ERWAT First Quarter Departmental Performance Reporting

2019/20 QUARTERLY REPORTING TEMPLATE AGAINST THE APPROVED BUSINESS PLANS

1. Executive Summary by the Department

The entity has managed to achieve two (2) 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%. Capital expenditure for the first quarter is at R26.4 million against a budget of R24 million. The target CAPEX spending for the quarter is 21% against a target of 20 %.

Revenue generated during the first is R23 million which is 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.

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*	0	2	2
Departmental SDBIP	4	2	2	2

**only 2 KPI's applicable during quarter 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. ervice Delivery Monitoring

Must be submitted as per the Metro-Wide SDBIP and the Departmental Scorecard as per the Departmental SDBIP (comparison of target versus actual): Brief narrative comparing TARGET activities to ACTUAL activities undertaken as per the Departmental SDBIP (business plan). The comments should include a detailed analysis:

- Analysis in respect of deviations for the reporting period
- Reasons/ mitigations/ implications for recorded deviations
- Plan of action in respect of achieving overall targets by year-end.

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

Q1 Target

R35 million

Q1 Actual

R23 million

Comment:

Target not achieved, only R27 million was generated from external business representing a shortfall of R35 million.

Reasons for not achieving KPI:

The reason for the revenue not achieved was mainly due to bids that did not materialised as per the plans including some of the existing contracts that has expired resulting in less budgeted income.

KPI 2 – Metro-wide

Audit Opinion from AGSA.

Q1 Target

Audit Opinion from AGSA

Q1 Actual

Not Reportable during this quarter

KPI 3 – City-wide

KPI 1 – Metro-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;

Q1 Target

89%

Q1 Actual

87%

Comment:
Not achieved.

Reasons for non-compliance:

Ancor

- **Hydraulic Capacity:** Ancor managed to achieve 66% water quality compliance for Q1. The plant is operating at 202% above its hydraulic design capacity, which leads to poor quality of the final effluent.
- **Industrial effluent**: The plant received high concentrations of industrial effluent on 68 of 92 days in Q1, with the maximum incoming COD of 1998 mg/l, which is 1236 mg/l above the design capacity of 762 mg/l.
- **Failure of critical equipment**: The phosphate and suspended solids removal were affected by the blocked ferric dosing system on 13 different occasions during the quarter.
- Disinfection was affected by chlorinator failures on 9 days.
- Filter feed pumps had 6 failures during the quarter, causing the filters not to have proper rotation and distribution of the water over the stone media.
- Biofilter 9 centre column was removed for repairs and the biofilter was out of commission for 25 days, effecting the final effluent quality due to the reduced capacity.
- **Blocked Digesters:** The desludging of primary settling tanks and humus tanks are affected by 3 blocked digesters (sand), and therefore inefficient sludge removal occurs which affects the downstream plant processes, especially the COD and SS removal efficiency in the biofilters, causing final effluent non-compliances.
- **Poor condition of Infrastructure**: The plant shows signs of structural defects. The biofilter flow division box of biofilter 7-9 partially collapsed during Q1, which negatively affects the even distribution of water over the three biofilters**.**
- The rotating bridges on the PST's are not functional due to fact that the centre columns cannot carry the weight any longer. Therefore, no scum and debris removal is possible with carry-overs to the downstream processes.
- The humus tank scum boards and overflow weirs have broken off due to old age, which results in scum and floating debris overflowing to the final effluent.
- **Old biofilter technology**: Ancor has older trickling filter technology, which is not suitable to treat high strength sewerage containing industrial pollutants.
- **Lack of infrastructure**: Ancor does not have a **chlorine contact tank**, affecting disinfection and impacts negatively on the final effluent micro compliance. The plant fails to produce final effluent complying with the micro standard as per WUL.
- **Industrial Action:** Due to the 3-day industrial action of the ERWAT staff at the end of July, the compliance of the plant was negatively affected for 7 days, as no one was attending to the plant and the older technology plant took a week to recover.

Actions taken:

- **Capacity**: The plant needs to be upgraded urgently to cater for the current backlog in capacity and to make provision for future housing and industrial developments. The new Daggafontein Megacity that is currently under construction directly opposite the plant will require a connection to the Ancor outfall were within this year.
  The organic and hydraulic capacity can be improved by the upgade of the current outdated technology of the plant.
  ERWAT does not have Capex funds to extend/upgrade the plant.
- **Industrial Pollution**: ERWAT is working with CoE Water Quality section to minimize the risk at source, but the plant in its current state is struggling to handle such high concentrations of industrial effluent.
  A steering committee has been established with the CoE to investigate how the impact of industrial effluent discharged to Wastewater Treatment Works can be managed and improved by developing an integrated management model and review the tariff for industrial effluent. The scope of work was finalized and is ready for appointment of a professional consultant by the CoE in Q1.The CoE reported during Q1 that there is no funds available for this project.
- **Critical equipment failures**: The ferric dosing tanks will be cleaned and sedimentation in the tanks removed during Q1, to prevent frequent blockages in the dosung system and pipe work.
  A stand-by chlorinator has been procured and will be installed during Q1. There are no funds to construct a chlorine contact tank to improve the contact time for disinfection.
  Maintenance strategies are being implemented to improve equipment and spares availability and reliability, and ERWAT is in the process of developing asset care plans for critical equipment.
  It must be noted that due to the lack of Capex funds, ageing equipment that has reached the end of their lifespan cannot be replaced, therefore the cost and man- hours to maintain old equipment that is in a poor condition, are escalating, as is the number of breakdowns and unavailability of spares.
- **Poor infrastructure**: An audit needs to be conducted before commencement of the work to clean the blocked digesters due to safety concerns regarding the structural integrity. The structural audit is on hold due to no funds being available.
  The cracked humus tanks, failed scum removal equipment and weirs on PST's and humus tanks, two biofilter distribution boxes that are only functioning partially all contributes to reduced capacity and performance of the process units. The plant is already under tremendous pressure due to the fact that it is operating far above its design capacity, which is reflected in the poor final effluent quality.
  There are no funds to upgrade/rehabilitate the essential infrastructure.

Jan Smuts

- **Hydraulic capacity:** The plant operated at 149% above the design capacity (i.e. 6 Ml/d) which negatively affected all the compliance categories, i.e. physical, chemical and micro compliance for Q1. The plant's capacity was further reduced due to 1 biofilter and 1 digester taken out of operation. (Refer discussion below)

- **Biofilters**: Biofilter number 5 was out of operation for the entire Q1, whilst the condition of the other 5 biofilters are poor with inefficient distribution of water over the filter media.

- **Industrial Pollution**: There were 10 (ten) incidents of black industrial effluent during September 2019, which compromised the performance of the biofilters and resulted in the further deterioration of the final effluent quality.

- **Micro compliance:** There were 16 non-compliances of E.coli during Q1, of which 4 of the 16 were caused by the industrial action of the ERWAT staff, which took place at the end of July 2019. The remaining 12 non- compliances was as a result of continuous blockages in the chlorine dosing system, caused by high suspended solids in the wash water used by the booster pumps, as well as ineffective , corroded scum boards and overflow weirs on the humus tanks, as discussed below.

- **Ageing infrastructure**: The scum boards on the humus tanks are corroded which result in scum and floating debris flowing downstream to the final effluent. This affects the quality of the final effluent in terms of COD, SS and E.coli.

- One digester is cracked and leaking badly, therefore it was taken out of operation, which caused a further constraint on the digestion capacity of the plant.

- The sludge feed pipe to the digesters cracked during August, resulting in reduced capability to desludge the PST's.

Action taken:

- **Hydraulic and organic Capacity:** The upgrade of the old biofilter technology is essential to improve the plant's hydraulic capacity and improve the treatment of the plant's capacity to treat industrial pollution. Unfortunately there are no funds available.

- **Biofilter equipment**: Centre columns and distribution arms for all 6 biofilters were procured in Q4 of 2018/2019, and will be installed during October of 2019.
- **Industrial pollution** incidents were reported to CoE Water Quality Officer and investigations are currently conducted. Samples was submitted to Scientific Services for finger printing to assist in tracing the source of the illegal industrial pollution. The results are not yet available. A steering committee has been established with the CoE to investigate how the impact of industrial effluent discharged to Wastewater Treatment Works can be reduced by developing an integrated management model and review the CoE tariff model for industrial effluent. The scope of work was finalized during the previous financial year, and the appointment of a professional consultant by the CoE is pending, subject to availability of funding by CoE

- **Micro compliance**: A new chlorine dosing system with booster pumps will be installed during Q3 of 19/20, which will reduce the number of failures.

- **Ageing infrastructure**: CAPEX funds have been requested for the replacement of corroded scum boards and overflow weirs, as well as the rehabilitation of the cracked digester, but no funds for 19/20 is available. The cracked sludge pipe will be repaired during Oct.2019.

Dekema

- **Hydraulic Capacity:** Dekema managed to achieve 78% water quality compliance for Q1. The plant is operating at 101% above its hydraulic design capacity.

- **Failure of critical equipment**: The phosphate and suspended solids removal were affected by the blocked ferric dosing system on several occasions during the quarter.
- Filter feed pumps had causing the filters not to have proper rotation and distribution of the water over the stone media.

- **Poor condition of Infrastructure**: The plant shows signs of structural defects. The biofilter flow channel partially collapsed during Q1**.**

- **Old biofilter technology**: Dekema has older trickling filter technology, which is not suitable to treat high strength sewerage containing industrial pollutants.

- **Lack of infrastructure**: Dekema does not have **chlorine contact tank/channels**, affecting disinfection and impacts negatively on the final effluent micro compliance. The plant fails to produce final effluent complying with the micro standard as per WUL. During the last month of Q1 Dekema did change over from Hypochlorite solution to Hypochlorite Tablets for the disinfection process. This process was tested and optimize for the removal of E-Coli in terms of the WUL.

- **Industrial Action:** Due to the 3 day industrial action of the ERWAT staff at the end of July, the compliance of the plant was negatively affected for 7 days, as no one was attending to the plant and the older technology plant took a more than a week to recover.

Actions taken:

- **Capacity**: The organic and hydraulic capacity can be improved by the upgade of the current outdated technology of the plant. ERWAT does not have Capex funds to extend/upgrade the plant.
- **Industrial Pollution**: ERWAT is working with CoE Water Quality section to minimize the risk of industrial pollution. A steering committee has been established with the CoE to investigate how the impact of industrial effluent discharged to Wastewater Treatment Works can be managed. The scope of work was finalized and the CoE reported during Q1 that there is no funds available for this project.

- **Critical equipment failures**: The ferric dosing storage tanks will be cleaned and sedimentation in the tanks removed during Q1, to prevent frequent blockages in the dosing system and pipe work.

- **Poor infrastructure:** The structural audit is on hold due to no funds being available. The damage digesters roofs, partially contributes to reduced capacity and performance of this process unit

Vlakplaats

- **Hydraulic capacity:** The plant operated at 156% above the design capacity (i.e. 101 Ml/d) which negatively affected all the compliance categories, i.e. physical, chemical and micro compliance for Q1.
- **Biofilters**: Biofilters at Module B was partially out of operation during Q1.
- **Industrial Pollution**: There were 2 (two) incidents of industrial effluent during Q1, which compromised the performance of the biofilters.

- **Micro compliance:** There were 29 non-compliances of E.coli during Q1, of which were caused by the industrial action and of non-compliances was as a result of continuous blockages in the chlorine dosing system.

Action taken:

- **Hydraulic and organic Capacity:** The upgrade of the old biofilter technology is essential to improve the plant's hydraulic capacity and improve the treatment of the plant's capacity to treat industrial pollution. Unfortunately there are no funds available.
- **Biofilter equipment**: Distribution arms for all 8 biofilters were procured in Q4 of 2018/2019, and will be installed during October of 2019.
- **Industrial pollution** incidents were reported to CoE Water Quality Officer and investigations are currently conducted. Samples was submitted to Scientific Services for finger printing to assist in tracing the source of the illegal industrial pollution. A steering committee has been established with the CoE to investigate how the impact of industrial effluent discharged to Wastewater Treatment Works
- **Micro compliance**: A new chlorine dosing system with booster pumps will be installed during Q3 of 19/20, which will reduce the number of failures.
- **Ageing infrastructure**: CAPEX funds have been requested for the rehabilitation of the cracked digester and gas holders, but no funds for 19/20 is available.

