ERWAT: Third Quarter Departmental Performance Reporting

2022322 QUARTERLY REPORTING TEMPLATE AGAINST THE APPROVED BUSINESS PLANS

1. Executive Summary by the Department

ERWAT achieved nine (9) out of the thirteen (13) reportable key performance indicators for quarter 3. ERWAT achieved three (3) city wide indicators namely, percentage of wastewater treatment capacity unused with positive variance of -8% (-41% against a target of -50%), percentage compliance with wastewater treatment works license conditions and/or exemptions standards was achieved (81% against target of 75%), however it is important to take note that although the target was achieved, serious ongoing challenges remain. These challenges include industrial pollution, critical equipment failures, loadshedding/power outages and chemical shortages. the impact of loadshedding during ESKOM stages 4-6 have an increasing detrimental impact which are always largely electromechanical requiring electricity supply. Resultantly the bio-chemical process do not have sufficient time to recover before the next loadshedding event. It can be noted that in total 5051.5 hours of loadshedding and power failures were experienced on the WCW for Q3, compared to 3003 hours in Q2. In addition, a number of industrial pollution incidents were recorded including critical Equipment failures. The target on Total Revenue generated from external business was however met R10 076 793 against a target of R8 000 000.

Percentage of repairs and maintenance budget spent was not met (68.36% against target of 75%), ERWAT has currently spent 62,24% of the adjusted capex budget against a target of 80% at the end of the third quarter due to the upward adjustment of Capital Budget which was approved within the last month of quarter 3.

Furthermore, percentage procurement spend allocated to SMME's was exceeded due to measures put in place at specification stage to prioritise SMME's on certain contracts.

ERWAT is striving and working hard towards addressing all Mega Catalytic projects to accommodate new developments within the City of Ekurhuleni. The planned capacity upgrade of the Water Care Works needs to be upgraded urgently to cater for the current backlog in capacity and to make provision for future housing and industrial developments. ERWAT does not have enough Capex funds to implement the upgrade of the Water Care Works. As part of the mitigation plan with regards to electricity supply ERWAT will conduct a feasibility for the installation of a 1MW plant at one of the medium-sized plants. As part of the mitigation plan for curbing critical equipment failure an additional R70 million will be allocated towards maintenance in the last 6 months of the year.

Table A: Summary of Service Delivery Performance

Service Delivery Monitoring					
	Total number of targets	**Total number of targets set for the quarter**	**Achieved**	**Not achieved**	**Variance**
City Wide SDBIP	4	3	3	0	0
Department SDBIP	11	10	6	4	4

2. Service Delivery Monitoring

2.1 CITY-WIDE SDBIP

KPI 1 – City-Wide
Percentage of wastewater treatment capacity unused

Method of Measure

The percentage of wastewater treatment capacity unused. Sewer treatment capacity refers to the maximum amount of sewage that a facility is allowed to treat or to direct to a particular reuse or effluent disposal system. This refers to the collective available design capacity of all facilities servicing the municipal area. 'Available design capacity' refers to the overall design capacity that is available on a daily basis. If part of the treatment facility requires refurbishment or is not in operation this should be excluded from 'available design capacity'.

((1) Total volume of wastewater treated over the last year / ((2) Daily wastewater treatment plant available design capacity x 365))]

Evidence
Dated and signed report indicating actual flow received and treated per WCW and totalised for ERWAT system (19 WCW) drawn from LIMS (Laboratory Information Management System), in conjunction with the original or re-graded design hydraulic capacity (available capacity) per WCW for the ERWAT system (total of 19 WCW).

Q3 Target
-50

Q3 Actual
-42%

Comment
The target has been met with positive variance of -8%

Reasons for Variance
Water Care Works received less flows.

Corrective Measure

The implementation of the capacity upgrade or extension is subject to the availability of funds. The currently allocated MTREF does not have provision for any Capacity Upgrade or Extension projects, ERWAT require additional funding on the current budget allocation. ERWAT cannot commit to a specific date due to unavailability of budget.

KPI 2 – City-Wide

Total revenue generated from external business.

Method of Measure

Increased Commercial Business revenue generated from commercial sources (Absolute Rand Value per quarter). The indicator target is measured across the Quarters. Revenue generated from: External Income (none NDA)

Evidence

Invoices - (The invoices to be coupled with sales report with a balance that agree to the amount reported for SDBIP purposes)

Q3Target

R8 000 000

Q3 Actual

R10 076 793.00

Comment:

The target for the third quarter of R8 000 000 in external revenue was achieved.

