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09/03/2019

# INFRASTRUCTURE DIRECTORATE

MONTHLY REPORT – FEBRUARY 2019

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MATJHABENG MUNICIPALITY

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## **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. PROJECT MANAGEMENT UNIT (PMU)**

### **1.1 Overview of Performance**

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

Project Description	Budget for 2018/2019	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
Nyakalong: WWTP Upgrade	R8 284 673,05	R5 342 786.25 (64%)	Construction Stage Phase 2 (96% overall progress including phase1	30/11/2018	None to report	N/A	Contractor applied for extension of time until 07 March 2019 but it is not yet approved.
Upgrade and Create New Sports and Recreational Facilities Phase 3 Thabong Stadium, Zuka Baloi Stadium & Kopano Indoor Centre	R531 318,20	R 0.00 (0%)	Retention Stage	30/07/2017	None to report	N/A	Project is on retention stage.
Whites: Septic Tank System	R714 136,95	R 0.00 (0%)	Consultant submitted the technical report	No contractor	None to report	N/A	Consultant submitted a revised technical report for a cheaper option and it needs and has been submitted to COGTA for funding
Virginia: WWTP Sludge Management (Phase 1)	R1 481 978,19	R0,00 (0%)	Completed	30/04/2018	None to report	N/A	None
Thabong: Upgrading of the far-east hall indoor sports and recreational facility	R8 061 579,13	R3 038 043.95 (38%)	Construction Stage (82 % to completion)	30/08/2018		N/A	Contractor applied for extension of time until 30 June 2019 but it is not yet approved
Nyakallong: Construction of storm water system – phase 1	R825 379,45	R986 053.00 (119%)	Construction (92%)	29/09/2018	Contractor is still not back on site	N/A	Project on standstill due to lack of finance from the contractor
Welkom Regional Taxi Centres	R2 235 292,97	R 0.00 (0%)	Design Stage	15/08/2019	A letter was sent to COGTA to request full funding of the project from MIG	N/A	PMU has proposed to the EXCO that the project be cancelled during the adjustment

Project Description	Budget for 2018/2019	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
							budget since there is no funding from Free State Provincial Roads Department and COGTA has made it clear that it will not fund it fully
Construction of Dr Mngoma road in Thabong	R411 423,52	R936 595.51 (227%)	Complete	10/10/2017	None	N/A	None
Mmamahabane: Installation of water reticulation to 53 stands	R36 256,07	R36 256,07 (0%)	Complete	30/10/2017	None	N/A	None
Mmamahabane: Upgrading of waste water treatment works	R647 689,50	R0.00 (0%)	Retention Stage	22/07/2018	None	N/A	None
Thabong: Installation of bulk zonal water meters and valves (MIS:250932)	R2 064 491,28	R1 175 871,30 (57%)	Construction (7%)	04/03/2019	None	N/A	Consultant still busy with the request for extension of time
Phomolong: Upgrading of sewage pumping station outfall and rising main (MIS:253902)	R2 283 794,19	R1 550 646.42 (68%)	Retention Stage	25/07/2018	None	N/A	None
Mmamahabane (Ventersburg): Development of a new cemetery	R13 375 597,68	R476 311,60 (4%))	Tender Stage	No contractor	None	N/A	Bids awaiting the bid evaluation and adjudication committees to sit
Thabong: Upgrading of 2km old gravel roads to concrete paving blocks and storm water drainage	R6 321 353,03	R7 325 600.66 (115%)	Construction Stage (99% to completion)	06/03/2019	None	N/A	

Project Description	Budget for 2018/2019	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
Virginia/Meloding: New indoor sports and recreational facility – phase 1	R22 891 169,74	R6 732 529.24 (29.4%)	Construction Stage (36% to completion)	31/01/2020	None	N/A	None
Kutlwanong: Upgrading of waste water treatment works phase 2 (MIS:271406)	R9 757 460,39	R2 539 045.94 (26%)	Design	No contractor	Consultant is progressing very slow in completing the designs	N/A	None
Allanridge/Nyakallong: Replacement of old galvanized steel with pvc pipes (Vuk'uphile Learnership)	R5 319 075,02	R2 435 213,14 (46%)	Construction (22%)	No contractor	None	N/A	
Virginia: Upgrading of Waste Water Treatment Works – Phase 2	R4 667 281,65	R14 420 316.09 (309%)	Construction (86%)	31/05/2019	None	N/A	Phase 2 progressing well
Thabong Extension 20 (Hani Park): Extension of water network, house connections and meters for 180 stands (Vuk'uphile Learnership)	R1 489 361,88	R582 797.43 (39%)	Construction (12%)	No contractor	None	N/A	
Welkom:Upgrading of Landfill Site	R2 796 560,58	R 959 145.00 (34%)	Tender	No contractor	None	N/A	Bids awaiting the bid evaluation and adjudication committees to sit
Allanridge: Provision of water, sanitation and high mast lights at the cemetery	R1 472 474,10	R 0.00 (0%)	Design and Tender	Awaiting appointment of a consultant			

Project Description	Budget for 2018/2019	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
Upgrading & Refurbish T8 sewer pumpstation to address new developments	R 8 265 023,72	R4 779 045.16 (58%)	Construction Stage (59% to completion)	28/02/2019		N/A	
Kutlwanong upgrading of outfall sewer	R4 499 172,72	R818 653.20 (18%)	Tender	No contractor			Bids awaiting the bid evaluation and adjudication committees to sit
Meloding upgrading of gravel roads Phase 2	R3 757 201,18	R 2 286 162.11 (61%)	Design	Consultant submitted designs			
<b>TOTAL</b>	<b>R 116 581 000,00</b>	<b>R56 185 404,82 (48%)</b>					



## 1.2 Human Resources

The Staff complement of PMU is currently as follows:

Department/Branch	Approved	Filled	Vacant	Acting	Comments
PMU	16	6	10	0	

## 1.3 MIG Expenditure

The overall current expenditure is summarized as follows:

ALLOCATION	PLANNED EXPENDITURE	CURRENT CUMULATIVE EXPENDITURE	BALANCE TO BE SPENT
R 116 581 000,00	R58 290 500.00 (50%)	R58 780 598.67 (50%)	R57 800 401.33 (50%)

## 1.4 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
PMU MIG budget is not registered the 2.5% for internal staff. The remaining 2.5% for the service provider is still not registered.	Service provider must conclude the signing of their SLA in time for the 2018/19 financial year so that the Municipality cannot be at risk of forfeiting the portion of the 2.5% budget from the MIG allocation	E'tsho

## 2. DEPARTMENT CIVIL ENGINEERING

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

#### 2.1.1 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

#### 2.1.2 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 **February 2019** by the Roads & Stormwater Maintenance:

- Repair of potholes target was 417m<sup>2</sup> but the section managed to achieve 471m<sup>2</sup>.
- Maintenance of gravel roads target was 1250m, but the section managed to achieve 3575m.
- Cleaning of lined stormwater channels target was 833m, but the section managed to achieve 1135m.
- Cleaning of unlined stormwater channels target was 583m, but the section managed to achieve 0m.
- Cleaning and maintenance of stormwater drainage catchpits target was 66 but the section managed to achieve 24.
- Cleaning of streets target was 2500 m, but the section managed to achieve 909m.

