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10/09/2019

INFRASTRUCTURE DIRECTORATE

MONTHLY REPORT – AUGUST 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, Hennenman, 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, Allanridge 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	R7 690 350.46 (93%)	Construction Stage Phase 2 (100% overall progress including phase 1)	17/04/2019	None to report	N/A	
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	Retention money was to be paid end of April 2019 but due to delays from the consultant it will be paid end May 2019
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 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	R5 512 767.52 (68%)	Construction Stage (85 % 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	Counter funding has been approved and the Contractor is still not back on site .
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 budget since there is no funding from Free State Provincial Roads Department

Project Description	Budget for 2018/2019	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
							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%)	Complete	22/07/2018	None	N/A	None
Thabong: Installation of bulk zonal water meters and valves (MIS:250932)	R2 064 491,28	R2 311 151.65 (112%)	Construction (53%)	04/03/2019	None	N/A	Consultant still busy with the request for extension of time. Budget maintenance has been applied for at COGTA awaiting approval of the additional funding
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	R6 461 704.78 (48%)	Construction (13%)	01/11/2019	None	N/A	
Thabong: Upgrading of 2km old gravel roads to concrete paving blocks and storm water	R6 321 353,03	R8 032 443.39 (127%)	Construction Stage (99% to completion) VO – 39%	25/05/2019	None	N/A	Executive Mayor requested that Mxi Road be part of the scope which was not

Project Description	Budget for 2018/2019	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
drainage (ward 28)							on the original scope of work and a Variation Order was done and approved now contractor is busy with it.
Virginia/Meloding: New indoor sports and recreational facility – phase 1	R22 891 169,74	R7 698 489.85 (34%)	Construction Stage (38%)	31/01/2020	None	N/A	Contractor progressing very slow
Kutlwanoeng: Upgrading of waste water treatment works phase 2 (MIS:271406)	R9 757 460,39	R2 539 045.94 (26%)	Tender	No contractor		N/A	Bid was advertised on the local and national newspapers and a briefing session was held on the 24 April 2019 and will close on the 15 May 2019
Allanridge/Nyakallong: Replacement of old galvanized steel with pvc pipes (Vuk'uphile Learnership)	R5 319 075,02	R3 469 855,63 (65%)	Construction (53%)	29/07/2019	None	N/A	
Virginia: Upgrading of Waste Water Treatment Works – Phase 2	R4 667 281,65	R19 973 757.74 (427%)	Construction (92%)	03/06/2019	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	R1 512 650.53 (101%)	Construction (72%)	30/06/2019	None	N/A	
Welkom: Upgrading of Landfill Site	R2 796 560,58	R 8 517 644.33 (304%)	Construction (13%)	01/11/2019	None	N/A	

Project Description	Budget for 2018/2019	Current Expenditure	Current Progress	Contractual Completion Date	Challenges	Intervention/ Remedial Action	Other Comments
Allanridge: Provision of water, sanitation and high mast lights at the cemetery	R1 472 474,10	R 0.00 (0%)	Design	Consultant appointed			
Upgrading & Refurbish T8 sewer pumpstation to address new developments	R 8 265 023,72	R6 383 242.43 (77%)	Construction Stage (65%)	28/02/2019		N/A	Contractor's request for extension of time was received late and is still on review by the PMU
Kutlwanong upgrading of outfall sewer	R4 499 172,72	R2 837 314.35 (63%)	Construction Stage (5%)	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			
TOTAL	R 116 581 000,00	R96 113 171,74 (82%)					

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	R107 254 520.00 (92%)	R96 113 171.74 (82%)	R20 467 828.26 (18%)

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 **August 2019** by the Roads & Stormwater Maintenance:

- Repair of potholes target was 500m², but the section managed to achieve 194m².
- Maintenance of gravel roads target was 2500m, but the section managed to achieve 1553m.
- Cleaning of lined stormwater channels target was 333m, but the section managed to achieve 390m.
- Cleaning of unlined stormwater channels target was 333m, but the section managed to achieve 1459m.
- Building of speedhumps target was 3, but the section managed to achieve 0.
- Cleaning of Storm-water pipes is 83m, but the section managed to achieve 0m.
- Repair Storm water catch pits target was 4, but the section managed to achieve 11m.

- Cleaning of streets, 2182m was done.
- Cleaned 32 Catch pits.

2.1.3 Resources

- **Human resources**

Department/Branch	Approved	Filled	Vacant	Acting	Comments
Roads & Stormwater Central	158	59	99	12	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	14	In Operation
Excavator	1	9	In Operation
Front-end Loader	1	0	Workshop
TLB	2	19	Workshop
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
Medium Truck	1	0	Workshop
Tipper truck	3	22	In Operation
Tipper truck	1	0	Workshop
LDV	4	0	Workshop
Sedan	1	0	Workshop
Grader	5	14	In Operation

- **Materials**

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

Number of Requests	Orders issued	Outstanding orders
1	0	

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"> • Vehicles and equipment must be available to do service delivery e.g patching of potholes, graveling of roads. • Hire in equipment. • The stores must be opened and be in full operation. 	
Tenders	Tenders must be adjudicated, and service provider be appointed.	

Challenge	Proposed intervention	Responsibility
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.	

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 **August 2019** by the Building Section:

- Opened locked door for office 207 2nd floor main building.
- Repaired floor spring hinge for entrance door to main building and loose door hinge for entrance door to Reinet building.
- Replaced three (3) geysers for 5D Harrison Flats, 43E Harrison Flats & main building's 4th floor kitchen, one (1) safety valve at 416B Stateway Flats, four (4) pillar taps, one (1) toilet flushmaster.
- Repaired twenty six (26) leaking/burst water pipes.
- Repaired/opened ten (10) blocked sewer pipes.
- Completed paintwork to external walls, windows & fascia boards of Nyakallong Community hall.