Target Exceeded

The target was exceeded due to additional work carried out at a client' site.

Corrective Measure

No corrective measure required.

KPI 3 – City-Wide
Audit Opinion

Method of Measure
The Audit Opinion is defined by the Auditor General. It is given across a qualitative, ordinal scale including Unqualified with no findings; Unqualified with findings; Qualified with findings; Adverse with findings; and disclaimed with findings. For those who have not **completed** the process 'Outstanding audits' are recorded.

Evidence
Dated and signed Audit report from AGSA

Q3 Target
N/A

Q3 Actual
Target met as reported in Q2

Comment
Target met as reported in Q2

KPI 4 – City-Wide

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

Method of Measure
The indicator measures the compliance of wastewater works effluent to the requirements of biological and chemical indicators as per the water use license granted by the Regulator. It is calculated by dividing the number of determinants complying to the Water Use Authorization with the total number of determinants.

Evidence
Water quality Data of each Wastewater Treatment Works (from the Lab) Spreadsheet used to calculate over all compliance. Applicable Water use authorization of each Wastewater Treatment Works.

Q3 Target
75%

Q3 Actual
81%

Comment
KPI achieved.
The entity achieved the target. It is important to take note that although the target was achieved, serious ongoing challenges remain. These challenges are discussed below as well as under Section 3.3 (hydraulic capacity).

1. Challenges
   a. Industrial pollution
   b. Critical equipment failures
   c. Loadshedding/power outages
   d. Chemical shortages

1.1. Industrial pollution incidents:

WCW (water care works) that received industrial pollution during Quarter 3 impacting negatively on the plant operations and final effluent compliance are listed in the Table below. The number of industrial pollution incidents decreased significantly in Q3 as compared to Q2 due to stormwater dilution leading to improved water quality compliance.
(Refer Section 3.4 for further details of organic loading per WCW)

WCW	Number of industrial pollution incidents in Q3	Number of industrial pollution incidents in Q2
Esther Park	0	10
Olifantsfontein	21	31
Hartebeestfontein	20	80
Benoni	1	0
Rynfield	1	0
JP Marais	4	1
Welgedacht	1	3
Daveyton	16	4
Jan Smuts	1	19
Ancor	8	21
Heidelberg	2	17
Tsakane	0	3
Herbert Bickley	9	11
Dekema	1	0
Rondebult	2	8
Vlakplaats	0	1
Waterval	0	0
Total incidents	**87**	**209**

Hartebeestfontein WCW was heavily impacted by industrial pollution but improved during the latter half of Q3 after interventions from ERWAT and COE.
It should be noted that even though some the WCW listed above met the compliance target, they are still negatively impacted by industrial pollution on specific days.

1.2. Critical equipment failures

The following WCWs experienced critical equipment failures impacting directly on the effluent compliance. The critical equipment failures are expressed as a % of the number of critical equipment failures over the reporting period divided by the total number of duty equipment that directly impacts final effluent water quality.

WCW	% of critical equipment not available **Q3 2022/2023**
Benoni	15%
Esther Park	7%
Hartebeestfontein	18%
Olifantsfontein	13%
Rynfield	15%
Ancor	0%
Daveyton	0%
Jan Smuts	0%
JP Marais	17%
Welgedacht	13%
Herbert Bickley	4%
Heidelberg	11%
Tsakane	17%
Ratanda	14%
Carl Grundlingh	17%
Dekema	17%
Rondebult	18%
Vlakplaats	19%
Waterval	16%

It should be noted that several critical equipment failures were not resolved in previous quarters and the impact on compliance are thereof carried over from quarter to quarter.

1.3. Power outages

The following WCWs experienced frequent loadshedding and/or power failures during Quarter 3 impacting the compliance of the WCWs directly. It must be noted that the impact of loadshedding during ESKOM stages 4-6 have an increasing detrimental impact on the WCW as the processes don't have sufficient time to recover before the next loadshedding event. It can be noted that in total 5051.5 hours of loadshedding and power failures were experienced on the WCW for Q3, compared to 3003 hours in Q2.

(Some of the WCW do not have installed generators at all critical plant processes whilst others are not operational, awaiting repairs).

