

# (WSIG)

(Water Services Infrastructure Grant)

# **Project Business Plan**

#### **REPORT REFERENCE:**

DWS REGION:	Northern Cape		
WATER SERVICES AUTHORITY:	Frances Baard District Municipality		
PROJECT NAME:	Windsorton/Holpan Regional Bulk Water Supply		
PROJECT REFERENCE:	ZNC346		
WSA PROJECT MANAGER:	Rorisang Setshogoe		
DWS PROJECT MANAGER:	8		

Date Prepared: 01 November 2021

Version: 1

# LIST OF CONTENTS

0

SE	СТІОІ	N A: PROJECT REGISTRATION /OVERVIEW5
1	PRO	DECT OVERVIEW
	1.1	Estimated Duration5
	1.2	Project Location5
	1.3	Select the WSIG focus area:6
	1.4	Describe the project6
	1.5	Motivate the project6
2	APP	LICANT DETAILS Error! Bookmark not defined.
	2.1	Name of Contact Person Responsible for the Project
	2.2	Municipality officials /representatives
3	PRO	DECT COSTING8
	3.1	
	3.1 3.2	State the amount of funding requested from WSIG
		Indicate the cash flow9
4	PRO	JECT MILESTONES
•	4.1	Propose the project milestones
	4.2	Frame the project performance milestones
5	IMP	ACT DECLARATION
	5.1	Quantify the proposed project impacts
	5.2	Mandatory Impacts
6	ROL	E PLAYERS 14
SE.	·CTTOI	N B: FEASIBILITY
JL		
7	STA	TUS OF PROJECT
•	7.1	Status of project
8	DEM	OGRAPHICS15
	8.1	Population
	8.2	Beneficiaries
	8.3	Backlog of service applied for
9	TEC	HNICAL / DESIGN CONSIDERATIONS
	9.1	General information
	9.2	Water Demand Analysis
	9.3	Description of components
	9.3 9.4	Additional information on the rehabilitation of existing infrastructure
	9. <del>4</del> 9.5	
	7.3	Additional information on Water Demand Management interventions

9.6	Option analysis	25
9.7	Design criteria	25
10 9	SOCIO ECONOMIC CONSIDERATIONS	26
10.1	Employment Generation	26
10.2	Employment Policy	26
10.3	Training needs Analysis and Framework	28
10.4	Planned Training Activities	28
10.5	Sanitation, Health and Hygiene	29
SECTIO	N C: IMPLEMENTATION AND SUSTAINABILITY	30
11 /	AFFORDABILITY AND FINANCIAL CONSIDERATIONS	30
11.1	Cost of Water Supply	30
11.2	Household Contributions	30
11.3	Free Basic Services	31
12 I	Institutional capacity and Implementing Agent	31
12.1	Selection of Implementing Agent	31
12.2	Track record of Implementing Agent	32
12.3	Consideration and involvement of Community Based Organisation	32
13 A	Asset Management and Operation and Maintenance	33
13.1	Operation and Maintenance Cash Flow Projection	33
13.2	Key elements of maintenance and operation plan	33
13.3	Maintenance contract arrangements and training	34
14 F	RISK AND RISK MITIGATION	34
14.1	Risk assessment	34
14.2	Risk mitigation	35
SECTIO	N D: DECLARATION AND CERTIFICATION	36
15 C	DECLARATION AND CERTIFICATION	36
15.1	Project Acceptance and Commitment Declaration by the Water Services Authority	36
16 A	ACCEPTANCE BY DWS	38
16.1	Acceptance by DWS - RO (Provincial WSIG Manager)	38
16.2	Acceptance by DWS - HO (Senior Manager WSIG)	
17 A	ACCEPTANCE BY KEY ROLE PLAYERS	
17.1	Acceptance by Technical Committee	37

#### **REVISION SHEET**

#### **Revision Schedule**

1

Revision Number	Date	Description	Author
01	01 Nov 2021	Windsorton/Holpan Regional Bulk Water Supply	R Setshogoe

# **SECTION A: PROJECT REGISTRATION / OVERVIEW**

#### 1 PROJECT OVERVIEW

#### 1.1 Estimated Duration

\*Start Date: 1 July 2022 End Date: 30 June 2024 Duration (weeks)

\*Note: This period will be used to generate the cash flow period, and includes the retention period where the guarantee method is not used. \*Start Date = Date on which design commenced.

# 1.2 Project Location

Project Location Co-ordinates of the Project						
Province	Northern Cape			AAAA ay Saar		
District Municipality	Frances Baard		Degrees °	Minutes '	Seconds "	
Local Municipality	Dikgationg	Longitude (E)	24	46	53.15	
Nearest Business Centre	Windsorton	Latitude	27	45	10.41	
Distance to Business Centre (km)	33 km					

#### 1.3 Select the WSIG focus area:

Please specify the type of WSIG project in terms of pre-defined focus areas.

WS	WSIG FOCUS AREA			
1.	Single type settlements (Individual settlements with rudimentary type solution)			
2.	New Scheme Development (Not part of existing scheme)	M.D. 100 100 100 100 100 100 100 100 100 10		
3.	Existing Scheme Refurbishment (Part of existing scheme) – quick win			
4.	Existing Scheme Refurbishment (Part of existing scheme) – larger than R 20 million	×		
5.	Conservation & Demand Management requirement, and O & M			

#### 1.4 Describe the project

Describe comprehensively the project and include as far as possible details in terms of sizing, capacity, quantity geographical location, etc. Where available, include a map to show the geographic context. Provide also a summary description of approximately 50 words (which will be used in the project progress reporting template).