- Cleaning of Sand river channel target is 6000m for the year, but the section managed to achieve 0m. (no excavator)
- Cleaning of Storm-water pipes is 500m for the year, but the section managed to achieve 6m.
- Construction of Gravel Roads in the following Ward is competed:
  - Ward 1 - 4987m done
  - Ward 11 - 1821m done
  - Ward12 - 1604m done
  - Ward 13 - 2086m done
  - Ward 14 - 1974m done
  - Ward 15 - 1981m done
  - Ward16 - 2075m done
  - Ward 23 - 5576m done
  - Ward 24 - 1990m done
  - Ward17 - 1667m done
  - Ward17 -445m outstanding
- Resealing:
  - 287m resealed in Constantia Road, 432m busy with rib and shape.

### 2.1.3 Resources

- **Human resources**

Department/Branch	Approved	Filled	Vacant	Acting	Comments
Roads & Stormwater Central	158	64	94	7	There is serious shortage of personnel especially operators and drivers and supervisors

- **Plant and equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
Grader	5	15	In Operation
Excavator	1	0	Workshop
Front-end Loader	1	0	Workshop
TLB	2	3	Hired TLB
Roller	2	0	Workshop
Grab trucks	5	0	Workshop
Medium Truck	1	0	Workshop
Water tankers	2	0	Workshop
Tipper truck	1	0	Workshop
Tipper truck Medium	7	0	Workshop
Low-bed	1	0	Workshop
Medium Truck	1	0	Workshop
Tipper truck	3	0	2 Hired trucks for patching
Tipper truck	1	0	Workshop
LDV	4	0	Workshop
Sedan	1	0	Workshop

- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **February 2019** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
13	1	

#### 2.1.4 Theft and Vandalism

None

#### 2.1.5 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>Hire in equipment.</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 Roads Forman	The position must be filled.	
Payment of Service Providers	Service Providers must be paid in time.	
Health and Safety	People do not want to drive with the material and equipment on the same truck – 2 trucks are being used for one team – must get trailers.	

#### 2.1.6 Occupational Health and Safety meetings

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

## 2.2 BUILDING MAINTENANCE

#### 2.2.1 Overview of Performance

Refer to achievements in 3.2.2

#### 2.2.2 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 **February 2019** by the Building Section:

- Replaced two (2) broken window pane for unit J5/2 Hubbly Bubbly and office 126 Reinet building.
- Replaced zero (0) doors.
- Replaced two (2) door locks.
- Replaced suspended ceiling boards in boardroom 428 main building.
- Replaced one (1) geyser for Parks office at Bronville hall, two (2) taps for mechanical workshop one (1) basin at Far East Hall.
- Repaired twenty (20) leaking/burst water pipes.

- Repaired/opened five (5) blocked sewer pipes.
- Restored interrupted water supply of Oppenheimer Theatre and
- Cleaning of concrete roofs, gutters and downpipes of Reinet building and Odendaalsrus building completed.

### 2.2.3 Resources

- **Human resources**

Department/Branch	Approved	Filled	Vacant	Acting	Comments
Branch: Buildings	55	25	30	1	Serious shortage of personnel

- **Plant and equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
Medium Truck	1	0 days	- CCT 691 FS, is in workshop for repairs to oil leaking from the engine.
LDV's	1	28 days	- DWT 905 FS, in operation.
LDV's	1	23 days	- DWL 044 FS, in operation, was in workshop for 5 days due to faulty starter.
LDV's	1	0 days	- DWT 902 FS, Written off after accident on 10/11/14 & insurance paid settlement.
LDV's	1	0 days	BHZ 326 FS, in workshop after accident on 22/05/2014, pending panelbeating after insurance repudiated the claim.
LDV's	1	0 days	- CBR 284 FS, in workshop for repairs, needs new engine.
LDV's	1	0 days	- CBR 289 FS, in workshop for repairs since 15/07/11, needs clutch, battery & tyres.
LDV's	1	28 days	- CBP 689 FS, in operation, borrowed to Roads & Stormwater section.

- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **February 2019** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
2	0	2

### 2.2.4 Theft and Vandalism

None

### 2.2.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Turn-around time for processing of	A list of all outstanding orders for materials	

Challenge	Proposed intervention	Responsibility
orders by Supply Chain Management needs to be improved.	will be compiled and sent to Supply Chain Management 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.	
Shortage of personnel.	Vacant posts of Artisans that are budgeted for should be filled as soon as possible.	

## 2.2.6 Occupational Health and Safety meetings

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

## 2.3 WATER DEMAND MANAGEMENT

### 2.3.1 Overview of performance

Refer to achievements in 3.3.2

### 2.3.2 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 **February 2019** by the Water Demand Section.

ACTION	PERFORMANCE	COMMENTS
Conduct 1 leak detection investigation and analysis to determine priority list.	0	Service Provider suspended works in December 2017, due to non-payment. The status quo remain. The Contract is due to expire in April 2019.
Install 50 water meters at developed parks and communal standpipes	0	Not completed. There are not enough internal capacity to execute.
Replacement / Installation of water meters done by Water Demand Management. <b>Number</b> of Meters replaced	Planned: 100 Done: 142 142% achieved	Availability of resources is a challenge. However, there was an improvement in our productivity levels due to the fact that we had more vehicles to work with this month.
Repair of water meters done by Water Demand Management. <b>Number</b> of Meters repaired	Planned: 150 Done: 247 165 % achieved	Please refer to comment above.
Monitoring of bulk water meters done by Water Demand Management. <b>Number</b> of Meters Monitored.	Planned: 10 Done : 0	Act Technician was assigned other work.
Monitoring of disconnections done by Water Demand Management. <b>Number</b> of Meters Monitored	Planned: 300 Done : 0	No disconnection list received from Finance.

Meter investigations done by Water Demand Management. <b>Number</b> of Meters investigated	Planned: 900 Done : 345	Productivity is not very satisfactory. This can be attributed to low staff morale due to unhappiness of the Revenue Inspectors regarding their car allowances.
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### 2.3.3 Resources

- Human Resources**

Department/Branch	Approved	Filled	Vacant	Acting	Comments
Water Demand	61	16	46	5	Critically understaffed

- Plant and Equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
Private	2	28	3 Plumbers are using their private vehicles in the execution of his duties. One extra vehicle was assigned to the section, which improved productivity significantly.

- Materials**

Submissions to request for procurement of Materials that were submitted this month of **February 2019** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
11	0	16

### 2.3.4 Theft and Vandalism

1 stolen water meter was reported.

### 2.3.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
The productivity of Revenue Inspectors can improve if the issue regarding their motor vehicle scheme can be addressed.	The matter was already escalated to the Human Resources Department for intervention. The status quo remain for Feb 2019.	Human Resources / HR
The Section is critically understaffed with Technical staff.  This create a vacuum with regard to technical expertise in the Section	Request for filling of vacancies for the appointment of Technicians 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 by Labour Relations and Human Resources departments is very necessary. A request was submitted to the relevant department.	Human Resources Labour Relations
Shortage of vehicles. The section is	Purchasing of new vehicles	Fleet Management

currently depending on three personnel to use their private vehicles to execute their work. If these vehicles become unavailable, the Section is unable to address any water losses or implement revenue protection strategies. Official vehicles assigned to the Section is not sustainable due to their condition.		
Billing information for Jul 2018 - Feb 2019 is not yet received from the Finance Dept. Water Balance not compiled.		