2.2.3 Resources

• Human resources

Department/Branch	Approved	Filled	Vacant	Acting	Comments
Branch: Buildings	55	24	31	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	22 days	- DWT 905 FS, in operation, but was in workshop for nine (9) days due to worn front discs and pads.

LDV's	1	31 days	- DWL 044 FS, in operation,
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	0 days	- CBP 689 FS, in workshop for faulty carburetor and petrol pump.

- **Materials**

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

Number of Requests	Orders issued	Outstanding orders
3	0	3

2.2.4 Theft and Vandalism

None

2.2.5 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 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 th 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.

3.3 WATER DEMAND MANAGEMENT

3.3.1 Overview of performance

Refer to achievements in 2.3.2

3.3.2 SDBIP and Action Plan

A consolidated progress report on the SDBIP and Action Plan is attached as Annexure A and B of the monthly report, however the following was achieved for **August 2019** by the Water Demand Section.

KPI no	KPI	TARGET	ACTUAL PERFORMANCE		COMMENTS
BS15	Replace 1 000 water meters that is dysfunctional	1000	BULK	HOUSE HOLDS	
			2	0	Supplier delivery of water meters was awaited
BS20	Investigate and register 2000 existing water meters not on the Finance system	2 000			
BS	Number of new house connections and water meters installed.	200		21	
	Number of leaking water meters repaired	2000		246	

3.3.3 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	3	31	3 Plumbers are using their private vehicles in the execution of his duties. However, lack of material hampered productivity, especially with regard to the installation of water meters, because delivery of water meters from the Supplier was awaited.

- **Materials**

Submissions to request for procurement of materials and other resources that were submitted this month of **August 2019** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
5	0	14

Service Provider is due to deliver water meters and material

3.3.4 Theft and Vandalism

3 stolen water meters was reported.

3.3.5 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 remains for August 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 by the Infrastructure Directorate.	Human Resources Labour Relations
Shortage of vehicles. The section is 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 from time to time assigned to the Section, is not sustainable, due to their condition and age.	Purchasing of new vehicles	Fleet Management
The compilation of the Water Balance for the 2018/19 financial year is in progress. Additional information was awaited from the Finance Department.		

3.3.6 Occupational Health and Safety meetings

None. The Section do 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 Strategy will be completed as soon as the Water and Sanitation Master Plan is completed and approved by Council.

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

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

Currently in process.

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 **August 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 **164** water complaints for the Welkom Central area were received (*of which 416 were from the backlog*) and **162** were reported back to have been done by Water Maintenance personnel bringing the backlog up to **418**. There were **134** Back fillings were also done during this month. Length of PVC pipes installed to replace old pipes is **67m**. Of the **162** complaints done, **24 valves** were repaired and **1 new valves** installed, **5 hydrants** were repaired and **1 new hydrants** installed.

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	48	61	Critically understaffed

- **Plant and equipment**

- Only **three** bakkies were operational and sometimes two at Water Central July **2019**.
- 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 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	15	Operational after disc received
LDV (DWL 039 FS)	1	0	At mechanical workshop
LDV (DWL 048 FS)	1	31	Operational but not optimally
LDV (DLL 952 FS)	1	0	Operational since 11 September 2017 but lent to sewer central
LDV (DWL 037 FS)	1	31	Operational but not optimally
Grab Truck (DXT 428 FS)	1	28	oprational
Grab Truck (DXT 429 FS)	1	0	Borrowed from Sewer Central, grab still not fixed and studs and at mechanical workshop
TLB (DWT 184 FS)	1	0	
TLB (DND 792 FS)	1	0	Taken by sewer section since 2018
FZC727 Trailer(Ty	1	0	operational
FZC725 Trailer(Ja	1	0	operational
FZC719 Trailer(Ma	1	0	operational
FZC716 Trailer(Pa	1	0	operational
Pump (Tys)	1	0	
Pump (Jaki)	1	0	
Pump (Malebo)	1	0	
Pump (Panyane)	1	0	
Generator	1	0	Operational
Generator	1	0	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, but an order has been received in **August** 2019. Submission for sports centre steel pipe submitted

Number of Requests	Orders issued	Outstanding orders
0	0	0

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 **August 2019** by the Sewer Section Central:

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

823 complaints were received for Welkom Central (*of which 502 were from the July 2019 backlog and 321 received in Aug 2019*), **311** were reported back to have been done by Waste Water Maintenance personnel bringing the backlog up to **512**.

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 **August 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, is in fair working condition and almost all are complying with the General Standards.
- Witpan is completed but due to blocked sewer lines from Thabong side, the plant is partially in operation.
- Thabong plant totally out of operation due to major Vandalism on the plant.
- Ventersburg / Mmamahabane - refurbishment and upgrade completed, the plants are in operation.
- Theronia is out of operation. Contractor busy with refurbishment.
- Kutlwanong - all Mechanical rakes are standing and one out of four pumps at inlet works are operating, 3 to be repaired. All Aerators cables stolen again. Extension of 3 megaliter plant to commence in 2019.
- Allanridge WWTW Phase 1 completed, Phase 2 complete, only needs to connect through the generator.
- Virginia Phase 2 upgrade in progress.
- Odendaalsrus plant totally vandalized.

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 **August 2019** at the Waste Water Treatment Works:

All data captured and stored for Green Drop assessment purposes.

