



**water & sanitation**

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA

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**MUNICIPAL MANAGER  
MATJHABENG MUNICIPALITY  
PO BOX 708  
WELKOM 9460**

**TECHNICAL REPORT: MIG PROJECT (2017/2018)\_**

PROVINCE : FREE STATE  
DISTRICT MUNICIPALITY : DC18 LEJWELEPUTSWA  
LOCAL AUTHORITY : FS184 MATJHABENG

	DEGREES	MINUTES
LONGITUDE	26	51
LATITUDE	28	06

DESCRIPTION OF SCHEME : VIRGINIA UPGRADING OF WWTW Phase 2

PROJECT REFERENCE NO. : ACTPL 00025b

TECHNICAL REPORT DATE : MAY 2017

RESPONSE REVISION : AUGUST 2017

DATE ISSUED : SEPTEMBER 2017

NUMBER OF BENEFITORIES : 20 391 h/hs OR 66 208 PEOPLE  
16 598 low income

TOTAL COST OF SCHEME 2013 : R41 655 606.00 incl VAT

MIG FUNDS RECOMMENDED 2013 : R41 655 606.00 incl VAT

TOTAL COST OF PHASE 2 (2017) : R 41 790 175.33 incl VAT

MIG FUNDS RECOMMENDED (Phase 2) :

INTEGRAL COMPONENTS: The project proposal is for refurbishment and upgrade of the followings:

1. Replace flow measurement equipment
2. Refurbish second BR, incl.:
  - a. Replace A-recycle pumps
  - b. Construct conduit to improve BNR performance
  - c. Replace vertical shaft mixers (2) and aerators (6)
  - d. Refurbish baffles and replace overflow weir, hand railings, concrete and joints
  - e. Replace 50% RAS and WAS pipework
3. Refurbish the remaining two existing SSTs
4. Refurbish the remaining half of the existing RAS pump station including existing MCC replacement with new MCC
5. Install disinfection unit for final effluent
6. Refurbish sludge treatment – gravity thickener and drying beds
7. Refurbish the works return pump station
8. Site wide: improvement of security fence, site roads and main admin building
9. Install stand-by generator

**LEGAL REQUIREMENTS:** The necessary environmental impact assessment, authorisation, licences, permit application, rezoning and servitude in terms of the various acts must be applied for, where applicable, before the construction of the project can commence.

**GENERAL REMARKS:** The submitted technical report is for Phase 2 upgrading of Virginia WWTW. In 2013 Virginia WWTW was recommended for the complete refurbishment on total



amount R41 655 606, 00 incl VAT. However construction only commenced in 2016 and escalation and a change in scope resulted in the project being split into 2 phases The following infrastructure is being replaced and refurbished under phase 1:

- Buildings: admin building has partially refurbished
- Inlet work; both mechanical screens, hand raked screen, screening handling equipment, replacing grit removal mechanical equipment and classifier, blower, penstocks, gratings, hand railings, washwater system, MCC controls have been refurbished or replaced.
- Bio reactor: all works as planned for phase 2 have been completed on the first bio-reactor.
- RAS: 2 x RAS pumps out of 4 have been replaced
- MCC: servicing of existing MV switchgear, transformers, and sub-station
- SST: refurbishment of 2 X SST out of 4

Originally plant was designed with 2 process streams total capacity of 26 MI/d. However with the more stringent ammonia standards, the works has been reduced to a capacity of 18MI/d due to the requirement of a longer sludge age. The estimated current inflow to the works is 13, 5 MI/d.

The Department agrees that plant refurbishment need to be completed. There were a number of concerns raised by DWS regarding the previous technical report which have been addressed as follows:

1. The number of benefiting population has been verified as 68 600 people.
2. The design flows have been verified as 16.85 Ml/d (incl. future growth).
3. The influent raw water quality has been assessed and the high dilution is attributed to aged sewer lines in high water table areas.
4. The final effluent quality has been addressed.
5. The justification for Ph.2 has been provided.

During a site visit to the Virginia WWTW by dWS officials, the municipality and the consultants on 26 June it was observed that the original design was not conducive to achieving denitrification nor phosphate removal. A subsequent meeting was held with the consultants and modifications to the main biological reactor were agreed upon. This added some works to the previous scope, and resulted in a justifiable cost increase.

The technical report indicates that 85.6% of the population of Virginia and Meloding are considered poor and hence qualify for MIG funding.

RECOMMENDATION: The proposed project can be recommended for MIG funding up to an amount of R 35 772 390.00 incl. VAT.

Ms M MPOTULO

CHIEF DIRECTOR: SANITATION MACRO PLANNING

DATE:

19/9/2017

Copy to: CoGTA  
Private Bag X 804  
Pretoria 0001  
Copy to: Department of Planning, Local Government and Housing  
Attention: Mr.W. Heydenreich; Ms Vespa Mabitsi

Regional Director: Free State  
Department of Water Affairs and Forestry  
P.O. Box 528  
Bloemfontein 9300  
Attention: T.Ntli

CoGTA: Free State  
PO BOX 211  
Bloemfontein 9300

Attention: Mr. Mathuto Adoro; P.Viljoen





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**MUNICIPAL MANAGER  
MATJHABENG LOCAL MUNICIPALITY  
PO Box 708  
WELKOM 9460**

**TECHNICAL REPORT: MIG PROJECT (2017/2018)**

PROVINCE : FREE STATE  
DISTRICT MUNICIPALITY : DC18 LEJWELEPUTSA  
LOCAL AUTHORITY : FS184 MATJHABENG

	DEGREES	MINUTES
LONGITUDE	26	49
LATITUDE	28	00

DESCRIPTION OF SCHEME : UPGRADING OF THE WELKOM LANDFILL  
SITE

PROJECT REFERENCE NO. : MCE-LF-001  
TECHNICAL REPORT DATE : JUNE 2017  
RESPONSE LETTER DATE : SEPTEMBER 2017  
DATE ISSUED : SEPTEMBER 2017  
NUMBER OF BENEFICIARIES : 123 185 HHs  
TOTAL COST OF SCHEME : R 18 021 120.00 incl. VAT  
MIG FUND RECOMMENDED : R 11 713 728.00 incl. VAT

INTEGRAL COMPONENTS The project is for the upgrading of the Welkom landfill site to secure the site, provide adequate facilities for the workers, and improve recycling and regulating waste disposal. The scope of work comprises the following:

- Upgrade access road and paving

- Upgrade access control
- Provision of 2 weigh bridges
- Refurbishment of cloak rooms and control office
- Repair perimeter fencing
- Construct a covered material recovery centre
- Upgrade wash bay facility
- Provide carports, outside (street) lighting, & security features
- Small office at weighbridge with electricity connection

**LEGAL REQUIREMENTS:** The necessary environmental impact assessment, authorisation, licence, permit application, rezoning and servitude in terms of the various acts must be applied for, where applicable, before the construction of the project can commence.

**GENERAL REMARKS:** The Welkom landfill site serves Welkom and the other towns in Matjhabeng LM. The supporting infrastructure to the landfill site has deteriorated, and the municipality intends to upgrade security and control at the site. These improvements will enable the municipality to more accurately measure the weight of waste received, improve recycling, upgrade security and provide for a safe working environment for the workers.

The DWS finds the project motivated and justifiable. The municipality has provided additional information on the landfill site as requested by DWS, and the following aspects have been adequately addressed:

- Classification of the landfill site has been given (General waste medium size, minimum leachate G:M:B-).
- A copy of the existing permit has been supplied.



- Results of site monitoring have not been reported but it is indicated that full groundwater monitoring is carried out annually.
- No information on a site response action plan has been provided.
- Estimated remaining life of the disposal site has been stated as 13 years
- A site layout plan has been provided
- Slope stability observations have been reported
- Current operational controls:
  - Incoming waste is inspected for acceptance
  - There is no access control or security measures
  - Operating plan (compaction and cover is done daily)
  - The management of the sorting and recycling procedures, have not been clarified.

In terms of the cost structure, the DWS requested the following:

- Quantities and unit costs for the cost items - these have been specified. It is noted that the list of works and unit costs differ from the original report.
- A motivation for the requirement for geotechnical and environmental assessments – this has been provided

DWS appreciates the additional information provided to address the issues listed in the first recommendation letter. In view of the new information, the project can be recommended, but with the following documentation should be submitted to the Regional Director of DWS::

- Commitment to implement the groundwater quality monitoring programme as per the permit conditions (i.e. at least twice per year)
- Commitment to adequate monitoring of the operation of the site including nature and quantity of loads received, leachate and air quality monitoring, and site security.

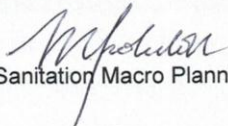


- Letter requesting that reclamation activities may take place at the site, and the method, infrastructure and safety measures that will be put in place. (The current permit does not allow reclamation on site)

Note that the 2011 census indicates that 65% of residents of Matjhabeng may be considered poor, and hence MIG funding may be recommended for up to this proportion of the costs.

RECOMMENDATION: The request for the allocation of funding for the upgrading of the Welkom Solid Waste Disposal site can be recommended for MIG funding for an amount of R 11 713 728.00 incl. VAT.

Ms M. Mpotulo  
Chief Director: National Sanitation Macro Planning



Date: 19/9/2017

Copy to: CoGTA  
Private Bag X 804  
Pretoria 0001

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Attention: Mr.W. Heydenreich; Ms Vespa Mabitsi

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CoGTA: Free State  
PO BOX 211  
Bloemfontein 9300

Attention: Mr. Mathuto Adoro; P.Viljoen

10/10/2017

# INFRASTRUCTURE DIRECTORATE

MONTHLY REPORT – SEPTEMBER 2017

MATJHABENG MUNICIPALITY



## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	12
1. IMPLEMENTATION OF MAYORAL COMMITTEE AND COUNCIL RESOLUTIONS .....	13
2. PROJECT MANAGEMENT UNIT (PMU) .....	13
3. DEPARTMENT CIVIL ENGINEERING .....	21
3.1 ROADS AND STORM WATER MAINTENANCE (CENTRAL).....	21
3.2 BUILDING MAINTENANCE .....	24
3.3 WATER DEMAND MANAGEMENT .....	26
3.4 WATER MAINTENANCE (CENTRAL) .....	31
3.5 SEWER MAINTENANCE (CENTRAL) .....	34
3.6 WASTE WATER TREATMENT WORKS & PUMP STATIONS .....	36
3.7 PUMP STATIONS.....	41
3.8 MATJHABENG LABORATORY .....	42
3.9 CIVIL ENGINEERING EAST .....	46
3.10 CIVIL ENGINEERING (WEST) .....	50
4. DEPARTMENT ELECTRICAL ENGINEERING .....	55
5. SUMMARY OF STATISTICS.....	62
5.1 INFRASTRUCTURE ADMINISTRATION: SUBMISSIONS/REQUISITIONS PROCESSED .....	64
5.2 INFRASTRUCTURE: FILLED VERSUS APPROVED POSITIONS .....	64
5.3 ENGINEERING VEHICLE STATISTICS.....	<b>Error! Bookmark not defined.</b>
5.4 CRITICAL VEHICLES .....	<b>Error! Bookmark not defined.</b>
5.5 RENTED VEHICLES .....	<b>Error! Bookmark not defined.</b>
5.6 PAN LEVELS MONITORING 31 MARCH 2017 (19/8/1/1) .....	<b>Error! Bookmark not defined.</b>
6. CONCLUSION .....	68

## **EXECUTIVE SUMMARY**

**The Civil Engineering Department** is responsible for maintenance of Water, Sewer, Roads, Storm Water and Municipal Buildings in all the Units of the Municipality. This includes operation and maintenance of 11 Waste Water Treatment Works and 47 Sewer and Purified Effluent Pump Stations.