Plant		Quarter 3 2022				Total hours without power
		Scheduled Loadshedding	Total hours Loadshedding	Power failures	Total hours Power Failures	
Benoni	DD3	0	0	4	35	35
Esther Park	DD3	12	32	2	37	69
Hartebeestfontein	DD3	221	473	0	0	473
Olifantsfontein	DD3	0	0	5	5.5	5.5
Rynfield	DD3	224	469	1	1	470
Ancor	DD4	0	32	14	69	101
Daveyton	DD4	204	464	1	5	469
Jan Smuts	DD4	214	428	0	0	428
JP Marais	DD4	215	486	11	13	499
Welgedacht	DD4	0	0	3	13	13
Herbert Bickley	DD5	133	286	0	0	286
Heidelberg	DD5	153	333	28	77	410
Tsakane	DD5	221	486	0	0	486
Ratanda	DD5	81	177	10	49	226
Carl Grundlingh	DD5	0	0	3	10	10
Dekema	DD6	221	487	0	0	487
Rondebult	DD6	21	54	6	46	100
Vlakplaats	DD6	187	438	7	46	484
Waterval	DD6	0	0	0	0	0
Total number of hours without electricity on all Water care Works for Q3.						**5051.5**

1.4. Critical Chemical shortages

Due to challenges with ESKOM electricity supply at the manufacturing plants of the sole producer in South Africa, shortages of ferric chloride and chlorine gas are experienced from time to time, impacting directly on the quality of the final effluent of most of the WCW.

WCW	Ferric chloride shortages (Number of days)	Chlorine gas shortages (Number of days)
Hartebeestfontein	55 of 90	0 of 90
Benoni	31 of 90	2 of 90
Ancor	62 of 90	0 of 90
Jan Smuts	28 of 90	0 of 90

WCW	Ferric chloride shortages (Number of days)	Chlorine gas shortages (Number of days)
Dekema	46 of 90	0 of 90
Rondebult	14 of 90	0 of 90
Vlakplaats	23 of 90	0 of 90
Carl Grundling	0 of 90	2 of 90

Ferric chloride is used in the treatment process to remove ortho-phosphate from the final effluent as well as improving the settleability of solids in the settling tanks, whilst chlorine gas is used to disinfect the final effluent before discharge to the receiving water bodies.

Action plans:

1. Industrial pollution incidents

ERWAT works closely with the CoE and report all incidents as soon as detected to assist in tracing the source of the pollution. However, the source of the pollution is almost never identified by the CoE as it is difficult to trace in the vast sewer networks. Intensive tracing found illegal tanker discharges into the sewer networks to be one of the primary sources of pollution. The matter was escalated to the relevant HODs.

ERWAT and CoE have worked jointly on a concept to develop an improved industrial effluent management model. The CoE must appoint a professional service provider (project has not moved forward due to lack of funding from CoE since 2018).

2. Critical equipment failures

Asset Care plans for critical equipment were developed for all WCW but only partially implemented, therefore breakdowns still occur frequently.

3. Power outages and Loadshedding

Standby diesel generators were installed at some of the most critical process units of the various WCW; however, some WCW are still awaiting generators due to a shortage in CAPEX funding. It must however be noted that standby diesel generators cannot operate for extended outage periods due to the very high consumption rate and cost of diesel.

4. Chemical shortages (Ferric chloride and Chlorine gas)

ERWAT is in daily contact with the supplier to secure product and prioritise deliveries according to the stock levels of the various WCW. The service provider experienced operational challenges from 06 January 2023, leading to low chemicals production. On the 31st of January, an Eskom transformer that feeds the manufacturing plant caught fire, which further caused delay in chemicals production. The transformed was recently replaced but ongoing challenges with the electricity supply

is reported. ERWAT is currently rolling out alternative disinfection chemicals to WCW and the procurement process for alternatives for ferric chloride has started. It must also be noted that preference is given to potable water plants over wastewater plants due to the health hazard of drinking water not disinfected.

KPI – Departmental SDBIP

KPI 1: % Capital expenditure on planned projects

Method of Measure:

Increase ERWAT water care works (WWTP) 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)

a) Payments certificates
b) Invoices

Q3 Target
80%

Q3 Actual
62.24%

Reasons for Variance
ERWAT has currently spent 62,24% with a negative variance of 17.76%. Consequently, ERWAT did not meet its planned quarterly target of 80%. This is attributed to the upward adjustment of Capital Budget which was approved within the last month of quarter 3.

Remedial Actions:
ERWAT has put in plans to accelerate all the project that have been allocated the additional funds to ensure that quarter 4 target is achieved.