- Odendaalsrus sewer are bypassing now.
Panels need to be replaced (been damaged by the gas in the inlet works)
All Cables were stolen on the plant.
- Kutlwanong out of operation, all cables stolen. Plant need 24 hour Process Controller to ensure proper operation of the plant, request was submitted to HR.
- Inlet works only two pumps operational, two needs electrical parts, lot of sand entering the plant, all electrical cables on reactor (stolen again)
- One RAS pumps bottom bearing broken cause SST to block (one bottom bearing repaired but SST still blocked)
- Phomolong refurbishment to start in 2019, extension of the plant will follow.
- Security on the plant needs to be improved urgently.
- 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, new plant in progress to be build. 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 - total plant be vandalized.

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. Pst no 9 all cables stolen, MCC panel totally vandalized transformer totally vandalized, dislodging unit totally vandilized.4 pump stations in the plant totally vandalized. All cables for reactor been stolen.
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. Awaiting repairs of some of the aerator gearboxes Theft of chlorine equipment, no chlorination can take place.
Hennenman	85%	One aerators out of operation SST motor burned Inlet screens replaced.
Virginia A Side	0%	
Virginia B Side	35%	Virginia WWTW are currently been upgraded on MIG project Phase 2.
Odendaalsrus	0%	Drink water line to the plant stolen again. Screen motor burned All cables and electrical panels stolen and striped, plant out of operation
Allanridge	95%	Plant be upgraded on MIG project Project completed only connection to generator needs to be done awaiting electrical bill to be paid before Eskom can assist with changeover.
Theronia	0%	Currently the hole plant are been striped by thief's every day while security are on side, contractors appointed but wait for approval for demonising of structures where the new reactor needs to be build.

Ventersburg/ Mmamahabane	100%	Plant upgraded and in operation. Plant is in operation and the pump station.
Kutwanong	10%	Inlet works Two pump in operation.4 were installed All cables stolen only two was repaired for now. All cables are stolen on the plant. 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	1 – 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 **August 2019** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
2	2	12

2.6.4 Theft and Vandalism

Location	Unit	Incident	Date of incident	Approximate loss	Comments	Security available on site
Western pst	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 pst	Welkom	Theft of copper cable/	03//2018	R150000.00	No security on	No

		pannels			site	
Odendaalsrus	OD	Theft of copper cable	28/05/18	No info as jet	Was reported to security	Yes
Major PST	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 pst	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 pst	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
Odendaalsrus WWTW	Od	all cables stolen and vandalized	March	No info as jet	Was reported to security	Yes
Kutlwanong WWTW	Od	all cables stolen and vandalized	March	No info as jet	Was reported to security	Yes

2.6.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Serious personnel, equipment and 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 in operation but level of pan threatening flooding of the plant.	
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- construction standing due to approval for construction works..	Nyakkalong Is in process of refurbishment-Tender 99% completed.	
Fence at Theronia complete but still theft is happening.	Odendaalsrus Plant repairs needs to be done in-house.	
No PPE all some plants due to supplier not supplying PPE		
Witpan / Thabong	Serious problems with inflow lines that are blocked by Zama Zamas	

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 **August 2019** at the Pump Stations:

PUMP STATION	PERCENTAGE (%) FUNCTIONAL
Nyakallong Pump station	50%
Bronville South Pump station	100%
Bronville North pump station	100%
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	30% busy with repairs
Large Frank Pump station	85%
Small frank Pump station	10%
Major Pump station	80%
Goudrif 2 Pump station	100%
Extension 3 Pump station	0% (Totally Vandalized)
Workshop Pump station	0% (Totally Vandalized)
T8 Pump station	95%
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	100% vandalized
T16 pump station	100% 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 are 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 end commercial vehicle problems.	Kombi was requested for transport on the 19/08/2016 nothing received till now.ag again in April 2017 and again in May 2017.	
Vehicles (trucks for removing telecom containers on all the pump stations)		
Personnel are needed at some of the pump stations.		

Urgently needs more armed security at all the pump stations in Matjhabeng.	Security needs to be appointed for all pump stations.	
No PPE for pump station employees as order was not delivered from last year.	Supplier off PPE must be investigated because he does not deliver.	
Transport for employees causing serious problems due to the time it took to deliver people at pump stations; vehicle is not suitable to transport workers		
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 July 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	96.7	99.9	99.9	86.7
Odendaalsrus	99.9	99.9	99.9	99.9	99.3	99.9
Hennenman	99.9	99.9	99.9	99.9	99.9	99.9
Virginia	99.9	99.9	99.9	99.9	99.9	99.9

Ventersburg	99.9	99.9	99.9	98.1	96.7	99.9
Welkom	99.9	99.9	99.9	99.0	99.1	99.9
Institution	99.9	99.9	99.7	99.4	99.2	98.9

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: WEL 02, WEL05, MMA03
- Iron an Aluminum :WEL02, MMA03

Microbiological failures:

- HPC Failures : None
- Total Coliform: KUT 02, MMA02
- E.Coli:

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 July 2019: (General Authorization Limits)

WWTW	Monitoring Compliance %	Microbiological Compliance %	Physical Compliance %	Chemical Compliance %	Operational Compliance%
Allanridge	-	0.0	50.0	100.0	
Odendaalsrus	-	0.0	0.0	0.0	No analysis
Kutlwanoeng	-	0.0	25.0	100.0	
Theronia	-	0.0	0.0	0.0	No analysis
Thabong	-	0.0	0.0	0.0	No analysis
Witpan	-	0.0	50.0	66.7	
Virginia	-	0.0	62.5	91.7	
Hennenman	-	0.0	66.7	88.9	
Phomolong	-	0.0	50.0	100.0	
Ventersburg/Mamamahabane Combined	-	0.0	0.0	0.0	No analysis
Average Matjhabeng Municipality	54.5	0.0	41.7	93.0	

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

Effluent water Failures:

Poor monitoring Compliance, not all the samples were done according to the approved sampling program for July 2019.

