim to measure inflow to dams at catchment level, but rather aims to define the extent of stormwater capture/reuse in the urban context). (C21)	Don't know	In process (e.g. developing, feasibility studies)	Just starting with implementation	Limited implementation	No, none (i.e. 0%)	Not applicable	Significant implementation
Advanced water treatment technologies (e.g. membrane based) and wastewater treatment/recovery technologies (e.g. reuse) implemented at your municipality are staffed by appropriately qualified personnel (C22)	<50%	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	No advanced water or wastewater treatment technologies	None (i.e. 0%)	Not applicable
Your WSA actively promotes improved hygiene practices through campaigns in communities (e.g. hand washing education, safe and improved sanitation) (C23)	Don't know	In place, with occasional non-optimal response	No, disagree	Partially in place, but not ideal	Yes strongly agree (i.e. campaigns established and functioning)		
Indicate the proportion of the population serviced via on-site sanitation (e.g. using appropriate technologies as defined by the National Norms and Standards for Sanitation Services (Sep 2017)) (C24)	> 0% - 10%	>10% - 20%	>20% - 30%	>30% - 40%	>40% - 50%	>50%	Don't know

Water Services Development Plan

Indicate the proportion of the population not serviced (i.e. backlog, and potentially implying open defecation) (C25)	> 0% - 10%	>10% - 20%	>20% - 30%	>30% - 40%	>40% - 50%	>50%	Don't know
Indicate the proportion of drinking-water sources at risk from on-site sanitation (e.g. VIPs could pollute groundwater source) (C26)	< 25% of sources by water volume are at risk	>25% of sources by water volume are at risk	>50% of sources by water volume are at risk	>75% of sources by water volume are at risk	>95% of sources by water volume are at risk	Don't know	No, no sources (0%) are at risk
Indicate the proportion of on-site sanitation systems (e.g. VIPs, septic tanks) that are appropriately sealed/enclosed and/or fully/partially lined with minimal environmental impact (e.g. no overflow/seepage) (C27)	<50%	All (i.e. close to 100%)	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Not applicable
Indicate the estimated proportion of wastewater not delivered for treatment (to all WWTWs) (e.g. lost through old, leaking sewer pipes) (C28)	<1%	1% - <5%	10% - <20%	15% - <20%	20% or more	5% - <10%	Don't know
Indicate the estimated proportion of faecal sludge/supernatant emptied from all on-site sanitation systems (e.g. septic tanks, VIPs) that is not delivered for treatment (e.g. honeysucker does not deliver to the WWTW, but rather dumps into environment) (C29)	<1%	1% - <5%	10% - <20%	15% - <20%	20% or more	5% - <10%	Don't know
You have classified all of your treated sludge (from WWTWs and on-site sanitation systems (e.g. VIPs, septic tanks)) (C30)	<50% of sludges classified	Don't know	Not applicable	Sludges not yet classified (i.e. none, 0%)	Yes, all sludges classified (i.e. close to 100%)	Yes, almost all sludges classified (i.e. >95%)	Yes, most sludges classified (i.e. >75%)
You are disposing/reusing all of your all your sludge (from both WWTWs and on-site sanitation systems (e.g. VIPs, septic tanks)) in accordance with licence conditions/WRC guidelines (C31)	<50% sludges disposed/reused appropriately	Almost all sludges reused/disposed appropriately (i.e. >95%)	Don't know	Most sludges reused/disposed appropriately (i.e. >75%)	No, sludge not disposed/reused appropriately (i.e. 0%) (e.g. stockpiled, reused/disposed without classification)	Not applicable	Some sludges reused/disposed appropriately (i.e. >50%)
Your municipality is adhering to its mandated responsibility as WSA and proactively managing water and sanitation services on farms/rural areas within its area of jurisdiction (as per National Norms and Standards for Domestic Water and Sanitation Services (Sep 2017)) (C32)	Don't know	In place, with occasional non-optimal response	In process	No, disagree	Not applicable	Yes, strongly agree	
Council has functional Oversight Committees and Ward Committees, as appropriate (DM would be served via LM Ward Committees) (C33)	Don't know	In place, with occasional non-optimal response	No, disagree	Partially in place, but not ideal	Yes, strongly agree (i.e. Oversight and Ward Committees established and functioning)		