### 2.3.6 Occupational Health and Safety meetings

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

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

### 2.3.7.1 Strategy, plan and implementation

It is difficult to finalize the Strategy because other measures which are being put in place to ensure efficient water use, is not successful due to financial constraints. The project which was initiated to detect leakages in order to reduce water losses, is currently on hold due to non-payment of the Service Provider. The Service Provider instituted legal action against the municipality.

### 2.3.7.2 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

### 2.3.7.3 Customer Care and Communication to Consumers

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

### 2.3.7.4 Technical Skills

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

### 2.3.7.5 IWA Water Balance

Billing information for Jul 2018- Feb 2019 is not yet received from the Finance Department. Water Balance not compiled.

### 2.3.7.6 War on Leaks Programme

The programme was riddled with challenges. The beneficiaries refused to work due to non-payment of their stipends by Rand Water. They also reported that there is not much to learn in the Municipality. Phase 2 is due to expire in April 2019.

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

The Contractor suspended works due to non-payment.

## 2.4 WATER MAINTENANCE (CENTRAL)

### 2.4.1 Overview of the performance:

Refer to achievements in 3.4.2

### 2.4.2 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 **February 2019** 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 **224** water complaints for the Welkom Central area were received (*of which 0 were from the backlog*) and **171** were reported back to have been done by Water Maintenance personnel bringing the backlog up to **53**. There were **106** Back fillings were also done during this month. Length of PVC pipes installed to replace old pipes is **35m**. Of the **171** complaints done, **19 valves** were repaired and **0 new valves** installed, **1 hydrants** were repaired and **0 new hydrants** installed. (due to customer care information not being accurate resulting from one complaint logged many times and relevant ward not located from the complaints register, it was decided that this huge and untrue backlog be scrapped and new complaints from February 2019 be used)

### 2.4.3 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	49	60	Critically understaffed

- **Plant and equipment**

- Only one bakkie BORROWED FROM TRAFFIC DEPARTMENT was operational at Water Central February 2019 and three bakkies were released from impounding and are operational. Other bakkies have expire discs.



- Water Central Bell TLB is in and out of mechanical workshop for repairs of one thing (random stopping of engine).
- Water Central grab truck does not have a working grab, making it difficult to do backfillings resulting in backlog
- three water pumps are operational
- Only two of the four Trailers have been returned to Water Central after fleet was released from impounding.

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	0	Disc expired
LDV (DWL 039 FS)	1	0	Disc expired
LDV (DWL 048 FS)	1	0	Disc expired
LDV (DLL 952 FS)	1	0	Operational since 11 September 2017 but lent to sewer central
LDV (DWL 037 FS)	1	0	Disc expired
Grab Truck (DXT 428 FS)DXP859 from Parks used	1	0	At mechanical workshop for brakes
Grab Truck (DXT 429 FS)	1	0	Borrowed from Sewer Central, grab still not fixed and studs
TLB (DWT 184 FS)	1	30	
TLB (DND 792 FS)	1	0	In for repairs
FZC727 Trailer(Ty	1	0	Disc expired
FZC725 Trailer(Ja	1	0	Disc expired
FZC719 Trailer(Ma	1	0	Disc expired
FZC716 Trailer(Pa	1	0	Disc expired
Pump (Tys)	1	0	
Pump (Jaki)	1	0	
Pump (Malebo)	1	0	
Pump (Panyane)	1	0	
Generator	1	31	Operational
Generator	1	31	Operational

#### • Materials

A new submission for materials was submitted and other two long standing submissions cancelled but there has been no materials for over six months to do leak repairs.

Number of Requests	Orders issued	Outstanding orders
5	0	5

#### 2.4.4 Theft and Vandalism

None

#### 2.4.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Serious personnel, equipment and vehicles shortages.	Expedite the filling of advertised positions and transfer of General workers to Water Central	

	where possible. Procurement of new vehicles.	
Inability to replace infrastructure rather than to repair it.	Report system of complaints must be revisited and massive replacement of old and worn out infrastructure	
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.	

#### 2.4.6 Occupational Health and Safety meetings

None

### 2.5 SEWER MAINTENANCE (CENTRAL)

#### 2.5.1 Overview of Performance

Refer to achievements in 3.5.2

#### 2.5.2 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 **February 2019** by the Sewer Section Central:

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

**423** complaints were received for Welkom Central (*of which 147 were from the January 2019 backlog and 276 received in February 2019*), **201** were reported back to have been done by Waste Water Maintenance personnel bringing the backlog to **222**.

#### 2.5.3 Resources

- **Human resources**

Department/Branch	Approved	Filled	Acting	Comments
Sewer Maintenance Central	72	30	3	

- **Plant and equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
Nissan Commercial Vehicles	3	31	Other vehicles still at Nissan for repairs

- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **February 2019** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
0	0	0

#### 2.5.4 Theft and Vandalism

None

#### 2.5.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Serious personnel and equipment shortages	Staff capacity must be improved	Human Resources
Inability to replace infrastructure rather than to repair it.	Report system of complaints must be revisited.	Customer Care & Financial Dept.
Excavation of sewer lines more than 7m deep.	Tedious procurement of highly specialized maintenance repair equipment must be improved	Fleet Management
Requisitions have been submitted to Supply Chain Management and covered are received.	Supply Chain to open store before the end of this month.	Financial Dept.
Silted sewer lines need preventative maintenance.	Full time eco-recycling unit to be sourced to work on network for 3 months in succession	Fleet Management

#### 2.5.6 Occupational Health and Safety meetings

None

### 2.6 WASTE WATER TREATMENT WORKS & PUMP STATIONS

#### 2.6.1 Overview of Performance

- Phomolong, Virginia, Hennenman are in fair working condition and almost all are complying with the General Standards.
- Witpan is completed but due to blocked sewer lines from Thabong and Power Road side the plant is not in operation.
- Thabong plant out of operation due to major Vandalism on the plant.
- Ventersburg / Mmamahabane - refurbishment and upgrade is completed, the plants are in operation.
- 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, 3 to be repaired. All Aerators cables were stolen again. Extension of 3 megaliter plant to commence in 2019.
- Allanridge WWTW plant Phase 1 is completed, started with Phase 2.
- Virginia Phase 2 upgrade in progress.
- Odendaalsrus plant in operation but need urgent refurbishment.

#### 2.6.2 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 **February 2019** at the Waste Water Treatment Works:

All data captured and stored for Green Drop assessment purposes.

- Odendaalsrus sewer entering the plant  
Panels need to be replaced (been damaged by the gas in the inlet works)  
Cables were replaced, theft still happening. There are 24 Hour security on site.  
Kutlwanong in operation. Plant need 24 hour Process Controller to ensure proper operation of the plant, request was submitted to HR.
- Inlet works only three pumps operational, one needs electrical parts, lots of sand entering the plant, all electrical cables on reactor ( stolen again)
- Four new pumps installed at inlet works assisting with lowering inflow to the plant.
- One RAS pump bottom bearing broken cause SST to block (one bottom bearing repaired but SST still blocked)  
There is 24 hour security on site.
- 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, (repaired electrical problem)
- 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.  
No inflow to the plant as Major pump station are vandalized  
Contractors busy with completion of site measurements and designs.
- Thabong - Both inlet screw pumps one repaired, second one busy with but no inflow to plant due to blocked sewer lines. Cable been stolen at pump station no 9 and pump station no 1, no dislodging can be done.