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**

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

- **Plant and equipment**

None

- **Materials**

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

Number of Requests	Orders issued	Outstanding orders
14	3	11

2.8.4 Theft and Vandalism

Ongoing on the Thabong WWTW premises on a daily basis

2.8.5 Challenges and proposed interventions

Challenge	Proposed intervention	Responsibility
Request for re allocation send to Management due to the unsafe working conditions on the Thabong WWTW. Laboratory at the Welkom Clinic is vacant and not used and possibility to move to more secure environment	Awaiting for the approval from Management to move the Laboratory to unused site at the Clinic	EDI MM
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	Awaiting approval of the new structure - appointment of personnel to be DWS approved.	HR

Laboratory Aids. One is Acting as a Laboratory Assistant. The Laboratory need qualified personnel to comply with DWS regulations.		
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
Due to no internet facilities or landline 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).

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 **August 2019** in the Civil East:

Water Network:

During August 2019 Water maintenance was done on a breakdown / complaint basis only and no planned maintenance was done. **87** broken water lines were repaired. **269** water meters and connections were repaired, and **50** meters were replaced. **8** Fire Hydrants were repaired and **5** valve was repaired and **1** control valve was replaced.

Waste Water Network:

During August 2019 Waste Water maintenance was done on a breakdown / complaint basis only and no planned maintenance was done. **373** 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:

389m² of potholes were patched and 18m² prepared. 0m² of potholes were patched with gravel. There was 358m of Roads Cleaned.

Storm Water:

0 Catch pits were repaired. 0m² Paving repaired, 30 catch pits were cleaned. 15m of lined channel has been cleaned by storm water teams. 1338m 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 2 – 17 days	- Starter did not work - At Mechanical Workshop due to gearbox - Need tyres - Rear wheel bearing - Hand brake failure - 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

Type of vehicle / Equipment	Quantity	Days Available	Comments
			WR 3678
Pump	5	4 – 0 days 1 – 17 days	Not operational
Concrete mixer	1	17	Operational
Tipper truck	1	0	Written off in Hennenman 2016
Jet Blaster	2	0	Does 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 2019** are summarized as follows:

Number of Requests	Orders issued	Outstanding orders
10	0	10

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.	
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 **August 2019** in the Civil West:

Repaired **51** water leaks & bursts
Repaired **267** meters and connections
Replaced **no** water pipe with PVC pipes
Replaced **no** hydrants
Installed **no** new water meters and replaced **no** water meters – **no meter available or in stock**
Re-read **09** meters in Allanridge/Nyakallong
Re-read of meters in Odendaalsrus/Kutlwanong done by monitor of Finance Department
Abnormal sewer blockages at West Side – **13** received **11** were opened and **2** carried over
Water supply cut for longer than 24 hours – **None**
Replaced / repaired **no** sewer line
Opened **277** sewer blockages, and cleaned **no** sewer lines.
Cleaned/repaired/rebuild **no** sewer manholes
Emptied sewer tanks **24 times**
Emptied vandalized sewer pump stations **08 times**
Maintained **no** roads – **Grader out of order**
Cleaning of dumping site for **07 hours**
Cleaned **no** open spaces/areas
Cleaned **no** lined and **no** un-lined canals
Cleaned **no** storm water catch pits
Replaced **no** catch pit covers
Cast **no** catch pit covers
Removed **23** loads refuse, removed **no** wing rows
Cleaned **140m** roads
Repaired **12m²** pot holes with **tar**
Repaired **76m²** pot holes with **gravel**
Repaired **22m²** paving/precon
Bladed **no** soccer fields – **Grader out of order**
No maintenance of Council property
Transported **20 loads** gravel and **no** dump rock for Electrical Department
101 Hours were spend to do backfilling
25 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	Out of order for years
TLB Bell	1	0	Used for water, sewer, storm water & to load trucks when available. Out of Order
TLB Cat	1	0	Out of order for years
Tractors	4	3 – 0 days 1 – 31 days	Was used fill potholes, use when necessary and needed
Front-end Loader Ainsec	1	0	Out of order for years
Tipper truck s	4	0	All out of Order-Standing in Welkom/Odendaalsrus Workshops.
Tipper truck Big (DYZ 699 FS)	1	0	Wheel to be replaced
Tipper truck Med (DYH 184 FS)	1	31 days	Functional
Tipper truck Nissan small (DMV 604 FS)	1	31 days	Functional
Tipper-Platbak Nissan	1	31 days	Working in Allanridge
Grader CAT	2	0	No road maintenance possible without graders
Grader NEW HOLLAND		0	
Roller	1	0	Functional – used when needed
LDV's	7	2 – 31 days 5 – 31 days	Functional in Allanridge Functional in Odendaalsrus
Water pump trailer	1	0	Out of Order
Water pump Gormann Rupp	1	0	Out of Order
Jet Blaster Trailer	2	0	Out of Order
Concrete Mixer	1	0	Functional – used when needed
Jet Blaster	1	0	Out of order

- **Materials**

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

Number of Requests	Orders issued	Outstanding orders
9	2	41 (2017 to date)

2.10.4 Theft and Vandalism

None, but the theft of cables and vandalism of plants and pump stations caused sewer blockages that are very difficult to open – especially with the limited resources available.