#### PROJECT SUMMARY DESCRIPTION (approximately 50 words)

Windsorton and Holpan are both small settlements within Dikgationg Municipality which falls within the Frances Baard District Municipality in the Northern Cape Province. The existing Windsorton Water Treatment Works is operating at full capacity and it is not able to meet the current demand.

The project entails refurbishment of existing Windsorton Water Purification plant and building a new 1ML/d package plant with additional storage facilities.

# 1.5 Motivate the project

Please motivate in detail a) the reason for the project and b) the reason for requesting WSIG funding to complete the project c) the circumstances of the community and the number of HH without water Where available, make use of pictures to motivate the project. Specifically highlight the interfaces with planning of other initiatives to support the motivation.

#### PROJECT MOTIVATION (approximately 50 words)

- a) The Windsorton Water Treatment Works does not have enough capacity to provide for the needs of the communities of Windsorton. The Holpan community close to Windsorton is supplied with ground water through the borehole system which is no longer adequate due to increased population. The most sustainable way of supplying water to Holpan will be a conventional surface water supply of which the most feasible source is Windsorton water treatment works. To supply Holpan with water, Windsorton water treatment works will have to be upgraded by more than 50% of installed capacity.
- b) DWS has previously funded the project through their RBIG programme, but it could not be completed due to a lack of funds.
- c) This project will benefit approximately 6 401 people in Windsorton (1824 households) and 2 022 people in Holpan (337 households).

	Yes / No
Is this project captured in the WSA's WSDP?	YES
Does this project involve interim, intermediate water supply solutions?	No
Has this project been identified as part of the RRU (Rapid Response Unit) / RBIG programme?	YES
Does this project address a DWS transferred scheme?	No
Has this project been identified as part of the LG Turnaround Strategy?	YES

#### 2 APPLICANT DETAILS

## 2.1 Name of Contact Person Responsible for the Project

Applicant Rorisang Setshogoe

Contact person

Title: Mr	Surname:	Setshogoe	Initials: R	Position Manager
Physical Add	dress		I Address erent from Physical	)
51 Drakens Kimberley	berg Road, Car	ters Glen,		
Postal Code	8301	Postal	Code	
Email Address	rorisang.set	shogoe@fbdm.co.za	Fax	
Cellular	073073388	Tel (Of	ffice) 053	3838091 <b>1</b>

# 2.2 Municipality officials /representatives

Designation	Name	Phone	Fax	Email
Municipal Manager (FBDM)	Ms. ZM Bogatsu	053-838 0998	053-838 1538	mamikie.bogatsu@fbdm.co.za
Acting Director Infrastructure Services (FBDM)	Mr. R Setshogoe	053-838 0928	053-838 1538	rorisang.setshogoe@fbdm.co.za
Acting Chief Financial Officer(FBDM)	Ms. O. Moseki	053-838 0956	053-838 1538	onneile.moseki@fbdm.co.za
Municipal Manager (Dikgationg)	Ms. B Tsinyane	053-531 6500	053-531 0624	btsinyane@yahoo.com
Acting Technical Services Manager (Dikgatlong)	Mr. D Makaleni	053-531 6596	053-531 0624	desmond.makaleni@dikgatlong.co.za
Acting Chief Financial Officer(Dikgatlong)	Mr. C Mokeng	053-531 6575	053-531 0624	chrismokeng@gmail.com

#### 3 PROJECT COSTING

# 3.1 State the amount of funding requested from WSIG

State the total project cost and the amount of funding requested from the WSIG program. Include the total project cost and indicate the amount of funding from other sources which will contribute to the

project. Note that funds requested should be in terms of DWS financial years and not municipal financial years.

Project			Direct Costs	Indirect Costs (Professio nal fees)	Tra	ining	
Infrastructure Type	Total (Ind. VAT)	VAT	(Construction)		Accredited	Non- Accredited	
New infrastructure existing scheme	R32 694 197	R4 264 461	R25 845 215	R2 584 522			
New infrastructure, new scheme							
Refurbishment of existing					Incl.	Incl.	
WC/WDM							
Total Project Cost (A=E)					Incl.	Incl.	
			Direct Costs	Indirect	Tra	ining	
Source of Funds	Total (Incl. VAT)	VAT	(Construction)	Costs (Professio nal fees)	Accredited	Non- Accredited	
WSIG (B)					Inci.	Inci.	
Public sector** (C=a+b+c+d)							
a) Own Funds*							
b) Loans*							
c) Bonds*				_	74.40	THE PARTY OF THE PARTY	
d) Other*							
Private Sector (D)							
Total Registered (E=B+C+D)					Ind.	Incl.	
		Cost	per Househol	d (Total):			
Cost per l	Household wi	thout existin	g water servic	es (Total)			
		Cost	per Household	(WSIG):	A STATE OF THE STA		

#### 3.2 Indicate the cash flow

Provide the expected cash flow for funds in total and specific for funds requested from WSIG. Please ensure that the totals agree with the stated project costs and requested funds in item above. Note: that municipalities will be monitored in terms of cash flow compliance.

