



ERWAT: Second Quarter Departmental Performance Reporting

2019/20 QUARTER 2 REPORTING AGAINST THE APPROVED BUSINESS PLANS

1. Executive Summary by the Entity

The entity has managed to achieve four (4) out of the seven (7) key performance indicators. The compliance in terms of the wastewater treatment works license conditions and/or exemptions standards was at 87% against a target of 89%. The reasons for the continued non-achievement of the target is mainly due to the inadequate infrastructure capacity and equipment failures. The detail of the reasons are listed below under challenges experienced.

Capital expenditure during quarter two was at 42.29% which was above the target of 40%. There has been a significant acceleration in the implementation of the refurbishment of the Olifantsfontein project.

Revenue generated during the second quarter was R26.9 million which was below the target of R35 million. ERWAT has not been able to strengthen its position with various stakeholders by entering into various strategic partnerships with private and public sector, where memorandum of understanding and agreements have been agreed upon. It is envisaged that going forward these will bear the desired fruits in terms of the entity's revenue generation.

Operational expenditure has however, continuously improved during the course of the year as the remedial plans took effect and we are on track to spend the full maintenance budget by the end of the financial year. Bulk purchases (Electricity, water, chemicals) are 14% below budget due to timing of utility accounts received which corrects at year end.

The entity has been appointed by the National Department of Water and Sanitation as the implementing agent for Vaal Intervention River in Emfuleni Local Municipality. This project is seen as revenue generating project and it is anticipated that this will also create brand awareness within the country.

The Auditor General finalised the audit within the specified timeframes and entity achieved an unqualified audit opinion with a reduced number of findings as compared to the previous financial years.

Table A: Summary of Service Delivery Performance

Service Delivery Monitoring				
	Total number of targets set for the quarter	Achieved	Not achieved	Variance
City Wide SDBIP	3	1	2	2
Departmental SDBIP	4	3	1	1

Commercial business still remains a challenge and the entity has identified the following remedial actions:

- Identification and pursuance of potential clients according to the various sectors as well as reselling of our services to the existing customers through continuous improvement projects (CIP's). These

activities will be reported on weekly basis in order to ensure that our efforts and additional support are redirected towards conversion of our sales initiatives.

- Continuous implementation of B-BBEE improvement plan and proper document management system in order to maintain our current status as a level one contributor. The service provider has since been appointed for the verification process and renewal of our B-BBEE certificate. This will also further require an approval to engage and prepare a joint B-BBEE Certificate together with all our potential partners for Joint Venture Agreements.

2. Service Delivery Monitoring

CITY- WIDE KPI'S

KPI 1 – City -wide

Total revenue generated from external business

Method of Measure

This is the total external sundry income generated through provision of external services to external customers and it excludes the following revenue (Dividend Received, Development contributions, Interest received and dividends, User Charges and Grants Received).

Evidence

Invoices

Q2 Target

R35 million

Q2 Actual

R26 924 923

Comment:

Target not achieved,

Reasons for not achieving KPI:

Existing Personnel require sales coaching.

Marketing plan needs to be implemented with a financial model to achieve the targets External Customer Survey implemented to establish and identify short comings on business approach.

KPI 2 – Metro-wide

Audit Opinion from AGSA.

Q2 Target

Audit Opinion from AGSA

Q2 Actual

Target Achieved.

KPI 3 – City-wide

% compliance with wastewater treatment works license conditions and/or exemptions standards

Method of Measure:

Water Quality analysis of all 19 Waste Water Treatment Works calculated as a percentage of parameters complying against the set standards as per Water Use Licences/exemptions. The percentage is then averaged to get the overall % compliance.

Evidence

- Water Quality analysis reports per Wastewater Treatment Work and per month;
- Quarterly reports, showing the Water Use License standards and compliance calculations;

Q2 Target

89%

Q2 Actual

87%

Comment:

Not achieved.

Reasons for non-compliance:

1. Hydraulic Capacity
2. Industrial Effluent
3. Equipment / Infrastructure failures
4. Compliance (Micro)

Reasons for non-compliance

Non-compliance of final effluent:

Rynfield, Hartebeestfontein, Olifantsfontein, Ancor, Jan Smuts, Welgedacht, Dekema, Rondebult and Vlakplaats did not meet their Water quality targets due to the following reasons:

Hydraulic Capacity and Organic Capacity:

Olifantsfontein, Rynfield, Ancor, Jan Smuts, Tsakane, Herbert Bickley, Heidelberg, Vlakplaats and Waterval operated at a hydraulic capacity exceeding the design capacity of the plants, therefore affecting the water quality compliance negatively.

Although Tsakane, Heidelberg, Herbert Bickley and Waterval achieved their water quality targets, they are operating above their hydraulic design capacity with an ever increasing risk of incidents of non-compliance escalating up to full non-compliance of the plants. (Refer to Section 3.4 for details per plant)

Rynfield, Olifantsfontein, Ancor, and Vlakplaats operated above their organic design capacity during Q2 which had a negative impact on the final effluent compliance.

Although Benoni and Waterval operated above their design organic capacity, the plants are still meeting their water quality targets, however an increasing risk, due to the escalation of incidents of non-compliances will occur in the near future. (Refer to Section 3.4 for details per plant)

Action taken:

ERWAT does not have Capex funds to extend/upgrade the plants, and therefore have serious challenges in supporting the CoE in meeting the Growth Development Strategy (GDS2055) and the development of the Aerotropolis.

ERWAT has developed a 5- year CAPEX plan detailing all required CAPEX upgrades and refurbishments. ERWAT's request is that the CoE fairly and proportionally reallocate the Bulk infrastructure grants, which will at least enable ERWAT to refurbish and optimise infrastructure. ERWAT has subsequently submitted a report to the Department of Water and Sanitation detailing the risks associated with the lack of capacity at the ERWAT plants in detail, and the associated costs to mitigate the risks. This report is to be taken to Council, having followed all due processes

Industrial effluent:

Olifantsfontein, Ancor, Jan Smuts, Dekema, Rondebult and Vlakplaats received industrial effluent during Q2 impacting negatively on the plant operations and final effluent compliance. (Refer to Section 3.4 for details per plant)

Although Esther Park, Benoni, Herbert Bickley, Heidelberg and Waterval received industrial effluent during Q2, the plants are still meeting their water quality targets, however an increasing potential risk of non-compliance is anticipated in the near future (Refer to Section 3.4 for details per plant)

Actions taken:

Any incident where industrial effluent received at the WCW exceeds the capacity of the plant, or impacts negatively on the optimum operation of the plant, it is communicated to the CoE Water and Sanitation Dept.: Water Quality Section, whom will investigate the incident and manage the non-compliant industrial CoE client according to the Water and Sanitation By-laws and the applicable limits for industrial effluent discharges. Minimising risks at source is the most cost-efficient mitigation control in this regard.

ERWAT and the COE has embarked on a project to develop an improved industrial management model. As the CoE needs to appoint a professional service provider (PSP) for this project, the project has not moved forward due to a lack of funding. ERWAT and the CoE will work very closely with the PSP once the project kicks off.

Failure of critical equipment:

Rynfield, Olifantsfontein, Hartebeestfontein, Ancor, Welgedacht, Jan Smuts Dekema, Rondebult, Vlakplaats had multiple equipment failures affecting the compliance of the plants.

Although Esther Park, Benoni, Daveyton, JP Marais, Ratanda, Herbert Bickley, Carl Grundlingh, Heidelberg, Tsakane and Waterval still achieved their water quality compliance for Q2, they had numerous critical equipment failures, as described under Section 3.4 of this report.

Action taken:

The new ERWAT asset maintenance policy has been approved. The maintenance plans, in line with the approved maintenance policy, are now being implemented. It is, however, to be noted that the maintenance plans are only partially implemented due to the lack of funding, until the CoE increases ERWAT's OPEX allocation proportionally, as requested.

Power outages

Rynfield, Welgedacht, Rondebult was affected by extended power outages impacting on the non-compliance of the plant. Welgedacht was out of operation twice during the quarter for a total of 29 days due to firstly vandalism and theft of Eskom infrastructure on the 22 kV power supply line and secondly due to a power surge damaging the lightning arresters and cable. The repair of the faulty cable was prolonged by unfavourable wet weather conditions.

The following plants Ancor, Daveyton, Jan Smuts, JP Marais, Ratanda, Heidelberg and Tsakane were affected by load shedding, stand-by diesel generators were in place to partially mitigate this risk, therefor the plants final effluent compliance was not adversely affected. (Details of all outages: refer to Section 3.4)

Actions taken:

Welgedacht: In November 2019, Eskom replaced 22 KV transformer on the lines and connected Erwat Welgedacht directly in order to mitigate theft risk.

In December 2019, Faulty 280 m Cable and lightning arrestors were replaced. Security visibility was increased around the critical location in order to mitigate any theft risk. Concrete pillar and slab to protect the cable on the ground and the overhead poles to be carried out in January 2020. After completion of the cable protection, security will carry out daily spot checks. All unplanned power outages are reported to CoE or ESKOM immediately as soon as power failure occur.

No capex funding available for the installation of Generators at Rynfield and Rondebult.

Ageing infrastructure

Olifantsfontein, Hartebeestfontein, Esther Park, Ancor, Jan Smuts, Ratanda, Herbert Bickley, Dekema, Rondebult and Vlakplaats have challenges with failed civil structures where rehabilitation/repairs are urgently required. Where failed structures had to be closed out, the available capacity at the plants such as Olifantsfontein, Ancor and Jan Smuts is further reduced, impacting compliance of the plants. Details of the failed structures are described under section 3.4.

Actions taken:

An in- depth structural audit of the civil structures of plants need to be conducted before any rehabilitation/repairs can commence. There is currently no CAPEX or OPEX funds available to upgrade/rehabilitate the essential infrastructure

of the various works, and therefore all work is halted Due to the unavailability/inefficiency of the said structures, the overloaded conditions of the process units are further exacerbated.

Further requests have been made to the CoE to increase the current year CAPEX and OPEX budgets, however no additional funds were approved.

An intervention project commenced at Olifantsfontein to refurbish infrastructure in order to restore the plant's capacity to its original state.

KPI 1 Departmental

% Capital expenditure on planned projects

Method of Measure:

Increase ERWAT Wastewater Treatment Plants (WCW) treatment capacity and improve process efficiency through infrastructure development projects (CAPEX). The total capital expenditure on major capital projects associated with increasing capacity and improving process efficiency in ERWAT Wastewater Treatment Plant according to green drop requirements and ERWAT Facility Development Plan (FDP 2032).

Evidence

- Project progress reports (weekly, quarterly and Annual reports)
- Payments certificates
- Invoices

Q2 Target

40%

Q2 Actual

42.29 %

Comment:

Target exceeded. The reason for exceeding the target of 40% on capex spending is mainly due to good planning. ERWAT have a detailed Capex plan.

Plan of Action

No plan of action required.

KPI – 2 Departmental SDBIP

% of planned maintenance scheduled.

Method of Measure

Total number of job cards received and loaded on the system versus number of job cards completed.

Evidence

Number of Job Cards received versus number of job cards completed.

Q2 Target

90%

Q2 Actual

86 %

Comments

Target not achieved. The reason for the non-achievement was due to inadequate preventative maintenance.

Remedial Action

Maintenance is in the process of implementing asset management strategy which will address all the maintenance shortfalls.

KPI – 3 Departmental SDBIP

Rand value- support of SMME's through ensuring appropriate application of preferential procurement practices.

Method of Measure

Rand value of contracts awarded to SMME's against a set targeted rand value amount.

Evidence

Procurement Plan and Invoices Paid.

Q2 Target

R11 792 500

Q2 Actual

R14 184 369.70

Comments

Target exceeded

Remedial Action

None

KPI – 4 Departmental SDBIP

Number of audit findings cleared per quarter.

Method of Measure

Number of audit findings cleared against a set number of targeted audit findings to be cleared.

Evidence

Implementation of the actions plans as per the recommendations on the Management Report issued by the AG (SA).

Q2 Target

35 audit findings cleared in full by the end of Q2 2019/2020

Q2 Actual

33 audit findings cleared in full by the end of Q2 2019/2020

Comments

An additional finding was resolved at the end of Q2 relating to payments to suppliers not being made within 30 days as stipulated by the MFMA.

This requirement has been audited by the AGSA and the finding was cleared in the 2018/2019 year audit.

The two findings that remain in the 2018/19 OPCA relate to the non-deduction of employees' tax for fringe benefit purposes as a result of them having free occupation of ERWAT property.

Agreements for the leases have been drawn up, and ERWAT is in the process of obtaining the sizes of the houses in order to determine the amount of rent to be paid by the employees.

Remedial Acton

Agreements for the leases have been drawn up, and ERWAT is in the process of obtaining the sizes of the houses in order to determine the amount of rent to be paid by the employees.

3.1 City-Wide/Institutional SDBIP 2019/20

Refer to the City-wide SDBIP 2019/20.