Water Services Development Plan

Council has effective systems of internal control and functional governance structures (internal audit unit, audit committee, risk committee, IT governance) (C34)	Don't know	In place, with occasional non-optimal response	No, disagree	Partially in place, but not ideal	Yes, strongly agree (i.e. internal audit unit established and posts filled, governance structures in place, frequent meetings held and risk assessments conducted, audit plan developed and quarterly reports submitted to council)		
Forensic investigations are undertaken as and when necessary to ensure adherence to governance requirements (i.e. either internally initiated by the municipality or externally initiated by, for example, Public Protector, Auditor General) (C35)	Don't know	In place, with occasional non-optimal response	No, disagree	Partially in place, but not ideal	Yes, strongly agree		
Your municipality has policies, procedures and systems in place that negate the impact of vandalism / sabotage of municipal water and sanitation infrastructure on services delivery (C36)	Don't know	In place, with occasional non-optimal response	No, disagree	Partially in place, but not ideal	Yes, strongly agree		
Your municipality has ongoing and appropriate public participation, is transparent in its decision making, and is accountable to its constituency (fiscal and social). (C37)	Don't know	In place, with occasional non-optimal response	No, disagree	Partially in place, but not ideal	Yes, strongly agree		
Your municipality have a co-operation agreement in place (technical, financial, twinning, peer learning, etc) with an international municipality or other international institution? (C38)	Don't know	In process	No, disagree	Yes, strongly agree			
Your municipality receives international financial aid (grants/loans)? (C39)	Don't know	In process	No, disagree	Yes, strongly agree			
Those of your 18 MuSSA Business Aspects which reflect Extreme and/or Highly Vulnerable, are included within your WSAs Corporate Risk Register (C40)	Don't know	In place, with occasional non-optimal response	No, disagree	Partially in place, but not ideal	Yes, strongly agree		
Your MuSSA was completed with appropriate inputs from senior officials within Technical Services, Finance and Human Resources (as a minimum these 3 departments should participate). (C41)	Agree (i.e. Technical Services HOD and either Finance OR HR participated)	Don't know	Only Technical Services HOD	Other Technical Services	Yes, strongly agree (i.e. Technical Services HOD, Finance AND HR all participated)		
Names, designation and contact details (phone, email) of all MuSSA participants (e.g. Mr Thabo Smit; Technical Director; 0215436789; thabos@muni.gov.za) (C42)	Mr Alex September; IT System Administrator; 027 851 1107, alex@richtersveld.gov.za						

**Water Services Development Plan**

Water Services Development Plan

MuSSA Questionnaire

Questions	Answers							
<b>1. Water and Sanitation Services Planning</b>								
Your appropriate water and sanitation services planning (e.g. WSDP) and associated master planning processes include and are aligned with appropriate Water and Sewage Master Plans, Spatial Development Framework (SDF), Water Safety Plans and Wastewater Risk Abatement Plans (W2RAPs), and are aligned to your IDP and associated SDBIP targets. (1.1)	Don't know	Plan development not yet initiated	Plans still in development	Yes, appropriate water services plans are developed and include all required plans and alignment (i.e. > 75%)	Yes, appropriate water services plans are developed and include all required plans and alignment (i.e. > 95%)	Yes, appropriate water services plans are developed and include all required plans and alignment (i.e. >50%)	Yes, appropriate water services plans are developed and include all required plans and alignment (i.e. close to 100%)	
You are implementing an up-to-date and adopted municipal water and sanitation services plan (e.g. WSDP.) (1.2)	Don't know	Municipal water and sanitation services plans adopted and implemented, but out-of-date (i.e. requires revision)	Municipal water and sanitation services plans adopted but not yet implemented	Municipal water and sanitation services plans neither adopted nor implemented	Municipal water and sanitation services plans not adopted but implemented	Yes, municipal water and sanitation services plans up-to-date, adopted and implemented		
Your current project list addresses existing needs/shortcomings identified through the WSDP and associated master planning process. (1.3)	<50% of projects	Almost all (i.e. >95% of projects)	Don't know	Most projects (i.e. >75%)	None (i.e. 0%)	Some projects (i.e. >50%)	Yes, all projects are identified via the planning process (i.e. close to 100%)	
Project progress is monitored, tracked and reported to municipal top management/council and the Regulator (through the annual water and sanitation services report) (1.4)	Don't know	No, disagree	Only to municipal top management/council	Only to Regulator	Yes, strongly agree (both to municipal top management/council and Regulator)			
Projects identified through your various planning processes have been implemented in the last 3 years. (1.5)	<50% implemented	Almost all implemented (i.e. >95%)	Don't know	Most implemented (i.e. >75%)	None implemented (i.e. 0%)	Some implemented (i.e. >50%)	Yes, all projects identified via planning have been implemented (i.e. close to 100%)	
<b>2. Management Skill Level (Technical)</b>								
Your council approved technical management organisational organogram meets your business requirements, and key posts are filled (e.g. Technical Director, Water Services Manager, Sanitation Services Manager). (2.1)	Don't know	No, does not meet business requirements	Yes, and all posts filled (i.e. close to 100%)	Yes, and almost all posts filled (i.e. >95%)	Yes, and most posts filled (i.e. >75%)	Yes, but <50% of posts filled	Yes, but only some posts filled (i.e. >50%)	