Waste Water Treatment Plant	% Functional	Comments
Thabong	0%	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. Digester pump station all MCC panels totally vandalized all cables stolen. Fence are currently been striped by thefts. Bottom bearings fixed plant standing due to no inflow. Pump station no 9 all cables stolen, MCC panel totally vandalized transformer totally vandalized.
Phomolong	80%	Inlet screw pumps one out of operation. SST plates were stolen and scum box fall inside. SST standing, Centre Column broken on the SST. Awaiting repairs of some of the aerator gearboxes Theft of chlorine equipment, no chlorination can take place.
Hennenman	85%	One aerator out of operation Inlet screens replaced.
Waste Water Treatment Plant	% Functional	Comments
Virginia A Side	0%	
Virginia B Side	35%	Virginia WWTW are currently been upgraded on MIG project Phase 2.

Odendaalsrus	50%	Drink water line to the plant stolen again. Screen motor burned
Allanridge	75%	Plant be upgraded on MIG project Busy with new anoxic zone and recycle pumps
Theronia	10%	Biofilters glugging due to sludge from PST entering the Biofilters. PST can't be dislodged all cables to pump stations stolen. Theft on plant damage of almost all the pump stations. All sluices are stolen, Bio filter arms. SLA signed for upgrade of Theronia. Contractor busy with design. And start to refurbish old part for new SST dams
Ventersburg/ Mmamahabane	100%	Plant upgraded and in operation. Plant is in operation and the pump station.
Kutwanong	50%	Inlet works three pump in operation.4 were installed One RAS pumps out of operation due to bad product been installed by contractor All Mechanical screens out of operation. Plant received lot of sand hampering operations. Reactor cables stolen.

### 2.6.3 Resources

- Human resources**

Department/Branch	Approved	Filled	Acting	Comments
Waste Water Treatment Works & Pump Stations	154	173	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	0 – 31 days	- Mechanical Workshop - Sewer department bakkie - Operational - No licenses all of them
Sedan	1	1 – 0 days	- If petrol are available
Tractor	4	3 –31 days 1 – 0 days	- 1 Borrowed from Storm water - Operational, only need battery
Truck	1	0	- Standing at mechanical workshop
Kabota	1	20	- Need battery bat is operational
Water pump trailer	3	1 – 0 days 1 – 30 days 1 – 0 days	- Used by maintenance team - Used by maintenance team - Engen broken

- Materials**

Submissions to request for procurement of Materials that were submitted this month of **February 2019** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders

8	3	12
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## 2.6.4 Theft and Vandalism

Location	Unit	Incident	Date of incident	Approximate loss	Comments	Security available on site
Western Pump Station	Welkom	Theft of copper cable/ pannels	01//2018	R150000.00	No security on site	No
Kutlwanong WWTW	Kutlwanong	Theft of copper cable	26/05/18	No info as jet	Was reported to security	Yes
Western Pump Station	Welkom	Theft of copper cable/ pannels	03//2018	R150000.00	No security on site	No
Odendaalsrus	OD	Theft of copper cable	28/05/18	No info as jet	Was reported to security	Yes
Major Pump Station	Welkom	Theft of copper cable	July	R 250000.00	Was reported to security	Yes
Thabong Plant	Welkom	Theft of copper cable	July	R20000.00	Was reported to security	Yes
Thabong Plant	Welkom	Theft of copper cable	August	No info as jet	Was reported to security	Yes
Bronville south	Welkom	gate	August	No info as jet	Was reported to security	Yes
Major Pump Station	welkom	Theft of copper cable	september	No info as jet	Was reported to security	Yes
Bronville south	welkom	Theft of copper cables and motors	December	No info as jet	Was reported to security	Yes
Bronville North	Welkom	Gate stolen and roof of guardhouse	December	No info as jet	Was reported to security	No
Klippan Pump Station	welkom	Transformer and all cables stolen and vandalized	January	No info as jet	Was reported to security	Yes
Thabong WWTW	Welkom	Transformer and all cables stolen and vandalized	January	No info as jet	Was reported to security	Yes

## 2.6.5 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 (General Workers)are needed at most 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. Done but no workers due to structure	
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 all some plants due to supplier not supplying PPE		

Witpan / Thabong	Serious problems with inflow lines that are blocked by Zama Zamas	
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## 2.6.6 Occupational Health and Safety meetings

None

## 2.7 PUMP STATIONS

### 2.7.1 Overview of the performance

Refer to achievements in 3.7.2

### 2.7.2 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 **February 2019** at the Pump Stations:

PUMP STATION	PERCENTAGE (%) FUNCTIONAL
Nyakallong Pump station	50%
Bronville South Pump station	80%
Bronville North pump station	30%
Klippan Pump station	0% Totally vanalized
Ben Reagal Pump station	100% new pump installed
Old Thabong Pump station	60%
Rheederspark Pump station	40%
Western PST	0% Vandalized then totally flooded inside the pan
Large Frank Pump station	85%
Small frank Pump station	10%
Major Pump station	0% Vandalized
Goudrif 2 Pump station	100%
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%
Duikweg pump station	0% (supply cable stolen)
Hanipark pump station	0% vandalized
Masimong pump station	0% vandalized

### 2.7.3 Theft and Vandalism

At major and western pump station, Bronville North.

- Bronville North, Bronville South, guardrooms vandalized security at south still theft happening, and it is hotspots that always get targeted.
- Major pump station can't be repaired as no security is present raw sewer running into Toronto pan.
- Klippan pump station vandalized.

### 2.7.4 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Serious personnel, equipment and 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		
Western pst	Toronto pan have raised so high that the pump station are flooded now.	
Security alarms needs to be installed and armed response needs to be there.		

## 2.7.5 Occupational Health and Safety meetings

None

## 2.8 MATJHABENG LABORATORY

### 2.8.1 Overview of Performance

- Drinking Water Quality: Monitoring is outsourced to Sedibeng Scientific Services (SANAS Accredited Laboratory), according to the Risk Defined Monitoring Program.
- Drinking water is analysed for Microbiology, Chemical Acute and Chronic Health, Aesthetic, Operational and Disinfectant compliance on Point of use samples and Critical Distribution Points.
- Drinking water analysis is loaded on the IRIS
- Additional sample point for Virginia borehole - done every 14 days as good practice.
- Effluent Water Quality: Monitoring is done at the Matjhabeng Laboratory according to General Authorization.
- Effluent water is analysed for Operational, Final Effluent, Process control, Up and Down stream, Storm Water canals, Pans and Ponds.
- Effluent water analysis is loaded on the IRIS
- Matjhabeng Process Controllers and WWTW is re-registered and Classified on the IRIS
- 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 January 2019 (SANS 241: 2015)