2022/23: Total	TOTAL PROJECT COST in R'000	WSIG FUNDS in R'000	OTHER FUNDS in R'000
Jun-22	2 700 000	2 700 000	0
Jul-22	2 700 000	2 700 000	0
Aug-22	2 700 000	2 700 000	0
Sep-22	2 700 000	2 700 000	0
Oct-	2 700 000	2 700 000	0
Nov-22	2 700 000	2 700 000	0
Dec-22	2 700 000	2 700 000	0
Jan-23	2 700 000	2 700 000	0
Feb-23	2 700 000	2 700 000	0
Mar-23	2 700 000	2 700 000	0
Apr-23	3 000 000	3 000 000	0
May-23	2 694 197	2 694 197	0
TOTAL FOR 2022/23	32 694 197	32694197	

WSIG funds are available only in the financial year in which it has been budgeted.

## **4 PROJECT MILESTONES**

# 4.1 Propose the project milestones

Indicate the project milestones in terms of the categories provided below. Ensure that the proposed milestone dates are mapped to municipal and DWS financial years. Note: municipalities will be monitored in terms of milestone compliance.

Milestone Description	Planned Date (dd-mmm-yy)	Municipal FY	DWS FY
Business Plan Approved	10/01/2022	2021/22	2021/22
Funding Agreement Signed	31/03/2022	2021/22	2021/22
Service Provider (consultant) appointed	01/04/2022	2021/22	2022/23
Contractor appointed	01/07/2022	2021/22	2022/23

Completed	30/06/2023	2022/23	2023/24
Finalized / End of Retention	30/06/2024	2023/24	2024/25

Note: if it is intended that more than one service provider / contractor would be appointed, then please add to the table extra rows, to capture the accompanying milestone dates for such appointments. Finalized means when last payment is done (including retention payment) and close out report has been completed.

The table below requires a more detail description of the implementation milestones with expenditure indicated

Phase No.	Phase description	Description of milestone	Start date	Completion Date	Total cost	WSIG contri butio n	Co- funding require d
1	Study	Feasibility study approval	N/A				
		Develop ToR	14/01/2022	14/01/2022			
		Appoint PSP	01/04/2022	01/04/2022			
2	Design and	Complete Design	02/04/2022	02/05/2022			-
_	tender	Advertise tender	13/05/2022	17/06/2022			
		Appoint contractor	01/07/2022	01/07/2022			į.
3	Implementati on		01/07/2022	30/06/2023	R32 694 197	100%	No
4	Project completion a	Completion certificate	30/06/2023	30/06/2023	0		No
'	nd hand over	Commissioning	30/06/2023	30/06/2023	0		No
	ra imila 441	O & M phase and training			0		No
		Contract exit		30/06/2024			
Total co	osts				R32 694 197		į

# 4.2 Frame the project performance milestones

In order to monitor progress on a monthly basis, it is required that project performance milestones should be established. Examples are provided below, however, the author to determine specific performance milestones for the project. In some cases, the project impact declaration (section 5) below will also be applicable as a performance milestone, however, in most cases, impacts will only be achieved once the project has been completed and therefore is not deemed adequate/complete to determine progress performance.

Note that the progress in terms of the above performance milestones will be monitored on a monthly basis.

Nr:	Project performance milestones	Unit	Target Value	Target Date	Nr:
			Excl VAT		
1	Inception (5%)		129 226.08	02/05/2022	
2	Concept and Viability (20%)		516 904.30	13/05/2022	
3	Design Development (30%)		775 356.45	17/05/2022	
4	Documentation and Procurement (15%)		387 678.23	01/07/2022	"
5	Contract Administration and Supervision (25% + 100% construction)		26 491 345.30	30/06/2023	
6	Close-Out (5%)		129 226.08	30/06/2024	

#### 5 IMPACT DECLARATION

#### 5.1 Quantify the proposed project impacts

In order to be able to a) prioritize the project, b) monitor progress and c) ensure that the WSIG program achievements may be quantified, please to identify and quantify the proposed impacts. Example impacts are provided, but the author to ensure that the proposed impacts for the project are uniquely identified and quantified. It should be noted that in certain instances, the use of more than one impact declaration may be required. Note also that the impact for the total project to be quantified (the WSIG contribution to the total project will be taken into account when reporting WSIG contributions). Please note section below for mandatory impact declarations per WSIG focus type (meaning that these impacts to be provided at minimum).

Nr:	Impact Description	Unit	Current Value	Target Value	Target Date
1	Number of Households receiving basic water supply	No	0	8423	01/07/2023

#### 5.2 Mandatory Impacts

Please take specific note of the mandatory impact fields per project focus type.

#### Water Supply

- 1. Number of Households receiving Basic Water Supply 14019
- 2. Number of Households receiving some water (Interim, intermediate which is below basic water supply) 127

#### Water Conservation and Demand Management

- 1. Volume of water loss reduction in Unit: I/d
- 2. % of water loss reduction in Unit: %
- 3. Number of people targeted (awareness) in Unit: Nr
- 4. Etc.

#### **6 ROLE PLAYERS**

Identify the role-players and responsible parties for project execution. Where consultants and contractors are still to be appointed, indicate as such, however, if intended to use existing appointments for the project, please add the names and details of the applicable consultants and/or contractors.