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You have sufficient technical management and technical support staff. (2.2)	<50% as per approved organogram	Agree somewhat (i.e. >50% as per approved organogram)	Don't know	Mostly agree (i.e. >75% as per approved organogram)	None (i.e. 0% as per approved organogram)	Yes, close to 100% as per approved organogram	Yes, strongly agree (i.e. >95% as per approved organogram)	
Technical management and technical support staff have the correct skills/qualifications and experience as per Job Description requirements (e.g. if Job Description requires PrEng, PrTech or CPM, the staff have these qualifications). (2.3)	<50%	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Some (i.e. >50%)	Yes, all (i.e. close to 100%)	
Managers and technical support staff regularly attend appropriate water and sanitation services skills development/training to support professionalisation (2.4)	Annual skills development/ training	Bi-annual skills development/ training	Don't know	Less frequent skills development/ training (i.e. >1 year)	No skills development/ training	Quarterly (or more frequent) skills development/ training		
Key technical managers (e.g. Section 56 and other Senior Management) have signed and monitored Performance Agreements. (2.5)	<50%	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Some (i.e. >50%)	Yes, all (i.e. close to 100%)	
<b>3. Staff Skill Levels (Technical)</b>								
WTWs are operated by staff with the required skills/qualifications and experience (as per Regulation 2834). (3.1)	<50%	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Not applicable	Some (i.e. >50%)	Yes, all (i.e. close to 100%)
WWTWs are operated by staff with the required skills/qualifications and experience (as per Regulation 2834). (3.2)	<50%	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Not applicable	Some (i.e. >50%)	Yes, all (i.e. close to 100%)
Water system plumbers, millwrights, mechanics and electricians have the required skills/qualifications and experience (including contractors/outsourced resources) (3.3)	<50%	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Some (i.e. >50%)	Yes, all (i.e. close to 100%)	
Sewage system plumbers, millwrights, mechanics and electricians have the required skills/qualifications and experience (including contractors/outsourced resources) (3.4)	<50%	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Some (i.e. >50%)	Yes, all (i.e. close to 100%)	
Staff regularly attend appropriate water and sanitation services skills development/training (including safety) (e.g. ESETA courses). (3.5)	Annual skills development/ training	Bi-annual skills development/ training	Don't know	Less frequent skills development/ training (i.e. >1 year)	No skills development/ training	Quarterly (or more frequent) skills development/ training		
<b>4. Technical Staff Capacity (Numbers)</b>								

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Your council approved technical staff organisational organogram meets your business requirements, and posts are filled (i.e. Superintendent of WTWs/WWTWs and below). (4.1)	Don't know	No, does not meet requirements	Strongly agree, and most posts filled (i.e. >95%) as per the approved organogram	Yes, and all posts filled (i.e. close to 100%) as per the approved organogram	Yes, and most posts filled (i.e. >75%) as per the approved organogram	Yes, but <50% of posts filled as per the approved organogram	Yes, but only some posts filled (i.e. >50%) as per the approved organogram	
WTWs are operated by the appropriate number of staff (as per Regulation 2834). (4.2)	<50% as per requirements	Agree somewhat (i.e. >50% as per requirements)	Don't know	Mostly agree (i.e. >75% as per requirements)	None (i.e. 0% as per requirements)	Not applicable	Strongly agree (i.e. >95% as per requirements)	Yes, close to 100% as per requirements
WWTWs are operated by the appropriate number of staff (as per Regulation 2834). (4.3)	<50% as per requirements	Agree somewhat (i.e. >50% as per requirements)	Don't know	Mostly agree (i.e. >75% as per requirements)	None (i.e. 0% as per requirements)	Not applicable	Strongly agree (i.e. >95% as per requirements)	Yes, close to 100% as per requirements
You have sufficient water and sewerage/sanitation network operations and repair staff/plumbers including contractors/outsourced resources (i.e. you have the appropriate number of staff). (4.4)	<50% as per functional requirements	Agree somewhat (i.e. >50% as per functional requirements)	Don't know	Mostly agree (i.e. >75% as per functional requirements)	None (i.e. 0% as per functional requirements)	Strongly agree (i.e. >95% as per functional requirements)	Yes, close to 100% as per functional requirements	
An active mentoring/shadowing programme is in place where experienced staff train your younger, inexperienced municipal staff. (4.5)	Don't know	In place, but not ideal	In place, with occasional non-optimal performance	No, disagree	Yes, strongly agree			
<b>5. Water Resource Management (WRM)</b>								
The recommendations and actions from the Reconciliation Strategies (Large Systems/All Towns) have been incorporated into your WSDP, master planning and IDP processes. (5.1)	Don't know	In process	No, disagree	Not applicable	Yes, strongly agree			
The metered quantity of water available from the resources is sufficient for your current WSA needs (at the stipulated level of abstraction and assurance of supply). (5.2)	>50% shortage	1 - 10% shortage	11-20% shortage	21-30% shortage	31-40% shortage	41-50% shortage	Don't know	No shortage (i.e. sufficient water)
The metered quantity of water available from the resources is sufficient for your future WSA needs (at the stipulated level of abstraction and assurance of supply, and considering possible climate change impacts) (i.e. no shortage in 10 years). (5.3)	>50% shortage	1 - 10% shortage	11-20% shortage	21-30% shortage	31-40% shortage	41-50% shortage	Don't know	No shortage (i.e. sufficient water)
The source water quality is regularly tested and is currently acceptable for its purpose. (5.4)	<50% of sources by water volume acceptable	Agree (i.e. >95% of sources by water volume are acceptable)	Agree somewhat (i.e. >50% of sources by water volume are acceptable)	Don't know	Mostly agree (i.e. >75% of sources by water volume are acceptable)	None (i.e. 0% of sources by water volume are acceptable)	Not applicable	Yes, strongly agree (i.e. all sources (close to 100%) by water volume are acceptable)