Herbert Bickley

- **Blockage of Humus Tank:** Herbert Bickley achieved 88% and 77% compliance for E.coli and Suspended solids respectively in Q1, the non-compliances are attributed to the blockage of the humus tank. During the unblocking of the humus tank module 2 was isolated this resulted in most of the flow being diverted to module 1, thus creating over hydraulic conditions leading to the excessive bulking of the Clarifies which impacted the disinfection efficiency.

Action taken

- After completion of the draining and unblocking of the Humus Tank, normal flow distribution was regained and stabilization measures were undertaken to ensure the recovery of the plant biomass and operating conditions

Industrial Action

The decline in water quality effluent compliance in July is ascribed to the three day industrial action from the 29th to the 31st July 2019 that induced plant employees to leave the plants unattended. Consequently, the outcome of the absence of process operation and controlling for a period of three days was septic conditions that prolonged the recovery of the plants as can be expected. Both Rynfield, Olifantsfontein and Hartebeesfontein were the most negatively impacted plants in DD3.

Unavailability of process units

The corrosion of the clarifier components at both Hartebeesfontein and Rynfield negatively affected the compliance of the plants in Q1. Similarly the unavailability of two out three Primary Settling Tanks at Olifantsfontein following the blockage of one and the decommissioning of the other, resulted in the accumulation of the solids in the process which affected the final effluent. Furthermore the thickeners (i.e. DAF) were also not available at Hartebeesfontein and Olifantsfontein due to maintenance.

Action taken

- The thickener repairs at Hartebeesfontein involves drainage of the sludge using vacuum truck which was completed on 28 of July 2019. The repair process for the repair of the thickener has been initiated by Maintenance. The Olifantsfontein thickener DAF and module 2 PST have been repaired and are now back in operation. The Designs for the following works at Olifantsfontein has commenced in order to address all issues pertaining to module 3:
- Phase 1 - Rehabilitation of the whole module 3 by rerouting flow to six old PSTs as the existing module 3 main PST is decommissioned due to the dolomitic conditions of the area.
- Phase 2 - Design and construction of a new PST to replace the PST which was decommissioned.
- Phase 3 - Refurbishment of Module BNR including replacement of surface aerators and mixers. The designs are currently at inception stage.

Unavailability of critical equipments

The frequent trippages of the aerators at Rynfield, Hartebeesfontein and Olifantsfontein remains a challenge. The continuous RAS pumps trippage at Olifantsfontein also affected the final effluent compliance. The primary aerator stand at Hartebeestfontein broke and damaged the civil structure.

Action taken

- The aerators at Rynfield and the RAS pumps at Olifantsfontein require replacement subject to availability of funding. The repair of the civil structure at Hartebeestfontein is being attended to by the Maintenance department.

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

Q1 Target

95%

Q1 Actual

21%

Comment:

Target exceeded. The reason for exceeding the target of 95% 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.

Q1 Target

90%

Q1 Actual

73%

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.

Q1 Target

R12 212 500

Q1 Actual

R20 193 715

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).

Q1 Target

5 audit findings cleared in full by the end of Q1 2019/2020

Q1 Actual

3 audit findings were cleared in full duringQ1 2019/2020

Comments

The findings cleared are awaiting verification by internal audit.

Remedial Acton

None

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	1st Quarter Planned Output as per SDBIP	1st Quarter Actual Output	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	1st Quarter Planned Budget	1st 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	R23 752 986	R11 247 014	Performance not achieved		Commercial Business experience a loss of short term contracts due to non renewal and closing down of one of our long term client, where we use to provide the services for 13 years.	A) Appointment of both Marketing and Sales Engineers who will expand the footprint and increase the customer base. B) Preparation of the detailed market sector analysis report that	R30 000 000	**R 24 660 559**

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	1st Quarter Planned Output as per SDBIP	1st Quarter Actual Output	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	1st Quarter Planned Budget	1st Quarter Actual Expenditure
													will clearly unpack the various sectors that will be financially viable and sustainable so that we can approach them for additional revenue. C) Continuous implementation of B-BBEE improvement plan and proper document management system in order to maintain our status as a level one contributor. The service provider has since been appointed for 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	1st Quarter Planned Output as per SDBIP	1st Quarter Actual Output	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	1st Quarter Planned Budget	1st Quarter Actual Expenditure
													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.		
	To build a clean, Capable and Modernised Local State	35	Audit Opinion	Audit report from AGSA	Unqualified Audit Opinion	Unqualified Audit Opinion	-							-	
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%	Not Achieved	Not Achieved	1. Hydraulic capacity 2. Industrial effluent high 3. Failure of critical equipment 4. Poor infrastructu	. 1. Plants need to be upgraded urgently to cater for the current backlog in capacity as well as	R131 108 373.50	R109 182 149

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	1st Quarter Planned Output as per SDBIP	1st Quarter Actual Output	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	1st Quarter Planned Budget	1st Quarter Actual Expenditure
				Applicable Water use authorization of each Waste Water Treatment Works								re conditions	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	1st Quarter Planned Output as per SDBIP	1st Quarter Actual Output	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	1st Quarter Planned Budget	1st 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%	20%	21.79%.	1.79%	Exceeded	Q1 Targets are met	N/A	NONE	R24 280 000	R 26 458 683.28
	Improved Quality of Water including Wastewater	2.M	Percentage of repairs and maintenance budget spent	Job Cards received versus number of job cards completed. AND Finance expenditure reports	45%	90%	90%	73% (Loaded: 2503, Closed: 1832)	27%	Not Achieved	Not Achieved	1 Target of 90% schedule maintenance was not achieved due to the following reason; the entity is in the process of addressing backlog in planned maintenance from previous years.	1. Newly developed Asset management strategy will assist to resolve this shortfall.	R30 756 000	R23 984 253
	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	R12 212 500	Orders issued: R87 605 353 Paid: R20 193 715	R7 981 215	60%	On track	Capex project critical repairs	None	R12 212 500	R20 193 715

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	1st Quarter Planned Output as per SDBIP	1st Quarter Actual Output	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	1st Quarter Planned Budget	1st Quarter Actual Expenditure
	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	5	3 Finding cleared	2 findings not cleared	Not Achieved	Not Achieved	The findings cleared are awaiting verification by internal audit.		-	

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

A. Flows

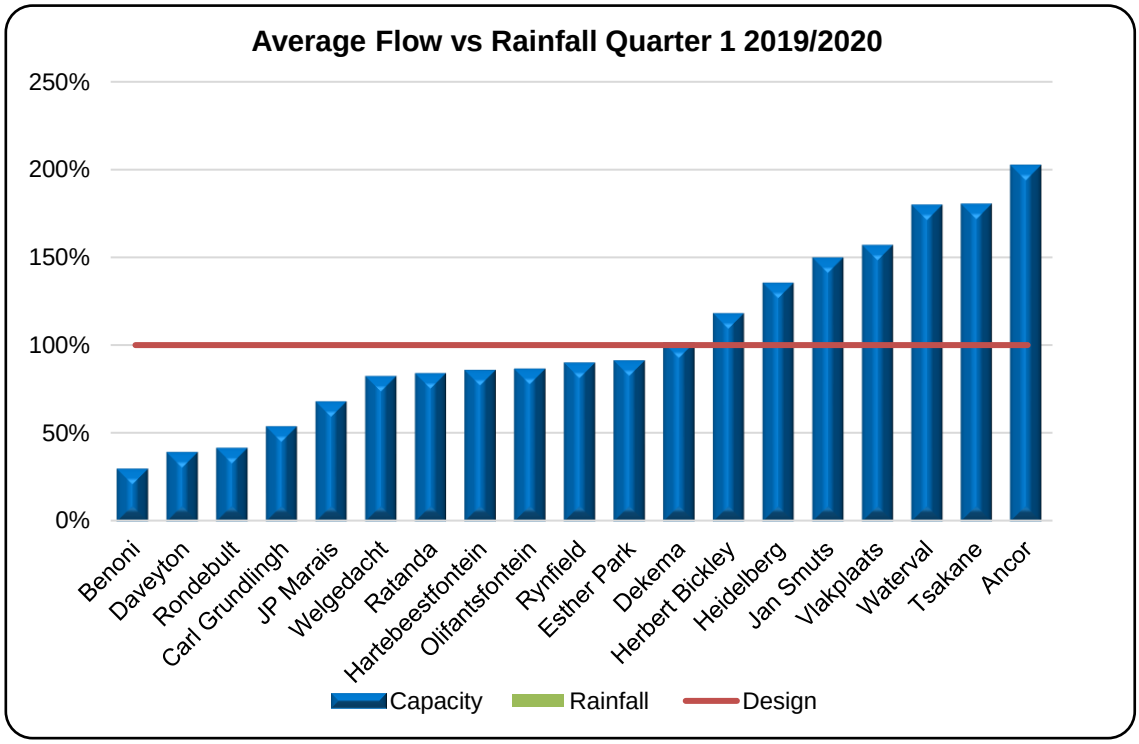


Figure 1

A total of 72 059 Ml was treated in Q1, at an average of 792 Ml/day, utilising 117% of the capacity.

Ancor operated at 202% and Jan Smuts at 149% of its capacity, with large regional plants such as Vlakplaats operating at 187% and Waterval operating at 179%. Additional capacity is urgently needed.

3.4. Service Delivery Highlights and Challenges

CHALLENGES

A. *Flows*

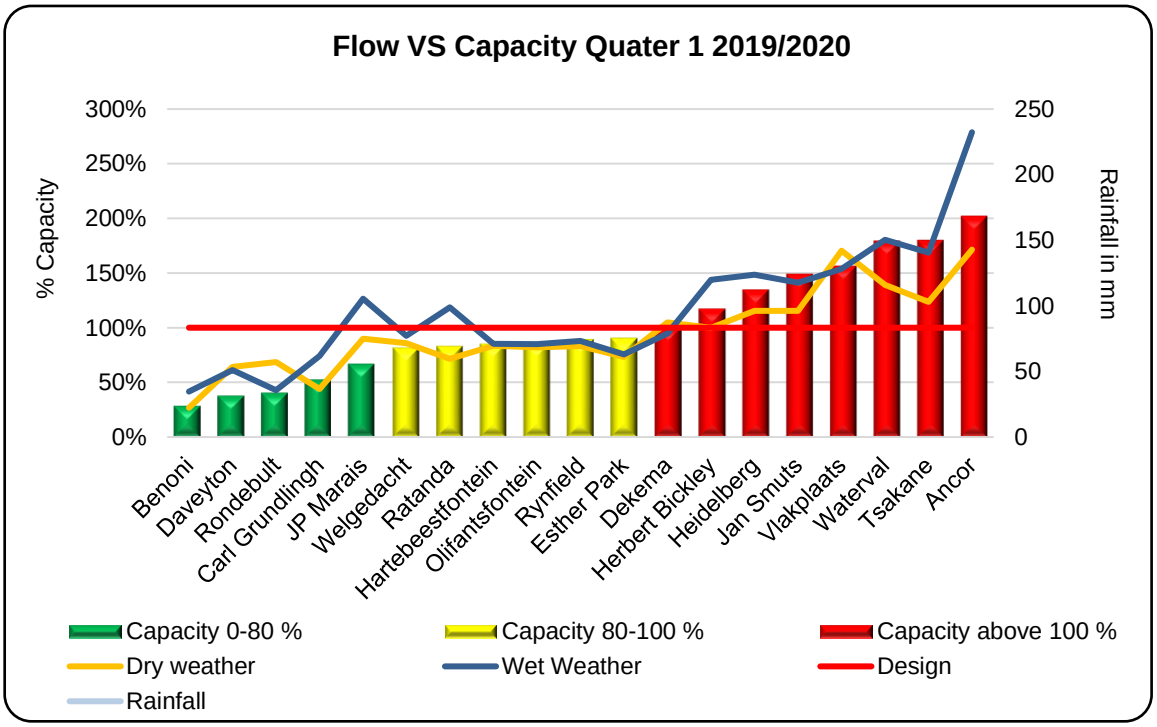


Figure 2

As can be noted in the above graph, during Q1 eight (8) out of the nineteen (19) Wastewater Treatment Works were operating above their design capacity, six (6) operating between 80% and 100%, five (5) operating below the 80% mark.

