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10/09/2017

INFRASTRUCTURE DIRECTORATE

MONTHLY REPORT – AUGUST 2017

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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. IMPLEMENTATION OF MAYORAL COMMITTEE AND COUNCIL RESOLUTIONS

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

RESOLUTIONS	TOTAL	IMPLEMENTED	IN PROGRESS	OUTSTANDING
MAYORAL COMMITTEE	17	4	11	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 to be paid end of August
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 912,827.87 (7.9%)	Construction Stage (68% to completion)	30/10/2018	Progress is slow	Contractor to catch up in Phase 2 of the project	None
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.

Project Description	Budget for 2017/2018	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
Upgrade and Create New Sports and Recreational Facilities Phase 3 Thabong Stadium, Zuka Baloi Stadium & Kopano Indoor Centre	R 4,267,394.17	R 3 021 347.91 (70%)	Construction Stage (99% to completion)	30/07/2017	None to report	N/A	Project is at practical completion stage. The contractor is currently working on completing snags
Whites: Septic Tank System	R 714,136.35	R0.00 (0%)	Design Stage	31/08/2017	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.
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	R 11,337,160.96	R 2 137 488.76 (19%)	Construction Stage (95 % to completion)	30/08/2018	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)	30/04/2017	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	R0.00 (0%)	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 (75 % to completion)	28/03/2018	None	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
Nyakallong: Construction of storm water system – phase 1 (MIS:219132)	R 10,648,557.52	R 3 400 887.89 (32%)	Construction (37%)	30/11/2017	Budget maintenance has been re-submitted for consideration	N/A	Project is running smoothly
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	Acting MM to draft a follow up letter to HOD Police Roads and Transport regarding cooperation on the project	Letter was drafted and sent to the HOD. The Municipality is awaiting response	None
Constrution of Dr Mgoma road in Thabong	R 4,651,476.72	R 1 431 587.65 (30%)	Construction Stage (79% to completion)	30/07/2017	None	N/A	We are applying for Budget Maintenance
Mmamahabane: Installation of water reticulation to 53 stands (MIS:228886)	R 195,519.36	R0.00 (0%)	Construction Stage (83% to completion)	30/06/2017	None	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
Mmamahabane: Upgrading of waste water treatment works (MIS:250912)	R 5,843,808.59	R0.00 (0%)	None - Project is on hold	30/02/2018	Project is on hold	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 with verifications so to finalize designs
Virginia/Meloding: Construction of 2km paved roads and storm water drainage (MIS:248971)	R 9,029,447.93	R 4 114 468.85 (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 1 741 226.66 (11%)	Construction - Site Establishment	30/05/2018	None	N/A	Project is running smoothly
TOTAL	R 121,216,000.00						

2.2 Human Resources

The operational costs of the PMU are funded from the MIG allocation and has been approved for R **6,060,800.00** for the current financial year. 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 CUMULATIVE EXPENDITURE	BALANCE TO BE SPENT
R 121,216,000.00	R 28,300,832.80 (23%)	R 19 196 793.03 (16%)	R102 019 207.00 (84%)

We are have under spent by 7% due to no expenditure in July on projects namely Nyakallong Wastewater Treatment Works and Mmamahabane Waste Water Treatment Work for both July and August.

2.4 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Technical Positions are vacant	Positions have been advertised internally but interviews must be held and appointments done	ED: CSS
Under expenditure	Resolution of the appointment of a contractor in Mmamahabane WWTW	MM
Appointment of consultants for projects	Consultants need to be appointed	Bid Committees: MM
Registration of projects	Consultants need to be appointed	Bid Committees: MM

3. DEPARTMENT CIVIL ENGINEERING

3.1 ROADS AND STORM WATER MAINTENANCE (CENTRAL)

3.1.1 Overview of Performance

Due to shortages of material, vehicles, equipment and industrial action by our employees that we encountered, the roads and storm water maintenance section failed 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 **August** 2017 by the Roads & Stormwater Maintenance:

- Repair of potholes target was 658m² but the section managed to achieve 72m².
- Preparation of 24m² of potholes was done.