Role-Player	Name	Contact Person	Telephon e	Cellular	E-mail Address
DWS Region		1			
WSA	Dikgationg	B Tsinyane	053-531 6500	084 896 6977	btsinyane@yahoo.com
Implementing Agent	Frances Baard DM	R Setshogoe	053-838 0928	073 073 3889	Rorisang.setshogoe@fbdm.co. za
MISA representative				*	
Consultant (1)					
Contractor (1)					

SECTION B: FEASIBILITY

#### 7 STATUS OF PROJECT

# 7.1 Status of project

Status of project	Y/N
Project implementation has started	N
EIA is approved	Y
Project is considered Implementation ready	Y
Feasibility study is completed	Y
Feasibility study is currently been undertaken	N
Feasibility / Implementation ready study required	Y

If project is not implementation ready indicate the following Y/N

Do you require funding to complete a feasibility/IRS	N
study	
Is a EIA required	N
Has a EIA process been started	N

Has the land rights been acquired	Υ
Is a water use license required	Υ
Is there adequate electrical supply	N
Has a water use license application been submitted	Υ

#### Planning status of institution

Y/N	Date
-----	------

Has a water master plan been undertaken and when	Υ	2016
Is the WSDP up to date, date of revision	Υ	MAY 2021
Is the IDP up to date, date of last revision	Υ	MAY 2021
Is the water supply backlogs business plan for the WSA completed	N	65
Is there a water demand management strategy, date when	N	

#### Note:

- 1) If project is bigger than R 20 million a feasibility study is required
- 2) Water Supply backlog Business plan, refers to a comprehensive multi-year plan on how to provide and fund projects that will eradicate all water supply backlogs

## 8 DEMOGRAPHICS

8.1 Population

Current population of WSA	46841
Current population of area to be supplied by project	8423
Estimated Population growth rate of project area	2,02%
Design population of area to be supplied by project (2036)	11401

#### 8.2 Beneficiaries

(Poor Households - Those with household expenditure of below R1, 100.00 per month)

Numbe	er of Beneficiaries (Perso	ons)
	Formal Areas	6401
	Informal Areas	2022
	Total Residents	8423

		dd/i	mm/yyyy
Formal: No of New Stands	0	Date of Last Count	2011
Formal: No of Existing Stands (Rehabilitation)	1824	No of Households	2161
Informal: No of Backyard Dwellings	0		
Informal: No of Households	337		
Total	2161		
Household Size			
Average household size (No of persons)			

# 8.3 Backlog of service applied for

Main Village/ Town	Settlement/ Village/ Suburb	Total number of Households in Municipal Area (1)	Total number of households with below basic level of service (2)	Total number of Households to benefit from project (3)	Backlog (remaining after completion of the project) = 2-3
Windsorton	Kutiwano & Hebron Park		1824	1824	0
Holpan	Holpan		337	337	0
Total			2161	2161	0

# 9 TECHNICAL / DESIGN CONSIDERATIONS

#### 9.1 General information

Provide the details of any feasibility or technical report regarding the proposed project or that has significant relevance to the proposed project:

Report Name	Type of report	Completed Date	By whom (PSP)
Upgrading of Windsorton Water Purification Plant and related works	Technical Report	March 2009	KV3 Engineers
Windsorton/Holpan Regional Bulk Water Supply Scheme	Implementation Readiness Report	October 2014	Worley Parsons
Holpan Water Supply and the Upgrade of Windsorton Water Treatment Works	Concept and Viability Report	January 2015	Selatile KSMD Engineers Consortium

Note: Any specific feasibility report on the project must be submitted together with the Business Plan.

ki/month

# 9.2 Water Demand Analysis - N/A

Total Demand analysis of WSA

Total Demand analysis of WSA	70	KI/IIIOIIUI
Domestic , paying consumers		
Domestic non-paying consumers		
Commercial consumers		· · · · · · · · · · · · · · · · · · ·
Industrial consumers		
Institutional , government and municipal use		<del></del>
Unaccounted for water		· · ·
Total		
	%	k <b>t/m</b> onth
Existing Demand of area to be supplied by	%	k <b>t/mo</b> nth
Existing Demand of area to be supplied by	%	kt/month
Existing Demand of area to be supplied by infrastructure	%	k <b>t/m</b> onth
	%	kt/month
infrastructure	%	kt/month
infrastructure  Domestic, paying consumers	%	kt/month
infrastructure  Domestic, paying consumers  Domestic non-paying consumers	%	kt/month
infrastructure  Domestic, paying consumers  Domestic non-paying consumers  Commercial consumers	%	kt/month
infrastructure  Domestic, paying consumers  Domestic non-paying consumers  Commercial consumers  Industrial consumers	%	kt/month
infrastructure  Domestic, paying consumers  Domestic non-paying consumers  Commercial consumers  Industrial consumers  Institutional, government and municipal use	%	kt/month

# Design Demand of area to be supplied by infrastructure

Domestic, paying consumers	
Domestic non-paying consumers	
Commercial consumers	
Industrial consumers	
Institutional , government and municipal use	
Unaccounted for water	
Total	

#### 9.3 Description of components

# Water: Bulk Services: Geohydrological

**Investigation** 

Total Component Cost

Number of boreholes planned

Capacity of all boreholes required (I/s)

Comments

Construction Duration (months)

Level of Service to be provided (0 - Interim, 1-Basic, 2-Intermediate, 3-Full)

Water: Bulk Services: Boreholes

**Total Component Cost** 

Number of boreholes planned

Capacity of borehole planned (I/s)

Construction Duration (months)