Plant	Non-compliance of final effluent	Insufficient Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Insufficient Organic capacity	Industrial effluent	Critical equipment failures	Power outages	Ageing infrastructure	Vel
Ancor	Plant did not comply with WUL effluent standards	Plant operated at 202% of hydraulic capacity		None	Plant operated at 131% of organic capacity	Plant received industrial high strength effluent on 68 of 92 days	21 critical equipment failures occurred in Q1	4 (24 hrs total)	Biofilter flow division boxes partially collapsed, humus tanks/ PST's- and digesters crumbling /cracked concrete structures	Nor
Daveyton	Plant complied	Plant operated at 38% of hydraulic capacity.		Numerous sewer blockage s in the CoE network and potable water supply interruption to Etwatwa lead to inconsistent and irregular flow to the plant	Sufficient capacity. Plant operated at 50%.	N/A. Domestic only.	37 Critical equipment failures occurred in Q1	3 power outages (4 hours total).	None	Vel pos duri wint no i duri
JP Marais	Plant complied	Sufficient capacity. Plant operated at 67% of hydraulic capacity		None	Sufficient capacity. Plant operated at 55% of organic capacity	Plant received industrial high strength effluent on 13 of 92 days (7 high COD and 4 high NH3)	19 critical equipment failures occurred in Q1	1 power failure, (3 hours in total)	PST fine screen not available (removed and scrapped).	Nor
Welgedacht	Plant complied	Plant has sufficient capacity. (operated at 84% capacity)		None	Sufficient capacity Plant operated at 48% organic capacity.	Plant received industrial high strength effluent on 2 of 92 days. Plant is receiving and treating 30 m3 of leachate daily from Enviroserv	47 critical equipment failures occurred in Q1. 6 x Module 1 aerator gearboxes and motors out of operation. Module MCC electrical panel must be replaced. Unsafe.	None		Nor
Ratanda	Plant did comply with WUL effluent standards	None		None	None	Plant received industrial high strength effluent on 8 of 92 days	6 Critical equipment failures occurred in Q1	5 (13 hrs. total)	Drying beds drainage system and chlorine contact tanks are badly leaking structures	Nor
Heidelberg	Plant complied	Heidelberg exceeded its design capacity and		None	none	Plant received industrial high strength	2 critical equipment failures occurred in Q1	Heidelberg had 21 power outages with a total	None	Nor

		operated at 135%				effluent on 32 of 92 days		duration of 58 hours in Q1**.**		
Tsakane	Plant complied	Plant operated at 97% of hydraulic capacity.		Numerous sewer blockages in the CoE network and potable water supply interruption to Rockville led to inconsistent and irregular flow to the plant	Sufficient capacity.	Plant received industrial high strength effluent on 11 of 92 days N/A. Domestic only.	36 Critical equipment failures occurred in Q1	No power outages experienced in Q1.	None	Velo pos duri wint inci was repo duri
Carl Grundlingh	Plant Complied with 99.01%	Plant operated within the capacity at 53%		None	Sufficient Capacity	None	2 Critical Equipment (Brush Aerators 5)	None	None	Non
Herbert Bickley	Plant did not comply with WUL effluent standards	Plant operated at 117% of hydraulic capacity		None	None	Plant received industrial high strength effluent on 13 of 92 days	4 critical equipment failures occurred in Q1	None	Anaerobic digesters cracked concrete structures	Non
Dekema	Plant did not comply with WUL effluent standards	Plant operated at 101% of hydraulic capacity		None	Sufficient capacity. Plant operated at 112%.	None	0 critical equipment failures occurred in Q1	2 (9 hrs total)	Channels feeding sections partially collapsed	Velo very risk wint no i duri
Rondebult	Plant complied	Plant operated at 55% of hydraulic capacity.		None	Plant operated at 78% of organic capacity.	None	18 Critical equipment failures for Q1.	11 (102 hrs total)	Bio filter walls cracked. Brickwork of open channels are unstable. Filter feed pipes cracked leaking.	One fire enc into sluc area
Vlakplaats	Plant did not comply with WUL effluent standards	Plant operated at 187% of hydraulic capacity. Needs to be upgraded		None	Plant operated at 116% of organic capacity	Plant received industrial high strength effluent on 2 of 92 days	32 critical equipment failures occurred in Q1	7 power failures, (505 hours in total)	Digesters and gas holders concrete structures cracked and leaking badly	Velo very risk wint no i duri
Waterval	Plant complied	Plant has sufficient capacity (operated at 179% capacity)		Very high flow enter plant on some days during Q1	Sufficient capacity Plant operated at 164% organic capacity.	Plant received industrial high strength effluent on 5 of 92 days. Plant is receiving and treating 30 m^3 of	86 Critical equipment failures occurred in Q1.	None	None	Velo very risk wint inci duri

						leachate daily from EnviroServ				
Esther Park	Plant did not comply with WUL effluent standards	Plant operated at 77% of hydraulic capacity	Plant operated at 66% of organic capacity			Plant received industrial/high strength effluent on 7 of 92 days	5 critical equipment failures occurred in Q1	1x Power failures lasting 9 hours experienced in Q1	Reactor wall is leaking	One fire
Hartebeestfontein	Plant did not comply with WUL effluent standard	Plant operated at 85% of hydraulic capacity	Plant operated at 106.7 of organic capacity			Plant received industrial high strength effluent on 38 of 92 days	35 Critical equipment failures occurred in Q1	4 – power failures that last for 21 hours	Module 1 secondary aerator no.2 has cracked concrete structure	2 ve in Q
Rynfield	Plant did not comply with WUL effluent standards	Plant operated at 88.6% of hydraulic capacity	Plant Operated at 103.23% of organic capacity			Non industrial effluent was received due Q1. Plant received industrial high strength effluent	3 critical equipment failures occurred in Q1. Unviability of South Side reactor, due to defective Clarifier and Aerator	5 –power failure that last for 11 hours .	Pavement Cracked and Digesters & reactor tank concrete structure is cracked .Bio-feeder structure is cracked.	1 ve in Q
Benoni	Plant complied with WUL effluent standards	Plant operated at 29 % of hydraulic capacity	Plant operated at 37.6 % of organic capacity			on 4 of 92 days	3 critical equipment failures occurred in Q1	1 Power failure for 35 minutes	Anaerobic digester valves, humus tank 1 weir places/ PST's-weir plates /open digester's walls are cracking	Non
Olifantsfontein	Plant did not comply with WUL effluent standard Plant complied	Plant operated at 86% of hydraulic capacity	Plant operated at 104.8 of organic capacity			Plant received industrial high strength effluent on 69 of 92 days	21 critical equipment failures occurred in Q1	1 – power failure that lasted for 1.25 hours with diesel consumption of 300 litres	Module 3, Anaerobic digestors	2 Ve and smo

3.5. Project/Infrastructure Report

This section serves to provide information of capacity upgrade projects in the capex plan, will include all major projects that contributes to the Mega Catalytic projects such as the John Dube Development.

Below is the summary of these planned and running projects that have been identified to address planned Mega Catalytic Projects within City of Ekurhuleni (CoE).

	PLANNED PROJECTS	BUDGET REQUIRED	STATUS /COMMENTS	COMMISSIONING DATE
ANCOR WCW				
1	**30 Mℓ/d Plant Upgrade**	**R351 000 000.00**	The capacity treatment plant upgrade is planned in relation to the 50-year master plan, which computes to 52 Mℓ/d by year 2068. The 50-year flow projection is based on the CoE IDP population growth. Pending availability of funds, the R 351 000 000.00 budget required will accommodate 30 Mℓ/d of 52 Mℓ/d.	The commissioning of the project is anticipated to be 2022/2023. Pending availability of funds

VLAKPLAATS WCW				
1	Plant Upgrade/Retrofit-Activated Sludge	**R203 340 000.00**	The capacity treatment plant upgrade is planned in relation to the 50-year master plan, which computes to 189 Mℓ/d by year	The commissioning of the project is anticipated to be 2022/2023 Pending availability of funds

	PLANNED PROJECTS	BUDGET REQUIRED	STATUS /COMMENTS	COMMISSIONING DATE
			2068. The 50-year flow projection is based on the CoE IDP population growth. Pending availability of funds, the **R 203 340 000.00** budget required will accommodate 41 Mℓ/d of 189 Mℓ/d for design-built.	
2	Plant Upgrade/Retrofit-Bio filter	**R 108 000 000.00**	The capacity treatment plant upgrade is planned in relation to the 50-year master plan, which computes to 189 Mℓ/d by year 2068. The 50-year flow projection is based on the CoE IDP population growth. Pending availability of funds, the **R 108 000 000.00** budget required will accommodate 18 Mℓ/d of 189 Mℓ/d for design-built	The commissioning of the project is anticipated to be 2022/2023 Pending availability of funds
3	Flow distribution	**R 40 000 000.00**	Vlakplaats flow distribution project is currently under construction phase to augment and add a peak flow balancing capacity into the plant.	The commissioning of the project is anticipated to be 2020/2021 Pending availability of funds

WELGEDACHT WCW				
1	New 50 Mℓ/d Module 3 - Extension	R 667 734 532.80	The capacity treatment plant upgrade is planned in relation to the 50-year master plan, which computes to 327 Mℓ/d by year	The commissioning of the project is anticipated to be 2022/2023

	PLANNED PROJECTS	BUDGET REQUIRED	STATUS /COMMENTS	COMMISSIONING DATE
			2068. The 50-year flow projection is based on the CoE IDP population growth. Pending availability of funds, the **R 667 734 532.80** budget required will accommodate 50 Mℓ/d of 327 Mℓ/d by 2021/2022	Pending availability of funds

HERBERT BICKLEY WCW				
	10 Mℓ/d Plant Upgrade	R 133 546 906.60	The capacity treatment plant upgrade is planned in relation to the 50-year master plan, which computes to 53 Mℓ/d by year 2068. The 50-year flow projection is based on the CoE IDP population growth. Pending availability of funds, the **R 133 546 906.60** budget required will accommodate 10 Mℓ/d of 53 Mℓ/d by 2021/2022	The commissioning of the project is anticipated to be 2022/2023 Pending availability of funds

WATERVAL WCW				
1	New 100 Mℓ/d Module 5 - Extension	R 1 333 549 066.00	The capacity treatment plant upgrade is planned in relation to the 50-year master plan, which computes to 584 Mℓ/d by year	The commissioning of the project is anticipated to be 2027/2028

	PLANNED PROJECTS	BUDGET REQUIRED	STATUS /COMMENTS	COMMISSIONING DATE
			2068. The 50-year flow projection is based on the CoE IDP population growth. Pending availability of funds, the **R 1 333 549 066.00** budget required will accommodate 100 Mℓ/d of 584 Mℓ/d by 2027/2028	Pending availability of funds
2	Module 2 and 3 Capacity Upgrade by debottlenecking the primary treatment.	R 20 000 000.00	The primary treatment-debottlenecking project is currently at the design phase to increase the capacity of module 2 and 3, from 40 Mℓ/d to 60 Mℓ/d per module. The capacity treatment plant upgrade is planned in relation to the 50-year master plan, which computes to 584 Mℓ/d by year 2068. The 50-year flow projection is based on the CoE IDP population growth. Pending availability of funds, the **R 20 000 000.00** budget required will accommodate 40 Mℓ/d of 584 Mℓ/d by 202/2021.	The anticipated date for commissioning is 2022/203 Pending availability of funds
3	Technology Capacity Upgrade 50 Mℓ/d (Module 4)	R 247 975 609.80	Designs planned to commence for 2020/2021. (24 797 560.98). The capacity treatment plant upgrade is planned in relation to the 50-year master plan, which computes to 584 Mℓ/d by year	The anticipated date for commissioning is 2023/2024 Pending availability of funds

	PLANNED PROJECTS	BUDGET REQUIRED	STATUS /COMMENTS	COMMISSIONING DATE
			2068. The 50-year flow projection is based on the CoE IDP population growth. Pending availability of funds, the **R 247 975 609.80** budget required will accommodate 50 Mℓ/d of 584 Mℓ/d for design-built.	

Total Budget Required	**R3 105 146 115,20**

CONCLUSION:

ERWAT is striving and working hard towards addressing all Mega Catalytic projects to accommodate all new developments within the City of Ekurhuleni.