Supply System	Microbiological – Acute Health Compliance %	Chemical Acute Health Compliance % Only Annually	Chemical Chronic Health Compliance	Chemical Aesthetic Compliance %	Operational Compliance %	Disinfection Compliance %



Allanridge	99.9	99.9	99.9	97.8	94.7	99.9
Odendaalsrus	97.2	99.9	99.9	99.9	94.6	71.9
Hennenman	99.9	99.9	99.9	99.9	98.3	99.0
Virginia	99.9	99.9	99.9	99.9	99.9	99.9
Ventersburg	95.5	99.9	99.9	99.9	96.7	89.5
Welkom	98.6	99.9	99.9	99.8	97.6	91.7
Institution	<b>98.5</b>	<b>99.9</b>	<b>99.9</b>	<b>99.9</b>	<b>97.0</b>	<b>92.3</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 / Chemical and Aesthetic Failures:**

- Turbidity failures:
- Iron an Aluminum : ALL03, HEN01

#### **Microbiological failures:**

- HPC Failures : Numerous failures in Kutlwanong with o Free Chlorine
- Total Coliform: Numerous failures in Kutlwanong and Welkom with low Free chlorine
- E.Coli: RIE 03, DE05 AND VEN 2, resampling was done and failures resolved

DWS is presently busy to convert the GDS to the IRIS program and no monthly compliance could be obtained. Laboratory LIMS calculations were used to calculate compliance

#### **Purified Effluent water Quality January 2019: (General Authorization Limits)**

WWTW	Monitoring Compliance %	Microbiological Compliance %	Physical Compliance %	Chemical Compliance %	Operational Compliance%
Allanridge		0.0	0.0	0.0	No analysis
Odendaalsrus		0.0	0.0	0.0	No analysis
Kutlwanong		0.0	0.0	0.0	No analysis
Theronia		0.0	0.0	0.0	No analysis
Thabong		0.0	0.0	0.0	No analysis
Witpan		0.0	0.0	0.0	No analysis
Virginia		0.0	100.0	87.5	
Hennenman		0.0	100.0	50.0	
Phomolong		0.0	100.0	75.0	
Ventersburg an Mmamahabane		0.0	0.0	0.0	No analysis

Combined					
<b>Average Matjhabeng Municipality</b>		<b>0.0</b>	<b>100.0</b>	<b>58.3</b>	

<b>Legend</b>	<b>&lt; 80 %</b>	<b>80 – 90 %</b>	<b>90– 95 %</b>	<b>&gt; 95 %</b>
	<b>Intervention Required</b>	<b>Need Attention</b>	<b>Good</b>	<b>Excellent</b>

### **Effluent water Failures:**

Poor monitoring Compliance, not all the samples were done according to the approved sampling program for January.

Daily flow readings and sludge treated will be calculated under operational Compliance.

All failures are logged in WWTW Effluent Failure logbooks

## **2.8.2 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.

## **2.8.3 Resources**

### **• Human resources**

<b>Position</b>	<b>Approved</b>	<b>Filled</b>	<b>Acting</b>	<b>Comments</b>
Laboratory Technician (Acting Technologist)	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 **February 2019** are summarized as follows:

<b>Number of Requests</b>	<b>Orders issued</b>	<b>Outstanding orders</b>
1	0	1

## **2.8.4 Theft and Vandalism**

None

## **2.8.5 Challenges and proposed interventions**

<b>Challenge</b>	<b>Proposed intervention</b>	<b>Responsibility</b>
No analysis done on the plants that are out of	WWTW under construction	WWTW

operation		
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
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
2018 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

## 2.8.6 Occupational Health and Safety meetings

None

## 2.9 CIVIL ENGINEERING EAST

**Virginia / Meloding / Hennenman / Phomolong / Ventersburg / Mmamahabane**

### 2.9.1 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).

#### **Roads and Storm Water**

During **February** 2019 Roads and Storm Water maintenance was done on a day to day basis – subject to the availability of plant, equipment, material and vehicles. 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.

### 2.9.2 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 **February** 2019 in the Civil East:

#### **Water Network:**

During February 2019 Water maintenance was done on a breakdown / complaints basis only and no planned maintenance was done. 107 broken water lines were repaired. 170 water meters and connections were repaired, and 5 meters were replaced. 3 Fire Hydrants were repaired and 0 valve and 3 control valve was repaired.

#### **Waste Water Network:**

During February 2019 Waste Water maintenance was done on a breakdown / complaints basis only and no planned maintenance was done. 394 blocked sewer lines were opened and 0 sewer lid 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:**

331m<sup>2</sup> of potholes were patched and 47m<sup>2</sup> prepared. 0m<sup>2</sup> of potholes were patched with gravel. There was 66m Roads Cleaned.

#### **Storm Water:**

0 Catch pits were repaired. 9m<sup>2</sup> Paving repaired, 1 catch pits were cleaned. 0m of lined channel has been cleaned by storm water teams. 0m of unlined was cleaned by the storm water teams.

### **2.9.3 Resources**

#### **• Human resources**

Department/Branch	Approved	Filled	Acting	Comments
East	221	104	22	

#### **• 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	- At mechanical workshop
Tipper truck		1 – 17 days	- Written off in Hennenman in 2016 - Had clutch problem but now operational
Grader	2	0	- At Mechanical workshop since April 2011 - Gearbox
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  1 – 9 days 2 – 15 days	- Starter did not work - At Mechanical Workshop due to gearbox - Need tyres - Rear wheel bearing - Hand brake failure

Type of vehicle / Equipment	Quantity	Days Available	Comments
		2 – 17 days	- Fuel pump
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	- Not operational - Operational - Problem with CV joint
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 **February** 2019 are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
3	0	3

#### 2.9.4 Theft and Vandalism

None

#### 2.9.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Vehicles standing for minor repairs for a long time- like batteries, tires 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.	

Challenge	Proposed intervention	Responsibility
The back log of in maintenance that already exists.		
Misuse of sewer network to dispose of solid waste.		
The supply of patching materials do not deliver materials	Supplier contract must be terminated , Tender must be re-advertised and a new supplier must be appointed	
Theft and vandalism	Security to be at offices 24 hours to report incidents.	

## 2.9.6 Occupational Health and Safety meetings

None

## 2.10 CIVIL ENGINEERING (WEST)

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

### 2.10.1 Overview of Performance

Refer to achievements in 3.10.2

### 2.10.2 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 **February 2019** in the Civil West:

Repaired **87** water leaks & bursts  
 Repaired **157** meters and connections  
 Replaced **no** water pipe  
 Replaced **03** hydrants  
 Installed **02** new water meters and replaced **10** water meters  
 Re-read **02** meters in Allanridge/Nyakallong  
 Re-read of meters in Odendaalsrus/Kutlwanong done by monitor of Finance Department  
 Abnormal sewer blockages at West Side – **50** received **46** were opened and **4** carried over  
 Water supply cut for longer than 24 hours – **None**  
 Replaced / repaired **09m** sewer line  
 Opened **116** sewer blockages, and cleaned **no** sewer lines.  
 Cleaned/repared/rebuild **no** sewer manholes  
 Emptied sewer tanks **24 times**  
 Emptied vandalized sewer pump stations **08 times**  
 Maintained **no** roads and **no** leveling of dumping site – **Grader out of order**  
 Cleaned open spaces for **08 hours**  
 Cleaned **no** lined and **70m** un-lined canals  
 Cleaned **4** storm water catch pits  
 Replaced **no** catch pit cover  
 Cast **no** catch pit covers  
 Removed **12** loads refuse, removed **no** wing rows  
 Cleaned **400m** roads  
 Repaired **292m<sup>2</sup>** pot holes with **tar**