Level of Service to be provided (0 - Interim, 1-Basic, 2-Intermediate, 3-Full)

Comments

Water: Bulk Services: Reservoirs

Total Component Cost R1 500 000

Number of new reservoirs planned

Number of reservoirs to be rehabilitated

Existing capacity for community

Capacity of all reservoirs planned (m3)

1

1ML

**Number of Towers planned** 

Construction Duration (months)

12 Months

Level of Service to be provided (0- Interim,1-Basic, 2-Intermediate, 3-Full)

Number of ground level reservoirs planned

Comments

**Water: Bulk Services: Water treatment** 

plants

Total Component Cost R7 000 000

Existing capacity of WTW (m3 per Day)

Construction Duration (months) Level of Service to be provided (0-

Interim, 1-Basic, 2-Intermediate, 3-Full)

12 Months

Number of new water treatment plants planned

Number of water treatment plants to be

rehabilitated

Capacity of water treatment plants planned (m3

per day)

1ML

1

Comments

#### **Water: Bulk Services: Pump stations**

**Total Component Cost** 

Number of new pump stations planned

Number of pump stations to be rehabilitated

Capacity of pump stations planned/ Existing

(I/s)

Comments

Construction Duration (months)

Level of Service to be provided (0 – Interim, 1-Basic, 2-Intermediate, 3-Full)

# Water: Bulk Services: Raw water storage

dam

Total Component Cost R5 300 000

Number of new Raw water storage dams planned

3

Capacity of Raw Water Storage planned (m3)

20ML

Number of Raw water storage dams to be rehabilitated

Existing capacity of Raw water storage

**20ML** 

Construction Duration (months)

12 Month

Level of Service to be provided (0 – Interim, 1-Basic, 2-Intermediate, 3-Full)

Comments

#### **Water: Connector Services: Supply lines**

**Total Component Cost** 

Length of new main supply line planned

Length of main supply line to be rehabilitated

Capacity of all supply lines planned/existing (I/s)

Diameter of supply line planned/existing (mm)

Comments

**Construction Duration (months)** 

Level of Service to be provided (0 -

Interim, 1-Basic, 2-Intermediate, 3-

Full)

Labour Intensive Construction: Yes/No

## **Water: Connector Services: Pump** stations **Total Component Cost** Construction Duration (months) Number of new pump stations Level of Service to be provided (0 - Interim, planned 1-Basic, 2-Intermediate, 3-Full) Number of pump stations to be rehabilitated Capacity of pump station planned (I/s) Comments **Water: Connector Services: Reservoirs Total Component Cost Construction Duration (months)** Existing capacity of Reservoirs Level of Service to be provided (0 -Number of reservoirs planned Interim, 1-Basic, 2-Intermediate, 3-Full) Number of reservoirs to be rehabilitated Capacity of all reservoirs planned (m3)Comments Water: Reticulation: Stand pipes Construction Duration **Total Component Cost** (months) Level of Service to be Number of stand pipes to be provided (0 - Interim,1reticulated Basic, 2-Intermediate, 3-Full) Comments Water: Reticulation: Metered stand pipes Construction Duration **Total Component Cost** (months) Level of Service to be Number of metered stand pipes to provided (0 - Interim, 1-

Comments

be reticulated

Basic, 2-Intermediate, 3-

Full)

## **Water: Reticulation: Water meters Construction Duration Total Component Cost** (months) Level of Service to be Number of water meters to be provided (0 -Interim,1reticulated Basic, 2-Intermediate, 3-Full) Comments **Water: Reticulation: Pipe lines Construction Duration Total Component Cost** (months) Level of Service to be provided (0 - Interim, 1-Length of pipe line to be reticulated Basic, 2-Intermediate, 3-Full) Capacity of all pipe lines to be **Labour Intensive** reticulated (I/s) Construction: Yes/No Diameter of pipe line to be reticulated (mm) Comments Water: Supply equipment: (e.g. rain tanks) **Total component Cost** Construction Duration (months) Level of Service to be provided (0 Component type -Interim, 1-Basic, 2-Intermediate, 3-Full) Labour Intensive Construction: Capacity of component (litres) Yes/No **Number of components** Comments

	nical Details	
Current water demand	Demand (I/capita/day)	170
State		
The AADD will 1014 kl/day		
Future water demand	Projected(I/capita/day)	170
State		
The AADD will be 1014 kl/day.		
Present water source (i.t.o. type, quantity and re	Supply (l/capita/day)	60
State		
Vaal-Harts Water User Association supply the Municipa canal system	ality with raw surface water from	their
Future water source (i.t.o. type, quantity and rel	Projected supply (Ml/day)	
State		
The same water sources as outlined above will be used		
The same water sources as outlined above will be used  Present water infrastructure  Describe		
Present water infrastructure		
Present water infrastructure  Describe  The existing water infrastructure is old and has become		
Present water infrastructure  Describe		
Present water infrastructure  Describe  The existing water infrastructure is old and has become	e inadequate.	nd
Present water infrastructure  Describe  The existing water infrastructure is old and has become  Future water infrastructure  Describe  Future water infrastructure will have more capacity to a	e inadequate.	

Sometimes failures are experienced, but Dikgatlong implements remedial actions like disinfection. **Future water quality** No threat [1-5] Major impact 1 **Describe Threats** New refurbished plant will eliminate threats. Are the legal aspects of water sources and abstraction in Yes/No Yes X No order? Comment The Municipality buys water from the Vaal-harts Water User Association which is responsible for legalities of water source and abstraction. **Population growth trends** Estimated growth % 2.02 Description of trend and data accuracy Projections according to stats 2011 figures.