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The source water quality is regularly tested and the trend indicates a deteriorating quality. (5.5)	<25% of sources by water volume are deteriorating	>25% of sources by water volume are deteriorating	>50% of sources by water volume are deteriorating	>75% of sources by water volume are deteriorating	>95% of sources by water volume are deteriorating	Don't know	No, no sources (0%) are deteriorating	Not applicable
<b>6. Water Conservation &amp; Water Demand Management (WC/WDM)</b>								
Your WSA has developed a council approved Water Conservation and Water Demand Strategy which includes a standard water balance (e.g. modified IWA). (6.1)	Don't know	None developed	Only water balance developed	Only WC/WDM Strategy developed	WC/WDM Strategy and water balance developed			
Please indicate your percentage Non-Revenue Water (NRW) as per the modified IWA water balance. (6.2)	50% or more	Don't know	Less than 15%	Less than 20%	Less than 25%	Less than 30%	Less than 40%	Less than 50%
System input volumes (bulk) to the WSA are accurately monitored using calibrated bulk meters (e.g. check metering). (6.3)	<50%	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Some (i.e. >50%)	Yes, all (i.e. close to 100%)	
Please indicate what percentage of all connections are metered and billed (residential and non-residential (commercial, industrial, etc.)) on a monthly basis. (6.4)	<25%	<50%	>98%	50% - 75%	75% - 98%	Don't know	No metering	
Your WSA is implementing appropriate intervention programmes to reduce NRW (e.g. minimisation of night flows through pressure management, removal of unlawful connections, leak detection and repairs, consumer education/awareness). (6.5)	<50% implementation	Agree (i.e. >95% implementation)	Agree somewhat (i.e. >50% implementation)	Don't know	Mostly agree (i.e. >75% implementation)	No implementation (i.e. 0%)	Yes, strongly agree (i.e. close to 100% implementation)	
<b>7. Drinking Water Safety &amp; Regulatory Compliance</b>								
Please indicate your microbiological drinking-water quality compliance for E.coli (or faecal coliforms) for the communities you are monitoring, for the last 12 months. (7.1)	< 95%	95% - <97%	97% - <99%	99% - 100%	Don't know			
ALL your supply schemes, WTWs, process controllers, monitoring programmes, sample points, laboratories, results, procedures, protocols, etc. are managed with a suitable Water Safety Planning framework. (7.2)	<50% covered	Agree somewhat (i.e. >50% covered)	Don't know	Mostly agree (i.e. >75% covered)	None covered (i.e. 0%)	Strongly agree (i.e. >95% covered)	Yes, strongly agree (i.e. close to 100% covered)	

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Council have been made aware of high risk / critical water safety plan related issues (including those identified via the Blue Drop Certification programme) that require budget and actioning, and these issues have been actioned (where applicable). (7.3)	<50% tabled	Agree somewhat (i.e. >50% tabled)	Don't know	Issues noted but none tabled (i.e. 0%)	Mostly agree (i.e. >75% tabled)	Not applicable (no issues requiring council resolution exist)	Strongly agree (i.e. >95% tabled)	Yes, strongly agree (i.e. all (close to 100%) tabled)
Sufficient funds have been made available to address all these identified water safety related issues. (7.4)	<50% of required funds	Agree somewhat (i.e. >50% of required funds)	Don't know	Issues noted but no funds (i.e. 0%)	Mostly agree (i.e. >75% of required funds)	Not applicable (no issues requiring funding exist)	Strongly agree (i.e. >95% of required funds)	Yes, strongly agree (i.e. close to 100% of required funds)
Required corrective actions/remedial measures to address all these identified water safety related issues have been successfully implemented. (7.5)	<50% implementation	Agree somewhat (i.e. >50% implementation)	Don't know	Issues noted but no implementation (i.e. 0%)	Mostly agree (i.e. >75% implementation)	Not applicable (no issues requiring corrective actions exist)	Strongly agree (i.e. >95% implementation)	Yes, strongly agree (i.e. close to 100% implementation)
<b>8. Basic Sanitation</b>								
You have formal housing areas that are not fully serviced with sanitation infrastructure (8.1)	Don't know	No, all formal areas are fully serviced (i.e. no bucket sanitation service)	Yes, but these are households that will be serviced within 2 years	Yes, still trying to meet formal backlog with 60 - 80% serviced	Yes, still trying to meet formal backlog with 80 - 90% serviced	Yes, still trying to meet formal backlog but >90% are serviced	Yes, still trying to meet formal backlog with <60% serviced (e.g. occurrence of bucket systems, existence of open defecation)	
You have informal housing or rural areas that are not fully serviced with sanitation infrastructure (8.2)	Don't know	No, all informal and rural areas are fully serviced	We have no informal areas and rural areas are serviced	Yes, but these are households that will be serviced within 2 years	Yes, still trying to meet informal or rural backlog with >90% serviced	Yes, still trying to meet informal or rural backlog with 60 - 80% serviced	Yes, still trying to meet informal or rural backlog but 80- 90% are serviced	Yes, still trying to meet informal or rural backlog with <60% serviced (e.g. occurrence of bucket systems, existence of open defecation)
You have a detailed plan and programme to provide safe sanitation to all households (including health and hygiene education and user awareness including Water, Sanitation and Health (WASH) aspects) (8.3)	<50% implementation	Agree somewhat (i.e. >50% implementation)	Don't know	Mostly agree (i.e. >75% implementation)	No implementation (i.e. 0%)	Not applicable	Strongly agree (i.e. >95% implementation)	Yes, strongly agree (i.e. close to 100% implementation)
Your sanitation budget is appropriate for required sanitation programmes (implementation and O&M) (8.4)	Disagree, significant shortfall (50-75% of required funds)	Don't know	Mostly agree (i.e. >95% of required funds)	No funds (i.e. 0%)	Not applicable	Serious underfunding (<50% of required funds)	Some shortfall (i.e. >75% of required funds)	Yes, strongly agree (i.e. close to 100% of required funds)