- Maintenance of gravel roads target was 1250m but the section managed to achieve 0m.
- Cleaning of lined stormwater channels target was 146m but the section managed to achieve 0m.
- Cleaning of unlined stormwater channels target was 167m but the section managed to achieve 0m.
- Cleaning of storm water drainage pipes target was 42m but the section managed to achieve 0m.
- Number of stolen or damaged catch pits and manhole lids repaired or replaced target was 4 but the section managed to achieve 0m.
- Cleaning and maintenance of storm-water catch pits 6 was cleaned.

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	0	Hired/Mechanical Workshop
Excavator	1	0	
Front-end Loader	1	0	Mechanical Workshop
TLB	2	0	Mechanical Workshop
Roller	2	0	Mechanical Workshop
Grab trucks	5	0	Mechanical Workshop
Medium Truck	1	1	Mechanical Workshop
Water tankers	2	0	Mechanical Workshop
Tipper truck	5	0	Mechanical Workshop
Tipper truck Medium	7	5	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 **August 2017** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
0	0	0

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">• Vehicles and equipment must be available to do service delivery e.g patching of potholes, graveling of roads.• Contractor for the Resealing Tender is appointed.• Hire in equipment.• Service providers are appointed for patching materials.• The stores must be opened and be in full operation.	
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.	

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 **August 2017** by the Building Section:

- Replaced one (1) damaged roll up door.
- Replaced three (3) damaged outside wooden doors.
- Replaced one (1) damaged internal wooden door.
- Replaced three (3) damaged door locks.
- Replaced seven (7) cisterns and two (2) geyser valves.
- Repaired twenty five (25) leaking/burst water pipes.
- Repaired/opened seven (7) blocked sewer pipes.
- Restored water supply to Caretaker's house & Pavilion of Zuka Baloyi Stadium.
- Repaired roof leak for unit no.RN48 Rathaba hostel.
- Painted three (3) newly installed outside doors for units RC1/9, RN48 & RAA1/4 Rathaba hostel.
- Cleaned concrete roof membranes, gutter outlets & downpipes of four (4) Municipal buildings.

3.2.3 Resources

- **Human resources**

Department/Branch	Approved	Filled	Vacant	Acting	Comments
Branch: Buildings	55	28	27	2	There is a serious shortage of personnel in the section.

- **Plant and equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
Medium Truck	1	24 days	- CCT 691 FS, in operation, was in workshop for 7 days due to faulty starter wiring.
LDV's	1	28 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, Error! Not a valid link.
LDV's	1	0 days	BHZ 326 FS, in Error! Not a valid link.
LDV's	1	0 days	CBR 284 FS, Error! Not a valid link.
LDV's	1	0 days	CBR 289 FS, Error! Not a valid link.

- **Materials**

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

Number of Requests	Orders issued	Outstanding orders
16	0	16

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	Regular follow up for outstanding orders is made to Supply Chain Management.	

Challenge	Proposed intervention	Responsibility
time; they claim that delivery depends on availability of materials, this result in delays before execution of maintenance.		
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 th Street for the safe keeping of materials in large quantities.	
	Vacant posts of Artisans that are budgeted for 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 **August 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. Number of Meters replaced	Planned: 150 Done: 43 29 % achieved	The Section had only one vehicle for 15 days on average for the month of August 2017.
Repair of water meters done by Water Demand Management. Number of Meters repaired	Planned: 250 Done: 303 121 % achieved	The Section had only one vehicle for 15 days on average for the month of August 2017. A vehicle was borrowed from Water Section over weekends to address backlog.
Monitoring of bulk water meters done by Water Demand Management. Number of Meters Monitored.	Planned: 10 Done : 0 0% achieved	The Plu.ber did not have a vehicle
Monitoring of disconnections water meters done by Water Demand Management. Number of Meters Monitored	Planned: 50 Done : 0 0%	No disconnection list was issued for Aug 2017.
Meter investigations done by Water Demand Management. Number of Meters investigated	Planned: 500 Done : 406 81% 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	0	The vehicle was returned to the mechanical workshop as it is unroadworthy and a danger to the driver.
Private	1	15	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 **August 2017** are summarized as follows:

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

3.3.4 Theft and Vandalism

2 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

Challenge	Proposed intervention	Responsibility
2 of the 3 Acting Assistant Artisans do not get cell phone 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 and August 2017, not received. The Water Balance could not be updated	The matter must be escalated to EXCO.	Snr Manager / Executive Director Infrastructure
Updating of By-law is a challenge. Due to the critical shortage of staff, it is very difficult to finalize the updating of the by-law	Updating must be prioritized	Infrastructure Managers

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 do 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. An Item must be submitted to EXCO. No Water Balance for the Jul-Aug 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.