3. Financial Report

Table 5: Operational expenditure

EXPENDITURE BY SOURCE	BUDGET ANNUAL	BUDGET FOR 3 MONTH SEPT 2019	ACTUAL YEAR TO DATE SEPT 2019	VARIANCE YTD ACTUAL VS YTD BUDGET	VARIANCE % YTD BUDGET VS ACTUAL
Employee Related Costs - Salaries & Wages	379 002 559	94 750 640	82 438 417	(12 312 223)	-13%
Remuneration of Directors	3 465 003	866 251	471 268	(394 983)	-46%
Bad Debts (Provision for Bad Debts)	1 625 838	406 460	5 501 087	5 094 628	1253%
Depreciation	74 051 053	18 512 763	21 061 033	2 548 270	14%
Repairs and Maintenance - Planned	113 822 342	28 455 586	27 855 560	(600 026)	-2%
Repairs and Maintenance - Ad Hoc	12 646 927	3 161 732	3 095 062	(66 670)	-2%
Interest Expense	57 021 499	14 255 375	12 231 067	(2 024 308)	-14%
Bulk purchases	207 984 589	51 996 147	48 925 691	(3 070 456)	-6%
General Expenses - Other	150 069 280	37 517 320	14 508 526	(23 008 794)	-61%
TOTAL OPERATING EXPENDITURE	999 689 090	249 922 273	216 087 711	(33 834 562)	-14%

Employee related cost – Salaries and Wages

- The expenditure for the year to date is 13,29% below the budget.
- ERWAT's revised employment structure has been approved and the process of filling vacancies has begun. The vacancies have however not yet been filled as there is a process that has to be undertaken before appointments can be made including advertising, screening, interviews etc.
- The under spent on employee related costs is due to existing vacancies not being filled yet.

Repairs and Maintenance

- ERWAT has under spent on repairs and maintenance in total R666 695 (planned and ad-hoc) for the first quarter YTD.

Bulk purchases

- Bulk purchases was 6% lower than budgeted during the first quarter YTD. Bulk purchases consist of Chemical P Removal, Electricity, and Disinfection.
-

General Expenses:

- General expenses have been under spent by 61% which is primarily due to the following:
  - Feasibility studies that will only be conducted later during the financial period
  - Termination of the previous printing contract and utilisation of the transversal contract for printers have resulted in some savings.
  - Tighter cost control over travel, fuel and telecommunication expenses.
  - Lower than anticipated legal costs for advice and litigation
  - Lower than anticipated billing from the Auditor General resulted in under expenditure of audit fees
  - Lower than anticipated spending on security services

Table 6: Capital expenditure

Project Detail	Total Original Budget	Total Revised Budget (applicable only after Adjustment)	Budget for Quarter	Actual for Quarter	Variance	Total Budget for the year	Actual for FY (Yr to date)	Variance for year (Yr to date)	% Completion

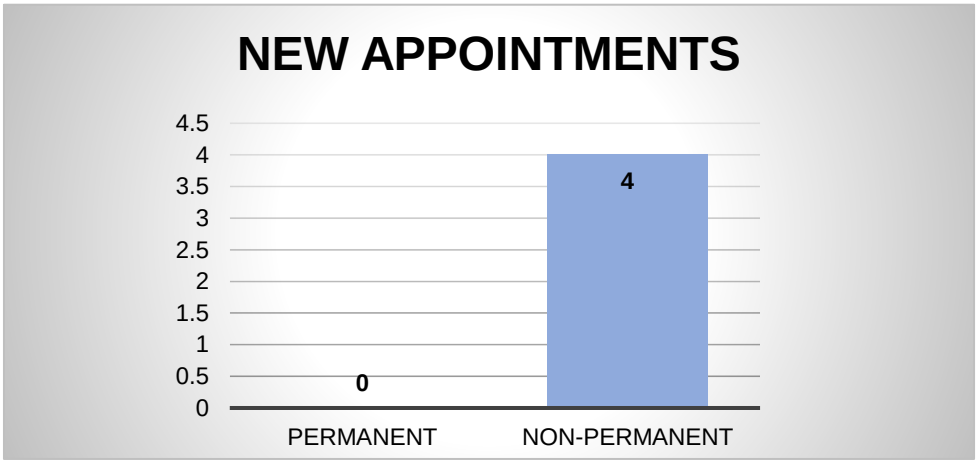
A narrative is required on key trends and expenditure

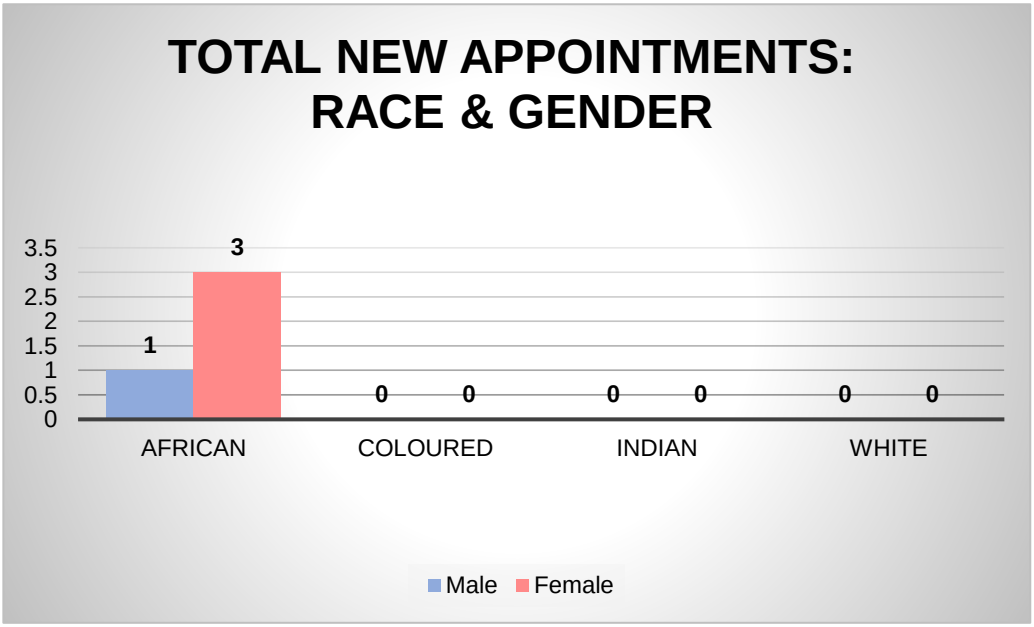
4. Human Resources

4.1 Staff Movements

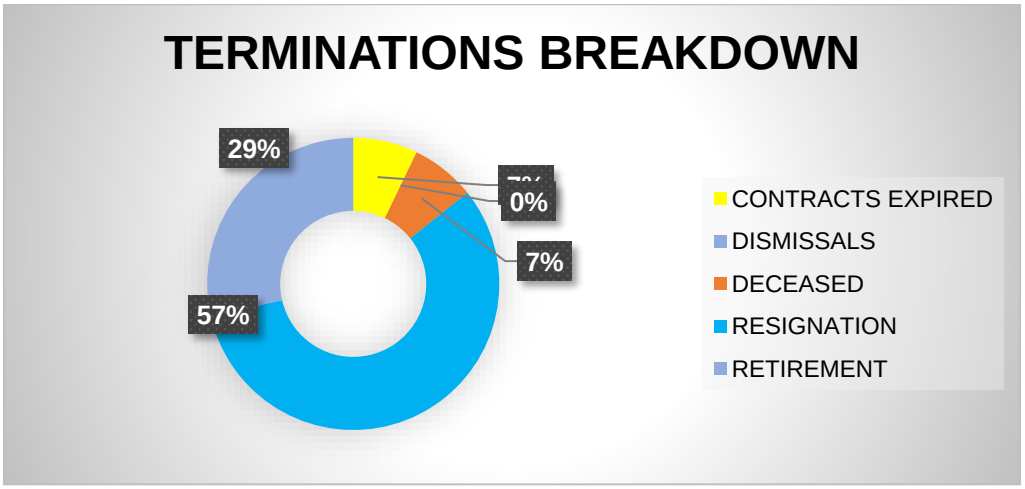
Staff Movements	African		Coloured		Indian		Whites		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
Recruitments	1	3	0	0	0	0	0	0	4
Resignations	4	2	1	0	0	0	0	1	8
Retirements	3	0	0	0	0	0	0	1	4
Contract Expired	1	0	0	0	0	0	0	0	1
Dismissals	0	0	0	0	0	0	0	0	0
Deceased	1	0	0	0	0	0	0	0	1
Promotions	0	0	0	0	0	0	0	0	0

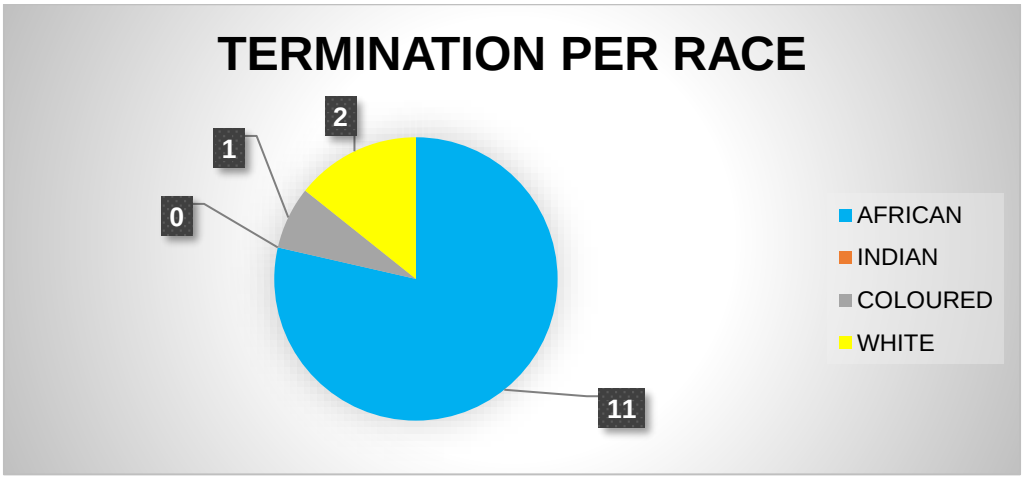
4.1.1 Appointments





4.1.2 Terminations

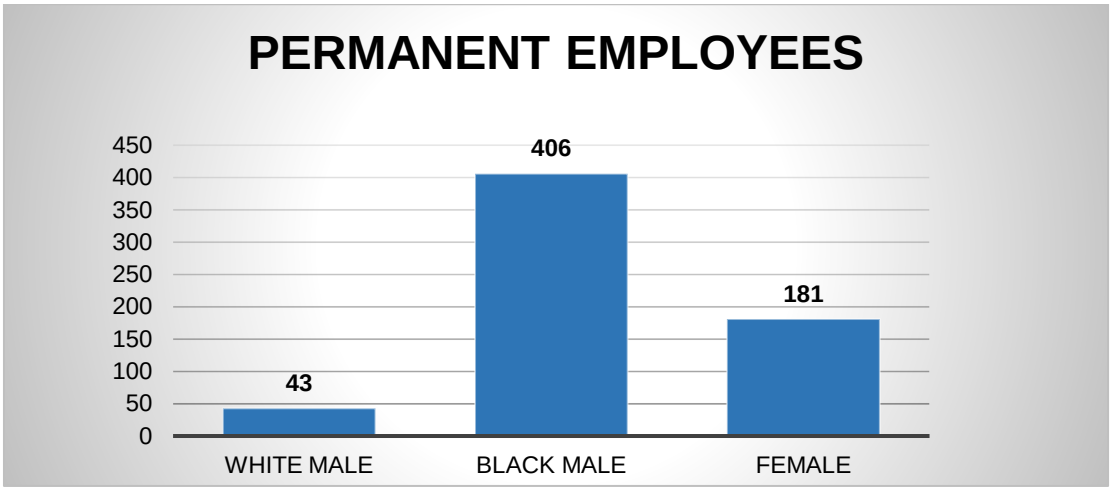




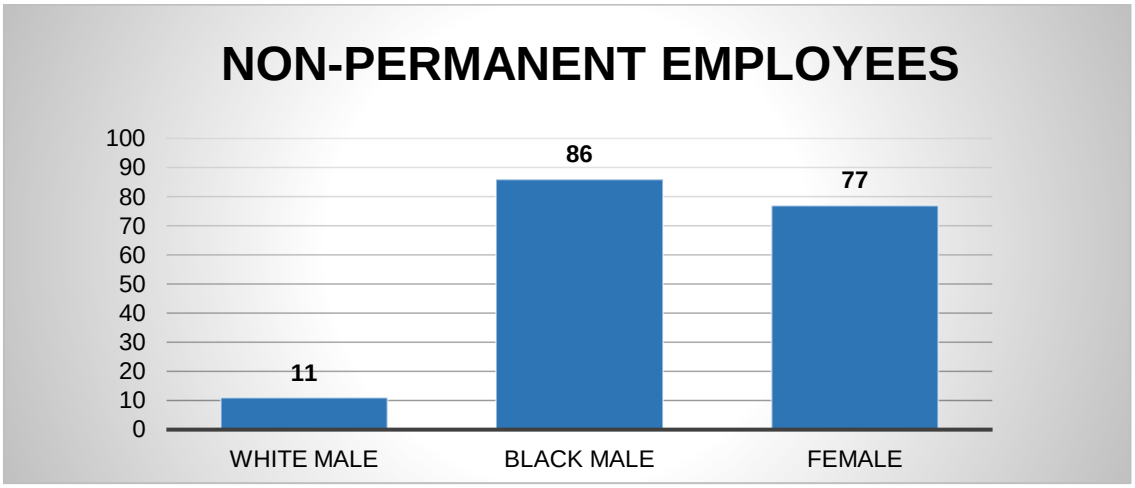
Status Analysis

- During the period under review, four (4) non-permanent people were appointed.
- During the period under review, 14 employees exited the organization for the following reasons;
    - 1 contracts expired;
    - 8 resigned for various reasons;
    - 4 retirements; and
    - 1 deceased