The above responsibility is undertaken through the following branches that are under Civil Engineering Department:

- **Water and Effluent Water (Central)**  
Responsible for maintenance of water and sewer network in central unit through preventative and reactive maintenance. The branch is also responsible for operation and maintenance of all waste water treatment works and sewer and purified effluent pump stations in all units. Laboratory Services also fall under this branch.
- **Roads, Storm Water and Building Maintenance**  
Responsible for maintenance of roads and storm water in central unit through preventative maintenance. The branch is also responsible for maintenance of Municipal Buildings in all the units
- **Water Demand Management**  
This branch is responsible for protection of revenue through implementation of water conservation and demand management strategies and maintenance of all water meters in all units.
- **Infrastructure – East Unit**  
This branch is responsible for maintenance of water, sewer, roads and storm water infrastructure in Virginia, Meloding, Henneman, Phomolong, Whites, Ventersburg and Mmamahabane.
- **Infrastructure – West Unit**  
This branch is responsible for maintenance of water, sewer, roads and storm water infrastructure in Odendaalsrus, Kutlwanong, Alanridge and Nyakallong.



**The Electrical Engineering Department** is responsible for the following:

- Electrical networks:
  - Low Voltage Distribution Networks 400V
  - Medium Voltage Distribution Networks in, 6.6 kV, 11kV
  - High Voltage Networks, 132 kV
- Streetlights and High Mast Lights
- Design, Planning and Technical support
- Mini substations, Kiosks and Substations

**The Project Management Unit** is responsible for the implementation and monitoring of Infrastructure Capital projects, mainly those funded from the Municipal Infrastructure Grant (MIG) which is a conditional Grant guided by the Division of Revenue Act (DORA).

## 1. IMPLEMENTATION OF MAYORAL COMMITTEE AND COUNCIL RESOLUTIONS

The progress report on the implementation of Mayoral Committee (MAYCO) and Council resolutions from **January to October 2017** is attached in **Annexure A** of this report but summarized as follows:

RESOLUTIONS	TOTAL	IMPLEMENTED	IN PROGRESS	OUTSTANDING
MAYORAL COMMITTEE	22	7	13	2
COUNCIL	12	5	5	2

## 2. PROJECT MANAGEMENT UNIT (PMU)

### 2.1 Overview of Performance

There are various projects currently being implemented and are on various stages as follows:





Project Description	Budget for 2017/2018	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
Kutlwanong: Creation and Upgrading of Cemeteries	R 45,000.00	R0.00 (0%)	Retention Stage	30/03/2017	None to report	N/A	Project is at completion with a liability period of 12 months
Meloding: Creation and Upgrading of Cemeteries	R 45,000.00	R0.00 (0%)	Retention Stage	30/03/2017	None to report	N/A	Project is at completion with a liability period of 12 months
Phomolong: Creation and Upgrading of Cemeteries	R 45,000.00	R0.00 (0%)	Retention Stage	30/03/2017	None to report	N/A	Project is at completion with a liability period of 12 months
Welkom: Upgrading & Provision of New Facilities for Streets Traders	R 77,573.67	R0.00 (0%)	Retention Stage	30/07/2016	Cabling was not included in the first variation order	Contractor is busy with a quotation for the trenching and cable	Final retention was paid end September
Virginia: Creation and Upgrading of Cemeteries	R 45,000.00	R0.00 (0%)	Retention Stage	30/03/2017	None to report	N/A	Project is at completion with a liability period of 12 months
Bronville: Creation and Upgrading of Cemeteries	R 45,000.00	R0.00 (0%)	Retention Stage	30/03/2017	None to report	N/A	Project is at completion with a liability period of 12 months
Nyakalong: WWTP Upgrade	R 11,555,924.35	R 2,452,289.4 (21%)	Construction Stage (80%)	30/10/2018	Progress is slow	Contractor to catch up in Phase 2 of the project	None

Project Description	Budget for 2017/2018	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
			to completion)				
Welkom:Industrial park SMME Zone Fencing/ Paving & Shelter	R 800,552.04	R0.00 (0%)	Retention Stage	30/01/2017	None to report	N/A	Project is at completion with a liability period of 12 months
Matjhabeng: Upgrading of 7 electrical panels at sewer pump stations	R 50,000.00	R0.00 (0%)	Design and Tender	N/A	None to report	N/A	The project is in the process of being resuscitated.
Upgrade and Create New Sports and Recreational Facilities Phase 3 Thabong Stadium, Zuka Baloi Stadium & Kopano Indoor Centre	R 4,267,394.17	R 3,765,778.87 (88%)	Retention Stage	30/07/2017	None to report	N/A	Project is in retention stage
Whites: Septic Tank System	R 714,136.35	R0.00 (0%)	Design Stage	31/03/2018	Borda has not been communicating with the municipality regardless of numerous follow up e-mails sent to them.	PMU will visit City of eThekweni for a benchmarking exercise	E'tsho will take over the design processes.

Project Description	Budget for 2017/2018	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
Phomolong: Construction of new outfall sewer for 4871 stands	R 118,926.74	R 118,926.74 (100%)	Retention Stage	21/01/2016	None to report	N/A	None
Virginia: WWTP Sludge Management (Phase 1)	R 11,337,160.96	R 3,902,080.14 (34%)	Construction Stage (97 % to completion)	30/01/2018	None to report	N/A	Project running smoothly
Welkom (Thabong) T16: Construction Waterborne Sanitation for 1300 Stands	R 205,344.81	R0.00 (0%)	Construction Stage (96% to completion)	30/11/2017	There are existing lines that are still need to be unblocked	Infrastructure has been requested to assist.	None
Matjhabeng High Mast Lights Installation at Bronville and Meloding	R 445,115.16	R 100,183.47 (23%)	Retention Stage	31/10/2016	None	N/A	Finalizing close out report
Thabong: Upgrading of the far-east hall indoor sports and recreational facility (MIS:246840)	R 14,300,704.02	R 1 518 208.74 (10%)	Construction Stage (77 % to completion)	28/03/2018	None	N/A	Project is running smoothly
Nyakallong: Construction of storm water system – phase 1 (MIS:219132)	R 10,648,557.52	R 5,255,106.72 (49%)	Construction (60%)	30/11/2017	Budget maintenance has been re-submitted for consideration	N/A	Project is running smoothly

Project Description	Budget for 2017/2018	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
Thabong: Construction of 1.26km paved streets and storm water channel in Themba, Lonenly and Boyd (Old Thabong) (MIS:228095)	R 448,347.59	R0.00 (0%)	Retention Stage	30/09/2016	None	N/A	Still need to install speed humps
Thabong: Construction of 1.54km paved streets and storm water channel in Thokoza, Hlahala and Thuhlwane (MIS:228067)	R 857,647.42	R0.00 (0%)	Retention Stage	30/03/2017	None	N/A	Still need to install speed humps
Welkom Regional Taxi Centres	R 603 673.56	R 603 673.56 (100%)	Design Stage	15/08/2019	Letter has been drafted to the Minister of Transport requesting funding. the letter is awaiting the Executive Mayors signature	N/A	None
Construction of Dr Mgoma road in Thabong	R 4,651,476.72	R 2,207,501.53 (47%)	Construction Stage (86% to completion)	10/10/2017	None	N/A	We are applying for Budget Maintenance



Project Description	Budget for 2017/2018	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
Mmamahabane: Installation of water reticulation to 53 stands (MIS:228886)	R 195,519.36	R0.00 (0%)	Construction Stage (89% to completion)	30/10/2017	None	N/A	Project is running smoothly
Mmamahabane: Upgrading of waste water treatment works (MIS:250912)	R 5,843,808.59	R 58,098.99 (2%)	Construction – Site Establishment	30/05/2018	Contractor is appointed	N/A	We are applying for Budget Maintenance
Thabong: Installation of bulk zonal water meters and valves (MIS:250932)	R 3,642,682.00	R 196 148.40 (5%)	Design Stage	30/11/2017	None	N/A	Consultants currently busy amending tender document
Virginia/Meloding: Construction of 2km paved roads and storm water drainage (MIS:248971)	R 9,029,447.93	R 5,886,092.80 (45%)	Construction Stage (30% to completion)	30/11/2017	None	N/A	Project is running smoothly
Phomolong: Upgrading of sewage pumping station outfall and rising main (MIS:253902)	R 15,130,738.39	R 3,077,164.06 (20%)	Construction Stage (30% to completion)	30/05/2018	None	N/A	Project is running smoothly
Mmamahabane (Ventersburg): Development of a new cemetery (MIS:271311)	R 1,654,000.00	R 0.00 (0%)	Design Stage	30/11/2018	None	N/A	Consultants busy with hydrological surveys

Project Description	Budget for 2017/2018	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
Thabong: Upgrading of 2km old gravel roads to concrete paving blocks and storm water drainage (ward 28) (MIS:270899)	R 4,479,042.14	R 1,563,464.44 (35%)	Tender Stage	30/06/2018	None	N/A	Tender closing date will be extended
<b>TOTAL</b>	<b>R 121,216,000.00</b>						

## 2.2 Human Resources

The Staff complement of PMU is currently as follows:

Department/Branch	Approved	Filled	Vacant	Acting	Comments
PMU	16	7	9	1	

## 2.3 MIG Expenditure

The overall current expenditure is summarized as follows:

ALLOCATION	PLANNED EXPENDITURE	CURRENT EXPENDITURE	CUMULATIVE	BALANCE TO BE SPENT
R 121,216,000.00	R 24,243,200.00 (20%)	R 30,782,291.60 (25%)		R 90,433,708.40 (75%)

We are above target expenditure by 5%

## 3. DEPARTMENT CIVIL ENGINEERING

### 3.1 ROADS AND STORM WATER MAINTENANCE (CENTRAL)

#### 3.1.1 Overview of Performance

Despite shortages of material, vehicles and equipment that we encountered, the roads and storm water maintenance section has managed with the resources at hand to attend to crucial maintenance and complaints received

#### 3.1.2 SDBIP and Action Plan

A consolidated progress report on the Action Plan and Statistical Ward Report is attached as **Annexure B and C** respectively of the monthly report, however the following was achieved for **September 2017** by the Roads & Stormwater Maintenance:

- Repair of potholes target was 658m<sup>2</sup> but the section managed to achieve 330m<sup>2</sup>.
- Preparation of 173m<sup>2</sup> of potholes was done.
- Maintenance of gravel roads target was 1250m but the section managed to achieve 7461m.
- Cleaning of lined stormwater channels target was 146m but the section managed to achieve 838m.
- Cleaning of unlined stormwater channels target was 167m but the section managed to achieve 367m.
- Cleaning of storm water drainage pipes target was 42m but the section managed to achieve 147m.
- Number of stolen or damaged catch pits and manhole lids repaired or replaced target was 4 but the section managed to achieve 1m.
- Cleaning and maintenance of storm-water catch pits 59 was cleaned.
- Cleaning of streets a total of 4774m was done.