Table1: City-Wide Indicators

NB: Please note that reasons for variance must be provided for both overachievement and under achievement

Entity	Outcome	Ref No.	Performance Indicator (Output level only)	Description of Portfolio of Evidence Verified	Baseline (Annual Performance of 2018/19 estimated)	Annual Target for 2019/20	2 nd Quarter Planned Output as per SDBIP	2 nd Quarter Actual Output	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	2 nd Quarter Planned Budget	2 nd Quarter Actual Expenditure
National Prescribed Indicators															
N/A															
Provincial Indicators															
N/A															
City of Ekurhuleni Indicators															
IDP Strategic Objective 2: To build a clean, capable and modernized local state															
ERWAT	Improved Quality of water (including wastewater)	34	Total revenue generated from external business	Invoices coupled with general ledger with a balance that agree to the amount reported	R104 000 000	R160 000 000	R35 000 000	R26 924 923	R8 075 077	Not Achieved	Not Achieved	Existing Personnel require sales coaching. Marketing plan needs to be implemented with a financial model to achieve the targets	External Customer Survey implemented to establish and identify shortcomings on business approach.	R30 000 000	R14 250 885
	To build a clean, Capable and Modernised Local State	35	Audit Opinion	Audit report from AGSA	Unqualified Audit Opinion	Unqualified Audit Opinion	Unqualified Audit Opinion	Unqualified Audit Opinion	None	Target Achieved	Not Applicable	N/A	N/A	R1 710 973	R2 399 482
IDP Strategic Objective 4: To protect the natural environment and promote resource sustainability															
ERWAT	Improved Quality of water (including wastewater)	57	Percentage compliance with wastewater treatment works license conditions and/or exemptions standards	Water Quality Data of each Wastewater Treatment Works (from the Lab) Spreadsheet used to calculate over all compliance.	90%	89%	89%	87%	2%	Target not achieved	In progress	Below are the summarised reasons for not achieving the target: 1. Hydraulic capacity	1. Plants need to be upgraded urgently to cater for the current backlog in capacity	R131 108 373.50	R107 802 311.96

Entity	Outcome	Ref No.	Performance Indicator (Output level only)	Description of Portfolio of Evidence Verified	Baseline (Annual Performance of 2018/19 estimated)	Annual Target for 2019/20	2 nd Quarter Planned Output as per SDBIP	2 nd Quarter Actual Output	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	2 nd Quarter Planned Budget	2 nd Quarter Actual Expenditure
				Applicable Water use authorization of each Waste Water Treatment Works								2. Industrial effluent high 3. Failure of critical equipment 4. Poor infrastructure conditions"	as well as future developments. 2. ERWAT & CoE Water Quality section are working to minimise the risk at source. 3. Revised Asset Management plans to reduce breakdowns 4. The structural audits have been concluded, awaiting funds to execute."		

3.2 Entity's SDBIP Score card with Key Performance Areas and Indicators 2019/20

Table 2: Entity's SDBIP

Entity	Outcome	Ref No.	Performance Indicator (Output level only)	Description of Portfolio of Evidence Verified	Baseline (Annual Performance of 2018/19 estimated)	Annual Target for 2019/20	2 nd Quarter Planned Output as per SDBIP	2 nd Quarter Actual Output	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	2 nd Quarter Planned Budget	2 nd Quarter Actual Expenditure
IDP Strategic Objective 2: To build a clean, capable and modernized local state															
ERWAT	Improved Quality of Water including Wastewater	1.M	Percentage Capital expenditure on planned projects	Project progress reports (weekly, quarterly and Annual reports) Payments certificates Invoices	95%	95%	40%	42.29%	2.29%	Target Exceeded	In progress	Acceleration on the some the projects and the Olifantsfontein project.	No remedial action is required	R 24 280 000	R 24 127 530,14
	Improved Quality of Water including Wastewater	2.M	Adequate maintenance of all facilities (% of planned maintenance scheduled)	Job Cards received versus number of job cards completed. AND Finance expenditure reports	45%	90%	90%	84% <small>(Loaded 2369, closed 1994)</small>	6%	Target not Achieved	In progress	The reason for not achieving the target is due to the slow progress on rolling out of new maintenance plans.	Rolling out of the new maintenance will be expedited in Q3.	R31 846 949	R37 100 196
	Improved Quality of Water including Wastewater	3.M	Rand value-support of SMME's through ensuring appropriate application of preferential procurement practices	Procurement Plan, CSD /BEE report, Invoices Paid, and bidder's proof of payment to sub-contracting party.	New	R64 390 000	R11 792 500	R14 184 369.70	R2 393 869	Target exceeded	Within targets	Works completed on contract sooner than anticipated	None	R11 792 500	Paid: R14 184 369.70
	Improved Quality of Water including Wastewater	4.M	Number of audit findings cleared	Signed proof on the number of audit findings cleared per quarter.	35	35	10	33	23	Target exceeded	In progress	The two findings that remain in the 2018/19 OPCA relate to the non-deduction of employees' tax for fringe benefit purposes as a result of them having free occupation of	Agreements for the leases have been drawn up, and ERWAT is in the		

Entity	Outcome	Ref No.	Performance Indicator (Output level only)	Description of Portfolio of Evidence Verified	Baseline (Annual Performance of 2018/19 estimated)	Annual Target for 2019/20	2 nd Quarter Planned Output as per SDBIP	2 nd Quarter Actual Output	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	2 nd Quarter Planned Budget	2 nd Quarter Actual Expenditure
												ERWAT property. Agreements for the leases have been drawn up, and ERWAT is in the process of obtaining the sizes of the houses in order to determine the amount of rent to be paid by the employees.	process of obtaining the sizes of the houses in order to determine the amount of rent to be paid by the employees.		

3.3. Reflection on operations/ day-to-day activities (Analytical Narrative Account)

A. Flows

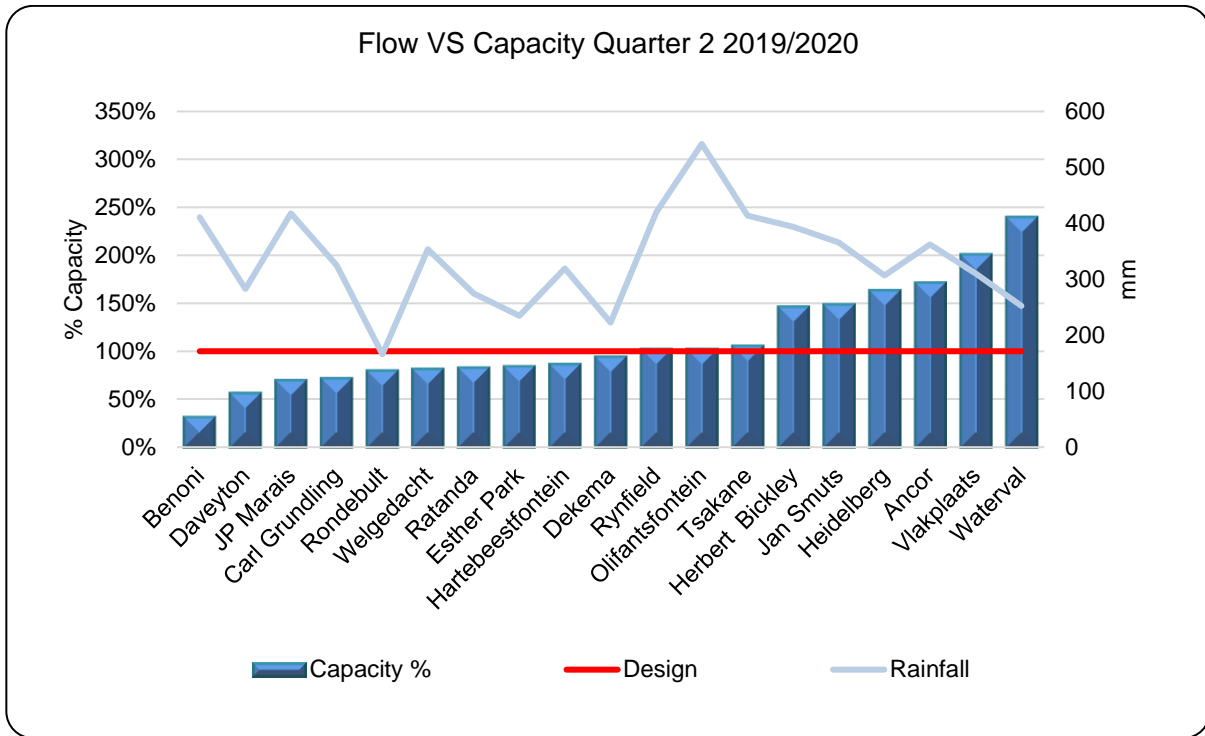


Figure 1

A total of 83 966 MI was treated in Q2, at an average of 913 MI/day, utilising 136% of the capacity, as compared to 72 059 MI, at an average of 792 MI/day, utilising 117% of the capacity in Q1.

Ancor operated at 171%, Heidelberg at 163%, Jan Smuts at 149% and Herbert Bickley at 146% of its capacity, with large regional plants such as Vlakplaats operating at 210% and Waterval operating at 225%. Additional capacity is urgently needed.

3.4. Service Delivery Highlights and Challenges

CHALLENGES

A. Flows

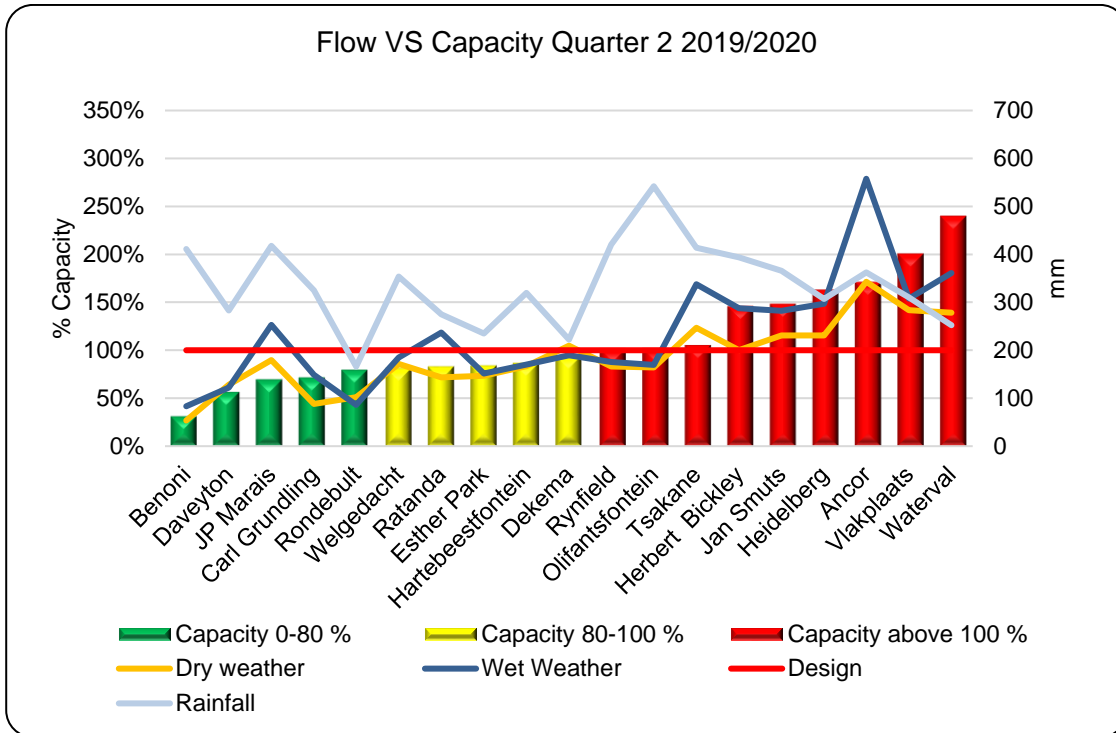


Figure 2

As can be noted in the above graph, during Q2 nine (9) out of the nineteen (19) Wastewater Treatment Works were operating above their design capacity, five (5) operating between 80% and 100%, five (5) operating below the 80% mark.