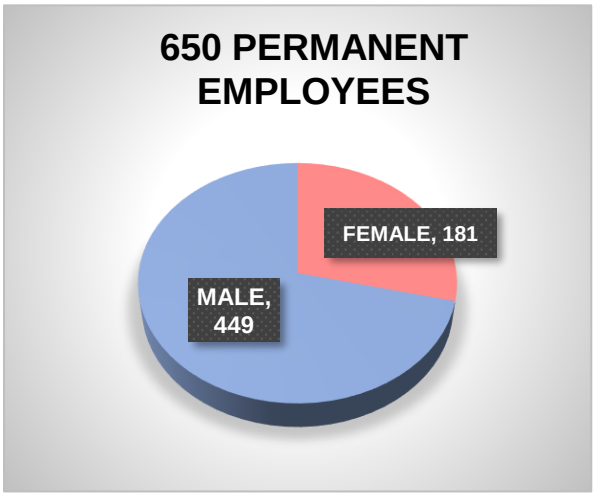
4.3 Employment Equity Demographics

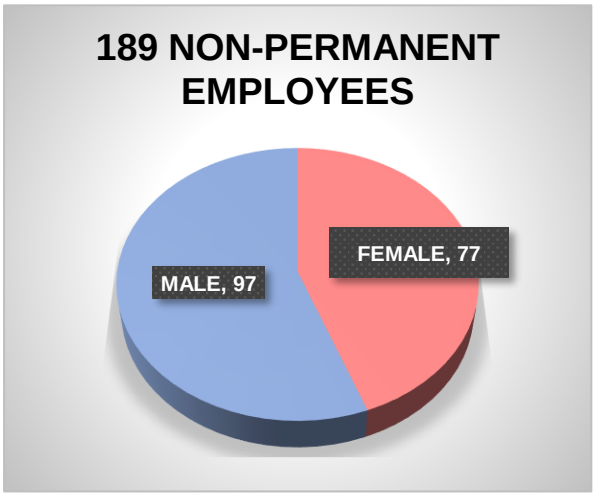


ERWAT has **630** permanent employees;



ERWAT has **174** non-permanent employees.





Status Analysis

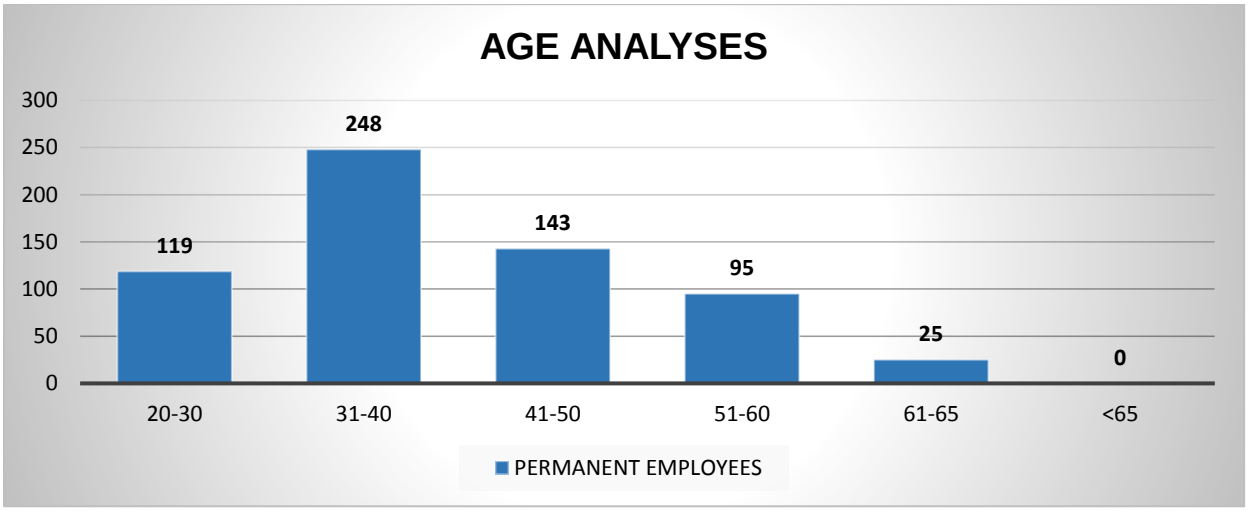
- The employment demographics of ERWAT as at 30th September 2019 reflects;

– Females in both permanent and non-permanent positions within ERWAT account for 258 or 40% of total positions filled.

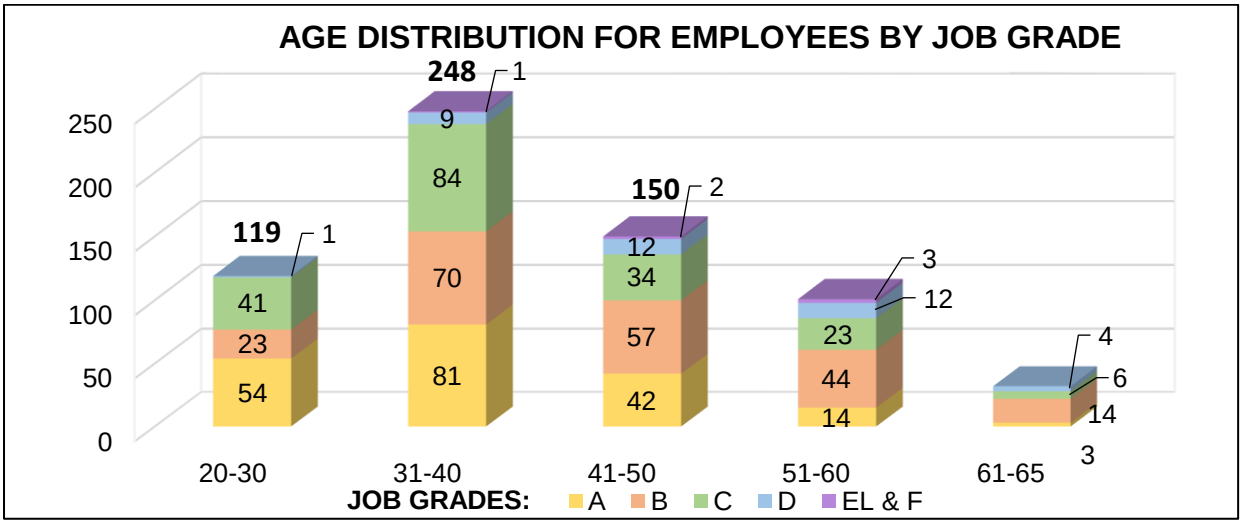
EE Update

- In support of the approved Employment Equity (EE) Plan, the ERWAT is in a process of establishing the disability forum to encourage and empower employees with disabilities to know their rights in the workplace and how they can be reasonably accommodated in this regard.

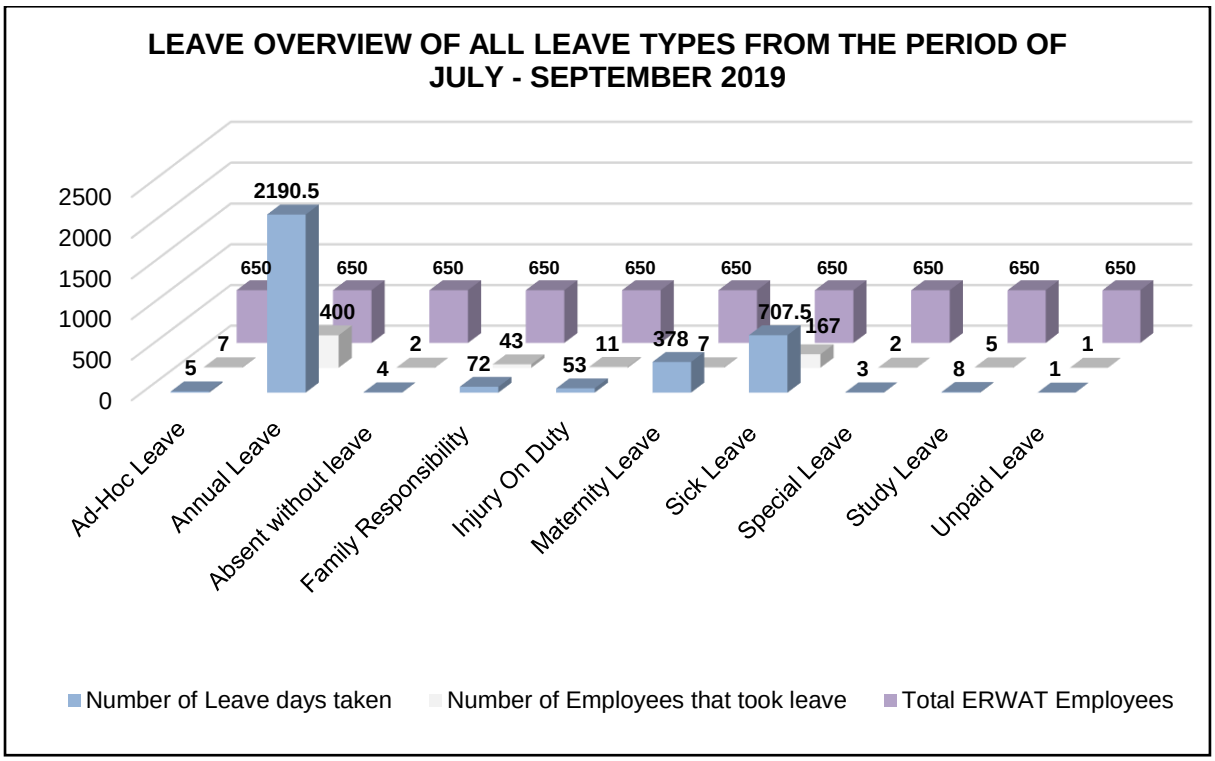
Age Analysis

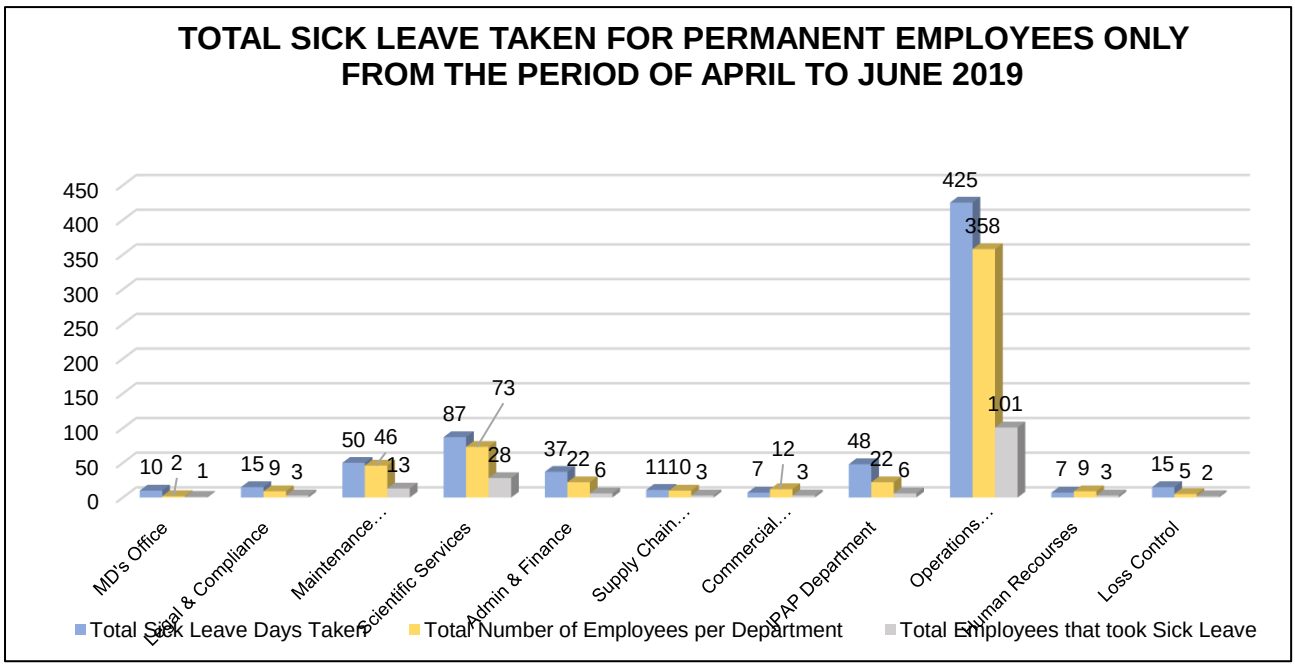


- Average age as at 09/2019 = 40



4.4 Leave Management





Status Analysis

For the period under review, one disability claim was received and is in the process of being evaluated.