### 3.1.3 Resources

- **Human resources**

Department/Branch	Approved	Filled	Vacant	Acting	Comments
Roads & Stormwater Central	158	66	92	9	

- **Plant and equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
Grader	5	20	Hired/Mechanical Workshop
Excavator	1	0	
Front-end Loader	1	0	Mechanical Workshop
TLB	2	20	Hired/Mechanical Workshop
Roller	2	0	Mechanical Workshop
Grab trucks	5	0	Mechanical Workshop
Medium Truck	1	30	Mechanical Workshop
Water tankers	2	0	Mechanical Workshop



Tipper truck	5	0	Mechanical Workshop
Tipper truck Medium	7	30	Mechanical Workshop
Low-bed	2	30	Mechanical Workshop
LDV	4	0	Mechanical Workshop
Sedan	1	0	Mechanical Workshop

- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **September 2017** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
12	0	12

### 3.1.4 Theft and Vandalism

None

### 3.1.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Availability of material, vehicles and equipment remains a challenge.	<ul style="list-style-type: none"> <li>• Vehicles and equipment must be available to do service delivery e.g patching of potholes, graveling of roads.</li> <li>• Contractor for the Resealing Tender is appointed.</li> <li>• Hire in equipment.</li> <li>• Service providers are appointed for patching materials.</li> <li>• The stores must be opened and be in full operation.</li> </ul>	
Orders are not done in time.	The issuing of orders must be done faster to obtain material and equipment.	
No Storm water Forman	The position must be filled.	
Payment of Service Providers	Service Providers must be paid on time.	

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### 3.1.6 Occupational Health and Safety meetings

None was held due to a lack of nominations and training of health and safety representatives.

## 3.2 BUILDING MAINTENANCE

### 3.2.1 Overview of Performance

Refer to achievements in 3.2.2

### 3.2.2 SDBIP and Action Plan

A consolidated progress report on the Action Plan and Statistical Ward Report is attached as **Annexure B and C** of the monthly report, however the following was achieved for **September** 2017 by the Building Section:

- Repaired leaking box gutter at Mmamahabane Community hall.
- Installed two (2) burglar doors to room HG-07 and HG-09 at Merriespruit residential units.
- Roof seal to leaking roofs of three (3) housing units completed.
- Wooden ramp installed to stage at Ferdi Meyer hall.
- Replaced damaged ceiling for unit RC1/2 Rathaba hostel.
- Replaced zero (0) outside wooden doors.
- Replaced one (1) damaged internal wooden door at Bronville pay-point.
- Replaced one (1) broken window at Bronville pay-point.
- Replaced eight (8) damaged door locks.
- Replaced one (1) geyser valve and one (1) one hand wash basin
- Repaired eighteen (18) leaking/burst water pipes.
- Repaired/opened nine (9) blocked sewer pipes.
- Replaced three (3) toilet flushmasters with toilet cisterns at Bronville community Hall.
- Cleaned concrete roof membranes, gutter outlets & downpipes Traffic Training College.

### 3.2.3 Resources

- **Human resources**

Department/Branch	Approved	Filled	Vacant	Acting	Comments
Branch: Buildings	55	28	27	2	Serious shortage of personnel

- **Plant and equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
Medium Truck	1	0 days	- CCT 691 FS, in workshop due expired license disc
LDV's	1	30 days	- DWT 905 FS, in operation, was in workshop for 3 days due to faulty brakes and lack of power.
LDV's	1	30 days	- DWL 044 FS, in operation, was in workshop for 1 day due to faulty starter.
LDV's	1	0 days	- DWT 902 FS, <b>Error! Not a valid link.</b>
LDV's	1	0 days	BHZ 326 FS, in <b>Error! Not a valid link.</b>
LDV's	1	0 days	- CBR 284 FS, <b>Error! Not a valid link.</b>
LDV's	1	0 days	- CBR 289 FS, <b>Error! Not a valid link.</b>

- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **September 2017** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
11	2	9

### 3.2.4 Theft and Vandalism

None

### 3.2.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Turn-around time for processing of orders by Supply Chain Management needs to be improved.	A list of all outstanding orders for materials will be compiled and sent to Supply Chain Man for them to source materials from appointed service providers.	
The appointed service providers are not always delivering the correct materials required as per official orders and at the same time; they claim that delivery depends on availability of materials, this result in delays before execution of maintenance.	Regular follow up for outstanding orders is made to Supply Chain Management.	
Shortage of vehicles due to breakdowns and aging of current fleet.	Finance dept should negotiate new payment agreements with building materials suppliers to avoid accounts being suspended and or closed.	
	Re-opening of stores in 4 <sup>th</sup> Street for the safe keeping of materials in large quantities.	
	Vacant posts of Artisans should be filled as soon as possible	

### 3.2.6 Occupational Health and Safety meetings

None was held due to a lack of nominations and training of health and safety representatives.

## 3.3 WATER DEMAND MANAGEMENT

### 3.3.1 Overview of performance



Refer to achievements in 3.3.2

### 3.3.2 SDBIP and Action Plan

A consolidated progress report on the Action Plan and Statistical Ward Report is attached as **Annexure B and C** of the monthly report, however the following was achieved for **September 2017** by the Water Demand Section

ACTION	PERFORMANCE	COMMENTS
Conduct 1 leak detection investigation and analysis to determine priority list.	One leak detection report. 100% achieved	A leak detection report is received from the Service Provider on a monthly basis.
Install 50 water meters at developed parks and communal standpipes	0	Work in progress.
Replacement of water meters done by Water Demand Management. <b>Number</b> of Meters replaced	Planned: 150 Done: 62 41 % achieved	The Section had only one vehicle for 15 days on average for the month of Sept 2017.
Repair of water meters done by Water Demand Management. <b>Number</b> of Meters repaired	Planned: 562 Done: 309 55 % achieved	The Section had only one vehicle for 15 days on average for the month of September 2017. A vehicle was borrowed from Water Section over weekends to address backlog.
Monitoring of bulk water meters done by Water Demand Management. <b>Number</b> of Meters Monitored.	Planned: 10 Done : 0 0% achieved	The Plumber still do not have a vehicle.
Monitoring of disconnections water meters done by Water Demand Management. <b>Number</b> of Meters Monitored	Planned: 50 Done : 0 0%%	No disconnection list was received for Sept 2017.
Meter investigations done by Water Demand Management. <b>Number</b> of Meters investigated	Planned: 2000 Done : 307 15% achieved	Revenue Inspectors are currently working in the Central Area only, due to a dispute with regards to their travelling allowance. Report re-submitted to HR to address the matter. The matter is however still not addressed and there is all indications that they are deliberately underperforming. The matter has now reached a critical stage and urgent intervention on the matter is needed. The targets set is unproductively low and the % performance is not in the best

		interest of service delivery standards to the community.
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### 3.3.3 Resources

- **Human Resources**

Department/Branch	Approved	Filled	Vacant	Acting	Comments
Water Demand	61	10	51	8	Critically understaffed

- **Plant and Equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
1 Tonner	1	0	The vehicle borrowed from LED was in an accident and is not mobile.
Citi Golf	1	Average 15 days	The vehicle was received, but was not operational for the whole month.
Private	1	Average 15 days	Plumber is using his private vehicle in the execution of his duties. One Asst Artisan Gr I who use his vehicle, was standing for 15 days on average.
Leak Detection Device	2	0	Requisition done. Order is awaited. No order received yet.

- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **September 2017** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
2	0	1 from previous months

### 3.3.4 Theft and Vandalism

0 water meters was reported as stolen

### 3.3.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
The productivity of Revenue Inspectors is below 10%.	The matter was already escalated to the Human Resources Department for intervention. No respond or action received yet.	Human Resources / HR
2 of the 3 Acting Assistant Artisans do not get cellphone allowance. They complain that they do not have airtime to communicate to the office in cases of emergency. A request was previously prepared, but not processed	Request was submitted to the Office of the Senior Manager Civil Engineering for approval. No respond or action received yet.	Acting Manager Water Demand
The Section is critically understaffed with regards to Technicians.  This create a vacuum with regards to technical expertise in the Section	Request for filling of vacancies was prepared on numerous occasions, but no posts are filled yet.	Human Resources
Personnel is not familiar with the necessary Human Resources Policies and this create a problem with discipline in the Section	Induction of personnel Labour Relations and Human Resources departments is very necessary. The matter was discussed in the Management meeting. No induction yet.	Human Resources Labour Relations
Shortage of vehicles. The section is currently depending on two personnel to use their private vehicles to execute their work. If these vehicles become unavailable, the Section will not be able to address any water losses	Purchasing of new vehicles	Fleet Management
Billing information for July to Sept 2017, not received. The Water Balance could not be updated	The matter must be escalated to EXCO.	Snr Manager / Executive Director Infrastructure

### 3.3.6 Occupational Health and Safety meetings

None. The Section does not have capacity to conduct regular monthly meetings.

### **3.3.7 WATER CONSERVATION AND DEMAND MANAGEMENT STRATEGIES**

#### **3.3.7.1 Strategy, plan and implementation**

The WC and Demand Management Strategy must be aligned with the 2017/18 IDP. Work in progress.

#### **3.3.7.2 Asset Management**

No	Action	Comment
1	Meter Replacement Programme	As per the SDBIP
2.	Valve and Hydrant Replacement Programme	Programme must be compiled – Assistance from Cuban Engineers was requested. No assistance received from the Cuban Engineers.
3.	Mains Replacement Programme	As per the SDBIP

#### **3.3.7.3 Customer Care and Communication to Consumers**

No approved Customer Care Charter in place. The Municipality does have Customer Care Offices in each town, to receive customer complaints from the public.

#### **3.3.7.4 Technical Skills**

The Maintenance Team in Water Demand is critically understaffed. Refer to Point 2 above for details.

#### **3.3.7.5 IWA Water Balance**

The Water Loss Report for 2016/2017 fin year was compiled and submitted. No Water Balance for the Jul-Sept 2017 was compiled due to non-availability of billing information. Refer to 3.3.5.

#### **3.3.7.6 War on Leaks Programme**

The placement of students in the Municipality was completed during July 2017. Project is ongoing. Rand Water did not schedule any progress meetings since the implementation in July.

#### **3.3.7.7 Projects: Provision of Leak Detection and Repair Services : 2 year contract**

**Survey Statistics for September 2017**



Town/Area	Pipe Distance (km)	Km Surveyed (Level 2)	Total Leaks detected	Main Line Detected	Valves & FH Leaks	Service Connection Leaks	House Conn Leaks	Visible	Buried leakages
Welkom CBD	383	290	363	95	103	98	67	190	173
Flamingo Park	41	41	40	7	12	11	10	25	15
Naudeville	22	22	18	6	8	3	1	9	9
Rheederpark	23	23	28	3	5	14	6	15	13
Riebeeckstad	111	99	91	12	22	21	36	61	30
Bronville	43	43	66	9		23	34		31
Allanridge	33	33	5	1	1		3		1
Thabong	335	185	315	17	2	89	207	214	101
Odendaalsrus	97	97	77	12	8	10	47	55	22
Hennenman	58	56	25	2	8	10	5	13	12
Virginia	197	133	69	8	18	11	32	50	19
<b>TOTAL</b>	<b>1 343</b>	<b>1 022</b>	<b>1 097</b>	<b>172</b>	<b>187</b>	<b>290</b>	<b>448</b>	<b>632</b>	<b>429</b>

**Notes:** The leak detection report is cumulative from May to September 2017.

### 3.4 WATER MAINTENANCE (CENTRAL)

#### 3.4.1 Overview of the performance:

Refer to achievements in 3.4.2

#### 3.4.2 SDBIP and Action Plan

A consolidated progress report on the Action Plan and Statistical Ward Report is attached as **Annexure B and C** of the monthly report, however the following was achieved for **September 2017** by the Water Section Central:

The main objective in the section is to reduce back logs for meter repairs, leaking pipes and burst lines by 60%.