# 9.4 Additional information on the rehabilitation of existing infrastructure

Describe the present condition of the infrastructure

Described the circumstances and the reasons of the condition of the current infrastructure. (including age)

Old plant, built in 1993. Capacity not enough for growth in community numbers.

Describe the proposed method / solution to rehabilitate existing infrastructure

**Procurement of Service Providers.** 

# 9.5 Additional information on Water Demand Management interventions

Describe the type of Water Demand management interventions proposed for funding from WSIG

Describe what if any options were considered before deciding on the	vater use efficiency and WDM rough other funds also indicate
Describe the background and previous initiatives and funding on ward of the background and previous initiatives and funding on ward of the background and previous initiatives and funding on ward of the background and previous initiatives and funding on ward of the background and previous initiatives and funding on ward of the background and previous initiatives and funding on ward of the background and previous initiatives and funding on ward of the background and previous initiatives and funding on ward of the background and previous initiatives and funding on ward of the background and previous initiatives and funding on ward of the background and previous initiatives and funding on ward of the background and previous initiatives and funding on ward of the background and previous initiatives and funding on ward of the background and previous initiatives and funding of the back	vater use efficiency and WDM rough other funds also indicate
Describe the background and previous initiatives and funding on we describe any other activities planned on WC/WDM in the WSA throughout budget.  6 Option analysis  Describe what if any options were considered before deciding on the second control of the second co	vater use efficiency and WDM rough other funds also indicate
Describe any other activities planned on WC/WDM in the WSA throbudget.  6 Option analysis  Describe what if any options were considered before deciding on the second control of the work of the weather than the wSA throbudget.	rough other funds also indicate
Describe any other activities planned on WC/WDM in the WSA throbudget.  6 Option analysis  Describe what if any options were considered before deciding on the second control of the work of the weather than the wSA throbudget.	rough other funds also indicate
6 Option analysis  Describe what if any options were considered before deciding on the	
budget.  6 Option analysis  Describe what if any options were considered before deciding on the	
Describe what if any options were considered before deciding on the	
Describe what if any options were considered before deciding on the	
a) antion on conice level h) antion reserving time of project (-	he proposed solutions. (discuss
a) option on service level b) option regarding type of project (e.g	, refurbishment or new c) and
type of solutions or technology	
Describe why the current options were decided.	
The existing water supply infrastructure is not adequate to me	
Municipality has to implement restrictions on the use of water in the communities to have some water some times during the day.	ie communities in order for the
7 Design criteria	
Describe the key design criteria used to design the main componer	nts, including design flow
<ul><li>Red book (Guidelines for Human Settlement and Design)</li><li>SANS</li></ul>	
- DWS Guidelines	

#### 10 SOCIO ECONOMIC CONSIDERATIONS

#### **10.1 Employment Generation**

Number of	Total Number of	Ad	ult	Yo	uth	Disa	bled
Persons planned to be employed	persons	Female	Male	Female	Male	Female	Male
Number of persons planned to be employed (A)	30	5	5	8	10	1	1
Average length of employment (days)	220	220	220	220	220	220	220
Number of planned person days C = A x B	6600	1100	1100	1760	2200	220	220
		(Clerical, 1s	bourer. Ma	nagerial. Som	skilled Skille	d and Sunarvie	enr).
Permanent Em	ployment afte	r Constr	uction		********	d and Supervis	sor).
Permanent Em		r Constr	uction		********	d and Supervis	or).
Permanent Em	ployment afte	r Constru	uction	pletion of the p	********	d and Supervis	
Permanent Em	aployment after	r Constru	uction fter the comp	pletion of the p	********	d and Supervis	
Permanent Em	aployment after	appointed at	uction  fter the comp	pletion of the p	********	d and Supervis	0

# **10.2 Employment Policy**

# Use of labour-based construction methods Use Yes/No Yes No Details of policy and plans The project consists mostly of specialised work, but where feasible labour-based construction methods will be employed for concrete works, excavations, pipe laying and fencing.

Maximum use of local labour	Maximum use of local labour? Yes x No
Reasons If not possible:	
Use of ABE i.t.o the affirmable procurement policy	Use of HDI's i.t.o. policy? Yes No x
	Number of contractors planned
Reasons if not possible:	
A specific ABE affirmable procurement policy is not in pla	ace.
Use of SMME i.t.o. the affirmable procurement policy	Use of HDI's i.t.o. policy? Yes X No
	Number of contractors planned
Reasons if not possible:	
	PATRONIC State of the Control of the
Use of BWO i.t.o. the affirmable procurement policy	Use of HDI's i.t.o. policy? Yes No X
	Number of contractors planned
Reasons if not possible:	
No policy in place regarding BWO's.	
Community involvement at project level	Community project Involvement? Yes X No

Prior to the commencement of construction, a steering committee will be elected comprising of the community representatives, project implementing agent's representatives and the project manager. A Community Liaison Officer will be employed on the project.