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

Survey Statistics for August 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	5	1	1		3		1
Thabong		112.5	181	12	2	49	67		
TOTAL	623	663.5	792	145	153	219	224		

Notes: The leak detection report is cumulative since May 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 **August 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 **301** water complaints for the Welkom Central area were received (*of which 5413 were from the backlog*) and **178** were reported back to have been done by Water Maintenance personnel bringing the backlog up to **5536**. 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. **122** 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 **three** bakkies were operational at Water Central for most part of July 2017 and were exchanged between stand-by Plumbers weekly. One bakkie has been lent to Water Demand Section
- 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.
- 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	31	At mechanical workshop, smoking since March 2017
LDV (DWL 039 FS)	1	31	Operational, Working at Sewer Central
LDV (DWL 048 FS)	1	31	Working at Water Demand monthly
LDV (DLL 952 FS)	1	0	At mechanical workshop
LDV (DWL 037 FS)	1	31	Operational, exchanged between stand by plumbers
Grab Truck (DXT 428 FS)	1	31	Grab and truck side broken, STUDS
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**

Eight Submissions to request for procurement of thread machine, steel pipe and TLB's were submitted this month. **Six** orders for TLB's (8 days and 30 days) have been issued this month and **two** materials done in **May** and **July 2017** are still not issued. The total number of outstanding orders is **ten**:

Number of Requests	Orders issued	Outstanding orders
8	6	10

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 **August 2017** by the Sewer Section Central:

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

1047 complaints were received for Welkom Central (*of which 642 were from the July 2017 backlog and 405 received in August 2017*), **244** were reported back to have been done by Waste Water Maintenance personnel bringing the backlog to **803**.

..

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 **August 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 still under construction due to snacks on the plant.
- Ventersburg / Mmamahabane - (Oxidation ponds) been cleaned.
- Theronia is out of operation. ASIP Request approved Water rerouted through the Maturation River.
- Kutlwanong - all Mechanical rakes are standing and one out of four pumps at inlet works are operating. All Aerators cables stolen

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 **August 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)
- Kutlwanong in operation. Plant need 24 hour Process Controller to ensure proper operation of the plant, request was submitted to HR.
- 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.
- 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.
- Thabong one inlet screw pumps out of operation, only one order received.

Waste Water Treatment Plant	% Functional	Comments
Thabong	60%	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. Waiting cleaning of digesters orders was cancelled to be revised.
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. Repairs of some of the aerator gearboxes was done Theft of chlorine equipment, no chlorination can take place.
Hennenman	70%	One return sludge pump out of operation Inlet screens to be replaced.

Virginia A Side	0%	
Virginia B Side	35%	Virginia WWTW are currently been upgraded on MIG project.
Odendaalsrus	80%	Plant receives almost no water. Humus dam blocked needs to be opened. Drink water line to the plant stolen.
Allanridge	10%	Plant be upgraded on MIG project SST bridges both installed. Reactor and sst have been cleaned
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.
Ventersburg/ Mmamahabane	50%	Plant to be upgraded are approved and will start in 2017
Kutwanong	50%	Inlet works one pump in operation. One RAS pumps out of operation due to bad product been installed by contractor All Mechanical screens out of operation. All cables on reactor stolen.

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
TLB	1	18	- Need battery bat is operational
Water pump trailer	3	1 – 31 days 1 – 17 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 **August 2017** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
3	3	16

3.6.4 Theft and Vandalism

None

3.6.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Serious personnel, equipment and commercial vehicle problems.	Virginia: Is in process of refurbishment- Tender 66% 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 June 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 66% 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 **August 2017** at the Pump Stations:

PUMP STATION	PERCENTAGE (%) FUNCTIONAL
Nyakallong Pump station	50%
Bronville South Pump station	25%
Klippan Pump station	5%
Ben Reagal Pump station	10%
Old Thabong Pump station	30%
Rheederspark Pump station	40%
Large Frank Pump station	60%
Small frank Pump station	10%
Major Pump station	75%
Goudrif 2 Pump station	10%
Extension 3 Pump station	0% (Totally Vandalized)
Workshop Pump station	0% (Totally Vandalized)
T8 Pump station	55% sewer lines blocked
Birch road Pump station	50%

Joel Park Pump station	50%
Power Road Pump station	60% (not in operation)
Traffic Pump station	30%
Duikweg pump station	0% (supply cable stolen)

3.7.3 Theft and Vandalism

None

3.7.4 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. 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 of 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 every 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
Average Matjhabeng Municipality	99.0	99.9	99.6	99.5	99.2

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 in HEN 02, VIR 4, MMA3
- Iron Failures in HEN02, MMA03,

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
Average Matjhabeng Municipality	88.85	0.0	65.15	47.8	NA

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 June 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 (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 **August 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
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).

Roads and Storm Water

During August 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 **August 2017** in the Civil East:

Water Network:

During August 2017 Water maintenance was done on a breakdown / complaints basis only and no planned maintenance was done. 93 broken water lines were repaired. 146 water meters and connections were repaired and 0 Fire Hydrants were repaired.

Waste Water Network:

During August 2017 Waste Water maintenance was done on a breakdown / complaints basis only and no planned maintenance was done. 344 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:

600m² of potholes were patched and 2907m² prepared. 0 m² 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 0m 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	

- Plant and equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
TLB	3	0 days	Need battery, hydraulic cap and tyres
FDJ 947 FS		3 – 0 days	- At mechanical workshop
Tipper truck	4	1 – 17 days	- Written off in Hennenman in 2016 - In for repairs - 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 **August** 2017 are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
0	2	8

3.9.4 Theft and Vandalism

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

The break in was reported on Monday the 3rd July 2017 to Bokvel Pieterse and the police. Case number is CAS20-07-2017.

Still no computer for the Infrastructure office.

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 **August 2017** in the Civil West:

- Repaired 16 water leaks & bursts
- Repaired 110 meters and connections
- Installed no new water meters (no meters in stock) and replaced 48 water meters
- Re-read 23 water meters
- Abnormal sewer blockages at West Side – 14 received 12 were opened and 2 carried over
- Replaced / repaired no sewer lines
- Opened 146 sewer blockages, and cleaned 20m sewer line.
The cleaning of sewer lines and the opening challenging blockages were made possible by the renting of an eco-recycling unit from Rescue Rod for 30 days.
- Cleaned/repaired/rebuilt 20 sewer manholes
- Emptied sewer tanks 24 times
- Emptied vandalized sewer pump stations 08 times
- Maintained no roads and no leveling of dumping - Grader out of order
- Cleaned no lined canals, cleaned 0.08km un-lined canals
- Cleaned 26 storm water catch pits
- Replaced 2 catch pit cover
- Removed 14 loads refuse, removed no wing rows
- Cleaned no roads
- Open areas cleaned for 12 hours
- Repaired no pot holes with tar or gravel & cement
- Repaired 266m² paving
- Transported 90 loads gravel and no dump rock for Electrical Department
- Contractor transported 20 loads of gravel to stores for stock piling

- Transported **no** soil for back filling
- **35** Hours were spend to do backfilling, but could not transport soil for back filling due to no tipper truck
- **138** Hours spend to cut tar & excavate for other Sections (Electrical & plumbers)

3.10.3 Resources

- **Human resources**

Position	Approved	Filled	Acting	Comments
West	171	54	13	Additional personnel recruited from refuse removal. Acting personnel included in total number filled.