A total of **253** water complaints for the Welkom Central area were received (*of which 5524 were from the backlog*) and **287** were reported back to have been done by Water Maintenance personnel bringing the backlog up to **5490**. Three TLB's were hired to help in capacitating the maintenance teams, during this month, although they worked 15 days each due to a week without a TLB. **91** Back fillings were also done during this month.

#### 3.4.3 Resources

- **Human resources**

*At least twelve General workers are urgently needed to work at water maintenance teams, although this is dependent on vehicle availability.*

Department/Branch	Approved	Filled	Acting	Comments
Water Maintenance Central	109	42	67	Critically understaffed

- **Plant and equipment**

- Only **five** bakkies were operational at Water Central for most part of September 2017 and were exchanged between stand-by Plumbers weekly. **One bakkie** has been lent to Water Demand Section and broke down on 11 September due to brake pads. **One bakkie** has been lent to Sewer Central section from September 2017
- Water Central TLB has been at the mechanical workshop for service since June 2016 and the one borrowed by Sewer Central is not working also.
- Water Central grab truck does not have a working grab, resulting in a TLB being used to assist with backfillings. A grab truck from Sewer Central is assisting Water Central although it does not have the grab. **One Grab truck** has been borrowed from Community services since September 2017.
- Four water pumps are operational since July 2017
- Four Trailer are Operational since July 2017

Type of vehicle / Equipment	Quantity	Days Available	Comments
LDV ((DLL 956 FS)	1	0	At mechanical workshop, broken by pump station driver since February 2017
LDV (DWZ 815 FS)	1	30	Operational
LDV (DWL 039 FS)	1	30	Operational
LDV (DWL 048 FS)	1	20	Working at Water Demand monthly but broken since 11 September 2017
LDV (DLL 952 FS)	1	10	Operational since 11 September 2017 but lent to sewer central
LDV (DWL 037 FS)	1	30	Operational
Grab Truck (DXT 428 FS)	1	0	Grab and truck side broken, STUDES

Grab Truck (DXT 429 FS)	1	0	Borrowed from Sewer Central, grab still not fixed and studs
TLB (DWT 184 FS)	1	0	At mechanical workshop since June 2016, needs service
TLB (DND 792 FS)	1	0	Borrowed from Sewer Central
Trailer	1	31	Operational
Trailer	1	31	Operational
Trailer	1	31	Operational
Trailer	1	31	Operational
Pump	1	31	Operational
Pump	1	31	Operational
Pump	1	31	Operational
Pump	1	31	Operational
Generator	1	31	Operational
Generator	1	31	Operational

- **Materials**

**Eighteen** submissions to request for procurement of PPE and TLB's were submitted this month. **Four** orders have been issued including **nine** for past months

Number of Requests	Orders issued	Outstanding orders
18	4	14

#### 3.4.4 Theft and Vandalism

None

#### 3.4.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Serious personnel, equipment and vehicles shortages.	Expedite the filling of advertised positions.	
Inability to replace infrastructure rather than to repair it.	Report system of complaints must be revisited.	
Poorly resourced water loss control and revenue protection	Staff capacity must be improved.	
	Supply Chain has to facilitate payment and processing of orders.	
	Tedious procurement of highly specialized maintenance repair equipment must be improved.	

### 3.4.6 Occupational Health and Safety meetings

None

## 3.5 SEWER MAINTENANCE (CENTRAL)

### 3.5.1 Overview of Performance

Refer to achievements in 3.5.2

### 3.5.2 SDBIP and Action Plan

A consolidated progress report on the Action Plan and Statistical Ward Report is attached as **Annexure B and C** of the monthly report, however the following was achieved for **September** 2017 by the Sewer Section Central:

Not all block drain complaints received for the month were attended to.

**1046** complaints were received for Welkom Central (*of which 803 were from the August 2017 backlog and 243 received in September 2017*), **178** were reported back to have been done by Waste Water Maintenance personnel bringing the backlog to **868**.

### 3.5.3 Resources

- **Human resources**

Department/Branch	Approved	Filled	Acting	Comments
Sewer Maintenance Central	72	29	4	

- **Plant and equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments

- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **September 2017** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
9	0	9

### 3.5.4 Theft and Vandalism

None

### 3.5.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Serious personnel and equipment shortages	Staff capacity must be improved	
Inability to replace infrastructure rather than to repair it.	Report system of complaints must be revisited.	
Excavation of sewer lines more than 7m deep.	Tedious procurement of highly specialized maintenance repair equipment must be improved	
Requisitions have been submitted to Supply Chain Management and covered are received.	Supply Chain to open store before the end of this month.	

### 3.5.6 Occupational Health and Safety meetings

None

## 3.6 WASTE WATER TREATMENT WORKS & PUMP STATIONS

### 3.6.1 Overview of Performance

- Phomolong, Virginia, Hennenman Thabong, are in fair working condition and almost all are complying with the General Standards.
- Witpan is completed but due to broken pipe plant not in operation.
- Ventersburg / Mmamahabane - refurbishment and upgrade starting now June 2017.
- Theronia is out of operation. Contractor busy with final designs.
- Kutlwanong - all Mechanical rakes are standing and one out of four pumps at inlet works are operating. All Aerators cables stolen.
- Allanridge wwtp plant face one almost completed.

### 3.6.2 SDBIP and Action Plan



A consolidated progress report on the Action Plan and Statistical Ward Report is attached as **Annexure B and C** of the monthly report, however the following was achieved for **September 2017** at the Waste Water Treatment Works:

All data captured and stored for Green Drop assessment purposes.

- Odendaalsrus drink water line to plant been stolen on daily bases no way of replacing it. Panels need to be replaced (been damaged by the gas in the inlet works)

Humus dam been cleaned put back in operation

- Kutlwanong in operation. Plant need 24 hour Process Controller to ensure proper operation of the plant, request was submitted to HR.
- Inlet works only one pump operational, all electrical cables on reactor been stolen
- New pump installed at inlet works assisting with lowering inflow to the plant.
- One RAS pumps bottom bearing broken cause SST to block (one bottom bearing repaired but SST still blocked)
- Phomolong theft at chlorine building, security not up to standard.
- Phomolong one screw pump need to be repaired currently standing
- Secondary sedimentation tank center bearing bolts broke, dam standing
- Theronia: Security needs to be improved. Plant needs to be divided into three security areas, which need to be inspected per area as the plant is too big for only 2

Security Guards.

- Theronia, pump station, bio filters, humus dams, and three pump stations need to be upgraded.
- Armed response security needs to be located at the plant before refurbishment of the plant begins.
- Contractors busy with completion of site measurements and designs.
- Thabong one inlet screw pumps out of operation, only one order received.

Waste Water Treatment Plant	% Functional	Comments
Thabong	65%	Security has not replaced any of the items that were stolen on the plant. Theft happened again and all aerators cables were stolen; only two could be repaired.  Theft in two stores in one month.  Digester is cleaned to be commissioned.  Fence are currently been striped by thefts.
Phomolong	80%	Inlet screw pumps one out of operation.  SST plates were stolen and scum box fall inside.  SST standing, Centre Colom broken on the SST.

		<p>Awaiting repairs of some of the aerator gearboxes</p> <p>Theft of chlorine equipment, no chlorination can take place.</p>
Hennenman	70%	<p>One screw pump out of operation</p> <p>Inlet screens to be replaced.</p>
Virginia A Side	0%	
Virginia B Side	35%	Virginia WWTW are currently been upgraded on MIG project..
Odendaalsrus	75%	<p>Plant receives almost no water.</p> <p>Humus dam blocked needs to be opened.( was cleaned)</p> <p>Drink water line to the plant stolen.</p> <p>Screen motor burned</p>
Allanridge	10%	<p>Plant be upgraded on MIG project</p> <p>Aerators installed awaiting electrical connections.</p> <p>Busy with RAS pump station</p>
Theronia	10%	<p>Biofilters glugging due to sludge from Pst entering the biofilters PST can't be dislodged all cables to pump stations stolen.</p> <p>Theft on plant damage of almost all the pump stations.</p> <p>All sluices are stolen, Bio filter arms.</p> <p>SLA signed for upgrade of Theronia.</p> <p>Contractor busy with design.</p>
Ventersburg/ Mmamahabane	50%	<p>Plant to be upgraded are approved and will start in 2017.</p> <p>Contractor on side for upgrade of pump station and plant.</p>
Kutwanong	50%	<p>Inlet works one pump in operation.</p> <p>One RAS pumps out of operation due to bad product been installed by contractor</p> <p>All Mechanical screens out of operation.</p> <p>All cables on reactor stolen. Order received waiting for supplier.</p>

### 3.6.3 Resources

- **Human resources**

Department/Branch	Approved	Filled	Acting	Comments
Waste Water Treatment Works & Pump Stations	154	160	13 2	There is more people at pump stations than on the current structure

- **Plant and equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
LDV	4	2 – 31 days	- Mechanical Workshop - Sewer department bakkie - Operational
Sedan	1	1 – 0 days	- Mechanical Workshop
Tractor	4	2 – 31 days 1 – 0 days 1 – 0 days	- Operational, only need battery - Borrowed from Storm water - Mechanical Workshop
Truck	1	0	- Standing at mechanical workshop
Kabota	1	16	- Need battery bat is operational
Water pump trailer	3	1 – 31 days 1 – 31 days 1 – 31 days	- Used by maintenance team - Used by maintenance team - Operational

- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **September 2017** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
8	3	17

### 3.6.4 Theft and Vandalism

Location	Unit	Incident	Date of incident	Approximate loss	Comments
Major /western pst	Welkom	Theft of copper cable	29/09/2017	R135687.00	No security on site
<b>Total</b>				<b>R 135687.00</b>	

### 3.6.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Serious personnel, equipment end commercial vehicle problems.	Virginia: Is in process of refurbishment-Tender 85% completed.	
Vehicles (trucks for removing telecom containers on all the purification plants)	Kutlwanong: Qualified process controller needs to be appointed.	
Personnel are needed at some of the purification plants.	Witpan is currently under construction to be commissioned in October 2017.	
Urgently needs more armed security at Theronia-, Thabong-and Odendaalsrus plants.	Phomolong Plant orders were given to Electro-Mechanical for repairing of raw pumps.	
Theft is occurring at all plants and is stripping them to a standstill.	Mmamahabane /Ventersburg: Project approved to be started in 2017.	
Theronia- 66 pump station needs urgent attention to help reduce pan water levels.	Nyakkalong Is in process of refurbishment- Tender 70% completed.	
Fence at Theronia complete but still theft is happening.	Odendaalsrus Plant repairs needs to be done in-house. ( done)	
No PPE for some plants due to supplier not supplying PPE		

### 3.6.6 Occupational Health and Safety meetings

None

### 3.7 PUMP STATIONS

#### 3.7.1 Overview of the performance

Refer to achievements in 3.7.2

#### 3.7.2 SDBIP and Action Plan

A consolidated progress report on the Action Plan and Statistical Ward Report is attached as **Annexure B and C** of the monthly report, however the following was achieved for **September 2017** at the Pump Stations:

PUMP STATION	PERCENTAGE (%) FUNCTIONAL
Nyakallong Pump station	50%
Bronville South Pump station	60%
Bronville North pump station	62%
Klippan Pump station	5%
Ben Reagal Pump station	10%
Old Thabong Pump station	40%
Rheederspark Pump station	40%
Large Frank Pump station	70%
Small frank Pump station	10%
Major Pump station	45%
Goudrif 2 Pump station	10%
Extension 3 Pump station	0% (Totally Vandalized)
Workshop Pump station	0% (Totally Vandalized)
T8 Pump station	85%
Birch road Pump station	50%
Joel Park Pump station	50%
Power Road Pump station	60%
Traffic Pump station	30%

### 3.7.3 Theft and Vandalism

At major and western pump station.