# 10.3 Training needs Analysis and Framework

Has a training needs analysis been done?	Yes/No Yes No X
Describe, If no motivate	
Unemployed people from the area will be used for labour intens	sive work where low level skills
are required. It is also the objective of the project to involve peop	ple trained previously on similar
projects in order to sustain them.	
Has a training framework been submitted?	Yes/No Yes No X
Description of training framework	

#### **10.4 Planned Training Activities**

#### **Accredited Training**

	Planned number of	Average duration	Planned number	A	duit	Youth		Disabled	
Training Type	training days (a=b x c)	of training (days) (b)	of persons to be trained (c=d+e+f+g+h+i)	Female (d)	Male (e)	Female (f)	Male (g)	Female (h)	Male (i)
Administration									
Technical							-		
Life skills/ ISD									
Literacy & Numeracy		edinated in the same for the same facility							
Vocational Skills									-
Business Skills									
Total Training									

#### **Non-Accredited Training**

12			and the same and t
	Adult	Youth	Disabled
-			

Training Type	Planned number of training days (a=b x c)	Average duration of training (days)	Planned number of persons to be trained (c=d+e+f+g+h+i)	Female (d)	Male (e)	Female (f)	Male (g)	Female (h)	Male (I)
Administration					em				
Technical									
Life skills/ ISD									
Literacy & Numeracy									
Vocational Skills									
Business Skills									
Total Training				6-11					

# 10.5 Sanitation, Health and Hygiene

Has the community participated in a health and hygiene programme in the past  Describe	Yes/No Yes No X
Effectiveness of the health and hygiene programme in the	Not effective [1-5] effective
<b>Describe</b>	

# **SECTION C: IMPLEMENTATION AND SUSTAINABILITY**

# 11 AFFORDABILITY AND FINANCIAL CONSIDERATIONS

# 11.1 Cost of Water Supply - N/A

	Cost component	R/ld
	Estimated cost of operation and	
	maintenance for target area by	
1	WSA	0,69
	direct cost	
	indirect cost	
2	Purchase price of water by WSA	4,00
	Sub total Cost of water supplied	4,69

	Revenue	R/kl
1	Funds allocated from equitable share	
2	Funds allocated from operating subsidy Grant	
3	Revenue from sale of water	
	Sub total Revenue of water supplied	

Note; Revenue from the sale of water should be based on the average tariff and reduced to take into account unaccounted for water and non-payment.

#### 11.2 Household Contributions



Number of households with the ability to contribute for service

What is the Municipality's strategy on Household contributions for higher level of service?

Comment

The municipality uses the Vat portion of the project to contribute for the high level of service for households. The municipality does not have a strategy

#### 11.3 Free Basic Services

The Municipality undertakes to implement a policy for free basic services

Implementing free basic water? Yes X No

Describe

The Municipality provides:

- 1. 6kl/month/household free basic water
- 2. 100units/month/household free basic electricity

## 12 Institutional capacity and Implementing Agent

## 12.1 Selection of Implementing Agent

Indicate what informed the decision regarding the choice of the implementing Agent and motivate

Is the WSA the implementing agent? Yes

Dikgationg Municipality does not have sufficient capacity to act as an Implementing Agent.

Frances Baard District will be the implementing agent.

Discuss the potential role of other stakeholders in supporting the WSA in providing services. (e.g. the role of MISA, Water Boards)

Dikgatlong Municipality currently has the support of MISA in the implementation of some of the projects. They also enjoy the support of Frances Baard District Municipality and COGHSTA.

# 12.2 Track record of Implementing Agent Illustrate the capacity of the Implementing Agent by describing the following: a) Track record of project implemented b) Human resources available that will be dedicated to project Illustrate the capacity and track record of the Water Services Authority 61% What is the current blue drop rating of the WSA What is the percentage expenditure of MIG funds by the WSA in the last 3 years What is the percentage expenditure of RBIG funds by the WSA in the last 3 years Have any of the projects funded by MIG and RBIG implemented by the WSA been stopped over the last few years No Yes If yes indicate the reasons: 12.3 Consideration and involvement of Community Based **Organisation** What is the role of the community: a) during the implementation of the project b) In the management of the water supply a) Community members are mainly employed as labour during project implementation. b) The community is not involved in the management of water supply.

Page 32 of 39

Prepared by Frances Baard DM

Windsorton/Holpan Regional Bulk Water Supply Scheme

Describe what consultation steps have been taken to consider the involvement of the community in the water supply solutions

Quarterly community meetings are held to provide an opportunity for inputs, the inputs are recorded and added to the IDP if sufficient motivated.

Has the possibility of forming a community based organisation to manage the water supply been considered, if not why, motivate

No, Dikgationg Municipality is the primary organization dealing with management of water supply.

## 13 Asset Management and Operation and Maintenance

## 13.1 Operation and Maintenance Cash Flow Projection.

Period/Term	Expected Operating Cost (1)	Expected  Maintenance  Cost (2)	Total O & M Cost (3=1+2)
Year1	200 000	0	200 000
Year2	250 000	50 000	300 000
Year3	300 000	70 000	370 000
Year4	330 000	110 000	440 000
Year5	380 000	150 000	430 000
Total	1 460 000	380 000	1 840 000

# 13.1 Key elements of maintenance and operation plan

#### Describe the Maintenance and operation plan

The Operational Cost are primarily driven by items such as personnel, electricity and chemicals. Maintenance cost for the first year should be close to zero due to new and refurbished infrastructure. There will be daily inspections taking place. From 2 years onwards, provision should be made for items such as pump servicing, fixing of leaks and changing the sand filters.