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.	HR / Treasury / Mechanical workshop / fleet management

Challenge	Proposed intervention	Responsibility
	Ensure that suppliers are paid on time to ensure delivery of material on time.	
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 the presence and the maintenance 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
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:

- Ablution facilities at all West Workshops.
- The need for Speed-humps in various positions near schools to avoid children getting injured by speeding cars.
- Personal protective clothing that are still not delivered – only rubber gloves were delivered.

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 notwithstanding all the logistical constraints that are impacting severely on the service provision capabilities of this Department.

Load shedding is implemented in the Bronville Town area on regular bases as result of overloading as result bypassing and illegal connection in the area

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

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 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	92	92	0
Electrical Complaints East	0	167	167	0
Electrical Complaints West	91	203	231	63
Streetlight Complaints West	53	122	143	32
Streetlight Complaints East	0	154	154	0
High Mast Lights Complaints East	2		0	2
High Mast Lights Complaints West	34	18	19	33
Electrical Consumer Disconnections		0	0	0
Electrical Consumer Reconnections		0	0	0
Electrical Pre Paid meters requests		54	54	0
Other	Number			
Electrical meters inspected	113			
Electrical Remote Bulk Meter inspected and audited	0			
Electrical Remote Bulk Meters replaced	0			
Electrical Pre Paid meters blocked	6			
Electrical Pre Paid meters un-blocked	24			
Electrical meter disconnections monitored	83			

Electrical Pre Paid meter tampering identified and processed	53
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:	R2,573,799.26
Theft and vandalism incidents for the indicated month	25
Estimated cost implication of theft and vandalism incidents for the indicated month	R877,810.00
Theft and vandalism incidents for the past seven months.	33
Estimated cost implication of theft and vandalism incidents for the past twelve months.	R1,509,610.00

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 **August 2019** are summarized as follows:

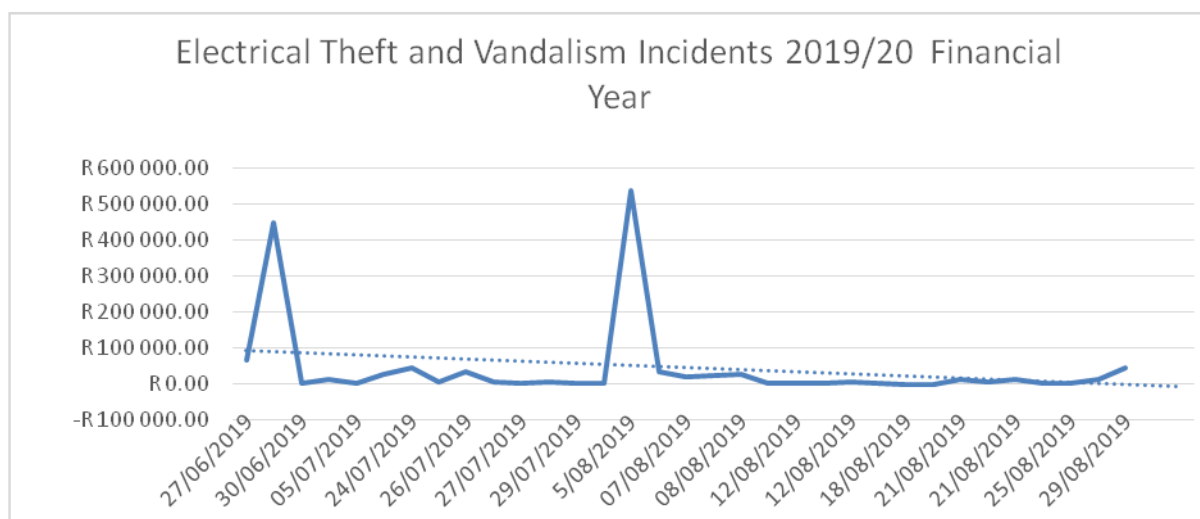
Number of Requests	Orders issued	Outstanding orders
23	0	23

3.4 Theft and Vandalism

Location	Unit	Incident	Financial year	Date of incident	Approximate loss	Comments
Steyn and Church	Odendaalsrus	8 Way Electrical Distribution Box	2019-20	26/07/2019	R 38 790.00	No preventative action implemented by the PSTD.
78 Erasmus	Odendaalsrus	100meters overhead power lines stolen	2019-20	27/07/2019	R 10 000.00	No preventative action implemented by the PSTD.
2 Hauptfleisch	Odendaalsrus	50 meters overhead power lines stolen	2019-20	27/07/2019	R 5 000.00	No preventative action implemented by the PSTD.
48 Nella	Odendaalsrus	100meters overhead power lines stolen	2019-20	27/07/2019	R 10 000.00	No preventative action implemented by the PSTD.
7 Van Nieker	Odendaalsrus	50 meters overhead power lines stolen	2019-20	29/07/2019	R 5 000.00	No preventative action implemented by the PSTD.
19 Voortekker	Odendaalsrus	50 meters overhead power lines stolen	2019-20	29/07/2019	R 5 000.00	No preventative action implemented by the PSTD.
Mini Substation 82 Eldorie	Odendaalsrus	500kVA Substation set on fire and stoler nothing	2019-20	5/08/2019	R 540 000.00	No preventative action implemented by the PSTD.
Mini Substaion Antimoon	Odendaalsrus	LV side of Mini substaion vandalised	2019-20	5/08/2019	R 38 000.00	No preventative action implemented by the PSTD.
Sub TH 7 Ext 3	Allanridge	20 meter x 120mm ² x 4core Pile	2019-20	07/08/2019	R 21 400.00	No preventative action implemented by the PSTD.
Western Holdings	Welkom	Eskom Protection installation stolen and vandalised	2019-20	07/08/2019	R 27 000.00	No preventative action implemented by the PSTD.