KPI 2 – Departmental SDBIP
Percentage of repairs and maintenance budget spent

Method of Measure:
The indicator measures the total budget spent. The indicator target is measured cumulatively across the quarters.

The indicator formula is (1) Expenditure year to date / (2) total approved maintenance budget approved.

Evidence
Finance year to date expenditure report (Budget Variance Report)

Q3 Target
75%

Q3 Actual
68.36%

Comment:

The department did not achieve the 75% target as planned.

The expenditure year to date is R 92 502 861,00 against the approved maintenance budget of R205 303 526,00.

This yields to 68,36% of the repairs and maintenance adjusted budget spent in Quarter 3 and the variance thereof is 6,64%. The reason for not achieving our target is that we have an amount of R62 357 381,80 of our budget already committed in orders that could not be completed by the end of the 3rd Quarter but will be completed by the end of the 4th Quarter.

KPI – 3 Department SDBIP

Percentage of procurement spend allocated to SMME's

Method of Measure
The indicator measures the percentage of procurement spend allocated to SMME's through ensuring appropriate application of the preferential procurement practices. This support will be calculated aa a percentage of the total value paid to Small, **Medium** and Micro Enterprises either directly or via the principal contractor in terms of a Preferential Procurement Regulation 4 or 9 contractual condition.

The indicator formula is:
(1) rand value of procurement spend allocated to SMME's / (2) rand value of total procurement spend *100

Evidence
Dated and signed Letter of appointment or subcontract with support (contract) amount Award AND Listing (Register) of SMME supported with support amount.

Q3 Target
45%

Q3 Actual
93%

Comment:
Contracts awarded to bidders with SMME(EME/QSE) status

Remedial Actions:
None

KPI – 4 Department SDBIP

Number repeat audit findings

Method of Measure
The indicator tracks the number of findings made on the same matter as of the last audit cycle. The “Repeat” findings refer to those findings that have persisted from one year of reporting to the next. These are identified as repeat findings by the Auditor-General on the following administrative areas including but not limited to: i) Annual financial statements and annual report.

The formula for the indicator is the (1) Simple count of the number of "repeat" findings itemized in the Auditor-General's report of each municipality

Evidence
AGSA signed management letter

Q2 Target
0

Q2 Actual
5

Comment
Although management resolved some findings, five (5) remained unresolved.

Remedial Action
N/A – Reported in Q2 – The target was incorrectly set for Q3 due to the 2020 AGSA audit being conducted later than usual. The audit is normally conducted from September (AFS submission 31 August)

KPI – 5 Department SDBIP

Total rand value of surplus realised from revenue generated from external business

Method of Measure
This will be calculated by subtracting the total expenditure from the revenue generated.

Evidence
1. Income and expenditure report with a balance that agree to the amount reported
2. Invoices Listing
   Invoices - (The invoices to be coupled with income and expenditure report with a balance that agree to the amount reported for SDBIP purposes)

Q3 Target
R2 000 000

Q3 Actual
R5 244 857.52

Comment:
The target for the third quarter of R2 000 000 was achieved and exceeded by R3 244 857.52.

Target Exceeded
The target was exceeded due to additional project that was carried out at a client site and vacancies in the department.

Corrective Measure
Recruit for existing vacancies

KPI 6 – Department SDBIP
Percentage of total municipal operating expenditure spent on contracted services physically residing within the municipal area

Method of Measure
This indicator measures the value of municipal operating expenditure that has been spent on payments to contracted organisations with a physical address within the municipal area as a percentage of the total operating expenditure on payments to all contracted organisations. Contracted services are inclusive of consultancy services, and refer to services rendered by any entity outside of the municipality secured through a public procurement process.

Indicator Formula: (1) R-value of operating expenditure on contracted services within the municipal area / (2) Total municipal operating expenditure on contracted services.
The indicator is reported quarterly.

Evidence
Signed Expenditure report on municipal operating expenditure spent on contracted services

Q3 Target
6%

Q3 Actual
93%

Comment
Target met, Awards made during Q1, 2 &3 amounts to R186 976 772, whereof R174 160 772 are COE based and R12 816 000 are non-COE based. Of the above awards a total of R5 496 000 were awarded for contracted services whereof R5 096 000 are COE based.