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Critical equipment failures	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Ground water pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
Esther Park	Plant complied with WUL effluent standard Overall compliance: 95%	Plant operated at 100% of hydraulic capacity	Plant operated at 91.3% of organic capacity	Plant received high flows on 12 out of 92 days	Plant received industrial/high strength effluent on 19 of 92 days	6x critical equipment failures occurred in Q2	3x Power failures lasting 5hours hours experienced in Q2	Reactor wall is leaking	N/A	None	N/A	N/A	N/A	N/A	N/A	Access to plant a challenge during rainy season	N/A
Hartebeesfontein	Plant did not comply with WUL Effluent standard, compliance for Q2 --Overall compliance:83 %.33% Physical 92%, Micro 91%	Plant operated at 75% of hydraulic capacity	Plant operated at 93% of organic capacity	Plant received high flows on 9 out of 92 days .	Plant received industrial high strength effluent on 2 of 92 days	12x Critical equipment failures occurred in Q2	3 x power failures that last for 8 hours. Disiel consumption is 4200L	-Aging concrete on plant infrastructure.	Sludge is being irrigated to the 200 hectares farm	None	N/A	Borehole two has high concentration of Nitrates	Sinkhole next to the fence towards FST 5 & 6 , next to the chlorine building and around the Farm	N/A	Sludge classification is B2c, not suitable for the intended purpose, this requires further engagement with the farmer	Road to final effluent discharge point need to be graded.	Portable water leak in module 3 hydrant
Rynfield	Plant did not comply, compliance for Q2 is 82%. Noncompliance is chemical 65 % and micro 86 % Physical 95%,	Plant operated at 99.96% of hydraulic capacity	Plant Operated at 117% of organic capacity	Plant received high flows on 28 out of 92 days	Plant received industrial high strength effluent on 5 of 92 days	4 critical equipment failures occurred in Q2 Unavailability of South Side reactor, due to defective Clarifier and Aerators	6 –power failure that lasted for 17 hours.	Pavement Cracked and Digesters & reactor tank concrete structure is cracked .Bio-feeder structure is cracked.	None	None	Dried sludge is stockpiled on the plant	Unlined sludge paddies, Unlined Maturati on ponds and Contact tank. Lagoon	Dolomitic investigation not done yet	N/A	Screenings and grits from the inlet works are collected by CoE. Dried sludge is stockpiled on the plant	N/A	N/A
Benoni	Plant complied with WUL effluent standards 98%	Plant operated at 34 % of hydraulic capacity	Plant operated at 139.2 % of organic capacity	Inconsistent and low flow due to pump stations failure that occurred 5 times in Q2	Plant received industrial high strength effluent on 16 of 92 days	2 critical equipment failures occurred in Q2 thus chlorine cylinder leaking pigtail and tripped chlorine booster pump	9 Power failure that lasted 35.26 hours	Anaerobic digester valves, humus tank 1 weir places/ PST's-weir plates /open digester's walls are cracking, aged mechanical screen, aged classifier	N/A	None	Dried sludge from the drying beds is stockpiled on side	Unlined sludge paddies and maturati on ponds	N/A	N/A	Sludge classification is A2c, which is suitable for the instant lawn application.	N/A	N/A

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Critical equipment failures	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Ground water pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
Olifantsfontein	Plant did not comply, compliance for Q2 is 70%. Non-compliance are chemical 50%, physical 65% and Micro 94%	Plant operated at 103% of hydraulic capacity	Plant operated at 101% of organic capacity	Plant received high flows on 42 out of 92 days.	Plant received industrial high strength effluent on 13 of 92 days	41 Critical equipment failures occurred in Q2	2- Power failures that lasted for 4 hours with diesel consumption of 832 litres	Module 3 and anaerobic digesters	2 out of the 6 digesters are blocked	None	N/A	Unlined emergency dams	3 x sinkholes around the old laboratory	N/A	Sludge classification has two streams: Dying beds (A1a), no restrictions and requirements apply. Filter Belt Press (B3a), not suitable for cultivating crops such fruit trees, crops with edible parts that do not touch the soil / sludge and animals shall not be allowed to graze.	N/A	N/A
Ancor	Plant compliance for Q2 is 66% Noncompliant parameters: Physical 88%, Chemical 60% and Micro 50%.	Plant operated at 171% of its hydraulic capacity	Plant operated at 142% of organic capacity.	Ancor experience storm water ingress during heavy rainfall, worsening the overloaded hydraulic capacity.	Plant received high COD industrial effluent on 1 day and coloured influent on 3 Days.	19 critical equipment failures occurred in Q2, namely: 14 failures on the ferric chloride dosing system; 4 failures of the chlorine system, one centre column of bio filter no.7 failed.	3 outages occurred (10.5 hrs. total)(Generator backup available for whole plant except disinfection section)	Bio filter flow division boxes partially collapsed, humus tanks/ PST's- and digesters structures are crumbling /cracked	3 digesters are blocked with sand and are not in operation. This cause the plant to run out of sludge handling capacity which prevent proper desludging and resulting in non-compliances.	No veldfires occurred during Q2.	Dried sludge is stockpiled on the plant which can be a risk due to odours emanating from wet stockpiles or veldfires in winter. Pollution of the environment if stockpiled area is not lined. Demand	Unlined sludge paddies pollute underground water	Area around humus tanks and final effluent channel are dolomitic according to Geotech study performed.	N/A	Solid waste (screenings and grit) is removed by CoE.	Road in very bad condition with large potholes.	N/A

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Critical equipment failures	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Ground water pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
											for agricultural application is seasonal						
Daveyton	Plant complied, compliance for Q2 is 99%.	Plant operated at 57% of its hydraulic capacity.	Sufficient capacity. Plant operated at 42% of its organic capacity.	Numerous sewer blockages in the CoE network and potable water supply interruption to Etwatwa lead to inconsistent and irregular flow to the plant.	N/A. Domestic only.	25 Critical equipment failures occurred in Q2, namely: 10 failures on the RAS pumps, 3 failures of Aerators, 3 failures of clarifier bridges, 1 failure of the generator, 6 failures of the chlorine system, 1 failure of the WAS pump, and 1 failure of the lifting hoist.	14 power outages occurred (40 hours total). The Generator for the plant is not functional, broke down in Quarter 2, awaiting contractor to complete the work.	Small crack on the CCT side wall. (Do not have effect on the operation at the moment)	N/A	Veld fires pose a risk during winter, but no incidents during Q2.	Sludge pumped to 2 lined lagoons, and when they are full, sludge is pumped to 3 unlined lagoons for solar drying. Space for drying is not sufficient and there are no boreholes at the sludge lagoons to monitor the ground water. This is	Unlined sludge lagoons pollute the ground water.	N/A	N/A	Solid waste (screenings and grit) is removed by CoE.	N/A	N/A

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Critical equipment failures	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Ground water pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
											noncompliance to WUL conditions.						
JP Marais	Plant compliance for Q2 is 98%.	Sufficient capacity. Plant operated at 72% of hydraulic capacity	Sufficient capacity. Plant operated at 55% of organic capacity	Daveyton network line to JP Marais blocked from the 25th November, leading to decreased and inconsistent flow to the plant. The blockage was cleared by CoE on the 17 December.	Plant received industrial high strength effluent on 9 days (2 high COD and 7 high NH3).	30 critical equipment failures occurred in Q2, namely; PST pump 1&2 (8 times), PST suction pipe (3 times), Inlet works Gen-Set filter pipe (2 times), Screen Compactor (2 times), WAS pump 1&2 (10 times), RAS pump (3 times), Degritter pump (x1), Irrigation pump (x1)	15 Power outages (19.5 hours total), Do have generator backup.	PST fine screen not available (removed and scrapped).		No veldfires occurred during Q2.	Sludge pumped to Welgedacht, where it is treated.	No ground water pollution in Q2.	No dolomitic soil	N/A	Solid waste (screenings and grit) is removed by CoE.	Road in a good condition	A contractor installing a fibre cable for MTN tower broke a potable water pipe behind the guardhouse on the 12th December and CoE repaired the pipe on 18 December. Potable water

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Critical equipment failures	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Ground water pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
																	supply to the plant was uninterrupted.

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Critical equipment failures	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Ground water pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
Weigedacht	Plant compliance for Q2 is 69% Noncompliant parameters: Physical 89%, Chemical 64%, Micro 55%	Plant has sufficient capacity. (operated at 82% capacity)	Sufficient capacity Plant operated at 41% organic capacity.	None	Plant received and treated 30 m3 of leachate daily from EnviroServ for the month of October 2019, November and December the leachate was stopped due to power supply challenges	77 critical equipment failures occurred in Q2. 7 x Module 1 aerator gearboxes and motors out of operation. Module MCC electrical panel must be replaced. Unsafe. Blowers at Module 2. RAS pumps blockage, WAS pumps blockage, Dewatering level sensor, Outflow meter, module 1 chlorine booster pumps, Unblocking of PST line blockage, Balancing tank screw pump, Inlet works generators failures, Power failures.	9 Power failures, (701 hours in total) 624 hours (26 Days) downtime was due to cable fault which was prolonged by unfavourable weather conditions. 77 hours was due to fault at Eskom 22KV transformer set Were 23 pole and fault at main supply substation in Slovo park. Generators at inlet works and Reactor module 2, RAS and disinfection section were operational during downtime.	N/A	N/A	No veldfires occurred during Q2.	Dried sludge is stockpiled on the plant. Demand for agricultural application is seasonal.	Unlined Dechlorination channels and Emergency dam	N/A	Very strict WUL standard for Micro compliance (E.Coli) zero counts /100ml.	Solid waste (screenings and grit) is removed by CoE.	Gravel access road in very bad conditions and very slippery when wet.	No potable water supply to the plant. Borehole water used for hygiene activities. Drinking water is being trucked in from other plants.

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Critical equipment failures	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Ground water pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
Jan Smuts	Plant compliance for Q2 is 84% Non-compliant parameters: Chemical 68.21% , Physical 91% and Micro 92%	Plant operated at 149% of its hydraulic capacity	Plant operated at 74% of its organic capacity.	Several blockage in the CoE sewer network.	Plant received industrial high strength effluent on 23 of 73 days.	3 critical equipment failures occurred in Q2. Filter feed pump number 2, Biofilter number 5 and chlorine dosing water booster pumps.	1 power failure (11 hours) Generator backup available for entire plant.	Humus Tanks scum boards, digester number 2's wall and the bio-filters' feed flow division box/tower.		None	Dried sludge is stockpiled on site.	Unlined sludge stockpile area can cause ground water pollution	N/A	N/A	Screenings are incinerated at the plant and the grit is buried at the plant. This practice does not comply with WUL conditions.	N/A	N/A
Carl Grundlingh	Plant Complied with WUL effluent standards (98%)	Plant operated at 72,38% of its hydraulic capacity	Plant operated at 47,20% of organic capacity	None	None	2 Critical equipment failures for Q2 (2x recycle pumps)	Carl Grundlingh had 2 power outages with a total duration of 5 hours in Q2	None	N/A	No veldfires occurred during Q2.	Land application of sludge is being used	Unlined sludge to land posing ground water pollution	None	None	Collected by CoE to a dedicated landfill site	Access road to the plant is damaged and requires an upgrade.	None
Herbert Bickley	Plant Complied with WUL effluent standards (92,32%)	Plant operated at 146% of hydraulic capacity	Plant operated at 74% of organic capacity	Excessive rainfall from 03-29 December 2019 causing flooding at the plant	Plant received industrial high strength effluent on 14 of 92 days	34 Critical Equipment (booster pumps, sludge to land pump, chlorine dosing systems, RAS Pumps and raw sludge recycle and desludging pump)	Herbert Bickley had 1 power outages with a total duration of 10 hours in Q2	Anaerobic digesters cracked concrete structures	6 out of 8 digesters not in use due to blockages and leaking digester pipes	No veldfires occurred during Q2.	Sludge used for irrigation at instant lawn	Average compliance of the nine boreholes is 95.5% micro compliance is 100%	None	None	Collected by CoE to a dedicated landfill site	Access road to the plant damaged and requires an upgrade	None
Heidelberg	Plant Complied with WUL effluent standards (96%)	Plant operated at 163% of its hydraulic capacity	Plant operated at 84% of organic capacity	None	Plant received high COD industrial effluent on 17 of 92 days and high SS on 23 days of 92	4 Critical equipment failures for Q2 (1x aerator; 1x chlorine booster, 1x generator, 1x screw conveyor)	Heidelberg had 17 power outages with a total duration of 47 hours in Q2	None	N/A	No veldfires occurred during Q2.	Sludge at the plant stockpiled after dewatering, and is also applied/irrigated to the lands and could potentially contaminate groundwat	Unlined sludge paddies/ lack of ground water monitoring in the sludge paddies	None	None	Screenings and grit generated at the plant are still being buried and this practice is not environmental friendly	The access road to Heidelberg works is severely damaged and a new-tarred road is required urgently	None

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Critical equipment failures	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Ground water pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
											er resources						
Ratanda	Plant Complied with WUL effluent standards (96%)	Plant operated at 83% of its hydraulic capacity	Plant operated at 49% of organic capacity	Experienced 1 incident, no inflow to the plant from 16-17 October 2019 due to blocked main sewer line	None	3 Critical equipment failures for Q2 (1x A-recycle pump; 1x chlorine booster and 1x generator)	20 power outage incidents (81 hrs. total) in Q2.	Drying beds drainage system and chlorine contact tanks are badly leaking structures	N/A	No veldfires occurred during Q2.	Dried sludge is stockpiled on-site.	Unlined sludge ponds and leaking drying beds	None	None	Screenings and grit generated at the plant are still being buried and this practice is not environmental friendly	The access road to Ratanda Works is severely damaged and a new tarred road is required urgently	No link to the Municipal Potable Water Supply, water transported from Heidelberg Works and borehole water is used for other domestic purposes
Tsakane	Plant Complied with WUL effluent standards (96%)	Plant operated at 106% of its hydraulic capacity	Plant operated at 86% of organic capacity	Numerous sewer blockages in the CoE network and potable water supply interruption to Rockville led to inconsistent and irregular	Plant received high COD Q2 of 92 days N/A. Domestic only.	4 Critical Equipment (Brush Aerators 2 and 5, effluent sampler)	Tsakane had 14 power outages with a total duration of 30 hours in Q2	None	N/A	No veldfires occurred during Q2.	Sludge pumped to unlined lagoons/paddies for solar drying. Drying beds have been decommissioned.	Unlined sludge lagoons and paddies/ lack of ground water monitoring at the sludge lagoons and paddies	None	None	Collected by CoE to a dedicated landfill site	None	None