Repaired **no** pot holes with **gravel**  
 Repaired **no** paving/precon  
 No maintenance of Council property  
 Transported **06 loads** gravel and **no** dump rock for Electrical Department  
**55** Hours were spend to do backfilling, transport **14 loads** soil for back filling  
**164** Hours spend to cut tar & excavate for other Sections (Electrical & plumbers)

### 2.10.3 Resources

- **Human resources**

Position	Approved	Filled	Acting	Comments
West	171	51	15	Additional personnel recruited from refuse removal. Acting personnel included at filled posts

- **Plant and equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
TLB Cat	1	0	<b>Out of order for years</b>
TLB Bell	1	0	Used for water, sewer, storm water & to load trucks when available. <b>Out of Order</b>
TLB Cat	1	0	<b>Out of order for years</b>
Tractors	4	3 – 0 days 1 – 28 days	Was used fill potholes, use when necessary and needed
Front-end Loader Ainsec	1	0	<b>Out of order for years</b>
Tipper truck s	4	0	<b>All out of Order-Standing in Welkom/Odendaalsrus Workshops.</b>
Tipper truck Big (DYZ 699 FS)	1	0	<b>Wheel to be replaced</b>
Tipper truck Med (DYH 184 FS)	1	28 days	Functional
Tipper truck Nissan small (DMV 604 FS)	1	28 days	Functional
Tipper-Platbak Nissan	1	28 days	Working in Allanridge
Grader CAT	2	0	<b>No road maintenance possible without graders</b>
Grader NEW HOLLAND		0	
Roller	1	0	Functional – used when needed
LDV's	7	2 – 28 days 5 – 28 days	Functional in Allanridge Functional in Odendaalsrus
Water pump trailer	1	0	<b>Out of Order</b>
Water pump Gormann Rupp	1	0	<b>Out of Order</b>
Jet Blaster Trailer	2	0	<b>Out of Order</b>
Concrete Mixer	1	0	Functional – used when needed
Jet Blaster	1	0	<b>Out of order</b>

- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **February 2019** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
0	22	38 (2017 to date)

## 2.10.4 Theft and Vandalism

None

## 2.10.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Personnel / equipment / vehicle / material shortages.	Fill critical positions with the necessary qualifications and skills Ensure that employed personnel are resourced with vehicles, plant and equipment. Ensure that suppliers are paid on time to ensure delivery of material on time.	HR / Treasury / Mechanical workshop / fleet management
Shortage 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 vehicles 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
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 of infrastructure 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
Continuous Sewer blockages in Odendaalsrus caused by: *Vandalism of the Odendaalsrus plant. *The dilapidated condition of the outfall sewer. *Dysfunctional sewer pump stations *Illegal mining activities that block sewer line to source the water. *Correctional Services and hospital poorly functioning pump stations and pre-treatment sections that dispose plastic and other solid material into sewer network. * Fats discharged by fast-food outlets.	#Source funding to replace outfall sewer and appoint consultant / contractor. #Get By-laws in place and force large sewer dischargers to comply. #Monitor of presence of and monitoring of fat-traps. #Get SAPS to control illegal mining activities	PMU Treasury Legal / By-laws LED
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 Management
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



Challenge	Proposed intervention	Responsibility
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

### 2.10.6 Occupational Health and Safety meetings

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

- **Workers refuse to work without PPE – especially gloves. Sewer Section work has Therefore come to a stand-still.**
- Ablution facilities at all West Workshops.
- The need for Speed-humps in various positions near schools to avoid children getting injured by speeding cars.

## 3. DEPARTMENT ELECTRICAL ENGINEERING

### 3.1 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.

### 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 **February 2019** in the Electrical Department:

Electricity / Streetlight / High Mast Lights Complaints	Carried over from previous month	Received	Executed	Carried over
Electrical Complaints Revenue Protection	0	48	48	0
Electrical Complaints East	0	115	115	0
Electrical Complaints West	65	154	186	33
Streetlight Complaints West	269	71	57	153
Streetlight Complaints East	0	158	187	0
High Mast Lights Complaints East	1	1	0	2
High Mast Lights Complaints West	61	17	2	76
Electrical Consumer Disconnections		0	0	0
Electrical Consumer Reconnections		0	0	0
Electrical Pre Paid meters requests		0	0	0

Other	Number
Electrical meters inspected	252
Electrical Remote Bulk Meter inspected and audited	0
Electrical Remote Bulk Meters replaced	0
Electrical Pre Paid meters blocked	5
Electrical Pre Paid meters un-blocked	52
Electrical meter disconnections monitored	19
Electrical Pre Paid meter tampering identified and processed	26
Permanent Electrical Connection Disconnections conducted	0
Permanent Electrical Connection Reconnections conducted	0
Income stands to be generated from the processing of Electrical Pre Paid metering tampering:	R714,053.18
Theft and vandalism incidents for the indicated month	5
Estimated cost implication of theft and vandalism incidents for the indicated month	R 93,200.00
Theft and vandalism incidents for the past seven months.	120
Estimated cost implication of theft and vandalism incidents for the past twelve months.	R 3,407,700.00

### 3.3 Resources

- **Human resources**

Department/Section	Approved	Filled	Acting	Comments
Electrical Engineering	195	73	33	

- **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%

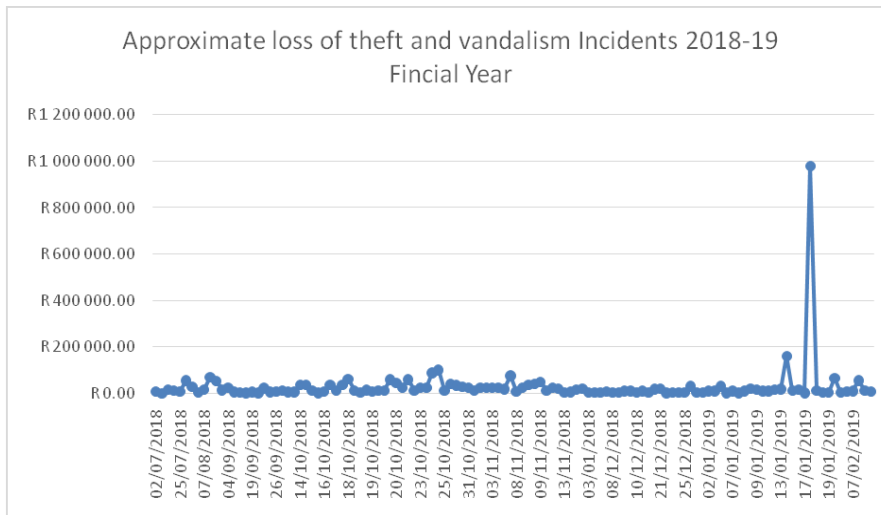
- **Materials**

Submissions to request for procurement of Materials that were submitted this month of **February 2019** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
23	0	23