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You are servicing your basic sanitation facilities (e.g. pit latrines) as per safe sanitation requirements (healthy, environmentally safe, structurally sound, regularly maintained, following faecal sludge management best practices). (8.5)	Agree somewhat (i.e. >50% as per requirements)	Don't know	Mostly agree (i.e. >75% as per requirements)	No, we have serious shortfalls in the servicing of sanitation infrastructure (i.e. <20 %)	No, we only manage to service <50% of the sanitation infrastructure	Not applicable	Strongly agree (i.e. >95% as per requirements)	Yes, close to 100% as per requirements
<b>9. Wastewater/Environmental Safety &amp; Regulatory Compliance</b>								
Please indicate your treated wastewater effluent compliance for COD for your (or your service provider's) WWTWs for the last 12 months. (9.1)	<80%	>95%	80% - <90%	90% - 95%	Don't know			
ALL your WWTWs, process controllers, monitoring programmes, sample points, laboratories, results, procedures, protocols, etc. are managed with a suitable waste water risk abatement framework. (9.2)	<50% covered	Agree (i.e. >95% covered)	Agree somewhat (i.e. >50% covered)	Don't know	Mostly agree (i.e. >75% covered)	None covered (i.e. 0%)	Yes, strongly agree (i.e. close to 100% covered)	
Council have been aware of all W2RAP related issues (e.g. pollution incidents, Green Drop deficiencies) that require budget and actioning, and these issues have been actioned (where applicable). (9.3)	<50% tabled	Agree (i.e. >95% covered)	Agree somewhat (i.e. >50% tabled)	Don't know	Issues noted but none tabled (i.e. 0%)	Mostly agree (i.e. >75% tabled)	Not applicable (no issues requiring council resolution exist)	Yes, strongly agree (i.e. all (close to 100%) tabled)
Sufficient funds have been made available to address all identified wastewater and environmental safety related issues. (9.4)	<50% of required funds	Agree (i.e. >95% covered)	Agree somewhat (i.e. >50% of required funds)	Don't know	Issues noted but no funds (i.e. 0%)	Mostly agree (i.e. >75% of required funds)	Not applicable (no issues requiring funding exist)	Yes, strongly agree (i.e. close to 100% of required funds)
Required corrective actions/remedial measures to address all identified wastewater and environmental safety related issues have been successfully implemented. (9.5)	<50% implementation	Agree (i.e. >95% covered)	Agree somewhat (i.e. >50% implementation)	Don't know	Issues noted but no implementation (i.e. 0%)	Mostly agree (i.e. >75% implementation)	Not applicable (no issues requiring corrective actions exist)	Yes, strongly agree (i.e. close to 100% implementation)
<b>10. Infrastructure Asset Management (IAM)</b>								
You have an appropriate and up-to-date water and sanitation services technical Asset Register (includes asset name, location, condition, extent, remaining useful life, performance and risk). NOTE: This does only not refer to GRAP17 asset register requirements. (10.1)	Don't know	No, disagree (i.e. no asset register)	Not ideal (e.g. outdated asset register)	Yes, agree (e.g. basic asset register - i.e. not all aspects included)	Yes, strongly agree (e.g. advanced asset register)			
You have developed an appropriate Infrastructure Asset Management (IAM) Plan for your WSA. (10.2)	Don't know	In place, with occasional non-optimal performance	No, disagree	Partially in place, but not ideal	Yes, strongly agree			

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You are implementing the IAM outcomes (10.3)	<50% implementation	Agree (i.e. >95% implementation)	Agree somewhat (i.e. >50% implementation)	Don't know	Mostly agree (i.e. >75% implementation)	No implementation (i.e. 0%)	Yes, strongly agree (i.e. close to 100% implementation)	
Budget allocated to implement IAM outcomes is sufficient and is being effectively spent. (10.4)	<50%	Agree (i.e. >95%)	Agree somewhat (i.e. >50%)	Don't know	Mostly agree (i.e. >75%)	No (i.e. 0%)	Yes, strongly agree (i.e. close to 100%)	
You conduct annual technical assessments of your water and wastewater related systems (including sources, WTWs, WWTWs, pump stations, network, etc.) and implement required follow-up actions. (10.5)	<50% systems	Almost all systems (i.e. >95%)	Don't know	Most systems (i.e. >75%)	No systems (i.e. 0%)	Not applicable	Some systems (i.e. >50%)	Yes, all systems (i.e. close to 100%)
<b>11. Operation &amp; Maintenance of Assets</b>								
Appropriate maintenance facility(ies) that is(are) secure and stocked with essential equipment (e.g. spare parts), plant and tools is(are) available. (11.1)	Don't know	In place, with occasional non-optimal performance	No, disagree	Partially in place, but not ideal	Yes, strongly agree			
Appropriate water and sanitation services infrastructure/equipment planned/preventative maintenance schedules are developed. (11.2)	Don't know	In place, with occasional non-optimal performance	No, disagree	Partially in place, but not ideal	Yes, strongly agree			
Appropriate planned/preventative maintenance is performed at all WTWs and associated reservoirs, pump stations, distribution network. (11.3)	<50%	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Some (i.e. >50%)	Yes, all (i.e. close to 100%)	
Appropriate planned/preventative maintenance is performed at all WWTWs and associated collection system, pump stations. (11.4)	<50%	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Some (i.e. >50%)	Yes, all (i.e. close to 100%)	
Please indicate your infrastructure repairs and maintenance costs as a function of total operating expenditure (%). (11.5)	<5%	10% - <15%	15% - <20%	20% or more	5% - <10%	Don't know		
<b>12. Financial Management</b>								
Financial controls - Please state the audit opinion with regard to your last audit report on the financial statements. (12.1)	Adverse audit opinion	Clean audit outcome (i.e. unqualified with no findings)	Disclaimer of audit opinion	Don't know	Financially unqualified audit opinion (with findings)	Qualified audit opinion		
Cash flow status - Please state your Cash/Cost Coverage Ratio (excluding Unspent Conditional Grants) (12.2)	<30 days	>90 days	30 - 60 days	60 - 90 days	Don't know			
Your actual operating expenditure closely reflects your budgeted operating expenditure (i.e. Operating Expenditure Budget Implementation Indicator) (12.3)	<80%	80% - <85%	85% - <90%	90% - <95%	95% - 100%	Don't know		