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Critical equipment failures	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Ground water pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
				flow to the plant													
Dekema	Plant did not comply with WUL effluent standards. Physical 89% Chemical 76% Micro 71%	Plant operated at 94% of hydraulic capacity	Sufficient capacity. Plant operated at 85% organic capacity	High flows of up to 39,1 Ml/day occurred from dates due to stormwater ingress. Rainfall measured at the plant was 52mm.	High COD loading rate of 54 286kg/day (>design: 23 455kg/day)	4 Critical equipment failures occurred in Q2, namely breakdown of 2 sludge withdrawal pumps and 2 cascade pumps (final effluent mixing/aeration)	11 Outages occur (34 hrs total) Load shedding is a big concern.	Channels feeding sections partially collapsed.	1 out of 12 Anaerobic digesters is blocked	No veldfires occurred during Q2.	Sludge pumped to unlined lagoons for solar drying and dried sludge spread to land area to be plough into land.	Unlawful disposal of grit (grit is buried on-site in a trench).	None	N/A	N/A	N/A	N/A
Rondebult	Plant did not comply with WUL effluent standards Chemical 87% Micro 86%	Plant operated at 79.8% of hydraulic capacity.	Plant operated at 98 % of organic capacity.	High and low flows due to the sluice gate installed at Klippoortjie . High flows of up to 27,2 Ml/day occurred from dates due to stormwater ingress. Rainfall measured at the plant was 22mm.	Plant received industrial high COD effluent on 26 of 87 days.	16 Critical equipment failures for Q2. Namely: 4 failures on the ferric chloride dosing system, 1 PST bridge, 1 x Degritter panel, 3x primary biofilter feed pumps, 4 x Secondary biofilter feed pumps, 1 x Inflow meter, 1 x Humus pump and 1 x genset.	15 Outages occur (75 hrs total) Load shedding is a big concern.	Bio filter walls cracked. Brickwork of open channels are unstable and cracked.	None	No veldfires occurred during Q2.	Dried sludge is spread on to land and plough into land.	Unlawful disposal of grit and screenings (grit is buried on-site in a trench).	The entire area of the plant are dolomitic	N/A	N/A	N/A	Underground rusted pipe needs to be replaced

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Critical equipment failures	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Ground water pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
Vlakplaats	Plant did not comply with WUL effluent standards Chemical 78% Micro 50%	Plant operated at 223% of hydraulic capacity. Needs to be upgraded	Plant operated at 118% of organic capacity	High flows of up to 176,4 Ml/day occurred from dates due to stormwater ingress. Rainfall measured at the plant was 50mm.	Plant received industrial high strength effluent on 11 of 92 days	3 Critical equipment failures occurred in Q2 - Namely: 4 failures of the ferric chloride dosing system. 44 failures of the DBF dosing system, 7 failures of the WAS pumps/VSD,	14 Outages occur (42 hours in total) Load shedding is a big concern.	Digesters and gas holders concrete structures cracked and leaking badly	None	No veldfires occurred during Q2.	Dried sludge is stockpiled on the plant. Demand for instant lawn application is seasonal	Unlawful disposal of grit (grit is buried on-site in a trench).	Area around bio filters at Mod A are dolomitic	N/A	N/A	N/A	
Waterval	Plant Complied with WUL effluent standards Average (95%)	Plant operated above capacity (operated at 118% capacity)	Sufficient capacity Plant operated at 164% organic capacity.	High flows of up to 473,1 Ml/day occurred from dates due to stormwater ingress. Rainfall measured at the plant was 50mm.	Plant received industrial high strength effluent on 5 of 92 days. Plant is receiving and treating 30 m ³ of leachate daily from EnviroServ	95 Critical equipment failures occurred in Q2 Mainly from 27 x DAF Recirculation pumps, solenoid, valves leaking, 4 x Cornell pump failure, 35 x aerators failure and trippages, 2 x Blower failure due to power dip, 7 x Dewatering loss of signal, 16 x Sludge transfer pump failures and 4 x Digester pump failures	None	None	None	No veldfires occurred during Q2.	Dried sludge is stockpiled on the plant. Demand for agricultural application is seasonal.	Unlined Emergency dams. Unlawful disposal of grit (grit is buried on-site in a trench).	None	N/A	N/A	N/A	

3.5. Project/Infrastructure Report

The following Table 6 report the progress on multi-year development projects that are being initiated for plants capacity upgrade and efficiency. These are in line with the capacity requirements and challenges as mentioned in Capacity upgrade plan and 2019/20 SDBIP reports.

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3. Financial Report

Table 5: Operational expenditure

Line item	Total Original Budget	Total Revised Budget (Applicable only after Adjustment)	Budget for Quarter	Actual for Quarter	Variance	Actual for FY (Yr to date)	Variance for year (Yr to date)
Employee related Costs- Salaries & Wages)	346 451 000	379 002 559	102 888 530	96 942 140	(5 946 390)	178 174 828	(11 326 452)
Remuneration of Directors	3 288 000	3 465 003	910 502	257 784	(652 718)	962 440	(770 062)
Bad debts (Provision for Bad debts)	1 024 000	1 625 838	556 919	781 058	224 139	557 788	(255 131)
Depreciation	71 805 000	74 051 053	19 074 277	31 777 524	12 703 248	48 275 937	11 250 411
Repairs and Maintenance Planned	111 879 819	113 822 342	28 941 216	42 727 021	13 785 804	69 615 086	12 703 915
Repairs and Maintenance Ad-hoc	12 431 091	12 646 927	3 215 690	4 747 447	1 531 756	7 735 010	1 411 102
Interest expense	61 504 000	57 021 499	13 134 750	10 842 589	(2 292 161)	23 978 648	(4 532 102)
Bulk purchases	202 296 499	207 984 589	53 418 170	72 831 446	19 413 277	110 293 445	6 301 151
General Expenses- Other	163 901 591	150 069 280	34 059 242	18 830 814	(15 228 428)	38 930 726	(36 103 914)
Total Operating Expenditure	974 581 000	999 689 090	256 199 294	279 737 822	23 538 528	478 523 907	(21 320 638)

A narrative is required on key trends and expenditure: **Detailed Analysis of the repairs and maintenance is required (esp. departments with a big allocation)**

Table 6: Capital expenditure

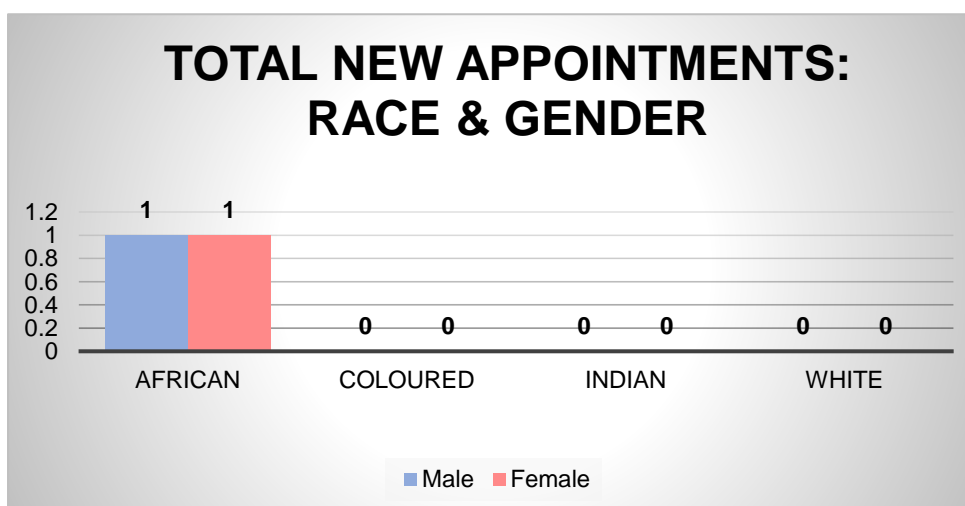
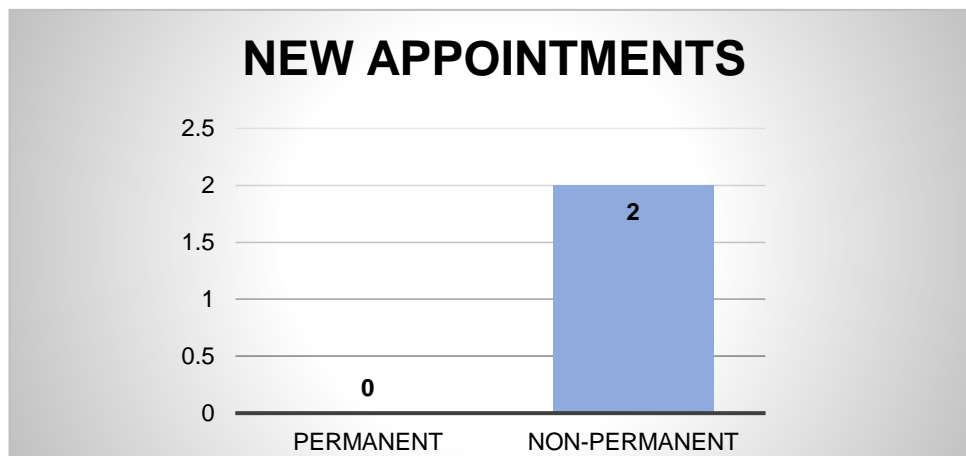
PERIOD	TARGETED CUMULATIVE (R Million)	TARGETED CUMULATIVE (%)	ACTUAL CUMULATIVE YTD	ACTUAL CUMULATIVE % YTD (R121Million)
Quarter 1	R 24 280 000,00	20%	R 26 458 683,28	21.79%
Quarter 2	R 48 560 000,00	40%	R 50 586 213,42	42. 29%
Quarter 3	R 84 980 000,00	70%		
Quarter 4	R 115 330 000,00	95%		

4. Human Resources

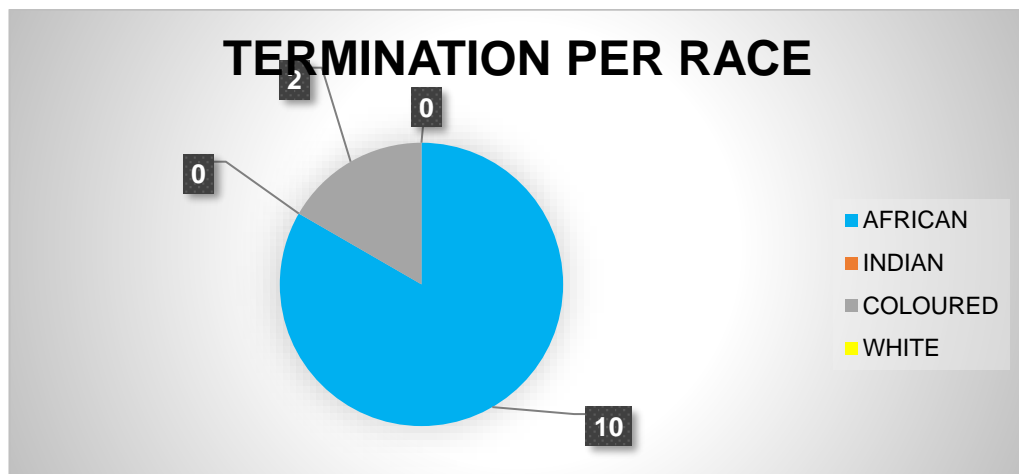
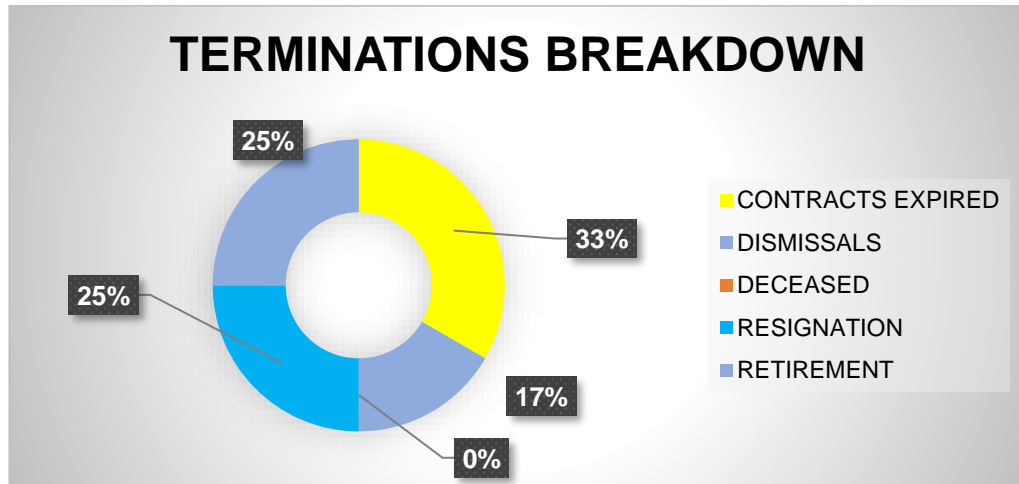
4.1 Staff Movements

Staff Movements	African		Coloured		Indian		Whites		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
Recruitments	1	1	0	0	0	0	0	0	2
Resignations	2	1	0	0	0	0	0	0	3
Retirements	2	0	1	0	0	0	0	0	3
Contract Expired	2	1	0	1	0	0	0	0	4
Dismissals	2	0	0	0	0	0	0	0	2
Deceased	0	0	0	0	0	0	0	0	0
Promotions	0	0	0	0	0	0	0	0	0