### 3.7.4 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Serious personnel, equipment end commercial vehicle problems.	Kombi was requested for transport on the 19/08/2016 nothing received till now.ag again in April 2017 and again in May 2017.	
Vehicles (trucks for removing telecom containers on all the pump stations)		
Personnel are needed at some of the pump stations.		
Urgently needs more armed security at all the pump stations in Matjhabeng.	Security needs to be appointed for all pump stations.	
No PPE for pump station employees as order was not delivered from last year.	Supplier off PPE must be investigated because he does not deliver.	
Transport for employees causing serious problems due to the time it took to deliver people at pump stations; vehicle is not suitable to transport workers		

### 3.7.5 Occupational Health and Safety meetings

None

## 3.8 MATJHABENG LABORATORY

### 3.8.1 Overview of Performance

- Blue Drop monitoring for Drinking Water Quality – Outsourced to Sedibeng Scientific Services - done every 14 days
- SANS 241:2015 is activated on the BDS and data is loaded very month.
- Additional sample point for Virginia borehole - done every 14 days as good practice.
- Critical Distribution Points will be analysed for a Full SANS annually.

- Green drop monitoring for Effluent Water Quality – Compliance and Operational monitoring of final effluent, process control, up and down stream, storm water canals and pans.
- Effluent water is loaded on the GDS and data is loaded monthly
- Monitoring Industrial effluent at the abattoir in Welkom and Ventersburg
- Industrial Effluent monitoring according to the Bylaws (Decanting Certificates).
- Any other water related functions.

**Drinking water Quality for August 2017 (SANS 241: 2015)**

Sample points 58 point of use and 3 Reservoirs	Monitoring Compliance %	Microbiological Compliance %	Chemical Compliance %	Physical / Organoleptic Compliance %	Operational Compliance %
Allanridge	99.9	99.9	99.9	99.9	99.9
Hennenman	99.9	99.9	99.9	99.9	99.9
Odendaalsrus	99.9	99.9	99.9	99.9	99.9
Ventersburg	99.0	99.9	99.9	99.9	97.9
Virginia	99.9	99.9	97.9	98.5	96.9
Welkom	99.9	99.9	99.9	99.3	99.5
<b>Average Matjhabeng Mun</b>	<b>99.0</b>	<b>99.9</b>	<b>99.6</b>	<b>99.5</b>	<b>99.2</b>

Legend	Microbiological (Health)	Chemical (Health)	Physical Organoleptic	Operational
Excellent	99.9%	95%	95%	85%
Good	97%	85%	85%	80%
Need Attention	95%	80%	80%	70%
Intervention Required	<95%	<80%	<80%	<80%

**Drinking water Failures:**

**Operational Failures:**

- HPC Failures - None
- Turbidity failures - MMA03, MEL 02, MEL 06, VIR 1
- Iron Failures – THA 10, MEL 06
- Aluminum – MEL 06

**Microbiological failures:**

- NONE

**Purified Effluent water Quality August 2017: (General Authorization Limits)**



WWTW	Monitoring Compliance %	Microbiological Compliance %	Physical Compliance %	Chemical Compliance %	Operational Compliance%
Allanridge	49.0	0.0	83.3	25.0	No Sludge and Flow data
Odendaalsrus	62.0	0.0	77.8	66.7	No Sludge and Flow data
Kutlwanong	32.0	0.0	88.9	50.0	No Sludge and Flow data
Theronia	82.0	0.0	66.7	50.0	No Sludge and Flow data
Thabong	87.0	0.0	100.00	80.0	
Witpan	0.0	0.0	0.0	0.0	Plant under construction
Virginia	96.0	0.0	100.0	87.5	No Sludge and Flow data
Hennenman	32.0	0.0	100.0	75.0	
Phomolong	74.0	0.0	100.0	91.7	
Ventersburg	0.0	0.0	0.0	0.0	Oxidation Pond
Mmamahabane	0.0	0.0	0.0	0.0	Oxidation Pond
<b>Average Matjhabeng Mun</b>	<b>88.85</b>	<b>0.0</b>	<b>65.15</b>	<b>47.8</b>	<b>NA</b>

Legend	< 80 %	80 – 90 %	90– 95 %	> 95 %
	Intervention Required	Need Attention	Good	Excellent

#### **Effluent water Failures:**

- Not all the samples were done according to the approved sampling program for August 2017. Daily flow readings and sludge treated will be calculated under operational Compliance.
- All failures are logged in WWTW Effluent Failure logbooks
- Poor monitoring compliance due to transport problems to collect samples
- Laboratory is experiencing problems with procurement of chemicals

### **3.8.2 SDBIP and Action Plan**

A consolidated progress report on the Action Plan and Statistical Ward Report is attached as **Annexure B and C** of the monthly report.

### **3.8.3 Resources**

- **Human resources**

Position	Approved	Filled	Acting	Comments
Laboratory Technician (ActingTechnologist)	1	1	0	Acting as Technologist
Laboratory Assistant	1	0	1	Lab Aid is Acting
Laboratory Aid 2 positions	2	2	0	
Laboratory Cleaner	1	0	0	

- **Plant and equipment**

None

- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **September 2017** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
3	1	2

### 3.8.4 Theft and Vandalism

None

### 3.8.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
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Serious personnel problem – the laboratory has a structure with 5 people on the approved structure and 9 on the proposed structure and presently there are only an Acting Technologist (Laboratory Technician) and two Laboratory Aids. One is Acting as a Laboratory Assistant. The Laboratory need qualified personnel to comply with DWS regulations.	Awaiting approval of the new structure - appointment of personnel to be DWS approved.	HR
No analysis done on the plants that are out of operation	WWTW under construction	WWTW
Most of Laboratory equipment is bought from sole suppliers in SA and therefore the Laboratory need to deviate from the normal procurement procedure – This takes long to obtain all the signatures for approval	Laboratory is going to make use of SLA	SCM
2017 PTS for SABS and NLA is still outstanding	Submissions were re submitted	SCM
Due to no internet facilities on the WWTW we cannot communicate with Process Controllers regularly	Make use of Cell phones	IT

### 3.8.6 Occupational Health and Safety meetings

None

## 3.9 CIVIL ENGINEERING EAST

Virginia / Meloding / Hennenman / Phomolong / Ventersburg / Mmamahabane

### 3.9.1 Overview of Performance

#### Water and Waste Water Maintenance

The maintenance personnel are responsible for both water and waste water maintenance (i.e. no separate teams for water or sewer). However the Water and Sewer Section of Virginia were on a sit/strike from 28/8/2017 until 27/09/2017.

#### Roads and Storm Water

During September 2017 Roads and Storm Water maintenance was done on a day to day basis – subject to the availability of plant, equipment and material. Six workers from CWP under Bopa Lesedi in Hennenman were brought in to Hennenman Roads and Stormwater section by the Acting Unit Manager as the section only has three workers who do patching and stormwater maintenance.

### 3.9.2 SDBIP and Action Plan

A consolidated progress report on the Action Plan and Statistical Ward Report is attached as **Annexure B and C** of the monthly report, however the following was achieved for **September** 2017 in the Civil East:

#### Water Network:

During September 2017 Water maintenance was done on a breakdown / complaints basis only and no planned maintenance was done. **72** broken water lines were repaired. **99** water meters and connections were repaired and **0** Fire Hydrants were repaired.

#### Waste Water Network:

During September 2017 Waste Water maintenance was done on a breakdown / complaints basis only and no planned maintenance was done. **209** blocked sewer lines were opened and 0 sewer lids were replaced. The reason for the huge number of blockages that were opened is sand and foreign objects in the sewer systems, misuse of the sewer systems and backlogs in the cleaning of the sewer networks. The ability of the Water and Waste Water Section to perform their service delivery function is aggravated by lack of vehicles, equipment, and availability of material.

#### Roads:

**94m<sup>2</sup>** of potholes were patched and **32m<sup>2</sup>** prepared. **0 m<sup>2</sup>** of potholes were patched with gravel. The tender for supply of patching materials has not been awarded .there is one order for cold tar that has still not been processed by supply chain department. There was **1024m** Roads Cleaned.

#### Storm Water:

**0** Catch pits were repaired. **0m** of lined channel has been cleaned by storm water teams. **0 m** of unlined was cleaned by the storm water teams.

### 3.9.3 Resources

- **Human resources**

Department/Branch	Approved	Filled	Acting	Comments

East	221	99	22	
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• **Plant and equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
TLB	3	0 days	Need battery, hydraulic cap and tyres
FDJ 947 FS	4	3 – 0 days	<ul style="list-style-type: none"> <li>- At mechanical workshop</li> <li>- Written off in Hennenman in 2016</li> <li>- In for repairs</li> <li>- Had clutch problem but now operational</li> </ul>
Tipper truck		1 – 17 days	
Grader	2	0	<ul style="list-style-type: none"> <li>- At Mechanical workshop since April 2011</li> <li>- Gearbox</li> </ul>
Truck	1	0	Not operational
Tanker	3	0	Awaiting a pump and spraying pipe for graveling
Concrete mixer	1	17	Operational
LDV	10	5 – 0 days	<ul style="list-style-type: none"> <li>- Starter did not work</li> <li>- At Mechanical Workshop due to gearbox</li> <li>- Need tyres</li> <li>- Rear wheel bearing</li> <li>- Hand brake failure</li> <li>- Fuel pump</li> </ul>
		1 – 9 days	
		2 – 15 days	
		2 – 17 days	
Front-end Loader	1	0	Not operational
Roller	1	17	Operational but has problem starting
Medium Truck	3	2 – 0 days 1 – 17 days	Changed with roads
Trailer	10	2 – 0 days 8 – 17 days	<ul style="list-style-type: none"> <li>- Not operational</li> <li>- Operational</li> <li>- Problem with CV joint</li> </ul>

Type of vehicle / Equipment	Quantity	Days Available	Comments
Tipper truck	4	3 – 0 days 1 – 17 days	- At Mechanical Workshop - Had clutch problem but now operational
Low-bed	1	17	In use
Tractor	4	0	- Cylinder oil leak - Noise in wheel
TLB	3	0	Battery, hydraulic cap and tyres as per WR 3678
Pump	5	4 – 0 days 1 – 17 days	No operational
Concrete mixer	1	17	Operational
Tipper truck	1	0	Written off in Hennenman 2016
Jet Blaster	2	0	Do not start
Compressor	1	17	Operational
Grader	1	0	At Mechanical workshop since April 2011
Pump on trailer	1	0	Operational but went back to Virginia

- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **September** 2017 are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
0	0	5

### 3.9.4 Theft and Vandalism

Infrastructure office Virginia was broken into and the computer was stolen over the weekend of the 1<sup>st</sup> and 2<sup>nd</sup> of July 2017.

The break in was reported on Monday the 3<sup>rd</sup> July 2017 to Bokvel Pieterse and the police.

Case number is CAS20-07-2017.

Still no computer for the Infrastructure office.