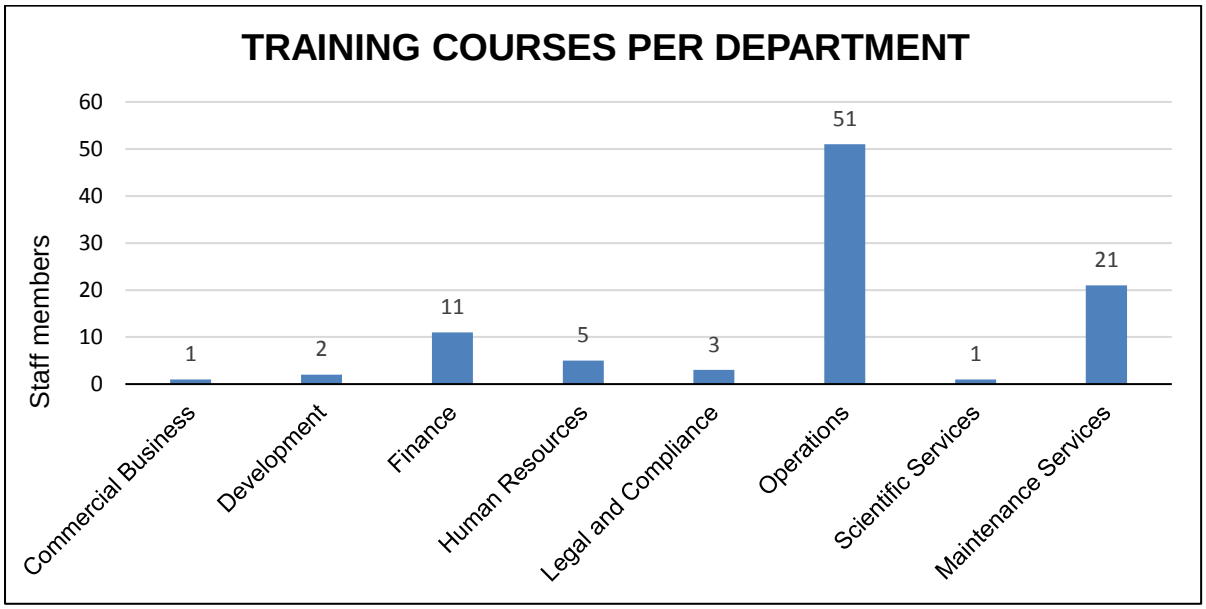
Overtime Trends

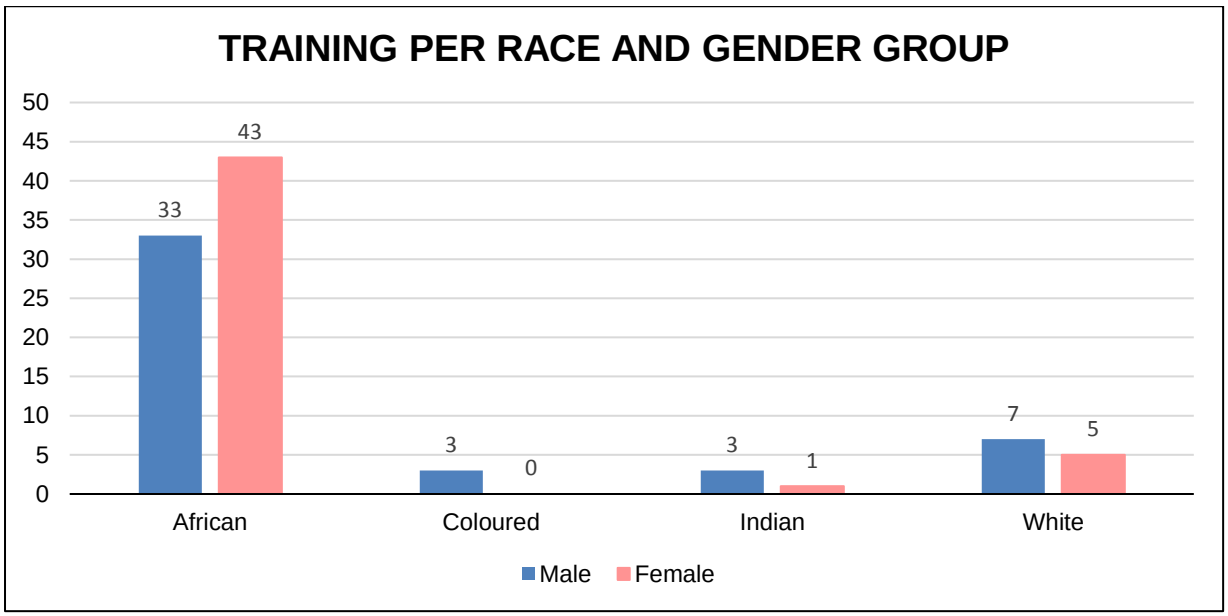
	Quarter 1
Total Hours	55 458.91

Total Cost	R 7 367 981.62

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

6.5 Training and Development





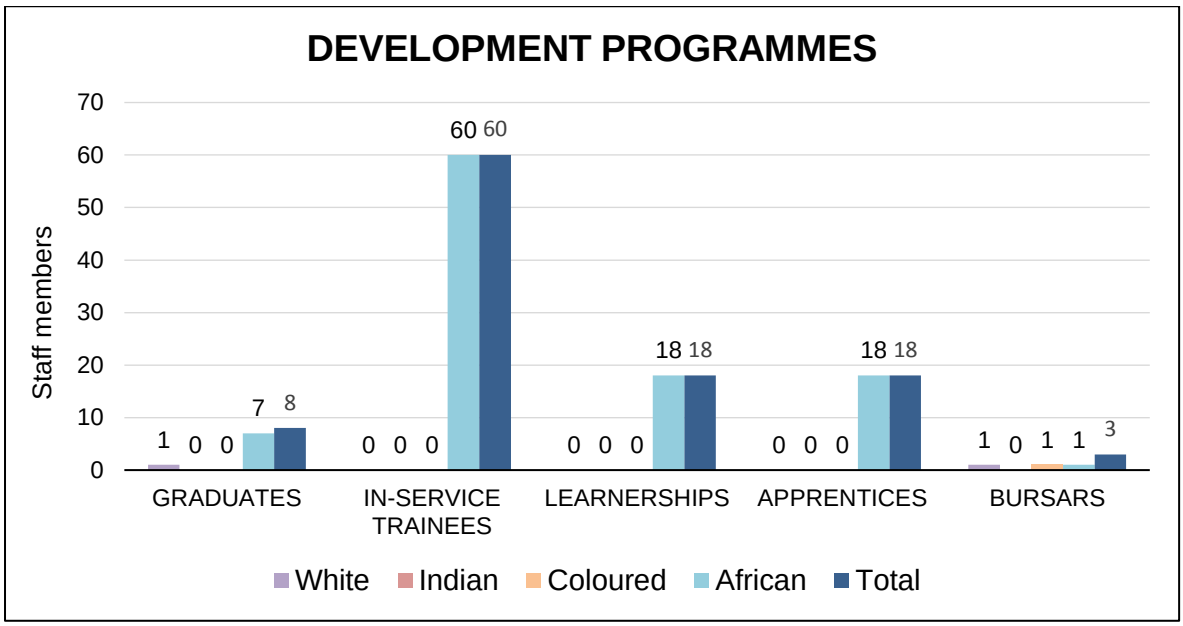
Status Analysis

During the period under review;

- 95 employees were trained through short courses/workshops and conferences.
- 43 (88%) were African Females, and 5 (10%) were White Female
- 33 (72%) were African Males; 3 (7%) were Coloured Males; 1 (7%) were Indian Males and 7 (15%) were White Males

Employees trained per Department were;

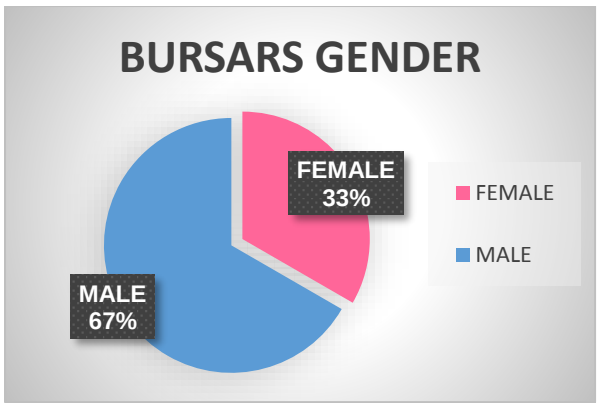
- 51 (54%) in Operations:
- 1 (1%) in Scientific Services;
- 21 (2%) in Technical;
- 3 (3%) in Legal and Compliance;
- 5 (5%) in Human Resources;
- 1 (1%) in Commercial Business;
- 2 (2%) in Development and
- 11 (12%) in Finance and Supply Chain

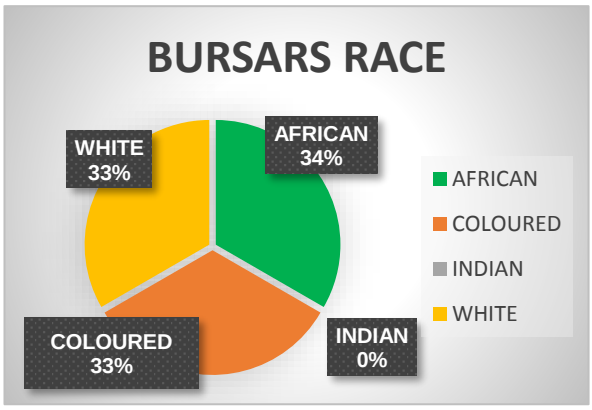


Status Analysis

- As of 30 June 2019, the organization has a Total of 189 Contractors, Graduates, In-service trainees, Learnerships, Bursars and Apprentices.

- The breakdown per race is as follows:
  - 5 (3%) Indian
  - 7 (4%) Coloured
  - 15 (8%) White
  - 153 (85%) African





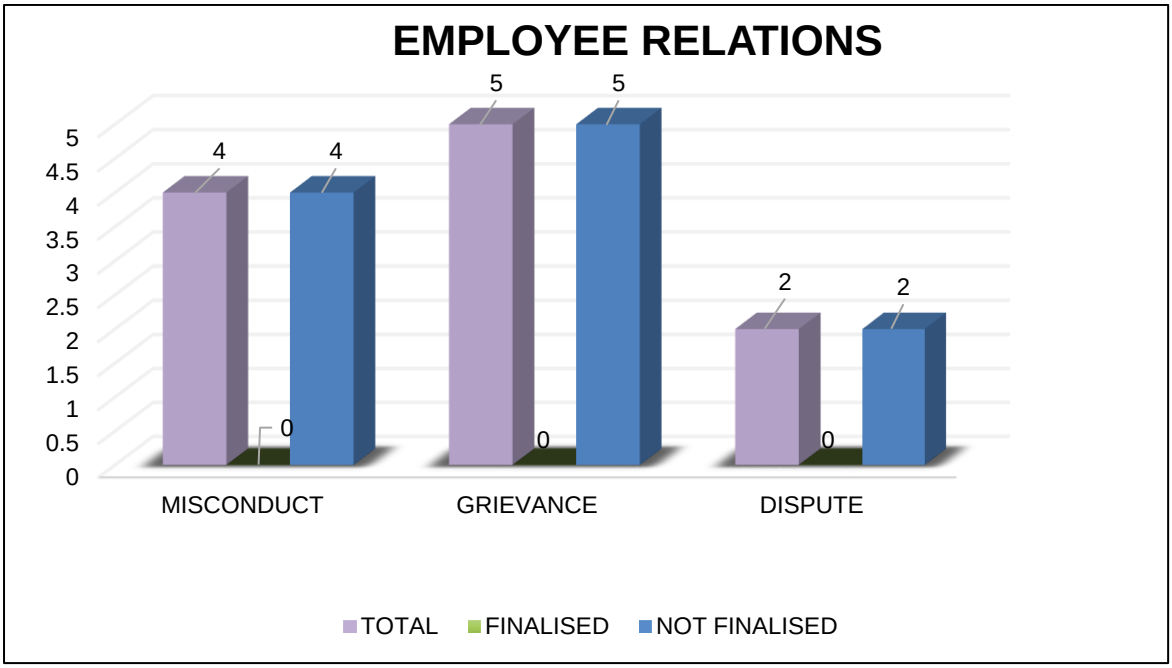
4.6 Performance Management

Status Analysis

- Q1 assessments will be finalised during the month of October.