4.1.1 Appointments



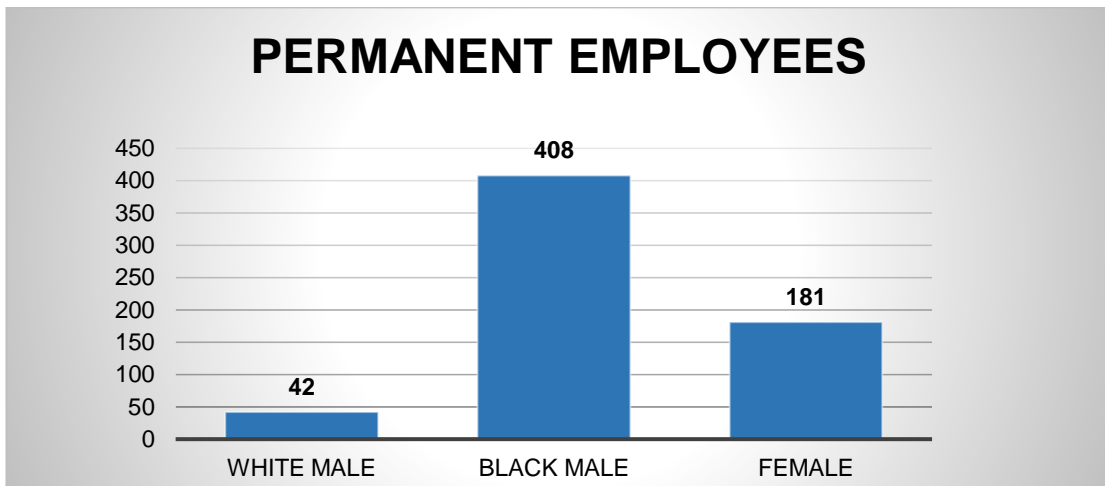
4.1.2 Terminations



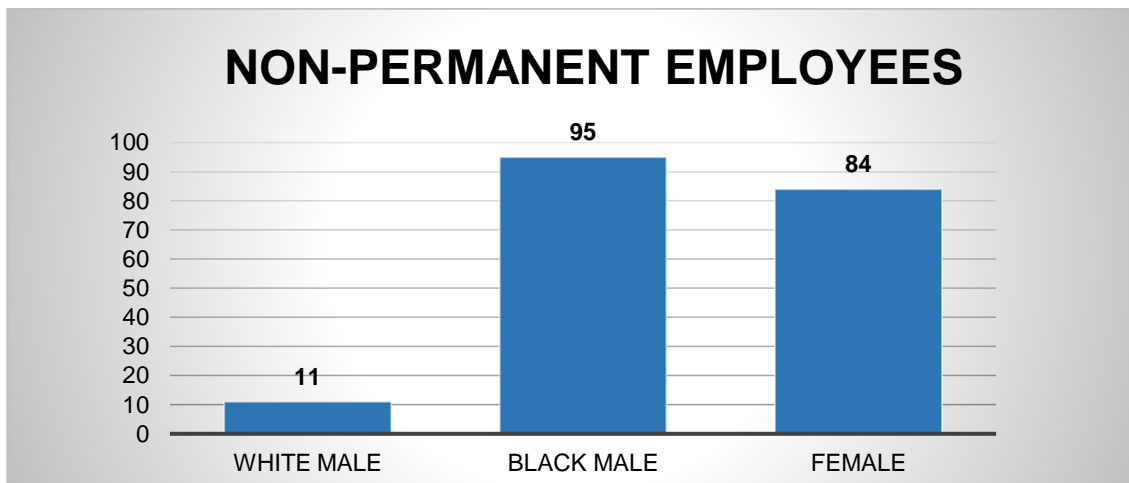
Status Analysis

- During the period under review, two (2) non-permanent employees were appointed.
- During the period under review, 12 employees exited the organisation for the following reasons;
 - 4 contracts expired;
 - 3 resigned for various reasons;
 - 3 retirements; and
 - 2 dismissals

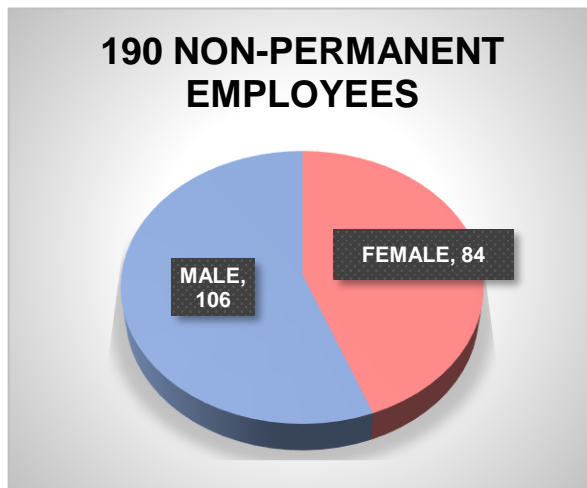
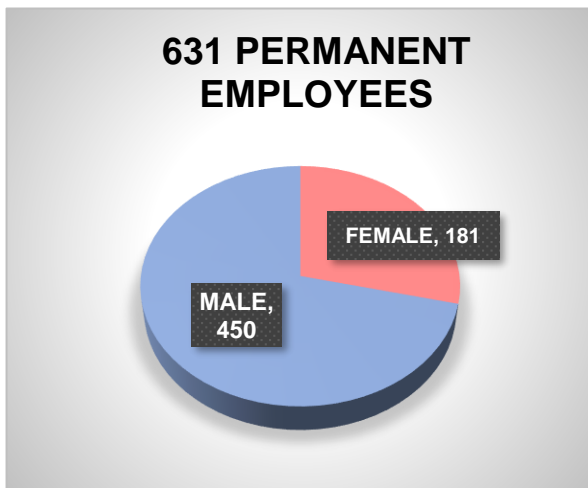
4.2 Employment Equity Demographics



ERWAT has **631** permanent employees;



ERWAT has **190** non-permanent employees.



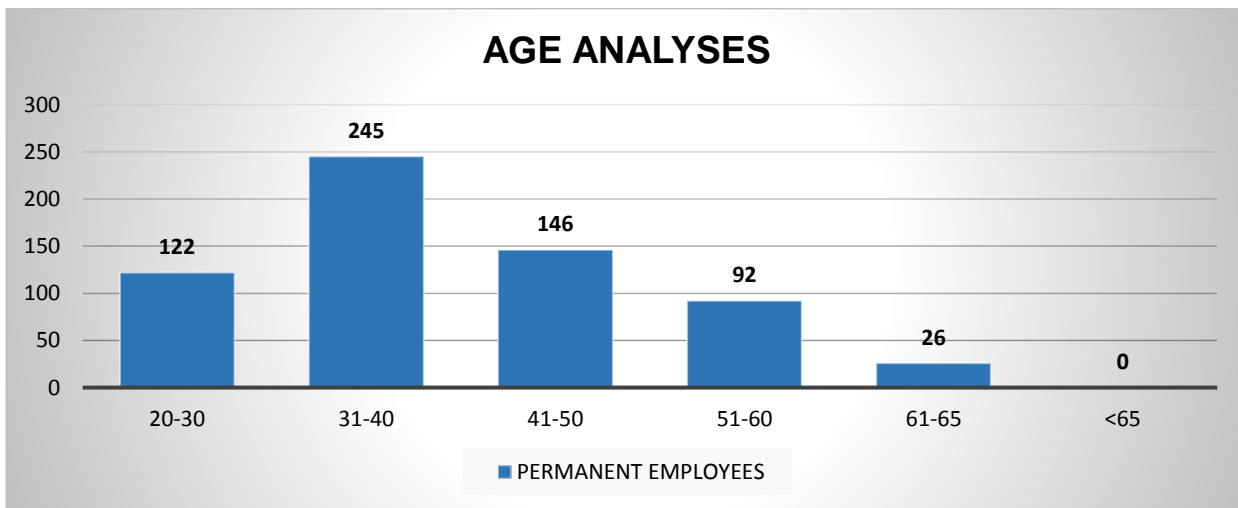
Status Analysis

- The employment demographics of ERWAT as at 31st December 2019 reflects;
 - Females in both permanent and non-permanent positions within ERWAT account for 265 or 32% of total positions filled.

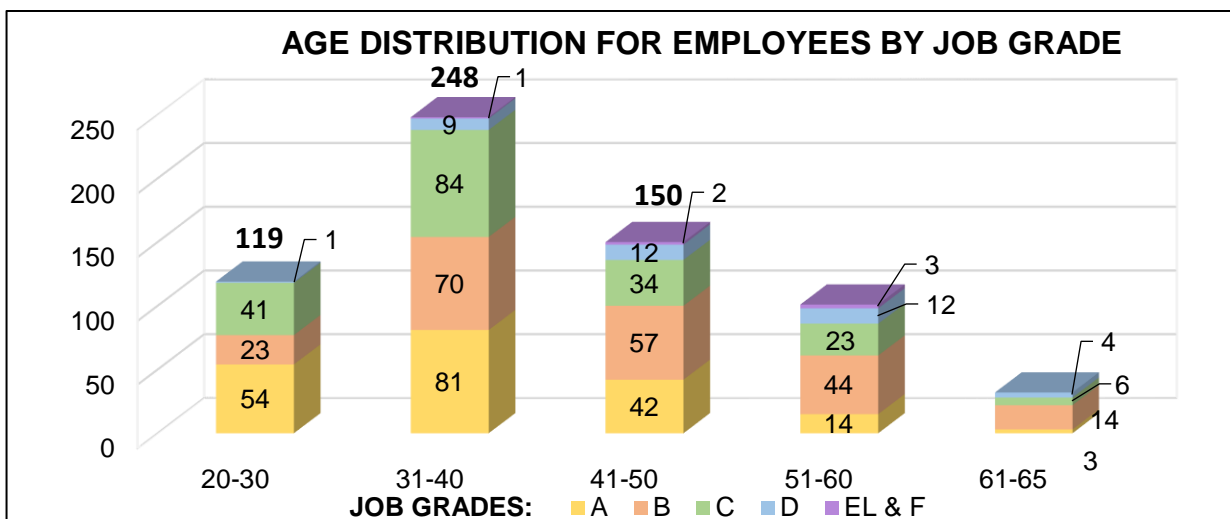
EE Update

- In support of the approved Employment Equity (EE) Plan, ERWAT is in the process of establishing a disability forum to assist the organisation in developing a structure approach to the recruitment of people with disabilities.

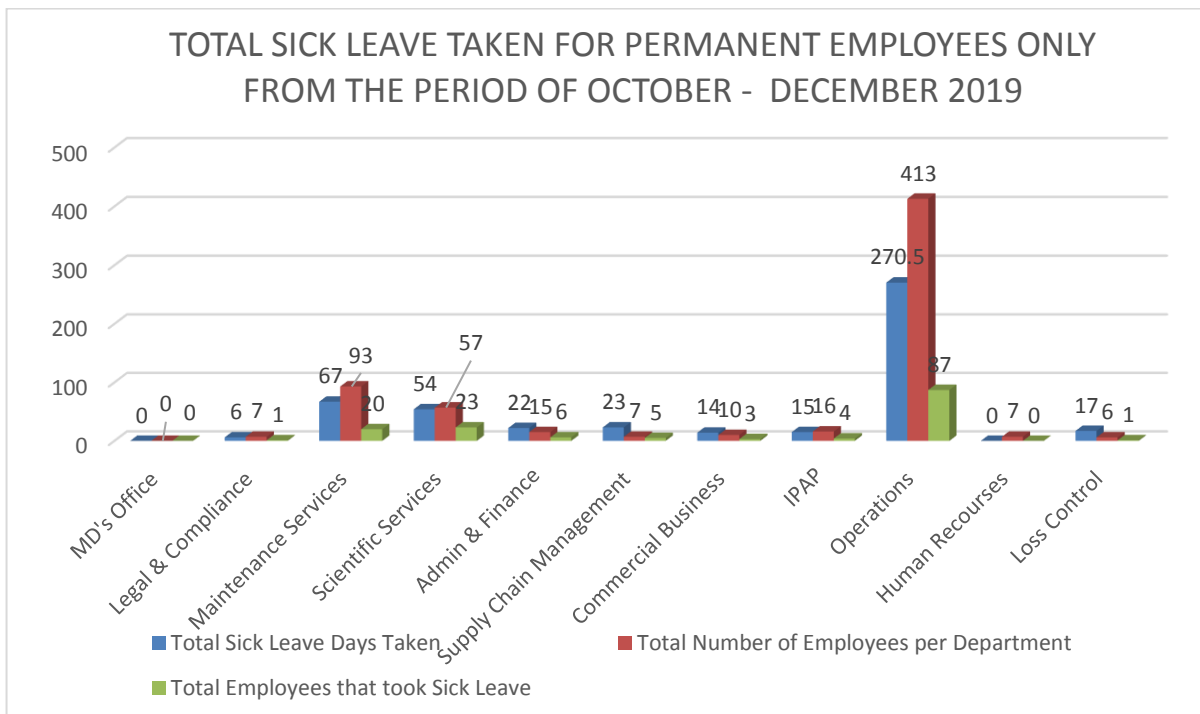
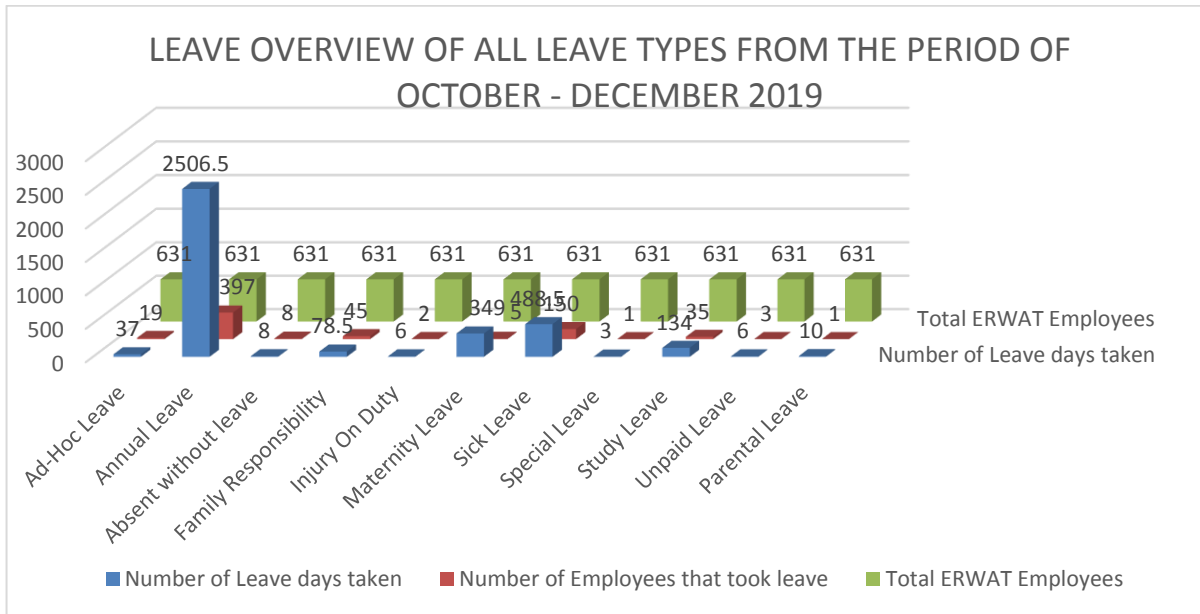
4.3 Age Analysis