### 3.4 Theft and Vandalism

Location	Unit	Incident	Financial year	Date of incident	Approximate loss	Comments
Jan Ferreira Str	Odendaalsrus	11 meters cable 70mm <sup>2</sup> x4 core PVC	2018-19	4/02/2019	R 8 350.00	No preventative action implemented by the PSTD.
9 Rheeder Str	Odendaalsrus	100meters overhead power lines LV stolen	2018-19	07/02/2019	R 10 000.00	No preventative action implemented by the PSTD.
Electrical Workshop Virginia	Virginia	23m x 16mm <sup>2</sup> x 4 Core Coper Cable and 60m x70mm <sup>2</sup> x 4 Core Cable and 4 Electrical Locks	2018-19	07/02/2020	R 55 000.00	No preventative action implemented by the PSTD.
92 Althea	Odendaalsrus	12 meters cable 70mm <sup>2</sup> x4 core PVC	2018-19	27/02/2019	R 10 850.00	No preventative action implemented by the PSTD.
17 Taljaard	Odendaalsrus	10 meters cable 95mm <sup>2</sup> x4 core PVC	2018-19	01/03/2019	R 9 000.00	No preventative action implemented by the PSTD.
<b>Total</b>		<b>5</b>			<b>R 93 200.00</b>	
Average cost		R 18 640.00				



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	49	R 1,956	
2018-19	July 2018 to June 2019	115	R 3,407	

### 3.5 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	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

of Rand's in fruitless expenditure due to required repairs			
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 equipment. This can also result in a safety hazard to the community.	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
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	32	Replacement cable must be procured by SCM.	CFO & SCM

more than a year, therefore the non-reinstatement of the cable causes that meters of 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 whiles 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 to an estimated amount of R780,000.00.	24	Replacement cable must be procured by SCM to date.	CFO, SCM and EDI
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 whiles under 24 hours securiy protection.	24	Replacement cable must be procured by SCM awaiting settlement of Councils Insurance.	CFO, SCM and EDI
High Mast no 27 Stand no 5405 K6 fell on a nearby churh on the 15 January 2018.	21	Insurance claim was processed for the repair of the indicated mast and church awaiting the necessary quotations for the repairs. A further four (4) mast were found to be unsafe in the	CFO, SCM and EDI

		Kutlwanong and Meloding Units and was removed from their foundations.	
Thabong Purification Plant MV, LV and Pump installations are totally vandalized whiles under 24 Hour Security	32	The total installation needs to be reinstated.	CFO, SCM and EDI
Klippan Pumpstation Plant MV, LV and Pump installations are totally vandalized whiles under 24 Hour Security	32	The total installation needs to be reinstated.	CFO, SCM and EDI

### 3.6 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.
- General Machinery Regulations (GMR) 2 appointment for the Matjhabeng Municipality must be concluded.
- Electrical Personnel must be send for HV Switching Training.
- Electrical personnel must 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

#### 4. SUMMARY OF STATISTICS

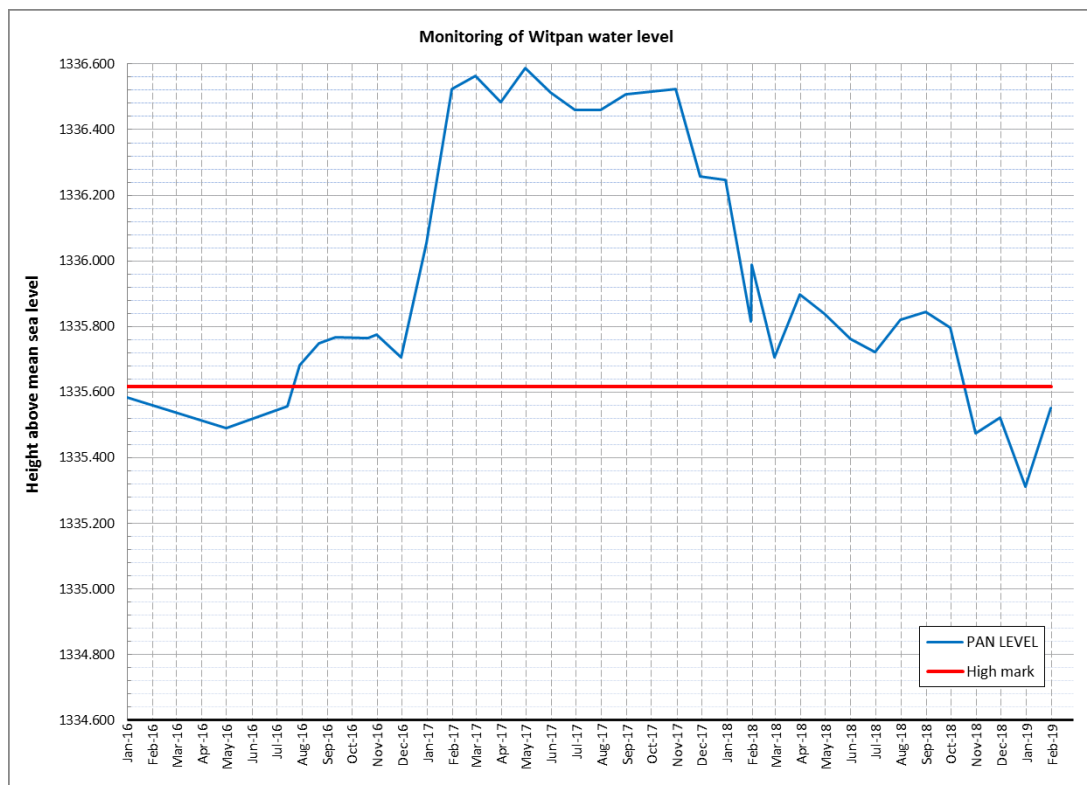
##### 4.1 INFRASTRUCTURE ADMINISTRATION: SUBMISSIONS/REQUISITIONS PROCESSED

	<b><u>INFRASTRUCTURE ADMINISTRATION: SUBMISSIONS / REQUISITIONS PROCESSED</u></b>												
	Submissions/Requisitions submitted to SCM versus those processed 2018/2019												
		Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19
Submitted 2018/2019		18	52	29	88	54	41	28	32				
Processed 2018/2019		1	2	3	6	1	0	2	2				
Outstanding 2018/2019		17	67	93	175	228	269	295	325				