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
D4	Misconduct	17 July 2019	Employee to appear at Disciplinary Hearing	Unresolved

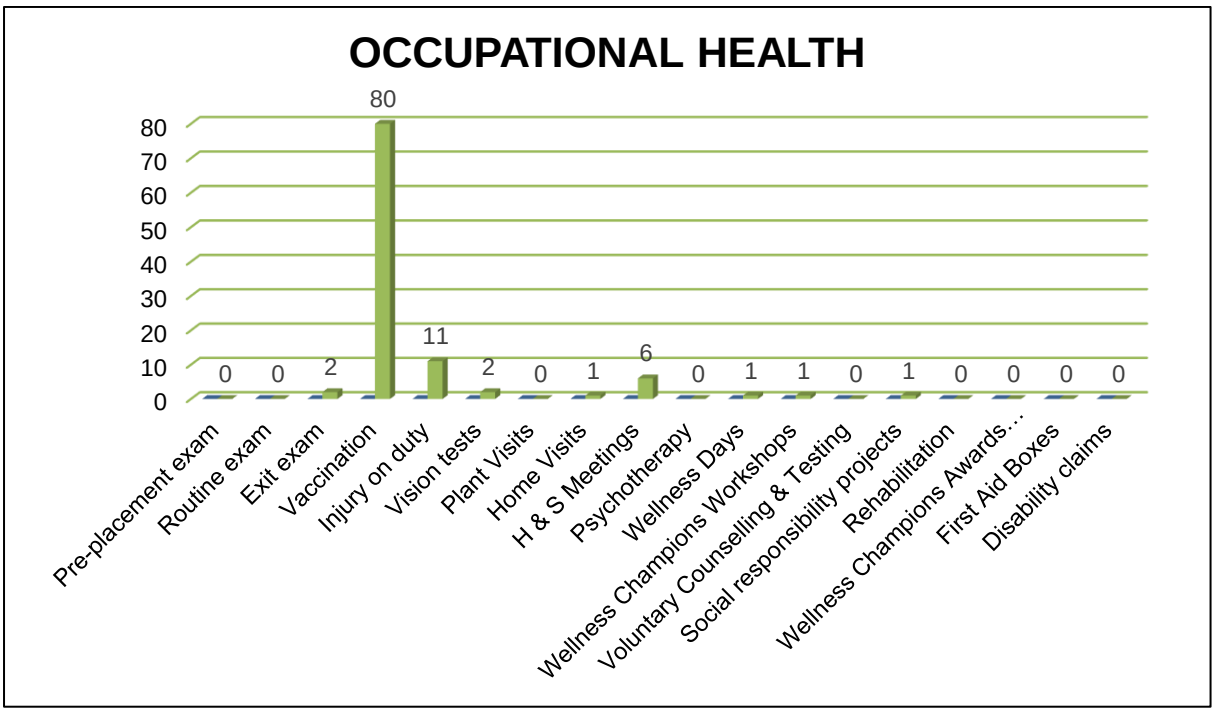
Grievances				
Job Grade	**Nature of Grievance**	**Date Lodged**	**Process Followed**	**Date to be Finalized**
C1	Unfair labour Practice	01 July 2019	Date has been scheduled for grievance meeting.	Unresolved

C1	Unfair labor practice	07 August 2019	Date has been scheduled for grievance meeting.	Unresolved
E1	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
D2	Unfair labour practice	09 September 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	1st July 2018	Referred to Labour Court	Unresolved
Matters of Rights	8th 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 47 Wellness Champions (WC) that are placed on all 19 Plants including the Laboratory and Head Office.

- The core function of the WC is to assist the Occupational Health Nurse, in identifying any health & wellness concerns amongst employees, monitor absenteeism, 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					
Total Opex					
% of Salary to Opex					

5. Procurement Practices, Job Creation and Mainstreaming

PROCUREMENT ACTIVITIES

ERWAT awarded tenders to the value of R1 006 238.97 from 51%-99% HDI owned companies and R0 to companies with 30%-100% black female ownership and **R2098826**.40 to companies with 1%- 30% black female ownership for Quarter 1 (01 July 2019 to 30 September 2019).

Refer to the table below for a summary of the BEE award practices for the 1st quarter and year to date. 100% of total awards were made to HDI owned businesses with more than 50% ownership for Quarter 1 (01 July 2019 to 30 September 2019).

SUMMARY OF ACTIVITIES

ANNEXURE A - SUMMARY OF AWARDS (MONTHLY)

INFORMATION REGARDING BIDS FOR QUARTER 1 FOR THE PERIOD ENDED 30 SEPTEMBER 2019

	QUARTER 1				
CATEGORY	**JULY**	**AUGUST**	**SEPTEMBER**	**YEAR TO DATE TOTAL**	**% OF YEAR TO DATE TOTAL**
0% HDI / JURISTIC PERSON	-	-	-	-	0%
1-50% HDI	-	-	-	-	-
51-99% HDI	1 006 238.97	-	-	1 006 238.97	30%
100% HDI	2 371 896.91	-	-	2 371 896.91	70%
TOTAL	**3 378 135.88**	**-**	**-**	**3 378 135.88**	**100%**
SIZE OF COMPANY	**JULY**	**AUGUST**	**SEPTEMBER**		**% OF YEAR TO DATE TOTAL**
LARGE	-	-	-	-	0%
MEDIUM	3 378 135.88	957 619.59	-	4 335 755.47	100%
SMALL	-	-	-	-	0%
MICRO	-	-	-	-	0%
TOTAL	**3 378 135.88**	**957 619.59**	**-**	**4 335 755.47**	**100%**
AWARDS MADE TO:	**JULY**	**AUGUST**	**SEPTEMBER**		
FEMALES	-	-	-	-	0%
BLACK FEMALE 30-100%	-	-	-	-	0%
MILITARY VETERANS	-	-	-	-	0%
PWD	-	-	-	-	0%
YOUTH	-	-	-	-	0%
BLACK FEMALES 1 - 30%	1 515 459.00	583 367.40	-	2 098 826.40	100%
	1 515 459.00	**583 367.40**	**-**	**2 098 826.40**	**100%**
BBEEE SCORE CARD	**JULY**	**AUGUST**	**SEPTEMBER**		**% OF YEAR TO DATE TOTAL**
EME	-	-	-	-	0%
QSE	1 515 458.97	583 367.40	-	2 098 826.37	48%
GENERIC	1 862 676.91	374 252.19	-	2 236 929.10	52%
TOTAL	**3 378 135.88**	**957 619.59**	**-**	**4 335 755.47**	**100%**
AWARD MADE TO	**JULY**	**AUGUST**	**SEPTEMBER**		**% OF YEAR TO DATE TOTAL**
EMM BASED COMPANIES	3 378 135.88	957 619.59	-	4 335 755.47	74%
NON EMM BASED	1 515 458.97	-	-	1 515 458.97	26%
	4 893 594.85	**957 619.59**	**-**	**5 851 214.44**	**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 risks that may prevent the achievement of the department's strategy are systematically identified and mitigating strategies and actions developed.

Table 11: Risk Assessment

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
ERW1	Inability of ERWAT to be financially sustainable	CF1.1	Legislative Limitations/MFMA Section 164 Forbidden Activities	CF1.1	No Control (Section 78 MSA process)	CF1.1.1	Request permission from council to conduct business outside City of Ekurhuleni(For Municipal Services Related Project)	Revenue generation is a Metro-Wide Key Performance Indicator for ERWAT as outlined in the approved Service Delivery and Budget Implementation Plan (SDBIP) Approval obtained for the Vaal Intervention Project
						CF1.1.2	Request permission from National treasury to conduct business outside RSA	Response to the request to conduct business outside the Republic of South Africa received from National Treasury.
ERW1	Inability of ERWAT to be financially	CF1.2	The Entity relies on the parent municipality to finance both	CF1.2	5-year MTREF Budget Cycle Process (USDG)	CF1.2.1	Investigate other sources of funding.(e.g. PPP)	No Reporting for quarter 1

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
	sustainable (cont.)		Operational and Capital budget requirements through user charges and USDG Grants.			CF1.2.2	Request the city for additional Capital funding from other funding sources/grants within the CoE.	No Reporting for quarter 1
		CF1.3	Inadequate sales and marketing strategy	CF1.3.1	Annual Industry conferences and Seminar (e.g. Articles in Local Business Magazines, Exhibitions at Conferences)	CF1.3.1	Development and Implementation of Sales and Marketing Strategy.	Potential market segments has been identified and quantified.
				CF1.3.2	ERWAT organisational Strategy	NA1	No further action plan identified	No reporting required. There is no action plan to be implemented
		CF1.4	Inefficient Pricing Model (ERWAT pricing might not be competitive, making current and	CF1.4.1	(A) Scientific Services pricing model.	CF1.4.1	Development of an Enterprise wide Financial Model.	The financial model is under development and the project is 95% complete
			potential clients to look for alternative services providers)	CF1.4.2	(b) Pricing Satisfaction Questions in Survey Customer Satisfaction Survey conducted	NA2	No further action plan identified	No reporting required. There is no action plan to be implemented
ERW1	Inability of ERWAT to be financially sustainable (cont.)	CF1.5	Competitor reaction to the market	CF1.5.1	Strategic Partnerships with market leader and key role players in the water industry through Memorandum of	CF1.5.1	Development of an Internal Performance management system(KPA's & KPI's) to monitor ERWAT performance against Client	No Reporting for quarter 1

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
					Understandings and Memorandum of Agreements.		expectation/agreement and to enhance continuous improvement	
		CF1.6	Inadequate Client Relationship Management (Customer service and after sales management)	CF1.6.1	Customer Services Satisfaction Surveys conducted quarterly	CF1.6.1	Implement Quarterly Business Reviews	Business review conducted for PG Bison review.
		CF1.7	Inadequate measures by the City to enforce by-laws to deal with industrial pollution	CF1.7.1	No current control	NA3	No further action plan identified	No reporting required. There is no action plan to be implemented
		CF1.8	Negative publicity about pollution tarnishing the image of the organisation, making potential customers to lose confidence in ERWAT .(Directives)	CF1.8.1	Awareness program through the Corporate Social Responsibility	NA4	No further action plan identified	No reporting required. There is no action plan to be implemented
ERW1	Inability of ERWAT to be financially sustainable(cont.)	CF1.9	Level of BBB-EEE Compliance/Inadequate and/or no BBEE certificate	CF1.9.1	BBBEE Compliance Gap Analysis reviews	CF1.9.1	Develop and Implementation of the recommendations from the BBBEE Compliance Gap Analysis review	The BBBEE Verification has been conducted through an independent third party. ERWAT is awaiting the final verification outcome report

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
ERW2	Inadequate infrastructure capacity to treat wastewater.	CF2.1	Waste Water Treatment Plants (WWTP) operating above their designed capacity	CF2.1.1	5-Year Capital Expenditure Plan for current and future infrastructure expansion requirements.	CF2.1.1	**5 Year Capex Plan Major Project** **Project 1** Olifantsfontein WCW refurbishment and resuscitation of the plant	**5 Year Capex Plan Major Project** The Inception and Structural assessment completed. -The project is at preliminary design stage.
		CF2.1	Waste Water Treatment Plants (WWTP) operating above their designed capacity			CF2.1.1	**5 Year Capex Plan Major Project** **Project 2** Vlakplaats Flow Distribution	**5 Year Capex Plan Major Project** Water Use License Application approved on condition that ERWAT meet the material specification.
ERW2	Inadequate infrastructure capacity to treat wastewater. (cont.)					CF2.1.1	**5 Year Capex Plan Major Project** **Project 3** Waterval: Aeration Blowers	**5 Year Capex Plan Major Project** 5 Aeriation Blowers installed and 3 of the 5 commissioned.
				CF2.1.2	Wastewater Risk Abatement Plans	CF2.1.3	Review of Wastewater Risk Abatement Plans and incorporate action plans into planning	Quarter 1 Wastewater Risk Abatement Plans reviewed 9th September 2019 as part of the Green Drop Audit.