- Average age as at 09/2019 = 38



4.4 Leave Management



Status Analysis

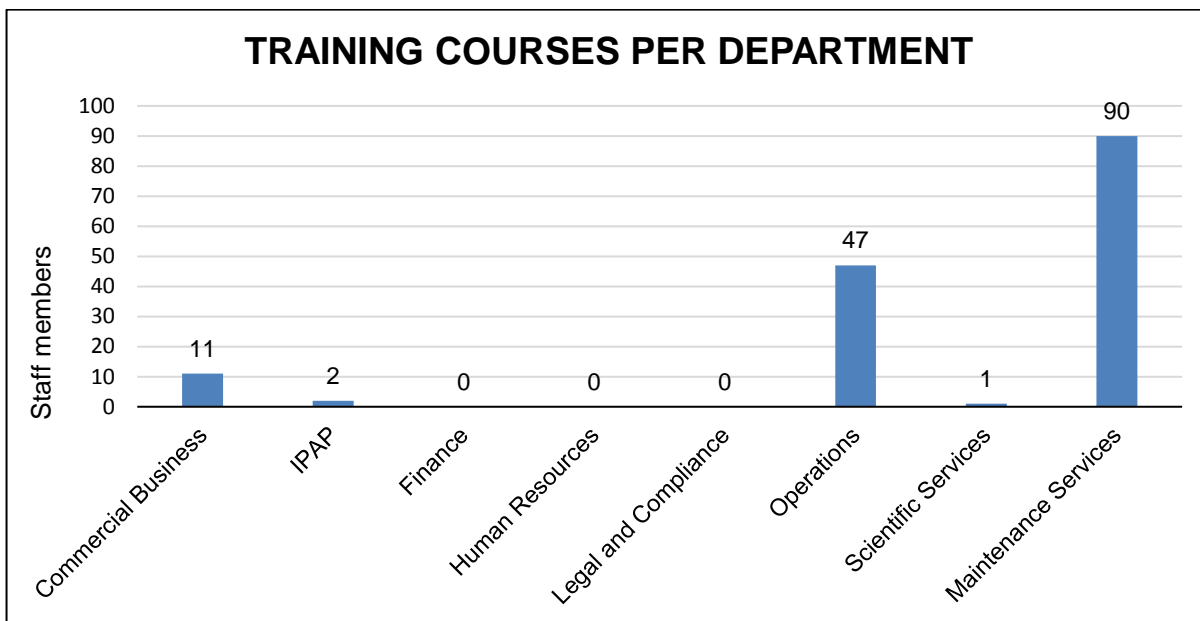
- Total number of employees who took sick leave during the period under review are 150. The total sick leave taken equates to a minimum of 3 days per employees. Sick leave are monitored on a regular basis to prevent the abuse of sick leave.

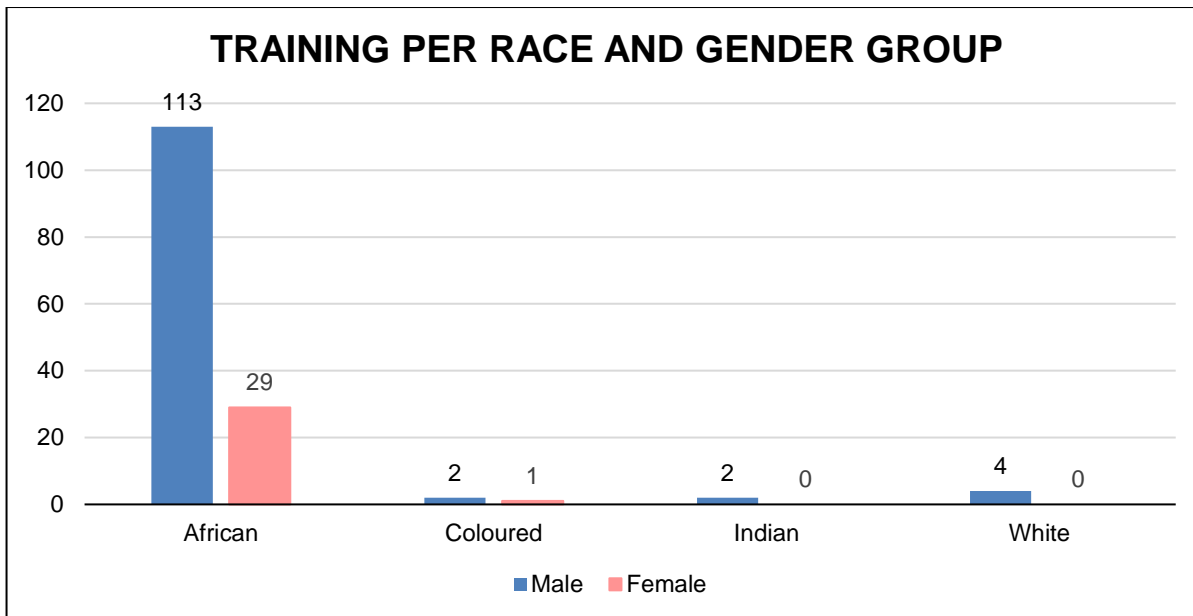
Overtime Trends

	Quarter 1	Quarter 2
Total Hours	33 552.41	35 404.75 excl. Dec. fig
Total Cost	R 7 040 384.02	R4 770 913.80 excl. Dec. fig

- Overtime is planned, monitored and approved by management, as per the needs of the various business units.

4.5 Training and Development





Status Analysis

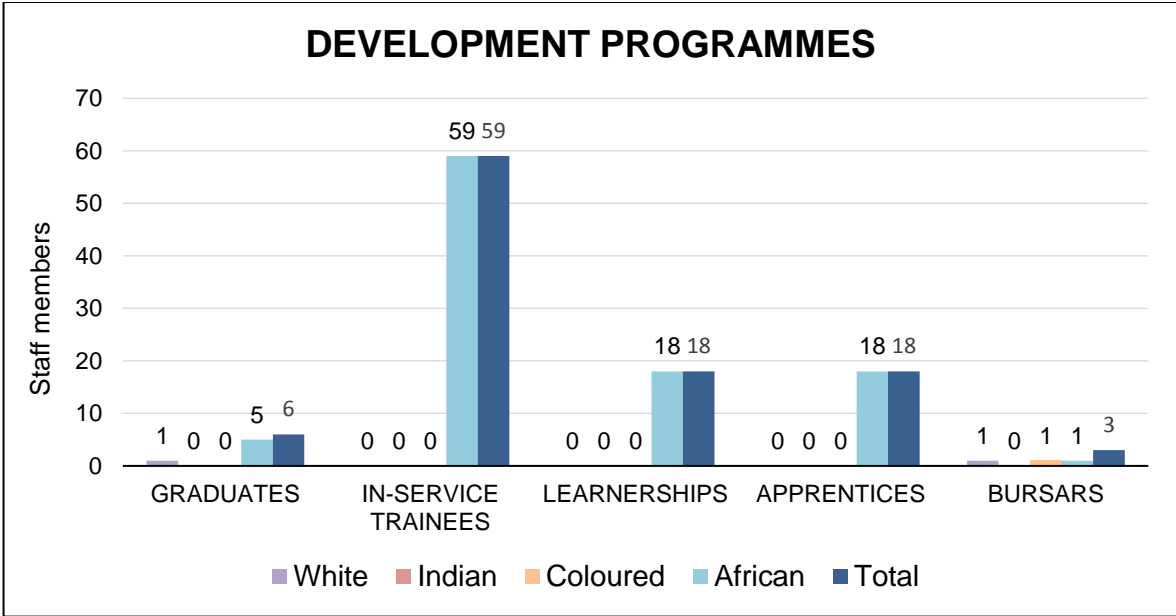
During the period under review;

- 151 employees were trained through short courses/workshops and conferences.
- 29 (97%) were African Females, and 1 (3%) were Coloured
- 113 (93%) were African Males; 2 (2%) were Coloured Males; 2 (2%) were Indian Males and 4 (3%) were White Males

Employees trained per Department were;

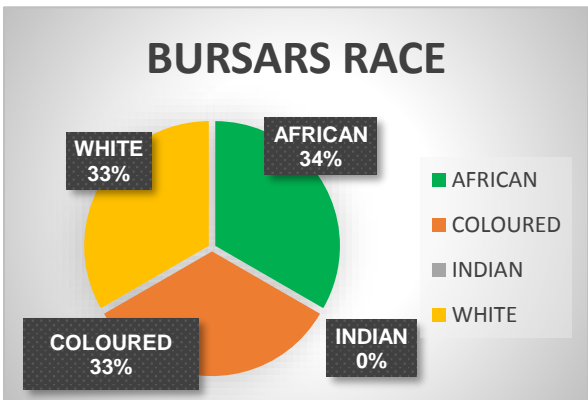
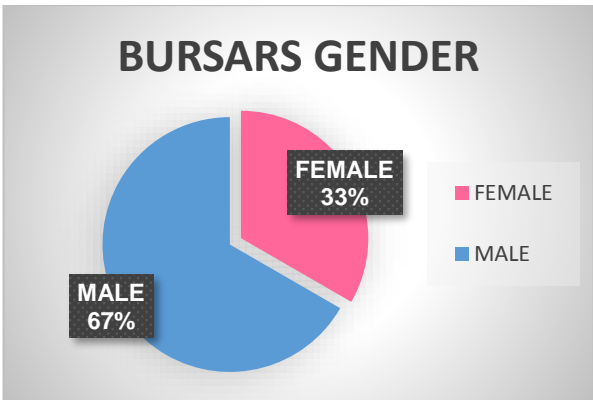
- 47 (31%) in Operations;
- 1 (1%) in Scientific Services;
- 90 (60%) in Technical;
- 0 (0%) in Legal and Compliance;
- 0 (0%) in Human Resources;
- 11 (7%) in Commercial Business;
- 0 (0%) in Finance and Supply
- 2 (1%) in Infrastructure Planning and Projects

DEVELOPMENT PROGRAMMES



Status Analysis

- As of 31 December 2019, the organization has a Total of 104 Contractors, Graduates, In-service trainees, Learnerships, Bursars and Apprentices.
- The breakdown per race is as follows:
 - 0 (0%) Indian
 - 1 (4%) Coloured
 - 2 (2%) White
 - 97 (80%) African



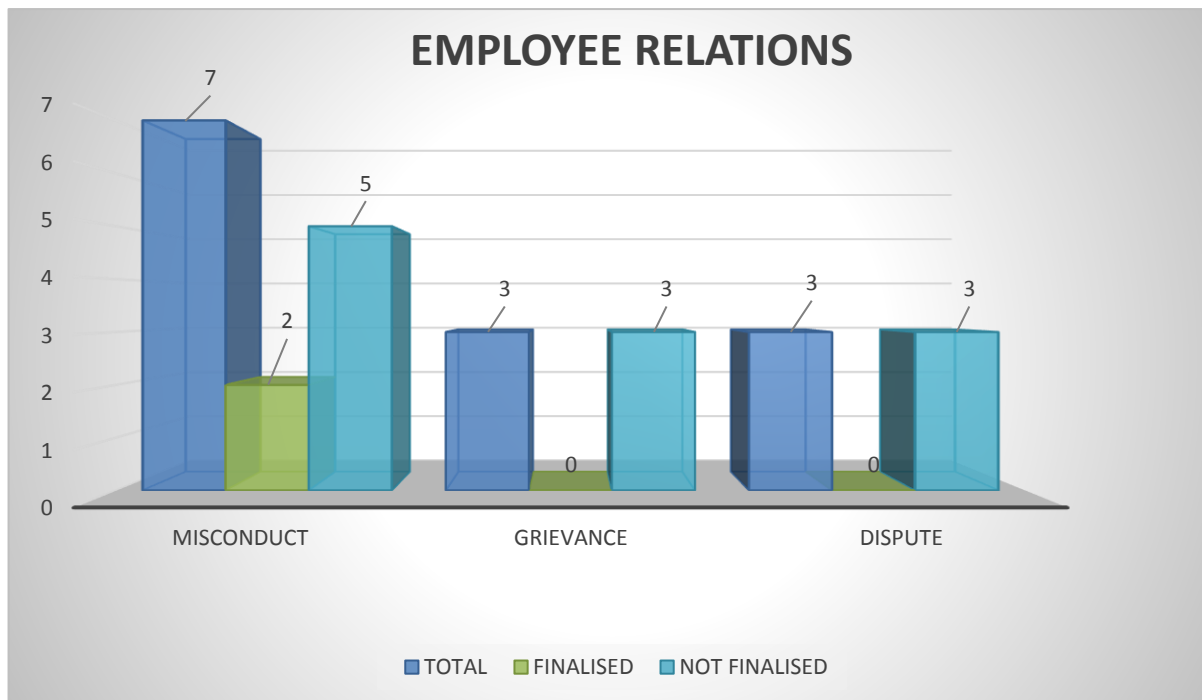
4.6 Performance Management

Status Analysis

- First quarter evaluations were conducted informally.
- Quarter 2 evaluations will be conducted in January 2020.