Location	Unit	Incident	Financial year	Date of incident	Approximate loss	Comments
Harmony Main Supply Cable from Main Substation to Joele Park	Virginia	25 meter x 70mm ² x 3core Pile	2019-20	08/08/2019	R 28 780.00	No preventative action implemented by the PSTD.
21 Jan Ferreira St	Odendaalsrus	50 meters overhead power lines stolen	2019-20	10/08/2019	R 5 000.00	No preventative action implemented by the PSTD.
2 Marly Road	Odendaalsrus	50 meters overhead power lines stolen	2019-20	12/08/2019	R 5 000.00	No preventative action implemented by the PSTD.
14 Mark Street	Odendaalsrus	50 meters overhead power lines stolen	2019-20	12/08/2019	R 5 000.00	No preventative action implemented by the PSTD.
Taljaart Street	Odendaalsrus	10 meter x 70mm ² x 4core PVC	2019-20	12/08/2019	R 9 960.00	No preventative action implemented by the PSTD.
43 Coock Blvd	Odendaalsrus	50 meters overhead power lines stolen	2019-20	18/08/2019	R 5 000.00	No preventative action implemented by the PSTD.
43 Coock Blvd	Odendaalsrus	10 meter x 16mm ² x 4core PVC	2019-20	18/08/2019	R 1 450.00	No preventative action implemented by the PSTD.
6 Warterkant Street	Odendaalsrus	10 meter x 16mm ² x 4core PVC	2019-20	18/08/2019	R 1 450.00	No preventative action implemented by the PSTD.
28 Josias	Odendaalsrus	150 meters overhead power lines stolen	2019-20	21/08/2019	R 15 000.00	No preventative action implemented by the PSTD.
12 Hauptfleisch	Odendaalsrus	100 meters overhead power lines stolen	2019-20	21/08/2019	R 10 000.00	No preventative action implemented by the PSTD.
3 Voortekker	Odendaalsrus	150 meters overhead power lines stolen	2019-20	21/08/2019	R 15 000.00	No preventative action implemented by the PSTD.
37 Frank Street	Odendaalsrus	50 meters overhead power lines stolen	2019-20	21/08/2019	R 5 000.00	No preventative action implemented by the PSTD.

Location	Unit	Incident	Financial year	Date of incident	Approximate loss	Comments
62 Erasmus Street	Odendaalsrus	50 meters overhead power lines stolen	2019-20	25/08/2019	R 5 000.00	No preventative action implemented by the PSTD.
Mini Substation Dresden	Riebeeckstad	14 meters cable 95mm ² x4 core 1Kv SWA stolen	2019-20	28/08/2019	R 16 900.00	No preventative action implemented by the PSTD.
Theronia purification Works	Welkom	30 meter x150mm x 3 Core Pile cable damaged and Wooden Tar Electrical Poles	2019-20	29/08/2019	R 49 080.00	No preventative action implemented by the PSTD.
Total		25			R 877 810.00	
Average cost		R 35 112.40				



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	R 6,150	
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	200	R 21, 954	

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 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.	All wards	Annual Material Tender must be processed and awarded.	CFO & SCM

Challenge	Ward no	Proposed intervention	Responsibility
The Electrical Department has to date not been logistically resourced to conduct the function of street light repairs departmentally as was resolved by Council Resolution to resource the Electrical Department with the required personnel, streetlight materials and vehicles	All wards	Annual Material Tenders must be processed and awarded. Electrical Department must logistical resourced. The Council resolution taken in this regards must be implemented.	MM, CFO, DCSM, SCM & EDI
Urgent repair and maintenance actions are required to be implemented on all medium and low voltage networks of Matjhabeng Municipality.	All wards	Annual Material Tenders must be processed and awarded. Electrical Department must logistical resourced.	MM, CFO, DCSM, SCM & EDI
There are no replacement protection relays and materials available to replace existing redundant and faulty relays in Matjhabeng Municipal Electrical Networks. This eminent risk situation is placing the safety of Council property, personnel and the community at risk.		Annual Material Tenders must be processed and awarded. Electrical Department must logistical resourced.	MM, CFO, DCSM, SCM & EDI
More than 300 meters of MV cable was stolen and vandalized between substation SS 9 and TS Native (The processing of the submitted submission by SCM is awaited for more than a year, therefore the non-reinstatement of the cable causes that meters of 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 150mm²x3Core 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

Challenge	Ward no	Proposed intervention	Responsibility
The 132kV 20 MVA Transformer no.2 malfunction at the Industrial Substation Welkom on the 18 October 2016 was removed by Council insurance for assessment 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 ² x 3 Core Cable was stolen in Virginia Harmony, which could not be replaced due non availability 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 Substation and the 132kV Urania Substation 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 while under 24 hours security 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 church 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) masts were found to be unsafe in the Kutlwanong and Meloding Units and was removed from their foundations.	CFO, SCM and EDI
Thabong Purification Plant MV, LV and Pump installations are totally vandalized while 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 while under 24 Hour Security	32	The total installation needs to be reinstated.	CFO, SCM and EDI
Urania Substation were totally vandalised as well as existing MV supply cables to Bronville on the 18 May 2019	32	Emergency 1.2km overhead line were constructed from the Urania Substation to the Bronville substation	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 sent 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