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### 3.9.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Vehicles standing for minor repairs for a long time- like batteries, tyres and service. Unavailability of fleet.	A list of broken vehicles and equipment as well as the needs are sent to the Fleet Management section for repairs and updating on outstanding fleet.	
The unavailability of yellow fleet to blade streets and clean storm water channels.	Outdated vehicles and equipment should be replaced as soon as possible in order to reduce backlogs and produce service delivery.	
High vacancy rate.	Filling of vacancies urgently.	
Long turnaround time with requisitions	The stores must be in full operation	
The inability to replace infrastructure rather than repair it.	Replacement programme for dilapidated infrastructure must be part of capital budget and be executed.	
The back of in maintenance that already exists.		
Misuse of sewer network to dispose of solid waste.		
Theft and vandalism		

### 3.9.6 Occupational Health and Safety meetings

None

## 3.10 CIVIL ENGINEERING (WEST)

Water-, Waste Water-, Roads-, Storm Water-, Building maintenance & Admin in Odendaalsrus /Kutlwanong/Allanridge/ Nyakallong.

### 3.10.1 Overview of Performance



Refer to achievements in 3.10.2

### 3.10.2 SDBIP and Action Plan

A consolidated progress report on the Action Plan and Statistical Ward Report is attached as **Annexure B and C** of the monthly report, however the following was achieved for **September** 2017 in the Civil West:

- Repaired 40 water leaks & bursts
- Repaired 283 meters and connections
- Installed no new water meters (no meters in stock) and replaced 26 water meters
- Re-read 32 water meters
- Abnormal sewer blockages at West Side – 14 received 10 were opened and 2 carried over
- Replaced / repaired 5m sewer lines
- Opened 190 sewer blockages, and cleaned no sewer line.
- Cleaned/repared/rebuilt no sewer manholes
- Emptied sewer tanks 08 times
- Emptied vandalized sewer pump stations 24 times
- Maintained no roads and no leveling of dumping - Grader out of order
- Cleaned no lined canals, cleaned 0.04km un-lined canals
- Cleaned 28 storm water catch pits
- Replaced no catch pit cover
- Removed 11 loads refuse, removed no wing rows
- Cleaned no roads
- No open areas cleaned for
- Repaired 328m<sup>2</sup> pot holes with tar or gravel & cement
- Repaired 26m<sup>2</sup> paving
- Transported 19 loads gravel and no dump rock for Electrical Department
- Transported 5 loads of gravel for stock piling
- Transported 10 loads soil for back filling
- 78 Hours were spend to do backfilling, but could not transport soil for back filling due to no tipper truck
- 100 Hours spend to cut tar & excavate for other Sections (Electrical & plumbers)

### 3.10.3 Resources

- **Human resources**

Position	Approved	Filled	Acting	Comments

West	171	53	13	Additional personnel recruited from refuse removal. Acting personnel included in total number filled.
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- **Plant and equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
TLB Cat	1	0	Out of order for years
TLB Bell	1	30	Used for water, sewer, storm water & to load trucks when available.
TLB Cat	1	0	Out of order for years
Tractors	4	2 – 0 days 2 – 30 days	Was used fill potholes, but only one broke at the end of the month.
Front-end Loader Ainsec	1	0	Out of order for years
Tipper truck s	4	0	All out of Order---Standing in Welkom and Odendaalsrus Workshops.
Tipper truck	1	0	
Tipper truck	1	0	
Tipper truck Nissan small	1	0	
Tipper-Platbak Nissan	1	30	
Grader CAT	2	0	No road maintenance possible without graders
Grader NEW HOLLAND		0	
Roller	1	0	
LDV's	10	5 – 0 days 5 – 30 days	
Water pump trailer	2	0	
Water pump Gormann Rupp	2	0	
Jet Blaster Trailer	2	0	
Concrete Mixer	1	0	
Jet Blaster	1	0	

- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **September 2017** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
2	0	
	Delivery of orders from previous months still outstanding = 15	Orders previous months still outstanding = 17

#### 3.10.4 Theft and Vandalism

None

#### 3.10.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Personnel / equipment / vehicle / material shortages.	Fill critical positions with the necessary qualifications and skills	HR / Treasury
Lack of vehicles/equipment and plant cause non-optimal usage of available manpower.	Repair / replace dilapidated resources, but ensure that there are warranties on all repairs done by outside companies.  License vehicle on time	Mechanical workshop / fleet management  Treasury
Poor work quality of contractors and damage to existing infrastructure by them impacts negatively on daily maintenance.	Appoint consultants with experience in the relevant field.  Appoint skilled contractors with the required CIDB registration.  Make provision in the BOQ for the repairs needed due to damage to existing infrastructure.	PMU / SCM

Challenge	Proposed intervention	Responsibility
MIG infrastructure projects are reserved for “low-income areas”, whereas the condition of infrastructure in “high-income areas” is in a very poor condition compared to the “low-income” areas.	Source funding to pay for upgrading in high-income areas	Treasury  Council administration
Limited Capital and maintenance funds for in-house projects make the needed service delivery impossible.	Source funding to resource in-house projects / maintenance	Senior management  Treasury
Dilapidated infrastructure can only be repaired and not replaced due to insufficient resources.	Resource the maintenance departments to enable them to replace dilapidated infrastructure and to sustain the existing infrastructure.	Senior management  Treasury
The need to do dangerous construction on sewer lines for broken pipes or pipes blocked beyond opening it with standard methods.	Process requests for safety equipment. Resource section with construction equipment.	Senior management  Treasury  Fleet Man
Shortage of safety and specialized equipment/gear to measure and manage the high risks of toxic gases, collapsing excavations, etc. during construction and cleaning of sewer lines.	Process requests for safety equipment. Resource section with construction equipment.	Senior management  Treasury
Disposal of non-sewer related material and solid waste into the sewer network that causes serious blockages.	Community education to use infrastructure responsibly	PMU Infrastructure officials
Vandalism and theft of infrastructure.	Secure high risk areas with armed response, security, fences, burglar proof , alarms, etc.	Senior management. Safety & security department  Treasury

### 3.10.6 Occupational Health and Safety meetings

Health and safety issues are dealt with weekly on the personnel meeting of Infrastructure West. Matters discussed are:

- Ablution facilities at Allanridge Workshop.
- The need for Speed-humps in various positions near schools to avoid children getting injured by speeding cars.
- Plumber Mr Pelser had a IOD on the 30/07/2017 – bitten by dogs – was in hospital,

Released and back in hospital the 07/08/2017. Booked off until 20 September 2017. Was booked of again until 4<sup>th</sup> October 2017.

#### 4. DEPARTMENT ELECTRICAL ENGINEERING

##### 4.1 Overview of Performance

The Electrical Department was able to ensure that the electrical consumers of the Matjhabeng Municipality receives a service not withstanding all the logistical constraints that are impacting severely on the service provision capabilities of this Department.

In the Matjhabeng Electrical Licensed Distribution Area there were no electrical consumers without electrical supply for longer the 24 hours:

Theft and vandalism incidents are daily occurrences and are placing the Electrical Department at high risk and are impacting severely on preventative maintenance and service delivery actions to the community of Matjhabeng Municipality

##### 4.2 SDBIP and Action Plan

A consolidated progress report on the Action Plan and Statistical Ward Report is attached as **Annexure B and C** of the monthly report, however the following was achieved for **September** 2017 in the Electrical Department:

Electricity / Streetlight / High Mast Lights Complaints	Carried over from previous month	Received	Executed	Carried over
Electrical Complaints Revenue Protection	0	49	49	0
Electrical Complaints East	0	82	82	0
Electrical Complaints West	33	239	269	3
Streetlight Complaints West	204	173	213	204
Streetlight Complaints East	214	0	55	159
High Mast Lights Complaints East	15	0	0	15
High Mast Lights Complaints West	40	37	42	35

Electrical Consumer Disconnections				0
Electrical Consumer Reconnections				0
Electrical Pre Paid meters requests		47	47	0
<b>Other</b>	<b>Number</b>			
Electrical meters inspected	7			
Electrical Remote Bulk Meter inspected and audited	45			
Electrical Remote Bulk Meters replaced	0			
Electrical Pre Paid meters blocked	55			
Electrical Pre Paid meters un-blocked	20			
Electrical meter disconnections monitored	0			
Electrical Pre Paid meter tampering identified and processed	7			
Permanent Electrical Connection Disconnections conducted	0			
Permanent Electrical Connection Reconnections conducted	2			
Income stands to be generated from the processing of Electrical Pre Paid metering tampering:				R116,288.35
Theft and vandalism incidents for the indicated month				0
Estimated cost implication of theft and vandalism incidents for the indicated month				R0
Theft and vandalism incidents for the past six months.				13
Estimated cost implication of theft and vandalism incidents for the past twelve months.				R632,030.00

### 4.3 Resources

- Human resources**

Department/Section	Approved	Filled	Acting	Comments
Electrical Engineering	195	73	21	

- Plant and equipment**

Type of vehicle / Equipment	Quantity	Available	Comments
LDV	2	0	Gear box and Starter
Truck	1	0	Hydraulics for lift + engine
Truck	3	0	No license / brakes / clutch
LDV	1	0	No license
LDV	2	31	Operational / 4 tiers
LDV	1	0	Hydraulics for lift + engine
Generator	3	0	Battery /license 4years
Tractor	1	0	Gear on chine / battery
LDV	1	0	Accident
Sedan	1	0	Good condition Nissan LDV
Sedan	2	0	Not at our services
Cherry picker	1	0	Standing since September 2015
LDV	1	31	
LDV	1	22	Involved in major accident from 09/03/2017
Sedan	2	0	Not at our services
LDV	1	0	Scrap
Truck	1	0	Standing for 5 years no wheels, no licensee
Truck	1	0	Standing for 2 years no engine, no license
Truck	1	0	Accident damage
Truck	1	0	Standing from 26/10/2016 engine failure
Cherry picker	1	0	Standing from 7/10/2016 engine failure
Sedan	1	0	Written off
LDV	1	0	0.00%

- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **September 2017** are summarized as follows:



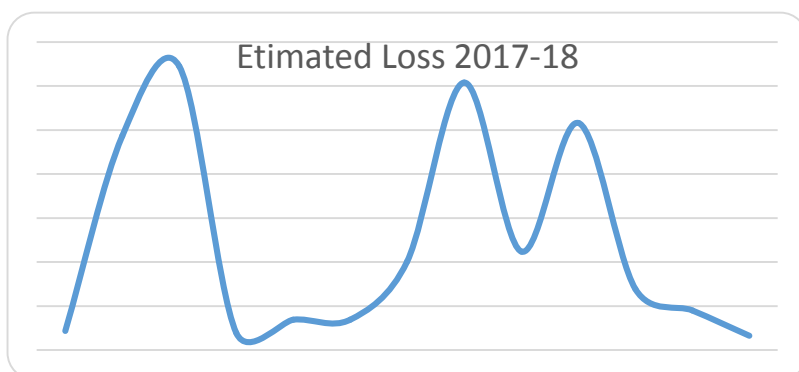
Number of Requests	Orders issued	Outstanding orders
23	0	23

#### 4.4 Theft and Vandalism

Non for the month

The multiyear impact can be indicated as follows:

Financial Year	Period	Incidents	Estimated Cost of incidents in millions	Comments
2012-13	July 2012 to June 2013	144	R 4.80	
2013-14	July 2013 to June 2014	157	R 5.01	
2014-15	July 2014 to 23 June 2015	223	R 7.17	
2015-16	July 2015 to June 2016	299	R6,150	
2016-17	July 2016 to June 2017	134	R 4, 839	
2017-18	July 2017 to June 2018	13	R0.632	