4.7 Employee Relations

The core function of employee relations in the institution is to ensure the maintenance of harmonious working relations and effective and efficient workplace structure to support to the organisation on the implementation processes to promote labour relations.



Misconduct				
Job Grade	Nature of Alleged Misconduct	Date Lodged	Disciplinary Action Taken	Date to be Finalized
D2	Misconduct	01 July 2019	Employee to appear at Disciplinary Hearing	Unresolved
D2	Misconduct	01 July 2019	Employee to appear at Disciplinary Hearing	Unresolved
D2	Misconduct	01 July 2019	Employee to appear at Disciplinary Hearing.	Unresolved
C3	Misconduct	10 September 2019	Employee to appear at Disciplinary Hearing	Unresolved
C3	Misconduct	10 September 2019	Employee to appear at Disciplinary Hearing	Unresolved

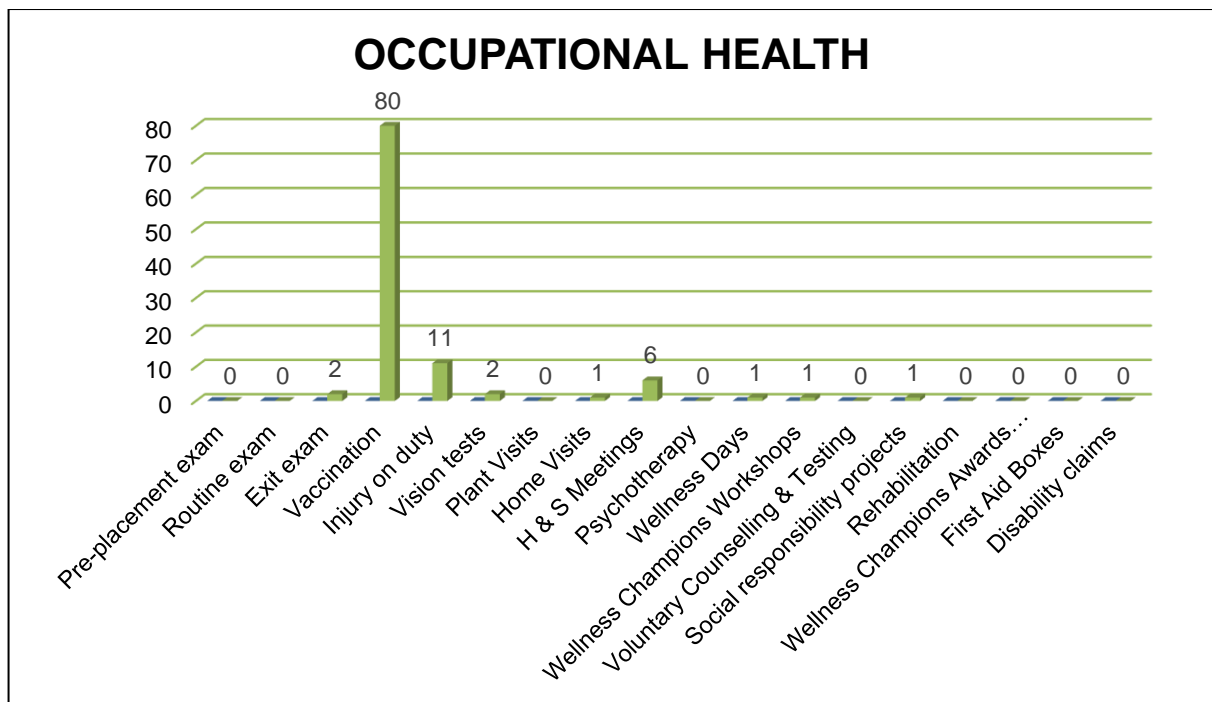
C3	Misconduct	01 July 2019	Contract of Employment Terminated	Resolved
A2	Misconduct	01 July 2019	Contract of Employment Terminated	Resolved

Grievances				
Job Grade	Nature of Grievance	Date Lodged	Process Followed	Date to be Finalized
C1	Unfair labour Practice	01 July 2019	Date has been scheduled for grievance meeting.	Unresolved
C1	Unfair labor practice	07 August 2019	Date has been scheduled for grievance meeting.	Unresolved
C1	Unfair labour practice	27 August 2019	Date has been scheduled for grievance meeting.	Unresolved

Disputes			
Nature of Dispute	Date Lodged	Process Followed	Date to be Finalized
Unfair Labour Practice X2	1 st July 2018	Referred to Labour Court	Unresolved
Matters of Rights	8 th April 2019	Referred to the Bargaining Council	Unresolved

4.8 Employee Wellness Programme Explanation

ERWAT Occupational Health Services offers Wellness Programme as follows;



HIV/AIDS Workplace Programme

- ERWAT has 49 Wellness Champions (WC) that are placed on all 19 Plants including the Laboratory and Head Office, during the period under review, 1 workshop were conducted.
- The core function of the WC is to assist the Occupational Health Nurse, in identifying any health & wellness concerns amongst employees, monitor absenteeism, specifically sick leave; they also provide health education in a form of frequently scheduled meetings with employees on site.

Table 8: Percentage of Salary to total OPEX

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	YTD – Actual
Total Salary Cost	R 82 909 685	R 96 227 583			
Total Opex	R 216 055 454	R 262 436 196			
% of Salary to Opex	38.37%	36,67%			

5. Procurement Practices, Job Creation and Mainstreaming

PROCUREMENT ACTIVITIES

- ERWAT awarded tenders to the value of R1 885 954.58 from 51%-99% HDI owned companies and R1 885 954.58 to companies with 30%-100% black female ownership and R0 to companies with 1%-30% black female ownership for Quarter 2 of the 2019/2020 FY (period: 01 October 2019 to 31 December 2019).
- Refer to the table below for a summary of the BEE award practices for the 2nd quarter and year to date. 100% of total awards were made to HDI owned businesses with more than 50% ownership for Quarter 2 of the 2019/2020 FY (period: 01 October 2019 to 31 December 2019).

SUMMARY OF ACTIVITIES

ANNEXURE A - SUMMARY OF AWARDS (MONTHLY)					
INFORMATION REGARDING BIDS FOR QUARTER 2 FOR THE PERIOD ENDED 31 DECEMBER 2019					
CATEGORY	QUARTER 2			YEAR TO DATE TOTAL	% OF YEAR TO DATE TOTAL
	OCTOBER	NOVEMBER	DECEMBER		
0% HDI / JURISTIC PERSON	-	-	-	-	0%
1-50% HDI	-	-	-	-	-
51-99% HDI	-	-	-	1 006 238.97	16%
100% HDI	1 885 954.58	-	-	5 215 471.08	84%
TOTAL	1 885 954.58	-	-	6 221 710.05	100%
SIZE OF COMPANY	OCTOBER	NOVEMBER	DECEMBER		% OF YEAR TO DATE TOTAL
LARGE	-	-	-	-	0%
MEDIUM	1 885 954.58	-	-	6 221 710.05	100%
SMALL	-	-	-	-	0%
MICRO	-	-	-	-	0%
TOTAL	1 885 954.58	-	-	6 221 710.05	100%
AWARDS MADE TO:	OCTOBER	NOVEMBER	DECEMBER		
FEMALES	-	-	-	-	0%
BLACK FEMALE 30-100%	1 885 954.58	-	-	1 885 954.58	47%
MILITARY VETERANS	-	-	-	-	0%
PWD	-	-	-	-	0%
YOUTH	-	-	-	-	0%
BLACK FEMALES 1 - 30%	-	-	-	2 098 826.40	53%
	1 885 954.58	-	-	3 984 780.98	100%
BBEEE SCORE CARD	OCTOBER	NOVEMBER	DECEMBER		% OF YEAR TO DATE TOTAL
EME	1 885 954.58	-	-	1 885 954.58	30%
QSE	-	-	-	2 098 826.37	34%
GENERIC	-	-	-	2 236 929.10	36%
TOTAL	1 885 954.58	-	-	6 221 710.05	100%
AWARD MADE TO	OCTOBER	NOVEMBER	DECEMBER		% OF YEAR TO DATE TOTAL
EMM BASED COMPANIES	-	-	-	4 335 755.47	56%
NON EMM BASED	1 885 954.58	-	-	3 401 413.55	44%
	1 885 954.58	-	R 0.00	7 737 169.02	100%

6. Risk Management

Risk assessment provides an assessment of the relevant and critical risks through a classification and rating system, and mitigating actions and KPIs and targets that can be incorporated in the Balanced Scorecard. The reporting on the risk management into the quarterly reporting process is to ensure that the key

Table 11: Risk Assessment

Risk Ref	Risk Title	Contributing Factors	Impact / Consequences	Current Mitigation Controls	Additional Controls Risk Mitigation Plan	Progress Status Q2 2019/20(Narrative)
ERW1	Inability of ERWAT to be financially sustainable	1. Legislative Limitations/MFMA Section 164 Forbidden Activities	1. Financial Loss 2. Limitation on profit generation thus increasing reliance on parent municipality for user charges.	1. Section 78 MSA process	1. 'Request permission from council to conduct business outside City of Ekurhuleni(For Municipal Services Related Project)	1. Action plan completed, there will be no further reporting.
		2. The Entity relies on the parent municipality to finance both Operational and Capital budget requirements through user charges and USDG Grants.		2. 5-year MTREF Budget Cycle Process (USDG)	2. 'Request permission from National treasury to conduct business outside RSA	2. Action plan completed, there will be no further reporting.
		3. Inadequate sales and marketing strategy		3. Annual Industry conferences and Seminar (e.g Articles in Local Business Magazines, Exhibitions at Conferences)	3. 'Investigate other sources of funding.(e.g PPP)	3. The financial model is under development and the project is 95% complete
		4. Inefficient Pricing Model (ERWAT pricing might not be competitive, making current and Competitor reaction to the market		4. ERWAT organisational Strategy	4. 'Request the city for additional Capital funding from other funding sources/grants within the CoE.	4. Additional Capital Funding to the value of R24 million has been requested from the City of Ekurhuleni, during the adjustment budget process.

Risk Ref	Risk Title	Contributing Factors	Impact / Consequences	Current Mitigation Controls	Additional Controls Risk Mitigation Plan	Progress Status Q2 2019/20(Narrative)
ERW1	Inability of ERWAT to be financially sustainable	5. Competitor reaction to the market		5. (a) Scientific Services pricing model.	5, ' Development and Implementation of Sales and Marketing Strategy.	5. There was no progress made towards the development of a sales strategy for the period under review.
		6. Inadequate Client Relationship Management (Customer service and after sales management)		6. Pricing Satisfaction Questions in Survey Customer Satisfaction Survey conducted	6, 'Development of an Enterprise wide Financial Model.	6. The financial model is under development and the project is 95% complete
		7. Inadequate measures by the City to enforce by-laws to deal with industrial pollution		7. Strategic Partnerships with market leader and key role players in the water industry through Memorandum of Understandings and Memorandum of Agreements.	7. 'Development of an Internal Performance management system(KPA's & KPI's) to monitor ERWAT performance against Client expectation/agreement and to enhance continuous improvement	7. There was no progress for the period under review.
		8. Negative publicity about pollution tarnishing the image of the organisation, making potential customers to lose confidence in ERWAT (Directives)		8. Customer Services Satisfaction Surveys conducted quarterly	8. 'Implement Quarterly Business Reviews	8. No progress made for the period under review
ERW1	Inability of ERWAT to be financially sustainable	9. Level of BBB-EEE Compliance/Inadequate and/or no BBEE certificate		9. Awareness program through the Corporate Social Responsibility	9. 'Develop and Implementation of the recommendations from the BBEE Compliance Gap Analysis review	9. The BBEE Verification has been conducted through an independent third party. ERWAT is awaiting the final verification outcome report
				10, BBEE Compliance Gap Analysis reviews		

Risk Ref	Risk Title	Contributing Factors	Impact / Consequences	Current Mitigation Controls	Additional Controls Risk Mitigation Plan	Progress Status Q2 2019/20(Narrative)
ERW2	Inadequate infrastructure capacity to treat wastewater.	1. "Waste Water Treatment Plants (WWTP) operating above their designed capacity	Compromised service delivery.	1. 5-Year Capital Expenditure Plan for current and future infrastructure expansion requirements.	5 Year Capex Plan Major Project 1. Project 1 Olifantsfontein WCW refurbishment and resuscitation of the plant	"5 Year Capex Plan Major Project 1. Project 1 Olifantsfontein - The project is at preliminary design stage.