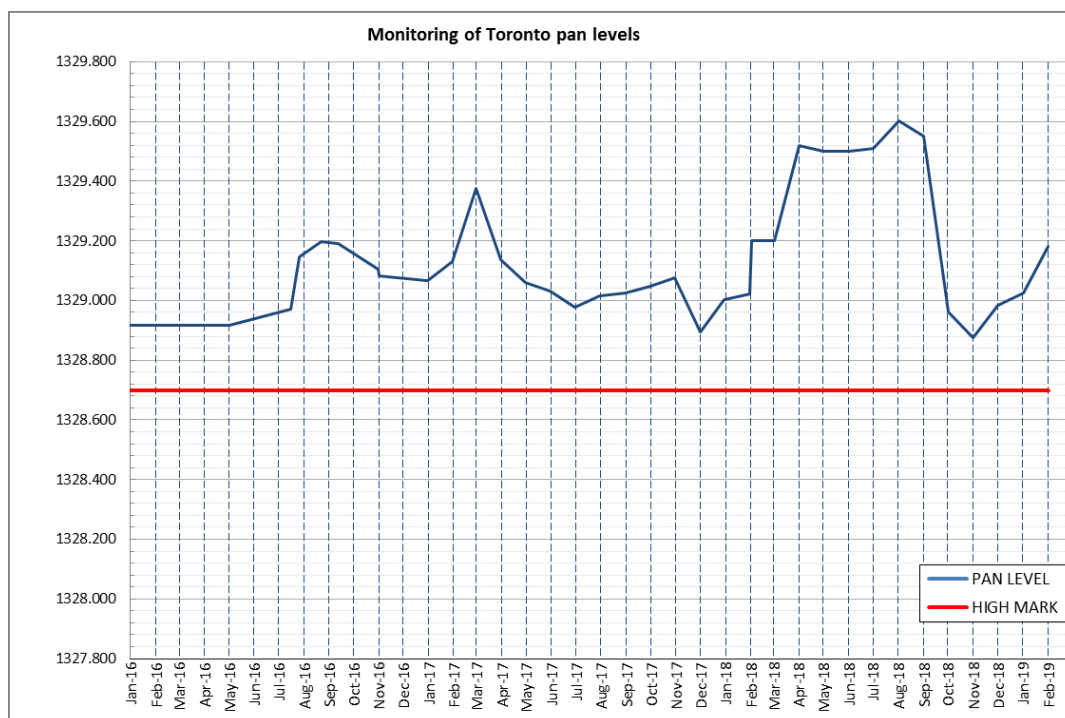
## 5. PAN LEVELS FEBRUARY 2019

### WITPAN



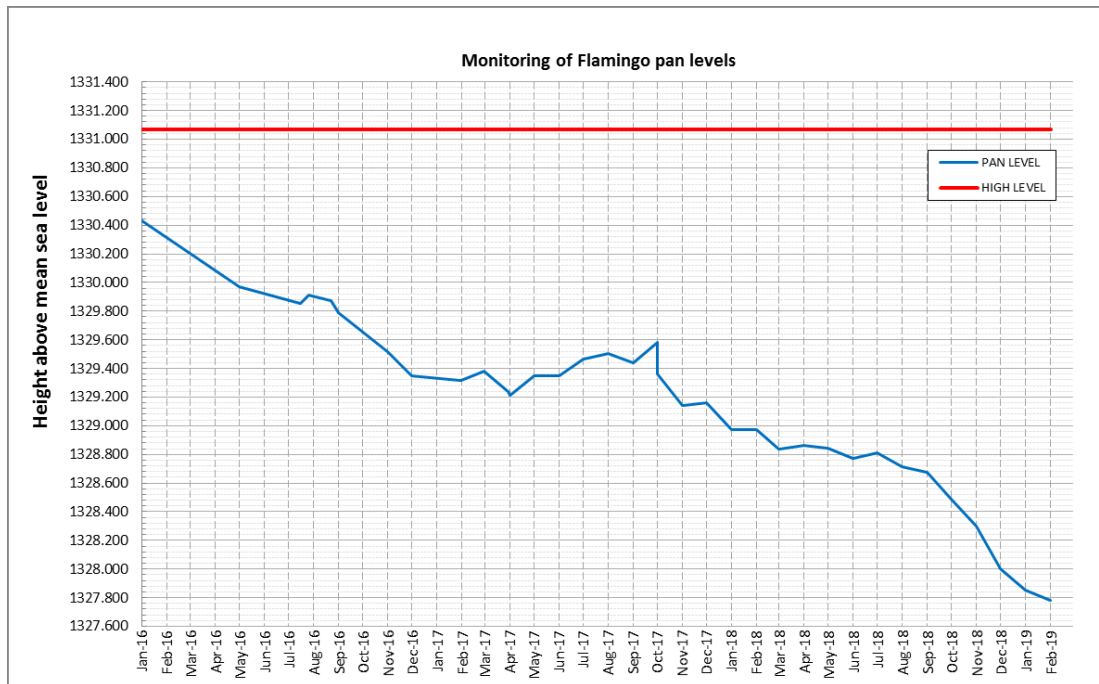
The pan's level has been relatively stable during the past few months. It is however rising and it is now just below our critical level (Klippan Road). It is critical that the pump station be made more effective.

### TORONTO PAN



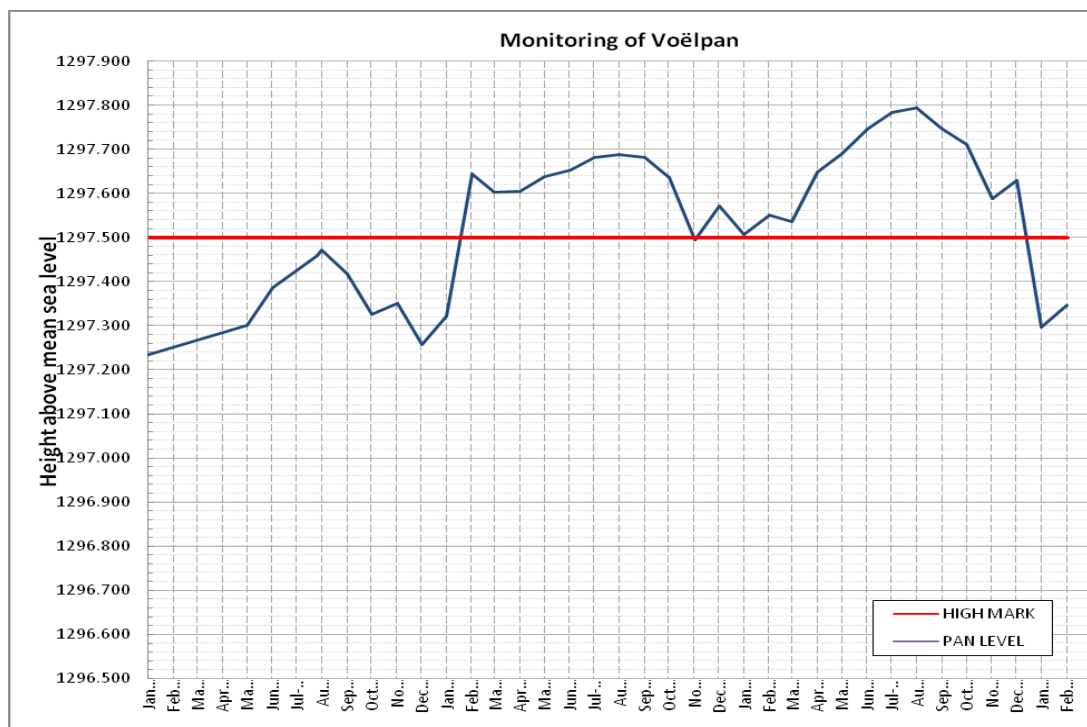
The pan's level has steadily risen during the past few months. The upgrading of the Geelwortel Channel is urgently required..

### FLAMINGO PAN



This pan's level has steadily dropped during the past few months. This was mainly due to no inflow from Theronia Pan as well as no or little rainfall. 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 slightly risen during the past month. No immediately problem is 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 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.