#### 4.5 Challenges and proposed interventions

Challenge	Ward no	Proposed intervention	Responsibility
The unavailability of logistical means is impacting severely on the Electrical Department's service delivery to the community.	All wards	Numerous reports, motivations and requests were compiled, requesting that the Electrical Department to be properly logistically resourced. The opening of official stores for Matjhabeng Municipality is still pending	CFO and SCM
The nonpayment of service provider's results in them not willing to process orders for material and services urgently required.	All wards	Service providers must be paid duly as to the MFMA regulation	CFO and SCM
Electrical department have no electrical material available to attend to breakdown situations.	All wards	The opening of official stores for Matjhabeng Municipality is still pending. Payment of service providers. Processing of Electrical submission for materials by SCM	CFO and SCM
Theft and vandalism of electrical copper infrastructure are daily occurrences in the Matjhabeng Municipality area. This is placing Council, electrical employees and the community in an eminent high risk position. This risk situation is annually costing Council millions of Rand's in fruitless expenditure due to required repairs	All wards	Council must urgently consider to provide and install security alarm systems that is monitored by 24 hour armed reaction service providers at all Electrical Infrastructure that are at high risk of theft and vandalism (Substations, Electrical Workshops and etc.).	MM, CFO, DCS, EDI
Non implementation of crucial electrical preventative maintenance action plans.	All wards	The Electrical Department must be properly resourced. Stores must be reopened. Council must urgently consider to provide and install security alarm systems that is monitored by 24 hour armed reaction service providers at all Electrical Infrastructure that are at high risk of theft and vandalism (Substations, Electrical Workshops and etc.).	MM, CFO, DCSM, SCM & EDI
The vandalism of electrical meter boxes and the non-availability of security locks and keys are leaving electrical meter boxes infrastructure open for theft, vandalism and the tampering of the electrical meters and	All wards	Required materials for the repair must be made available as general store items. The Electrical Department must be logistically resourced to cope with the influxes of work.	CFO & SCM

equipment. This can also result in a safety hazard to the community.			
Bypassing of electrical metering installations by transgressing consumers.	All wards	Drastic Revenue Protection strategies must be implemented to identify and eradicate electrical consumers that are tampering with their electrical pre-paid meters.	EDI CFO & FIS
There are no load control relays available to replace redundant and faulty relays in the electrical network, therefore no proper load management action can be initiated that might have financial savings for Council if electrical consumer loads can be moved out of high demand periods.	All wards	Annual Material Tender must be processed and awarded.	CFO & SCM
The Electrical Department has to date not been logistically resourced to conduct the function of street light repairs departmentally as was resolved by Council Resolution to resource the Electrical Department with the required personnel, streetlight materials and vehicles	All wards	Annual Material Tenders must be processed and awarded. Electrical Department must logistical resourced. The Council resolution taken in this regards must be implemented.	MM, CFO, DCSM, SCM & EDI
Urgent repair and maintenance actions are required to be implemented on all medium and low voltage networks of Matjhabeng Municipality.	All wards	Annual Material Tenders must be processed and awarded. Electrical Department must logistical resourced.	MM, CFO, DCSM, SCM & EDI
There are no replacement protection relays and materials available to replace existing redundant and faulty relays in Matjhabeng Municipal Electrical Networks. This eminent risk situation is placing the safety of Council property, personnel and the community at risk.		Annual Material Tenders must be processed and awarded. Electrical Department must logistical resourced.	MM, CFO, DCSM, SCM & EDI
More than 300 meters of MV cable was stolen and vandalized between substation SS 9 and TS Native (The processing of the submitted submission by SCM is awaited for more than a year, therefore the non-reinstatement of the cable causes that meters of	32	Replacement cable must be procured by SCM.	CFO & SCM

the remaining cable is further stolen and vandalized on a daily basis)			
Hundred (100) meters of medium voltage supply cable at Steenbok Hostel was stolen and vandalized (The processing of the submitted submission by SCM is awaited for more than a year, therefore the non-reinstatement of the cable causes that meters of the remaining cable is further stolen/ vandalized on a daily basis).	32	Replacement cable must be procured by SCM.	CFO & SCM
Urania Substation situated in Bronville was broken into on the 29 April 2016 and the 132kV Electrical Control panel and five (5) x Vacume Breakers were vandalised and all copper materials were striped out from the equipment on site, the estimated cost of damages amount to R1.8 million. The insident took place whiless the site was under 24 hour security protection	24	Funding was secured from Department of Energy (R5 million) the appointment of provisional electrical engineer is awaited facilitated the process.	CFO, SCM and EDI
The supply cable between SS3 and Welkom Town Stolen and vandalised, over 350 meters x 150mm <sup>2</sup> x3Core MV PILC cable to an estimated amount of R400,000-00 must be repalced.	32	Replacement cable must be procured by SCM to date.	CFO, SCM and EDI
The 132kV 20 MVA Transformer no.2 malfuction at the Industrial Substation Welkom on the 18 October 2016 was removed by Council insurance for assesment and repairs.	32	The repaired 20MVA 132 kVA transformer was delivered in September 2017 and is currently being re-commissioned.	Council Insurance
In the month of November 2016 over four hundred (400) meters of 70mm <sup>2</sup> x 3 Core Cable was stolen in Virginia Harmony, which could not be replaced due non availbilty of cable.	5 & 9	Replacement cable must be procured by SCM to date.	CFO, SCM and EDI
The main supply cable between the Main Intake 132kV HV Subsstation and the 132kV Urania Substion was stolen and vandalised on the 23 January 2017	24	Replacement cable must be procured by SCM to date.	CFO, SCM and EDI

to an estimated amount of R780,000.00.			
The MV Transformer 315meter x 300mm <sup>2</sup> Single Core PEX Cables were stolen at the Welkom Industrial Substation to an estimated value of R316,497.71 on the 18 February 2017 while under 24 hours security protection.	24	Replacement cable must be procured by SCM awaiting settlement of Councils Insurance.	CFO, SCM and EDI
Eskom lost one (1) phase of the MV supply at the Eskom Odendaalsrus Main Intake Point (SUB 1A) as a result of their Transformer Neutral Earth Compensators (NEC) that malfunctioned and caused in a floating Neutral and Earth condition that resulted in supply voltages in the excess of 11kV to 22kV in certain circumstances being induced into the Odendaalsrus aged 11kV distribution networks	35 & 36	<p>That Eskom replace the non-functional NEC and retest their transformer banks to ensure that there is no fault in any of the existing transformers that could have contributed to the fault situation that resulted in the incurred breakdown on the Municipal Distribution Networks.</p> <p>That a certified and competent service provider be appointed to retest all Municipal electrical protection relay installation to ensure their functionality and replace where necessary.</p> <p>That an Accredited and Competent Electrical Contractor be appointed to test the integrity of all MV electrical cable infrastructure in the Odendaalsrus Unit and to the repair or replace any cables where proven necessary through the obtained test results.</p>	CFO, SCM and EDI
Various MV and LV cable damaged by communication provisioning service provider in the Welkom Unit during the installation of communication infrastructure on road reserves	32,33,34 and 27	The MLM must implement a policy and procedure for way leaves	EDI, EDC

#### 4.6 Occupational Health and Safety meetings

In terms of the OHS Act 85/1993 the employer must comply with the following:

- Electrical Department Health and Safety Committees not functional as result of non-election of representatives.
- Member elected to the Health and Safety Committees must be trained.
- Chairpersons of Health and Safety Committees must be trained.
- First Aiders in the Electrical Department must be trained.
- Electrical personnel must be trained in general basic firefighting.

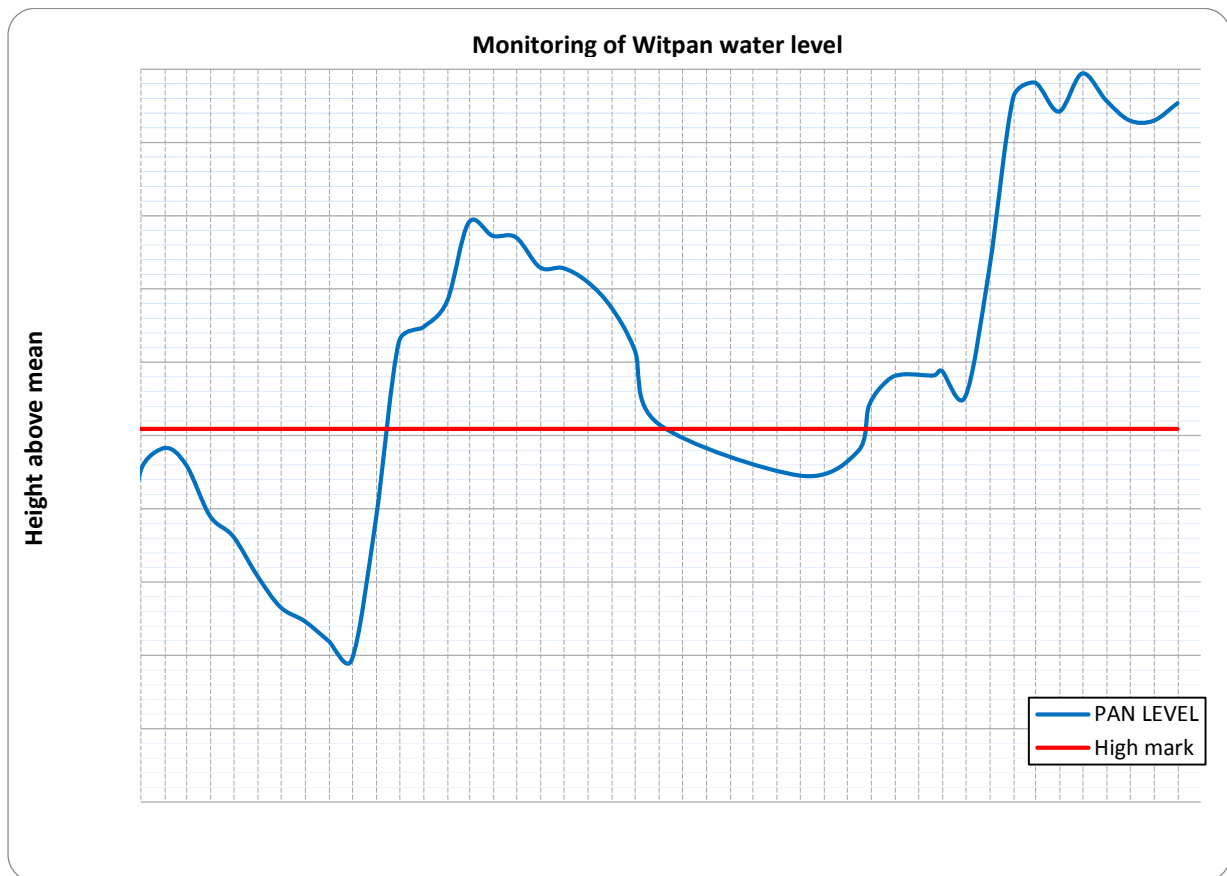
- Recertification of hydraulic lifting equipment needs to be certified.
- Recertification of fire extinguishers must be taking place.
- Training and appointment of Incident and Accident Investigators