Risk Ref	Risk Title	Contributing Factors	Impact / Consequences	Current Mitigation Controls	Additional Controls Risk Mitigation Plan	Progress Status Q2 2019/20(Narrative)
		2.Waste Water Treatment Plants (WWTP) operating above their designed capacity		2. Wastewater Risk Abatement Plans	2. Project 2 Vlakplaats Flow Distribution Year Capex Plan Major Project	2 Project 2 Vlakplaats Flow Distribution - Water Use License Application approved on condition that ERWAT meet the material specification
		3. "Waste Water Treatment Plants (WWTP) operating above their designed capacity		3. "Facilities Development Plan	3. Project 3 Waterval: Aeration Blowers	Action plan completed, there will be no further reporting.
ERW2	Inadequate infrastructure capacity to treat wastewater.	4. Inadequate motivation for Capital requirements for projects during the Capital Budget process		4. "Civil Structural Audits	4. Review of Wastewater Risk Abatement Plans and incorporate action plans into planning feasibility study	4. Wastewater Risk Abatement Plans reviewed December 2019 as part of the Green Drop Audit.
		5. Limited capital investment to meet long term infrastructure expansion and upgrades requirements to rehabilitate, replace and expand infrastructure.		5. Facilities Development Plan	5. Update the 50-year master plan after the completing the	5 No progress made for the period under review, this action plan is dependent on the finalisation of the feasibility studies which are at decision modelling phase.
		6. Maintenance plan that is not adequate to deal inadequate asset maintenance planning and execution due to budget constraints.		6. Long Term Capital Budget Plan (5 years) as part of MTREF Budget allocation from the City outlining the requirements	6. Conduct a feasibility study to on wastewater conveyance and treatment system regionalisation and update the 50-year master plan	6. The project is at decision modelling phase
		7. (Infrastructure/Assets are very old and experience breakdowns frequently)		7. Asset Management Policy	7. Review and update the Facility Development Plans (dependent on the finalisation of the master plan)	7. No progress made for the period under review, this action plan is dependent on the finalisation of the feasibility studies which are at decision modelling phase.
ERW2	Inadequate infrastructure capacity to treat wastewater.	8. Technology needed to achieve greater to efficiencies outdated/old		8. Asset Management Maturity Assessments	8. Conduct a comprehensive audit to assess the condition of the Entity's infrastructure	8. The Audit has not started, However the entity has conducted structural assessment as part of its Business Continuity Program
		9. Industrial and residential (Population) growth .		9. Asset Criticality	9. Investigate possible funding through Private Public Partnerships	9. The financial model is under development and the project is 95%

Risk Ref	Risk Title	Contributing Factors	Impact / Consequences	Current Mitigation Controls	Additional Controls Risk Mitigation Plan	Progress Status Q2 2019/20(Narrative)
				Assessments and Classification		complete
		10. Theft and vandalism of manhole covers leading to storm water and high water table ingress		10. Asset Care Plans	10. Review and update the Asset Management Policy	10. The Asset Management Policy has been approved by the Board in November 2019
				11. Asset Maintenance Plans	11. Develop an Asset Management Strategy	11. The Draft Asset Management Strategy has developed.
ERW2	Inadequate infrastructure capacity to treat wastewater.			12. Reliability Engineering Program	12. Asset condition assessment	12. Condition assessments conducted for 8 (Ancor, Hartebeesfontein, Hiedleburg, Ratanda, JP Marais, Tsakene, Carl Grundling & Hebert Bickley) out of the 19 Wastewater Care Works
				13. Maintenance Service Master contracts for critical equipment and emergency breakdowns	13. Asset Management re-assessment to be conducted in 2022	13. Not Started.
				14. Equipment Condition Assessments	14. Review Asset Maintenance Plan	14. Asset Maintenance plans reviewed and approved.
				15. "Installation of Newer Technologies	15. Develop Maintenance Standards and Specifications for critical Equipment's	15. Not started due to funds limitations
ERW2	Inadequate infrastructure capacity to treat wastewater.			16. Hyback Technology	16. Implementation of the recommendations from OEM assessment	16 The recommendations from Equipment condition assessment has been incorporated into the 5-year unfunded CAPEX plan. (The implementation is dependent on the availability of funds)
				17. Nereda Technology	17. Commissioning of the Nereda Technology at Hartebeesfontein Wastewater Treatment Care Works	17. Action plan to be implemented once the supernatant pump and electrical box are installed.

Risk Ref	Risk Title	Contributing Factors	Impact / Consequences	Current Mitigation Controls	Additional Controls Risk Mitigation Plan	Progress Status Q2 2019/20(Narrative)
				18. Member of Technology Assessment Group(TAG) for advise on newer and researched technology	18. Further investigate newer technologies through the TAG group and other means	18. No progress for period under review.
				19. "Research Chair through the University of Stellenbosch	19. Strengthen coordination with City Planning; Water & Sanitation and Human Settlement.	19 . There were no coordination meetings for the period under review
ERW2	Inadequate infrastructure capacity to treat wastewater.			20. ERWAT Research and Development program		
				21. Development applications Approval process. ERWAT –CoE quarterly coordination meetings		
ERW3	Possible failure to achieve Capital Expenditure set target	1. Planning, SCM processes and systems not fully integrated		1. An Integrated Procurement Plan has been developed and implemented.	1. Implementation of Enterprise Resource Planning (ERP) systems in collaboration with CoE.	1. Business Requirements Specification has been finalised. Two(Knowledge management and Financial reporting) of the seven await final sign off.
		2. Delays in Supply Chain Management processes,		2. Supply Chain Management Policy	2. "Integration of Supply Chain Management with the Document Management System as part of the ERP System project	2. Business requirements for the documents management system is under review
		3. Late submission of invoices by suppliers and late payments by ERWAT		3. "Creditors Policy	3. Review Supply Chain Policy to include recommendations as per Governance Maturity Assessment Report 2019	3. Action plan completed, there will be no further reporting.
		4. Project disruptions by members of the community, local business forums demanding a stake in the projects		4. Capital Infrastructure Planning and Project Management Policy	4. "Conduct/review project risk assessment for the upgrading of capacity at (a) Olifantsfontein Capacity Upgrades (b) Flow Modification and Vlaakplaats"	4. (a) Initial workshop held during December 2019

Risk Ref	Risk Title	Contributing Factors	Impact / Consequences	Current Mitigation Controls	Additional Controls Risk Mitigation Plan	Progress Status Q2 2019/20(Narrative)	
						(b) The current assessment is under review.	
ERW3	Possible failure to achieve Capital Expenditure set target	5. Strike by employees disrupting project		5. Monthly CAPEX reconciliation between Finance and Projects	5. Engage CSR office prior to commencement of the project	5. There is no progress made for the period under review.	
		6. Contractor's contract price offer poorly under estimated forcing the contractor not accept the awarding of the contract or pull out of the project.		6. "Capital Expenditure Spending Tracking Tool generated weekly for monitoring and evaluation.		6. Develop a Strike Contingency Plan	6. Business Impact Analysis has been finalised for the Human Resource department. The draft strike contingency plan will form the overall part of the HR recovery plan.
		7. Termination of contract due to poor performance of the contractor		7. "Supply Chain Management Committees appointed with weekly meetings to speed up SCM		7. Invoke penalties for poor performance in line with the Supply Chain Management Policy	7. There were no penalties for the period under review
		8. Possible liquidation of suppliers.		8. Interdepartmental Business Process Mapped on Aris			
				9. "Community engagements and awareness through the Corporate Social Responsibility Office			
ERW3	Possible failure to achieve Capital Expenditure set target			10. Project Community Liaison Officers appointed from the community			
				11. Sub-contracting local businesses			
				12. ERWAT Local Labour Forum			
				13. "Project monitoring through Weekly Meetings			
Risk Ref	Risk Title	Contributing Factors	Impact / Consequences	Current Mitigation Controls	Additional Controls Risk Mitigation Plan	Progress Status Q2 2019/20(Narrative)	

Risk Ref	Risk Title	Contributing Factors	Impact / Consequences	Current Mitigation Controls	Additional Controls Risk Mitigation Plan	Progress Status Q2 2019/20(Narrative)
ERW4	Inadequate preparedness in the event of an emergency.	1. Some plants of the 19 Wastewater Care Works do not have wastewater bypassing systems	1. Compromised service delivery. 2. Attrition of skilled work force. 3. Low staff morale. 4. Unskilled workforce and skills transfer.	1. Invoke penalties for poor performance in line with the Supply Chain Management Policy	1. Develop a Business Continuity Management Policy	1. BCM Policy approved by the board in November 2019
		2. Lack of a comprehensive Business Continuity Management Program		2. No further action plan identified	2. Business Continuity Management Strategy	2. BCM Strategy developed and endorsed by management.
				3. Develop a Business Continuity Management Policy	3. Conduct Business Continuity Management Risk Assessments at Wastewater Care Works	3. BCM Risk Assessment for the following are 90% complete
				4. Business Continuity Management Strategy	4. Conduct Business Continuity Impact Analysis	4. "Business Impact Analysis completed for all departments.
				5. Conduct Business Continuity Management Risk Assessments at Wastewater Care Works	5. Conduct Information Technology Readiness for Business Continuity (IRBC) Gap Analysis	5. Information Technology Readiness for Business Continuity (IRBC) Gap Analysis completed
				6. Conduct Business Continuity Impact Analysis	6. Develop and Implement Information Technology Readiness for Business Continuity (IRBC) Plan	6. Not started.
ERW4	Inadequate preparedness in the event of an emergency.			7. Conduct Information Technology Readiness for Business Continuity (IRBC) Gap Analysis	7. Developing Business Continuity Management Plans	7. Business Continuity Management Plans developed for the 2 (Maintenance and scientific services) of 8 pilot departments
				8. Develop and Implement Information Technology Readiness for Business Continuity (IRBC) Plan	8. Develop BCM Exercising Methodology	8. Draft BCM exercising methodology developed
				9. Developing Business Continuity Management Plans	9. Develop BCM Maintenance Framework	9. Draft BCM maintenance framework developed

Risk Ref	Risk Title	Contributing Factors	Impact / Consequences	Current Mitigation Controls	Additional Controls Risk Mitigation Plan	Progress Status Q2 2019/20(Narrative)
				10. Develop BCM Exercising Methodology		
				11. Develop BCM Maintenance Framework		
Risk Ref	Risk Title	Contributing Factors	Impact / Consequences	Current Mitigation Controls	Additional Controls Risk Mitigation Plan	Progress Status Q2 2019/20(Narrative)
ERW5	Inability to attract and retain key skills.	1. Inability to retain the right skills (specialist);	1. Compromised service delivery. 2. Attrition of skilled work force. 3. Low staff morale. 4. Unskilled workforce and skills transfer.	1. "Career and Succession Planning Policy control	1. Review of the Competency based Progression Plan to Include all the departments	1. Progression plan is currently being updated (70%)
		2. Remuneration is perceived to be lower than industry norm (departure of critical plant personnel);		2. Partial Career Planning Framework	2. Review of the Competency Based Progression (succession) Policy	2. Action plan completed, there will be no further reporting.
		3. Succession planning is not optimal;		3. Recruitment Plan	3. Review and Competency Based Progression Strategy	3. Draft Competency Based Progression Strategy has been developed
				4. 5-year Training and Development Plan	4. Implementation of 2019/20 annual training plan	4. The 2019/2020 Training plan is in the process of implementation. All scheduled training has been executed for the period under review
ERW5	Inability to attract and retain key skills.			5. Employee Benefits Policies	5. Review of Human Resources Policies	5. All HR policy has been reviewed and will be tabled in batches at the Board for approval

7. Legislative (only if applicable to your department)

Compliance Risk Management forms part of the broader risk management within ERWAT. In order to protect ERWAT from the Risk of non-compliance, management has identified and prioritised 6 key legislation. An additional legislation, the Labour Relations Act has been added to the priority list. Compliance Risk Management Plans has been developed and there are quarterly compliance monitoring and reviews to enhance adherence to the key legislation. The below summarises ERWAT's top ten legislation

1. National Water Act 36 of 1998
2. Municipal Finance Management Act of 2003
3. Companies Act 71 of 2008
4. Occupational Health & Safety Act 85 of 1993
5. National Environmental Act 107 of 1998
6. Labour Relations Act 66 of 1995
7. Basic Conditions of Employment Act 75 of 1997
8. Municipal Systems Act 32 of 2000
9. Protection of Personal Information Act 4 of 2000
10. Preferential Procurement Policy Framework Act. No. 5 of 2000

8. Key Audit Matters and Progress

As at the end of Q2, the annual audit of Financial statements had been completed by the AGSA.

The following issues are key and form part of the audit report:

1. Compliance with legislation

1.1. Goods and services of a transaction value of more than R200 000 were procured without inviting competitive bids as per the SCM regulation. Deviations were approved even though it was deemed not impractical to invite bids.

Management considers the reasons for deviating impracticable and has provided evidence thereof to the Auditor General.

1.2. Bid specifications for some tenders were drafted in a biased manner and did not allow all potential suppliers to offer their goods and services.

Management noted the finding and will take steps to resolve the issue.

1.3. Effective and appropriate steps were not taken to prevent irregular expenditure of R12 703 873.

Management noted the finding and has taken further steps in resolving the issues noted.

2. Internal control deficiencies

2.1. Adequate oversight responsibility was not exercised regarding compliance with laws and regulations and related controls which resulted in instances of non-compliance with MFMA and SCM regulations. Further, the annual performance information report was not free from material misstatement.

Management noted the finding and stipulated that ERWAT has a new maintenance plan that is effective from the 2019/2020 year of assessment. This will clarify the calculation of the KPI for % of planned maintenance and provide a more reliable outcome.