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Your actual revenue closely reflects your budgeted operating revenue (i.e. Operating Revenue Budget Implementation Indicator) (12.4)	<80%	80% - <85%	85% - <90%	90% - <95%	95% - 100%	Don't know		
Liabilities (Creditors) - Money is owed by your municipality to major/critical service providers (e.g. ESKOM, Water Board, largest contractors, etc.) for more than 30 days from receipt of invoice (NOTE: Ignore disputed invoices) (12.5)	Don't know	More frequently than quarterly	Never	Once per quarter	Once per year	Twice per year		
<b>13. Revenue Collection</b>								
Please indicate the frequency of actual consumer meter readings. (13.1)	Actual meter reading at least every 2nd month	Actual meter reading on a monthly basis	Don't know	Meter reading at least on a quarterly basis	Meter reading less frequently than quarterly			
Net Surplus/Deficit - Please state your net surplus/deficit from water services activities for the last 12 months (NOTE: This question tests whether your WSA currently has fully cost reflective Water and Sanitation tariffs (which take into account cost of maintenance and renewal of purification plants and networks, and the cost of infrastructure). (13.2)	Breakeven (i.e. = 0%)	Don't know	Net deficit (i.e. <0%)	Surplus (i.e. >0%)				
Revenue collection - Please state the revenue collection rate in respect to Water & Sanitation Services (%) (13.3)	<50%	50% - <70%	70% - <80%	80% - <95%	95% or more	Don't know		
Revenue Growth - Please state your Water and Sanitation Services revenue growth for the last financial year(%). (13.4)	>CPI	Don't know	Equals CPI	less than CPI, but >0%	Negative growth (-ve)			
Grant dependency - Actual operating revenue less operational grants/subsidies (e.g. equitable share) sufficiently covers actual operating expenditure. (13.5)	<50%	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Some (i.e. >50%)	Yes, all (i.e. close to 100%)		
<b>14. Financial Asset Management</b>								
Capital Expenditure (Municipal) - Please state your municipal Capital Expenditure as a percentage of Total Expenditure (i.e. Total Operating Expenditure + Capital Expenditure) (14.1)	<5%	10% - <15%	15% - <20%	20% or more	5% - <10%	Don't know		
Capital Expenditure (Water Services) - Please state your Capital Expenditure on Water and Sanitation Services as a percentage of Total Capital Expenditure (Capital Expenditure (Municipal)) (14.2)	<25%	25% - <50%	50% - <75%	75% or more	Don't know			

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Asset Renewal - Please state your Asset Renewal investment as percentage of Depreciation costs (14.3)	<50%	>50%	>75%	>90%	close to 100%	Don't know	None (i.e. 0%)	
Repairs and Maintenance - Please state your Repairs and Maintenance expenditure as a percentage of Property, Plant and Equipment, Investment Property (Carrying Value) (14.4)	<5%	10% or more	5% - <8%	8% - <10%	Don't know			
Grant funding of capital expenditure - Please state your reliance on grant funding (14.5)	<50%	>50%	>75%	>90%	Don't know			
<b>15. Information Management (IT)</b>								
You have a developed, approved and implemented IT Master Systems Plan (e.g. covering 3 - 5 years) that addresses your IT business requirements. (15.1)	Developed and approved, but not yet implemented	Developed but not yet approved or implemented	Don't know	In development	No, disagree	Yes, developed, approved and being implemented		
You have a developed, approved and implemented ICT Technology Master Plan that addresses your current and future IT infrastructure requirements. (15.2)	Developed and approved, but not yet implemented	Developed but not yet approved or implemented	Don't know	In development	No, disagree	Yes, developed, approved and being implemented		
You have IT systems that support your full range of water and sanitation services business requirements (e.g. billing, GIS, customer care, O&M, asset management). (15.3)	< 50% of required systems	Agree (i.e. >95% of required systems)	Agree somewhat (i.e. >50% of required systems)	Don't know	Mostly agree (i.e. >75% of required systems)	None (i.e. 0% of required systems)	Yes, strongly agree (i.e. close to 100% of required systems)	
ICT service continuity - Adequate IT security exists with off-site back-ups/archiving of operation critical applications, databases, data, etc. routinely performed in terms of an IT Disaster Recovery Plan. (15.4)	<50% in place	Agree (i.e. >95% in place)	Agree somewhat (i.e. >50% in place)	Don't know	Mostly agree (i.e. >75% in place)	Nothing in place (i.e. 0%)	Yes, strongly agree (i.e. All (close to 100%) in place)	
You have sufficient budget and staff to keep key IT systems stable and up-to-date as per IT policies and procedures. (15.5)	<50%	Agree (i.e. >95% in place)	Agree somewhat (i.e. >50%)	Don't know	Mostly agree (i.e. >75%)	No (i.e. 0%)	Yes, strongly agree (i.e. close to 100%)	
<b>16. Organisational Performance Monitoring</b>								