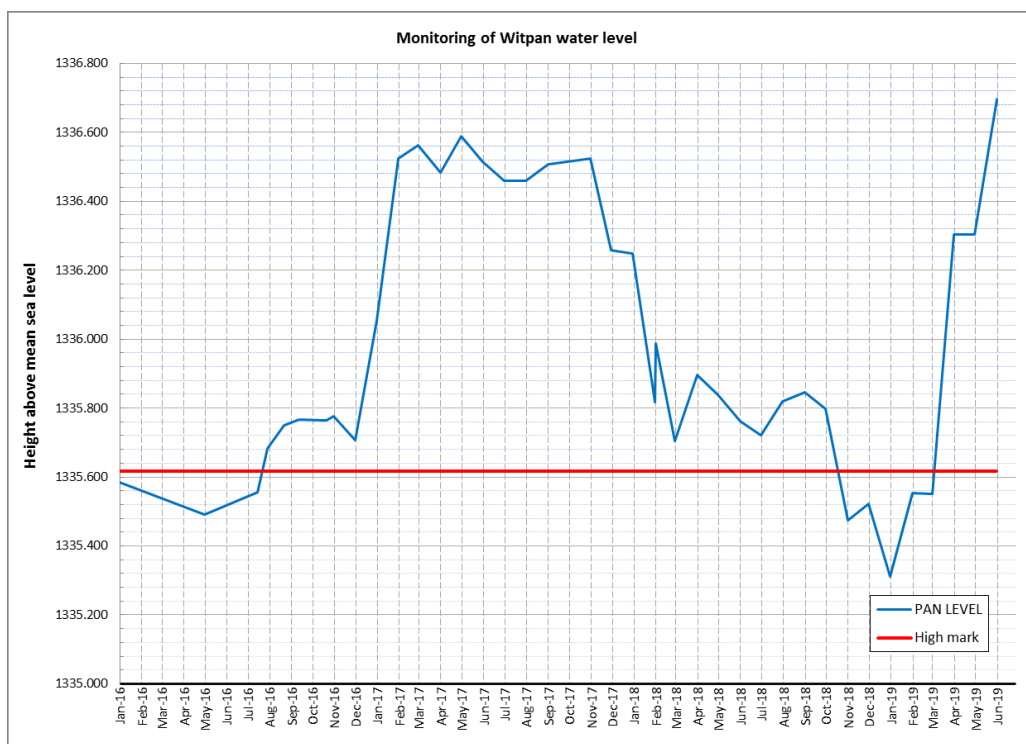
4. SUMMARY OF STATISTICS

4.1 INFRASTRUCTURE ADMINISTRATION: SUBMISSIONS/REQUISITIONS PROCESSED

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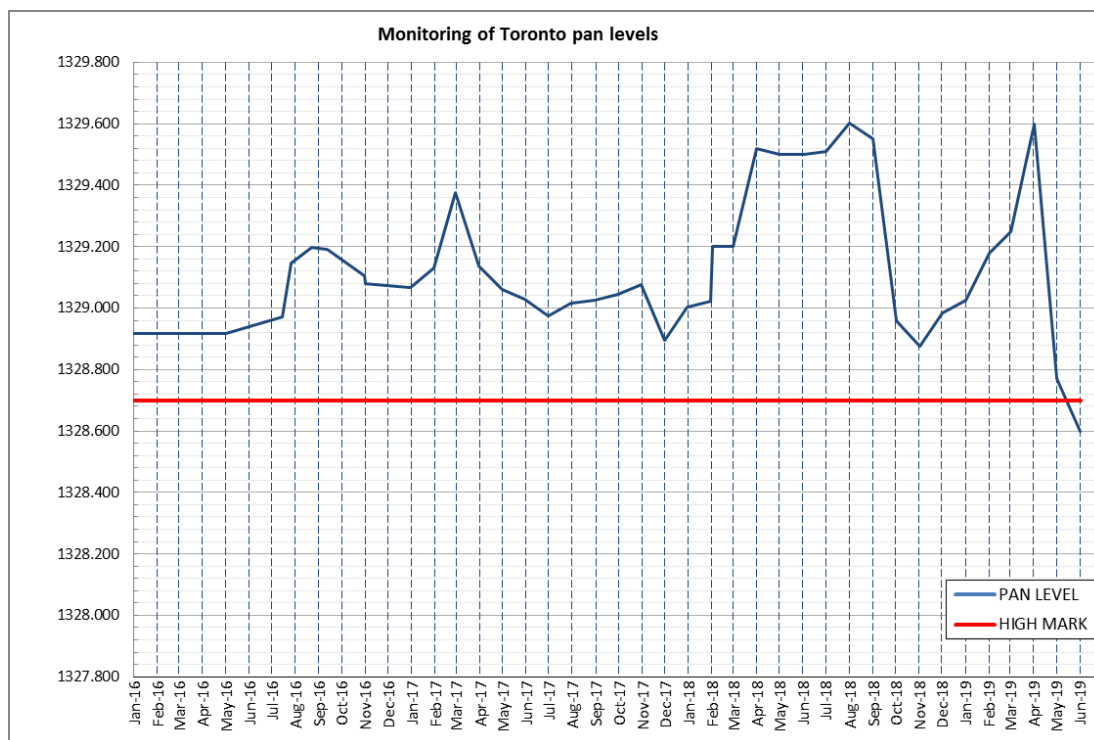
5. PAN LEVELS JULY 2019