Does the WSA have an Asset Management system - YES

What human resources (number and skills) are required and will be allocated towards the management of the project on an on-going basis.

#### **Required Allocate**

Level 1: General workers Number 4

Level 2: Process Controllers Number 4

Level 3: Plant Superintendent Number 1

# 13.2 Maintenance contract arrangements and training

Describe the maintenance contract and training conditions with the Implementing Agent, consultant and Contractor. Specify the different roles a) Implementing Agent b) Consultant c) Contactor

The Municipality will be obligated to provide a list of employees to be trained by the Contractor/Engineers for the operation and maintenance of installed infrastructure. It is imperative to ensure that the Municipality is properly equipped to be able to manage the infrastructure correctly in order to prolong its longevity.

#### 14 RISK AND RISK MITIGATION

#### 14.1 Risk assessment

Complete the table (insert is a typical example)

Ris k	Risk	Risk description	Root cause (Category	Risk Rating		
No.	category		factors)	Likelihood	Impact	Rating
1	Lack of Funds	No funding is forthcoming for the project	Insufficient funds available from the Municipality and DWS	3	4	12
2	Insufficient water	If the project is not implemented, communities will continue to lack adequate water	If finds do not materialise, the project cannot be implemented	3	4	12

		and this will be in contravention with the Water Act			=	
3	Construction	Appointment of an inexperienced Contractor	Pressure to appoint emerging Contractor who might not be able to complete the job	3	5	15

#### **Rating scale**

Level of Likelihood	Level of Impact	Rating
1-Rare	1-Insignificant	1-5-Very low
2-Unlikely	2-Minor	<b>5-10</b> -Low
3-Moderate	3-Moderate	11-15-Medium
4- Likely	4-Major	<b>16-20</b> -High
5-Almost Certain	5-Catastrophic	<b>20-25-</b> Very high

# 14.2 Risk mitigation

Risk No.	Mitigating Action by WSA	Mitigating Action by Implementing  Agent
1	Find alternative funding for the execution of the project	Exploring possible funders for the project
2	Explore other ways of delivering	Alternative viable water options to be considered
3	Use functionality requirements that ensure that the most suitable and capable contractor is appointed	Ensure adherence to the functionality requirements during tender evaluation

#### SECTION D: DECLARATION AND CERTIFICATION

#### 15 DECLARATION AND CERTIFICATION

# 15.1 Project Acceptance and Commitment Declaration by the Water Services Authority

Who warrants that he is authorized to do so and confirms that:

- 1. All details contained in this application are correct
- 2. Should the funding from WSIG be granted that the Municipality shall sign a funding agreement with the DWS.
- 3. The Municipality will immediately advise the Provincial DWS WSIG Manager if the project above receives funding from another source, and,
- 4. That should funds be granted on this programme then, they will withdraw their funding application to other government grant funding programme.
- 5. It is not illegal to "apply" for funds from two sources, however, it is illegal to accept money from two Government funding mechanisms for the same project. This is known as double funding.
- 6. The project is reflected in the Municipality's three-year Capital Development Plan.
- 7. The project has been approved by Council

Council Approval	
The project has been approved by council	Council Resolution No.: On:

Name	Position	Committed & Accepted (tick)	Signature	Date
B Tsinyane	Acting Municipal Manager (Dikgatlong)		Make	18/01/2002

M Bogatsu	Municipal Manager (FBDM)	~	Theret	19/01/2023
R Setshogoe	Acting Technical Director (FBDM)	~	8	19/01/2022
D Makaleni	Acting Technical Director (Dikgationg)	V	h	18/01/02

#### 16 ACCEPTANCE BY KEY ROLE PLAYERS

# **16.1 Acceptance by Technical Committee**

A technical team comprising of DWS, Department of Cooperative Governance (DCoG), any relevant Water Boards, the relevant Water Services Authority and MISA

			dd/mm/yyyy			
Signed by chairper Technical Committe	N DI AL		Date signed 8/12011			
Contact person	N .1	0				
Title: V. Surname: Viper Initials: 1						
	V Signature	Bopen				
		0				
Email Address	Vilyent@dwgnv.za	Fax				
	0					
Cellular		Tel (Office)				
1111			·			

# 17 ACCEPTANCE BY DWS

# 17.1 Acceptance by DWS - RO (Provincial Head)

				dd/mm/yyyy
Signed by Provincial Head : Contact person	Teknlake: ).		Date signed	2022 -02- 1.4
Title: McSurname:	Lekalake	Initials: <b>I</b>		
	Signature	Letalas	ير).	
Email Address		Fax		
Cellular		Tel (Office)		

# 17.2 Acceptance by DWS - HO (Deputy Director General)

				dd/mm/yyyy		
Signed by Deputy Director General:	Act DDG WSM		Date signed	10 March 202 <mark>2</mark>		
Contact person	0:	Initials: DP				
Title: MS Surnan						
Signature Ohyuz9						
		,				
Email Address	SigwazaT@dws.gov.z	a Fax				
Cellular	0605597672	Tel (Office)	0123366600			

#### **18. ANNEXURES**

#### **REPORTS:**

- Upgrading of Windsorton Water Purification Plant and Related Works Technical Report Ref No 225730KR0
- Preliminary Design Report for Bulk Pipeline from Windsorton to Holpan
- Final Design Report for Holpan Water Supply and Upgrading of Windsorton Water
   Treatment Works