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Appropriate plans, policies and procedures to address Disaster Management/emergencies and other issues (safety, public participation, communication, etc.) are developed and implemented. NOTE: Although Disaster Management is a district function, LMs need to ensure they are aware of their associated roles and responsibilities and have developed a Disaster Management Framework. (16.1)	Developed, but not yet implemented	Don't know	In development	No, disagree	Yes, developed and implemented			
An organisational performance management system is developed and implemented (i.e. effectively measure, monitor and track water and sanitation services performance indicators). (16.2)	Developed, but not yet implemented	Don't know	In development	No, disagree	Yes, developed and implemented			
A municipal risk management framework is developed and implemented and includes monitoring and tracking of water and sanitation related risks. (16.3)	Developed, but not yet implemented	Don't know	In development	No, disagree	Yes, developed and implemented and includes water and sanitation related risks	Yes, developed and implemented but does not include water and sanitation related risks		
Effective administration support is available to technical staff to assist with processing work orders, providing order numbers, handling correspondence, etc. (16.4)	< 50% effective	Agree (i.e. >95% effective)	Agree somewhat (i.e. >50% effective)	Don't know	Mostly agree (i.e. >75% effective)	No, completely ineffective (i.e. 0%)	Yes, strongly agree (i.e. close to 100% effective)	
"Access to Basic Water and Sanitation Services" progress reports are frequently produced and presented to council for discussion, action and follow-up. (16.5)	At least annually	At least bi-annually	At least quarterly	Don't know	Less frequently (i.e. > 1 year)	No, never		
<b>17. Water and Sanitation Service Quality</b>								
Critical business databases and documents (e.g. as-built drawings, records, manuals, agreements, billing/revenue collection, project and scheme management data, etc.) are current, maintained and stored in secure locations (on-site and off-site, both paper and electronic). (17.1)	< 50% in place	Agree (i.e. >95% in place)	Agree somewhat (i.e. >50% in place)	Don't know	Mostly agree (i.e. >75% in place)	Nothing in place (i.e. 0%)	Yes, strongly agree (i.e. close to 100% in place)	
Customers have a functional, reliable and safe water supply system with sufficient quantity and flow, good quality, and minimal interruptions. (17.2)	< 50% of customers have a functional, reliable and safe service	At least 90% have a functional, reliable and safe service	Don't know	Most have a functional, reliable and safe service (i.e. >75%)	None have a functional, reliable and safe service (i.e. 0%)	Some have a functional, reliable and safe service (i.e. > 50%)	Yes, all have a functional, reliable and safe service (i.e. close to 100%)	

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All consumers served experience interruptions of less than 48 hours (at any given time) and a cumulative interruption time during the year of less than 15 days. (17.3)	>90% of households	<50% of households	>50% of households	>75% of households	Don't know	None (i.e. 0%)	Yes, all (i.e. close to 100%)	
Households in your WSA do not experience water pressure problems (i.e. meet requirements as per National Norms and Standards for Domestic Water (Sep 2017) (not to be confused with interruption to supply). (17.4)	>90% of households do not experience pressure problems	<50% of households do not experience pressure problems	>50% of households do not experience pressure problems	>75% of households do not experience pressure problems	All households (i.e. 100%) experience pressure problems	Don't know	Yes, no households experience pressure problems (i.e. close to 100% do not experience pressure problems)	
Customers have a functional, reliable, dignified and safe sanitation system with minimal blockages resulting in overflows that impact on the environment, including effective collection and treatment of faecal sludge. (17.5)	< 50% of customers have a functional, reliable, dignified and safe service	Almost all have a functional, reliable, dignified and safe service (i.e. >90%)	Don't know	Most have a functional, reliable, dignified and safe service (i.e. >75%)	None have a functional, reliable, dignified and safe service (i.e. 0%)	Some have a functional, reliable, dignified and safe service (i.e. >50%)	Yes, all customers have a functional, reliable, dignified and safe service with no impact on the environment (i.e. close to 100%)	
18. Customer Care (CRM)								
A functional customer service system manned by appropriate customer services representatives and using a complaints register, is in place to address complaints and appropriately inform customers of service interruptions, contamination of water, boil water alert, etc. (18.1)	Don't know	In place, with occasional non-optimal performance	No, disagree	Partially in place, but not ideal	Yes, strongly agree			
Regular municipal wide customer satisfaction surveys are conducted to determine customer satisfaction levels and inform the Customer Care Management Plan. (18.2)	Annual customer satisfaction surveys	Biennial (i.e. every 2nd year) customer satisfaction surveys	Don't know	Less frequent customer satisfaction surveys (i.e. >2 years)	No customer satisfaction surveys			
Please indicate what percentage of the reported water related complaints/callouts are acknowledged, including consumer response, within 24 hours. (18.3)	<50%	All (i.e. close to 100%)	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Some (i.e. >50%)	
Please indicate what percentage of the reported wastewater/sanitation related complaints/callouts are acknowledged, including consumer response, within 24 hours. (18.4)	<50%	All (i.e. close to 100%)	Almost all (i.e. >95%)	Don't know	Most (i.e. >75%)	None (i.e. 0%)	Some (i.e. >50%)	