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
				CF2.1.3	Facilities Development Plan	CF2.1.3	Update the 50-year master plan after the completing the feasibility study	No reporting for quarter 1.
				CF2.1.4	Civil Structural Audits	NA5	No further action due to budget constraints.	No reporting required. There is no action plan to be implemented for the year under review
ERW2	Inadequate infrastructure capacity to treat wastewater. (cont.)	CF2.2	Inadequate motivation for Capital requirements for projects during the Capital Budget process	CF2.2.1	Facilities Development Plan	CF2.2.1	Conduct a feasibility study to on wastewater conveyance and treatment system regionalisation and update the 50-year master plan	The alternative evaluation is in progress (95%) The overall project is at decision modelling phase
						CF2.2.2	Review and update the Facility Development Plans (dependent on the finalisation of the master plan)	No reporting for quarter 1.
						CF2.2.3	Conduct a comprehensive audit to assess the condition of the Entity's infrastructure	The Joint Audit assessment to be conducted by City of Ekurhuleni's Internal Audit Department in line with the approved Internal Audit plan. No reporting required. There is no action plan to be implemented for the year under review

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
ERW2	Inadequate infrastructure capacity to treat wastewater. (cont.)	CF2.2	Limited capital investment to meet long-term infrastructure expansion and upgrades requirements to rehabilitate, replace and expand infrastructure.	CF2.2.1	Long Term Capital Budget Plan (5 years) as part of MTREF Budget allocation from the City outlining the requirements	CF2.2.1	Investigate possible funding through Private Public Partnerships	No Reporting for quarter 1
		CF2.3	Maintenance plan that is not adequate to deal inadequate asset maintenance planning and execution due to budget constraints.	CF2.3.1	Asset Management Policy	CF2.3.1	Review and update the Asset Management Policy	Asset Management was tabled at the Board meeting on the 22 August 2019. The policy was referred back to management for further review
		CF2.4	(Infrastructure/Assets are very old and experience breakdowns frequently)	CF2.3.2	Asset Management Maturity Assessments	CF2.3.2	Develop an Asset Management Strategy	No reporting for quarter 1.
				CF2.3.3	Asset Criticality Assessments and Classification	CF2.3.3	Asset condition assessment	Condition assessments conducted for 2 (Ancor and Hartebeesfontein) out of the 19 Wastewater Care Works
				CF2.3.4	Asset Care Plans	CF2.3.4	Asset Management re-assessment to be conducted in 2022	No reporting required. There is no action plan to be implemented for the year under review

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
				CF2.3.5	Asset Maintenance Plans	CF2.3.5	Review Asset Maintenance Plan	Asset Maintenance plans reviewed, updated and awaiting approval
ERW2	Inadequate infrastructure capacity to treat wastewater. (cont.)			CF2.3.6	Reliability Engineering Program	CF2.3.6	Develop Maintenance Standards and Specifications for critical Equipment's	No reporting for quarter 1.
				CF2.3.7	Maintenance Service Master contracts for critical equipment and emergency breakdowns	NA6	No further action plan identified	No reporting required. There is no action plan to be implemented for the year under review
				CF2.3.8	Equipment Condition Assessments	CF2.3.7	Implementation of the recommendations from OEM assessment	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)
ERW2	Inadequate infrastructure capacity to treat	CF2.4	Technology needed to achieve greater to efficiencies outdated/old	CF2.4.1	**Installation of Newer Technologies** 1. Hyback Technology 2. Nereda Technology	CF2.4.1	Commissioning of the Nereda Technology at Hartebeesfontein Wastewater Treatment Care Works	No reporting for quarter 1.

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
	wastewater. (cont.)			CF2.4.2	Member of Technology Assessment Group(TAG) for advise on newer and researched technology	NA7	Further investigate newer technologies through the TAG group and other means	No reporting for quarter 1.
				CF2.3.4	Research Chair through the University of Stellenbosch	NA8	No further action plan identified	No reporting required. There is no action plan to be implemented for the year under review
				CF2.3.4	ERWAT Research and Development program	NA9	No further action plan identified	No reporting required. There is no action plan to be implemented for the year under review
		CF2.5	Industrial and residential (Population) growth	CF2.5.1	Development applications Approval process.	CF2.5.1	Strengthen coordination with City Planning; Water & Sanitation and Human Settlement.	No reporting for quarter 1.
		CF2.6	Theft and vandalism of manhole covers leading to storm water and high water table ingress.	CF2.6.1	ERWAT –CoE quarterly coordination meetings			
ERW3	Possible failure to achieve Capital Expenditure set target	CF3.1	Planning, SCM processes and systems not fully integrated	CF3.1.1	An Integrated Procurement Plan has been developed and implemented.	CF3.1.1	Implementation of an Enterprise Resource Planning (ERP) system in collaboration with CoE.	Business Requirements Specification concluded for the business and ERP Change Management

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
								Workshop held in July 2019
						CF3.1.2	Integration of Supply Chain Management with the Document Management System as part of the ERP System project	The Business Requirements Specification concluded in quarter 4. T
		CF3.2	Delays in Supply Chain Management processes,	CF3.2.1	Supply Chain Management Policy	CF3.2.1	Review Supply Chain Policy to include recommendations as per Governance Maturity Assessment Report 2019	Supply Chain Policy updated to incorporate the recommendations highlighted in the Governance Maturity Report and approved by Board on the 22/08/2019
ERW3	Possible failure to achieve Capital Expenditure set target(cont.)	CF3.3	Late submission of invoices by suppliers and late payments by ERWAT	CF3.3.1	Creditors Policy	NA10	No further action plan identified	No reporting required. There is no action plan to be implemented for the year under review
				CF3.3.2	Capital Infrastructure Planning and Project Management Policy	CF3.3.2	Conduct/review project risk assessment for the upgrading of capacity at (a) Olifantsfontein Capacity Upgrades (b) Flow Modification and Vlaakplaats	**Project Risk Management Plans** Olifantsfontein Project Risk assessment commenced on the 20th of July 2019.
				CF3.3.3	Monthly CAPEX reconciliation between Finance and Projects	CF3.3.3	No further action plan identified	No reporting required. There is no action plan to be

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
								implemented for the year under review
				CF3.3.4	Capital Expenditure Spending Tracking Tool generated weekly for monitoring and evaluation.	NA11	No further action plan identified	No reporting required. There is no action plan to be implemented for the year under review
				CF3.3.5	Supply Chain Management Committees appointed with weekly meetings to speed up SCM	NA12	No further action plan identified	No reporting required. There is no action plan to be implemented for the year under review
ERW3	Possible failure to achieve Capital Expenditure set target (cont.)			CF3.3.6	Interdepartmental Business Process Mapped on Aris	NA13	No further action plan identified	No reporting required. There is no action plan to be implemented for the year under review
		CF3.3	Project disruptions by members of the community, local business forums demanding a stake in the projects	CF3.3.1	Community engagements and awareness through the Corporate Social Responsibility Office Project Community Liaison Officers appointed from the community	CF3.3.1	Engage CSR office prior to commencement of the project	No reporting for quarter 1.

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
ERW3	Possible failure to achieve Capital Expenditure set target(cont.)			CF3.3.2	Sub-contracting local businesses	NA14	No further action plan identified	No reporting required. There is no action plan to be implemented for the year under review
		CF3.4	Strike by employees disrupting project	CF3.4.1	ERWAT Local Labour Forum	CF3.4.1	Develop a Strike Contingency Plan	Draft Strike Contingency Plan developed
		CF3.5	Contractor's contract price offer poorly under estimated forcing the contractor not accept the awarding of the contract or pull out of the project.	CF3.5.1	No current control	NA15	No further action plan identified	No reporting required. There is no action plan to be implemented for the year under review
		CF3.6	Termination of contract due to poor performance of the contractor	CF3.6.1	Project monitoring through Weekly Meetings	CC3.2	Invoke penalties for poor performance in line with the Supply Chain Management Policy	Theree were no penalties for the period under review
		CF3.7	Possible liquidation of suppliers.	CF3.7.1	No current control	CC3.2	No further action plan identified	No reporting required. There is no action plan to be implemented for the year under review
ERW4	Inadequate preparedness in the event of an emergency.	CF4.1	Some plants of the 19 Wastewater Care Works do not have wastewater bypassing systems	CF4.1.1	Incident Management Protocol (Emergency Response Plan)	CF4.1	Develop a Business Continuity Management Policy	BCM Policy recommended by EXCO to the Governance Risk and Compliance Committee scheduled for October 2019

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
ERW4	Inadequate preparedness in the event of an emergency. (cont.)	CF4.2	Lack of a comprehensive Business Continuity Management Program	CF4.2.1	ICT Disaster recovery plan	CF4.2	Business Continuity Management Strategy	Action scheduled to commence in Quarter 2
						CF4.3	Conduct Business Continuity Management Risk Assessments at Wastewater Care Works	BCM Risk Assessment for the following are 50% complete Carl Grundling Ratanda Heildelberg
						CF4.5	Conduct Business Continuity Impact Analysis	Business Impact Analysis completed for Scientific Services, Maintenance and Finance departments
						CF4.6	Conduct Information Technology Readiness for Business Continuity (IRBC) Gap Analysis	Gap Analysis Workshop for 5 critical applications for the in July for Information Technology Readiness for BCM conducted in July
						CF4.7	Develop and Implement Information Technology Readiness for Business Continuity (IRBC) Plan	Action scheduled to commence in Quarter 2
						CF4.8	Developing Business Continuity Management Plans	Action scheduled to commence in Quarter 2
						CF4.11	Develop BCM Exercising Methodology	BCM Exercising methodology drafted

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
								and circulated for comments.
						CF4.12	Develop BCM Maintenance Framework	Action scheduled to commence in Quarter 2
ERW5	Inability to attract and retain key skills. (cont.)	CF5.1	Lack of succession plan	CF5.1.1	Career and Succession Planning Policy	CF5.1.1	Review of the Competency based Progression Plan to Include all the departments	Action scheduled to commence in Quarter 2
ERW5	Inability to attract and retain key skills. (cont.)			CF5.1.2	Partial Career Planning Framework	CF5.1.2	Review of the Competency Based Progression (succession) Policy	The Competency Based Progression (Succession) Policy has been approved by the Board on the 22 August 2019
				CF5.1.3	Recruitment Plan	CF5.1.3	Review and Competency Based Progression Strategy	Draft Competency Based Progression Strategy has been developed
				CF5.1.4	5-year Training and Development Plan	CF5.1.4	Implementation of 2019/20 annual training plan	The 2019/2020 Training plan is in the process of implementation. All scheduled training has been executed for the period under review
				CF5.1.5	Employee Benefits Policies	CF5.1.5	Review of Human Resources Policies	HR policies are currently under review **(Number of policies)**
		CF5.2	Remuneration perceived to be lower than industry norm	CF5.2.1	Remuneration re-structuring	CF5.2.1	Conduct Remuneration Benchmarking	Remuneration Benchmarking is 95% complete

REF	Risk Title		Contributing Factors		Current Mitigation Controls	RAP	Risk Action Plan	Detailed Progress
ERW5	Inability to attract and retain key skills. (cont.)			CF5.2.2	Salary Pay scales	CF5.2.2	Review of current Pay scales	Pay scales has been reviewed
				CF5.2.3	Remuneration policy	NA16	No further action plan identified	Not Applicable
				CF5.2.4	2019 Organisational Structure Re-design	NA17	No further action plan identified	Not Applicable
		CF5.3	Lack of knowledge management and skills transfer program	CF5.3.1	No current control	CF5.3.1	Develop and Implement Knowledge Management System as part of the ERP system	Business requirements specification initiated for knowledge management as part of the ERP Project

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

The 2019/20 regularity audit commenced on 1 September 2019 with planning commencing during August 2019.

As of the 8th of October 2019, 9 requests for information was issued and no findings were raised.

In order to ensure that the audit proceeds smoothly, weekly audit steering committee meetings are held with key ERWAT staff members and the Audit team.

It is anticipated that the audit report will be issued and the management representation letter be signed on 30 November 2019.