WITPAN



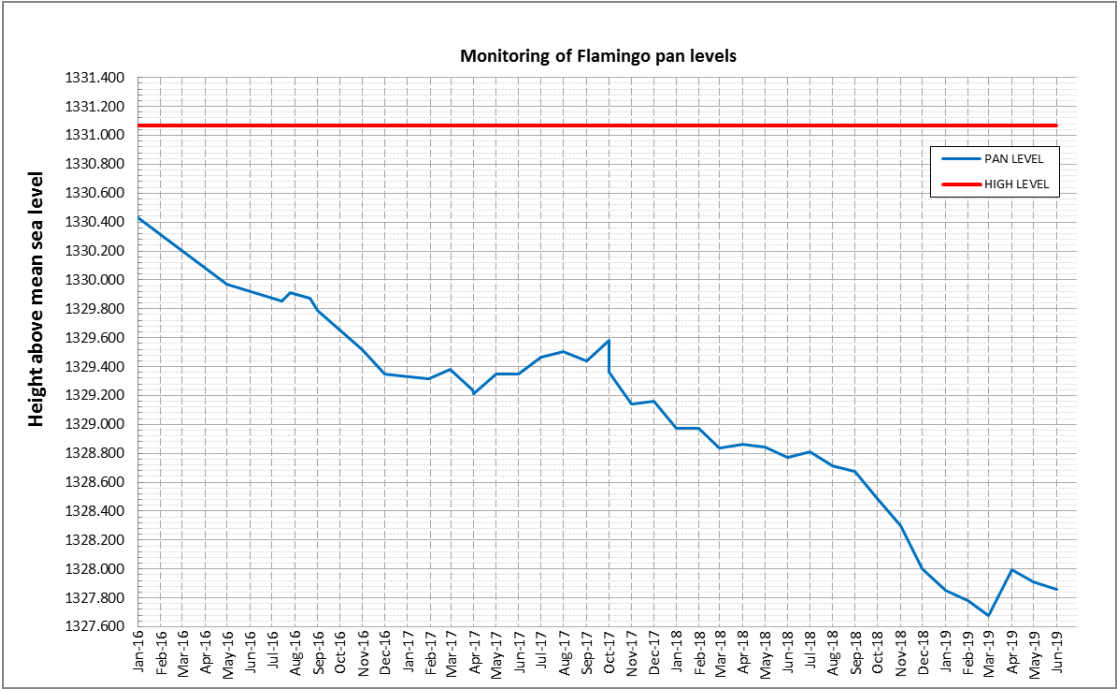
The pan's level has risen by almost 400mm during the past two months. It is far above our critical level (Klippan Road) and must urgently be reduced. The road to the pump station is flooded. It is critical that the pump station be made more effective.

TORONTO PAN



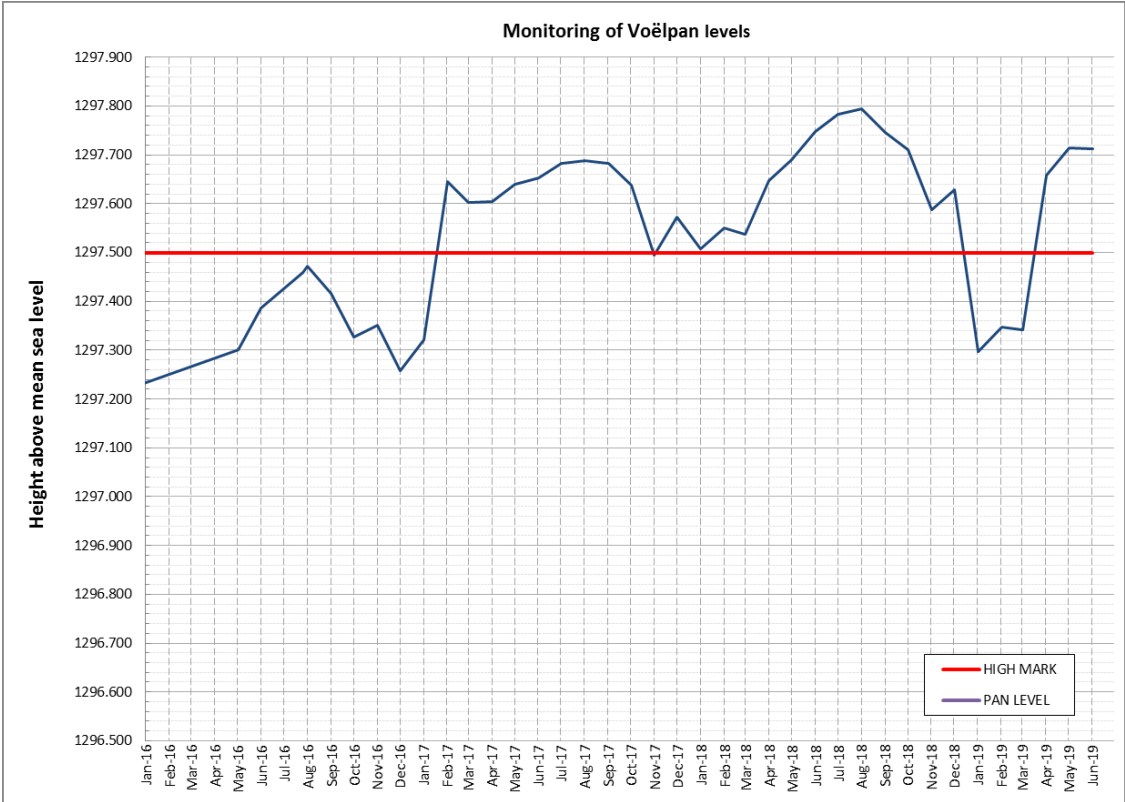
The pan's level has dropped during the past month and no immediate problems are foreseen. The upgrading of the Geelwortel Channel is urgently required.

FLAMINGO PAN



This pan’s level has been fairly stable during the past month. 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 been fairly stable during the past few months. No immediately problem is foreseen.

6. CONCLUSION

The Infrastructure Directorate is often referred to as “*the phase 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.