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A comprehensive customer awareness programme (informing customers of water and wastewater system O&M activities impacting on supply/customers, water quality, resource protection/pollution, reporting incidents/security concerns, etc.) is in place and implemented. (18.5)	Don't know	In place, with occasional non-optimal performance	No, disagree (i.e. no awareness programme)	Partially in place, but not ideal	Yes, strongly agree			
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Water Services Development Plan

**Chapter 3:**

**Water Master Plan Perspective**

List of projects per Water Services Business Element (Topics) based on Demand Modeling

Question		Answer	Score
<b>1.</b>	<b>Is there a Water Master Plan that addresses Future Demands in regards to the following:</b>		
a.	Existing needs that will take more than 5 years to resolve	Yes	25
b.	Resource Development Plan for a 5, 10 and 15 year scenario	Yes	25
c.	Infrastructure Development Plan for a 5, 10 and 15 year scenario	Yes	25
d.	Functionality Needs Prediction for a 5, 10 and 15 year scenario	Yes	25
<b>2.</b>	<b>Did council approve any projects that should have started this current year that address the following:</b>		
a.	Existing needs that will take more than 5 years to resolve	Yes	25
b.	Resource Development Plan for a 5, 10 and 15 year scenario	Yes	25
c.	Infrastructure Development Plan for a 5, 10 and 15 year scenario	Yes	25
d.	Functionality Needs Prediction for a 5, 10 and 15 year scenario	Yes	25
<b>3.</b>	<b>Are these future projects included in the next 5 year IDP programme for the following:</b>		
a.	Existing needs that will take more than 5 years to resolve	Yes	25
b.	Resource Development Plan for a 5, 10 and 15 year scenario	Yes	25
c.	Infrastructure Development Plan for a 5, 10 and 15 year scenario	Yes	25
d.	Functionality Needs Prediction for a 5, 10 and 15 year scenario	Yes	25
<b>4.</b>	<b>Taking in to consideration the current financial and institutional capacity of the WSA, score the probability scenario of the timeous implementation of these projects i</b>		
a.	Existing needs that will take more than 5 years to resolve	Likely	50
b.	Resource Development Plan for a 5, 10 and 15 year scenario	Likely	50
c.	Infrastructure Development Plan for a 5, 10 and 15 year scenario	Likely	50
d.	Functionality Needs Prediction for a 5, 10 and 15 year scenario	Likely	50

<b>Overall Future Perspective Score</b>	87.50%
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Chapter 4: Investment Framework

Investment Framework costs per Infrastructure Component

Infrastructure Type	Infrastructure Component	Replacement Cost				Refurbishment Cost			
		5 yr	10 yr	15 yr	Existing Value	5 yr	10 yr	15 yr	Existing Value

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Water Infrastructure Pipelines	Water Internal Reticulation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Water Bulk pipeline	0.00	0.00	92.15	91.88	35.52	88.78	50.82	175.11
Sanitation Infrastructure Pipelines	Sewer internal Reticulation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sewer Bulk pipeline	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Infrastructure Works	WTW	0.00	2.64	4.26	6.90	0.82	1.32	2.14	4.28
	WWTW	5.36	1.29	2.09	8.74	0.40	0.65	1.04	2.09
	Water Pump stations	1.61	7.61	0.00	9.22	2.36	4.45	1.04	7.86
	Sanitation Pump stations	14.49	5.20	18.81	38.96	1.60	8.45	13.52	23.57
Infrastructure	Reservoirs	0.00	0.00	0.00	0.00	13.33	19.94	34.34	67.66

Investment Framework costs per Future Infrastructure Component

Infrastructure Type	Infrastructure Component	New Development Cost			
		5 yr	10 yr	15 yr	Existing Value
Water Infrastructure Pipelines	Water Internal Reticulation	0.00	0.00	0.00	0.00
	Water Bulk pipeline	156.74	0.00	0.00	0.00

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<b>Sanitation Infrastructure Pipelines</b>	Sewer internal Reticulation	0.00	0.00	0.00	0.00
	Sewer Bulk pipeline	0.00	0.00	0.00	0.00
<b>Instructure Works</b>	WTW	0.00	0.00	0.00	0.00
	WWTW	0.00	0.00	0.00	0.00
	Water Pump stations	0.00	0.00	24.51	0.00
	Sanitation Pump stations	0.00	0.00	0.00	0.00
<b>Infrastructure</b>	Reservoirs	16.22	0.00	0.00	0.00

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Chapter 5: WSDP Scoring

Total Score	STATUS
51.58	