- **Plant and equipment**

Type of vehicle / Equipment	Quantity	Days Available	Comments
TLB Cat	1	0	Out of order for years
TLB Bell	1	31	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 – 31 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	31	
Grader CAT	2	0	No road maintenance possible without graders
Grader NEW HOLLAND		0	
Roller	1	0	
LDV's	10	5 – 0 days 5 – 31 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 **August 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
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, release and back in hospital the 07/08/2017. Booked off until 20 September 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 notwithstanding 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 **August 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	33	33	0
Electrical Complaints East	0	102	102	0
Electrical Complaints West	27	245	235	37
Streetlight Complaints West	194	174	162	204
Streetlight Complaints East	187	0	57	130
High Mast Lights Complaints East	14	0	0	14
High Mast Lights Complaints West	30	42	35	37
Electrical Consumer Disconnections				0
Electrical Consumer Reconnections				0
Electrical Pre Paid meters requests		11	11	0
Other	Number			
Electrical meters inspected	152			
Electrical Remote Bulk Meter inspected and audited	45			
Electrical Remote Bulk Meters replaced	0			
Electrical Pre Paid meters blocked	5			
Electrical Pre Paid meters un-blocked	19			
Electrical meter disconnections monitored	21			
Electrical Pre Paid meter tampering identified and processed	21			
Permanent Electrical Connection Disconnections conducted	0			
Permanent Electrical Connection Reconnections conducted	0			
Income stands to be generated from the processing of Electrical Pre Paid		R382,087.31		

metering tampering:	
Theft and vandalism incidents for the indicated month	2
Estimated cost implication of theft and vandalism incidents for the indicated month	R24,500.00
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 **August 2017** are summarized as follows:

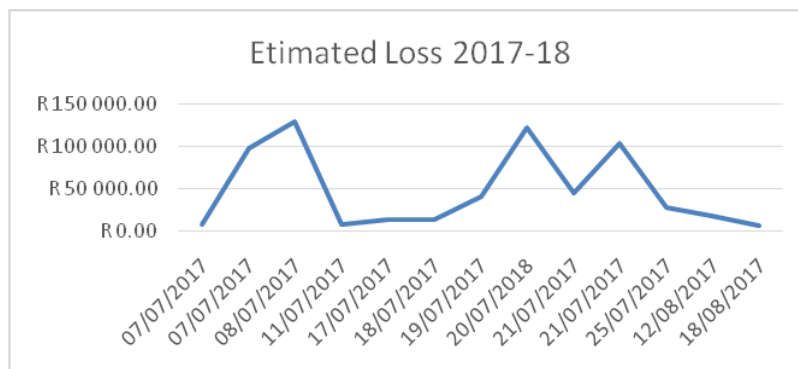
Number of Requests	Orders issued	Outstanding orders
23	0	23

4.4 Theft and Vandalism

Location	Unit	Incident	Financial year	Date of incident	Approximate loss	Comments
15 Kiaat Street	Odendaalsrus	Set alight electrical meter box completed with meters and breakers	2017-18	12/08/2017	R 18 000.00	No preventative action implemented by the PSTD.
Artyesin Street	Virginia	10 meters 70 mm x 4 core PILC cable	2017-18	14/08/2017	R 6 500.00	No preventative action implemented by the PSTD.
Total		2			R 24 500.00	
Average cost		R12250.00				

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	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 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		Annual Material Tenders must be processed and awarded.	MM, CFO, DCSM, SCM & EDI

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.		Electrical Department must logistical resourced.	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 the remaining cable is further stolen and vandalized on a daily basis)	32	Replacement cable must be procured by SCM.	CFO & SCM
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 ² 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	Awaiting the delivery of the repaired 20MVA 132 kVA transformer in June 2017	Council Insurance
In the month of November 2016 over four hundred (400) meters of 70mm ² 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 ² 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
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 flouting Neutral and Earth condition that	35 & 36	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	CFO, SCM and EDI

resulted in supply voltages in the excess of 11kV to 22kV in certain circumstance being induced into the Odendaalsrus aged 11kV distribution networks		<p>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 were 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>	
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 trained in general basic firefighting.
- Recertification of hydraulic lifting equipment needs to be certified.
- Recertification of fire extinguishers must be taking place.

5. SUMMARY OF STATISTICS

5.1 INFRASTRUCTURE ADMINISTRATION: SUBMISSIONS/REQUISITIONS PROCESSED

[illegible]

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 on commissioning stage to deal with the quality of water that flows into the pan, but urgent interventions is required to reduce the level to be acceptable by means of:

- Upgrading Thabong WWTW through the Regional Bulk Infrastructure Bulk (RBIG) by the Department of Water and Sanitation (DWS) and
- Formalizing and upgrading of the Mostert Canal from internal capital funds. Securing the funding for the Mostert Canal is therefore critical.