5. SUMMARY OF STATISTICS



## 5.2 PAN LEVELS 30 SEPTEMBER 2017

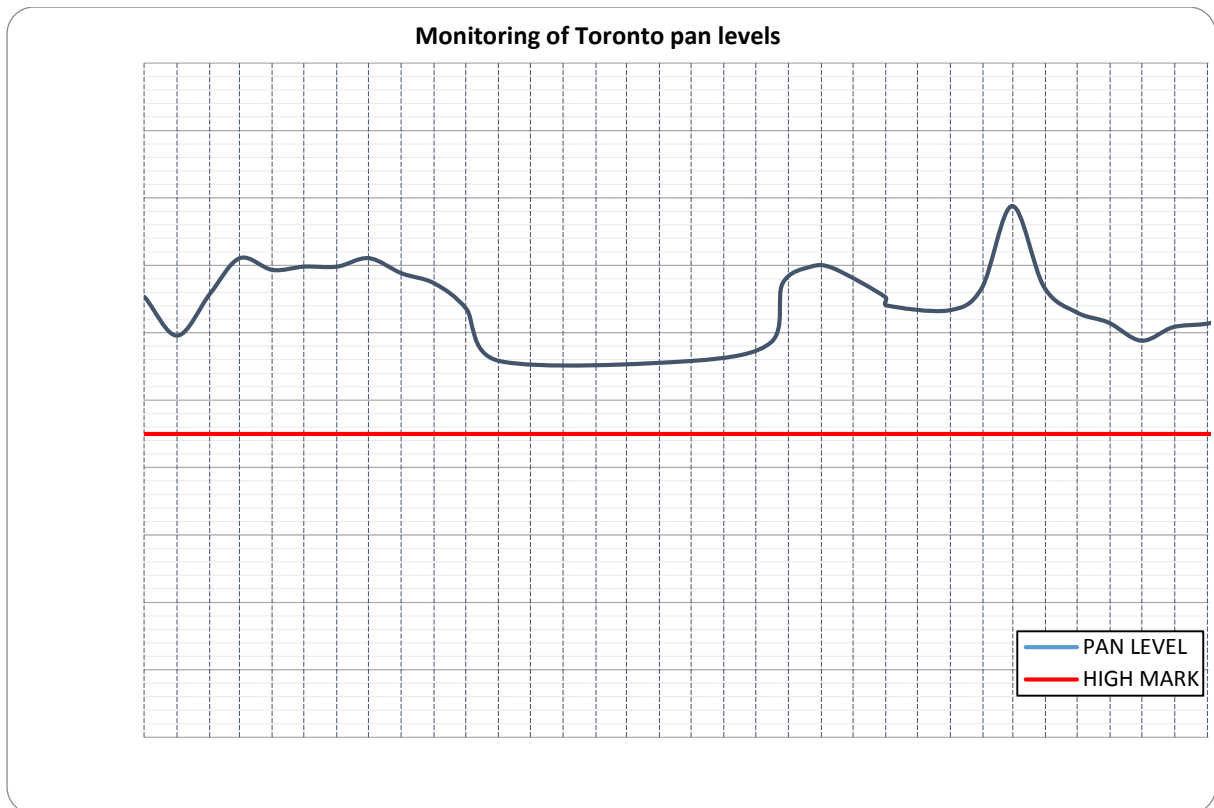
### WITPAN



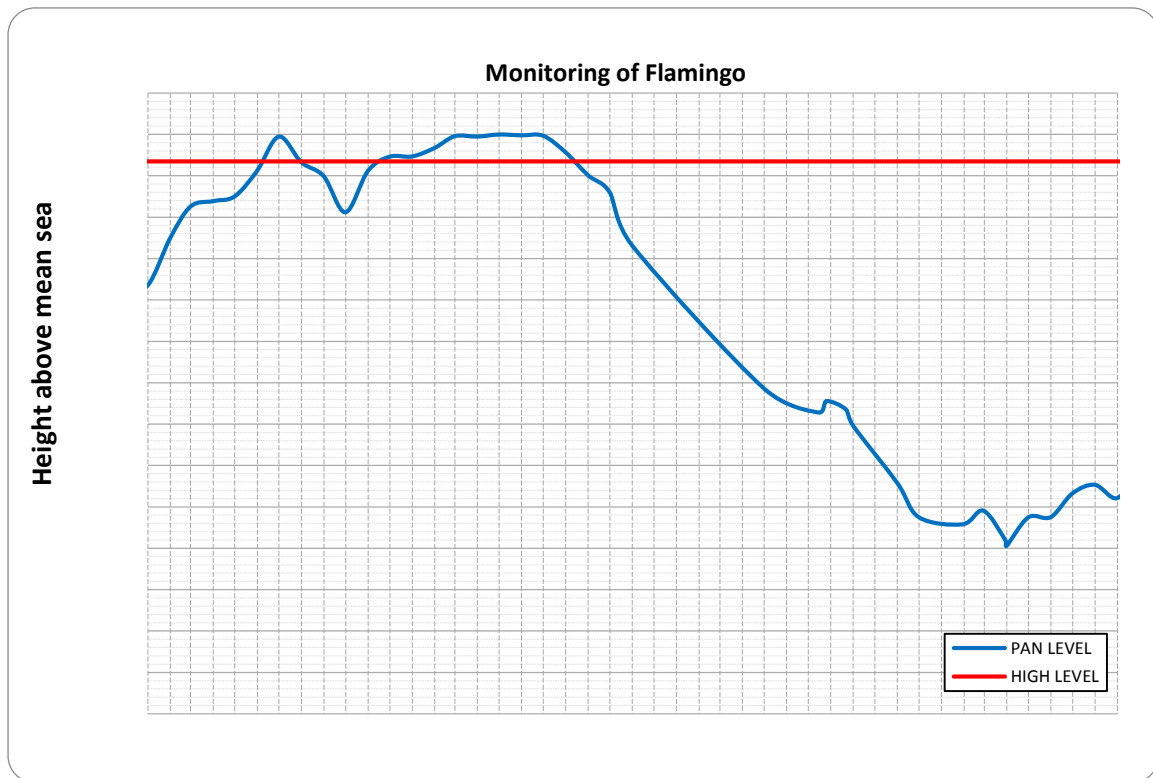
The pan's level has been fairly stable during the past few months but is still almost 850mm above our critical level (Klippan Road) and must urgently be reduced. The road to the pump station is flooded. It is critical that the pump station be made more effective.

### TORONTO PAN



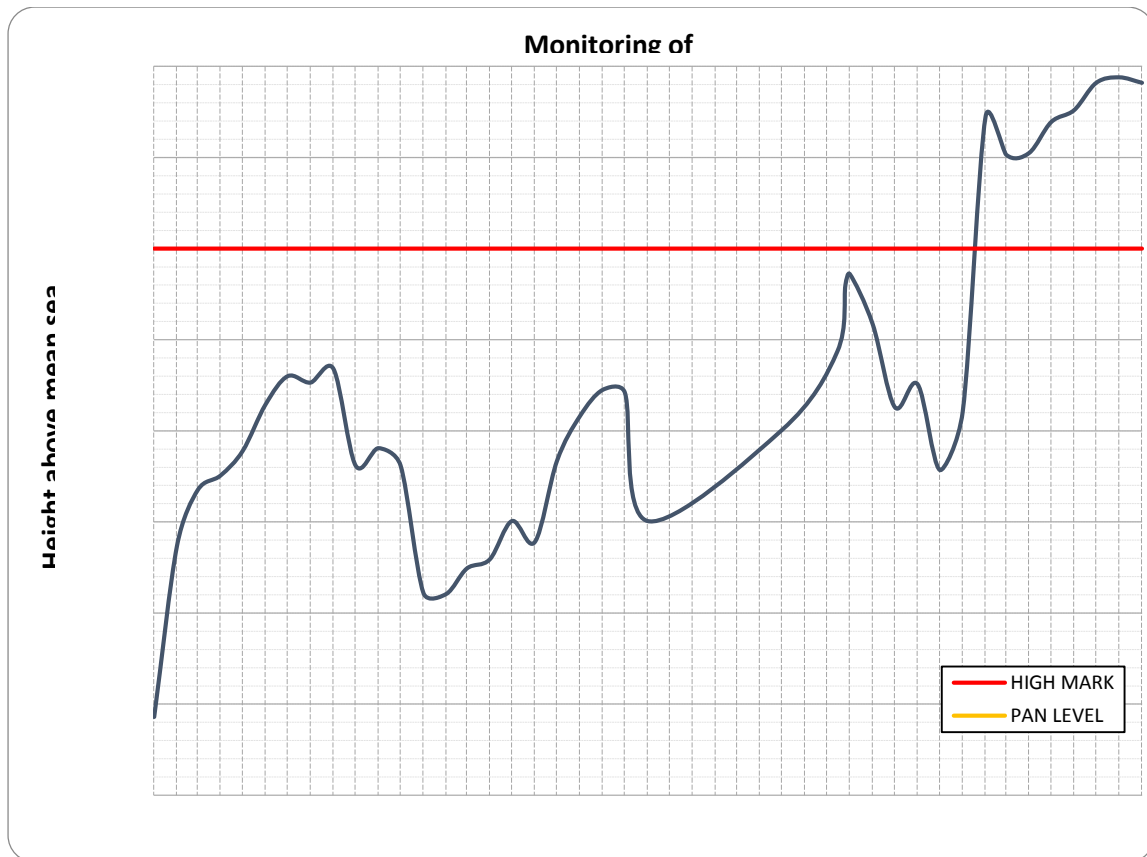


The pan's level is fairly stable. The upgrading of the Geelwortel Channel is urgently required.

**FLAMINGO PAN**

This pan's level has been fairly stable during the past few months. This was mainly due to no inflow from Theronia Pan. It is recommended that the purified irrigation system urgently be made operational again to ensure long term management of the level.

**VOËLPAN (ALLANRIDGE)**



This pan's level has steadily risen during the past few months. No immediate challenges are foreseen.

## 6. CONCLUSION

The Infrastructure Directorate is often referred to as *"the face of the Municipality"* because it is mainly responsible for the provisioning of basic service delivery; being water, sanitation, roads and electricity, directly to the communities of the Municipality. It is therefore expected that these services must as far as possible be efficiently provided without as little interruptions as possible that may inconvenience the community. However, it is evident in this report that resources are not sufficient for the entire Directorate to effectively perform its function. Serious and urgent intervention is therefore required.

The Municipality is also required by Law to manage and keep the levels of Stormwater Evaporation Pans to an acceptable level. The level of Witpan is continuously increasing due to underground water leakages flowing through the stormwater systems to the lakes. Currently untreated sewer are also diverted to Witpan lake.

The Witpan WWTW is currently being delayed due to delays in payments and other sewer existing Infrastructure discoveries that cannot be ignored. The project aims to deal with the

quality of water that flows into the pan. Further on, the following projects are critical to reduce the level of the pan:

- Upgrading Thabong WWTW through the Regional Bulk Infrastructure Bulk (RBIG) by the Department of Water and Sanitation (DWS) which is currently on feasibility stage.
- Formalizing and upgrading of the Mostert Canal, funded from internal capital funds, which is currently at design stage. However, the appointed Professional Service Provider have recommended on emergency Tender to instantly reduce the level of the pan.

Theft and vandalism on our sewer pump stations, misuse of sewer lines by the Community, Illegal Mining and ageing Infrastructure has caused too many blockages and spillages that were so overwhelming that we had to outsource services to assist with reducing the blockages and spillages. Serious intervention to deal specifically with the challenge of Illegal Mining has been required and application for funds to deal with ageing Infrastructure has been done to the DBSA and we await final response in anticipation.