Reasons for Variance
Bids were awarded to bidders who scored the highest points

Remedial Action
New PPP regulations were implemented as from January 2023 where bidders are required to claim points for being locally situated in the COE area

KPI 7 – Department SDBIP
Total Operating Expenditure as a percentage of Total Operating Expenditure Budget

Method of Measure
The indicator measures the extent to which operating expenditure has been spent during the financial year. Operating Expenditure (non-capital spending) is costs which the municipality incurs through its normal operations.

Indicator Formula: (1) Actual Operating Expenditure / (2) Budgeted Operating Expenditure This indicator results will be reported quarterly.

Evidence
Signed Excel spreadsheet as extracted from Budget statements for the period

Q3 Target
70%

Q3 Actual
56%

Comment
Target not achieved

Reasons for Variance
Variation primarily due to under expenditure in Employee costs, bulk purchases and repairs and maintenance

Remedial Action
Management to enhance processes to mitigate the risk of under expenditure and to ensure targets are met.

KPI 8 – Department SDBIP
Irregular, Fruitless and Wasteful, Unauthorised Expenditure as a percentage of Total Operating Expenditure

Method of Measure
The indicator measures the extent to which the municipality has incurred irregular, fruitless and wasteful and unauthorised expenditure. Fruitless and wasteful expenditure is expenditure that was made in vain and would have been avoided had reasonable care been exercised. Irregular expenditure is incurred by the municipality in contravention of a requirement of the law. Unauthorized expenditure includes overspending of the total amount appropriated in the approved budget.

Indicator Formula: ((1) Irregular + (2) Fruitless and Wasteful + (3) Unauthorised Expenditure) / (4) Total Operating Expenditure

The Audited Annual Financial Statements for the previous financial year are finalised in January of the following financial period for the previous financial period, therefore this indicator will be reported annually in the Q3 of the following financial year for the previous financial year-end

Evidence
The Audited Annual Financial Statements for the previous financial year as finalised in January of the following financial period for the previous financial period,

Q3 Target
0%

Q3 Actual
69% / 75%

Comment
Prior year irregular expenditure as per the AG finding for Q3 year to date: R57 726 882.09
AFS Irregular expenditure + Fruitless Wasteful Expenditure for 2021/2022 FP: R687 692 088 / Total expenditure for 2021/2022: R992 461 489 = 69%.
For Q3 actual year to date for 2022/2023: R57 726 882.09 + R687 692 088 = R745 418 970.09 / Total expenditure for 2021/2022: R992 461 489 = 75%

Reasons for Variance
Contracts on hold pending final investigation.

Remedial Action
Contracts identified by AG as irregular during 2021/2022 financial period audit.

KPI 9 – Department SDBIP
Repairs and Maintenance as a percentage of property, plant, equipment and investment property

Method of Measure
This indicator measures the extent at which the municipality spent on repairs and maintenance of infrastructure assets relative to its asset base. Repairs and maintenance is a group of accounts consisting of labour costs, material costs, secondary costs and etc

Evidence
The Audited Annual Financial Statements for the previous financial year as finalised in January of the following financial period for the previous financial period,

Q3 Target
4%

Q3 Actual
7.47%

Comment
Target achieved

Reasons for Variance
N/A

Remedial Action
N/A

KPI 10 – Department SDBIP
Percentage of tender cancellations

Method of Measure
This indicator measures the percentage of tender cancellations in relation to the total number of tender business cases that was recorded, advertised and closed.

Indicator Formula: (1) Number of tenders cancelled / (2) Total number of tenders advertised and closed. The indicator is reported quarterly.

Evidence
Signed and dated SCM report containing tender cancellations in relation to the total number of tender business cases that was recorded, advertised and closed.

Q3 Target
5%

Q3 Actual
13%

Comment
Target not achieved
8 tenders advertised during Q1 & 2. One bid was cancelled in Q3

Reasons for Variance
Bidder failed to perform on contract awarded.

Remedial Action
Tender in the process of being resubmitted for re-advert.

KPI 11 – Department SDBIP
Net Surplus /Deficit Margin for Wastewater

Method of Measure
Wastewater is measured separately to track the extent to which the municipality generates surplus or deficit. Total expenditure, in this context, refers to direct costs, overheard costs and capital financing costs incurred in providing wastewater and sanitation services. Direct costs include employee related costs, bulk purchases, repairs and maintenance, contracted services, debt impairment, depreciation and other costs not grouped under the above-mentioned categories. Overheard costs, also referred to as indirect costs, are costs that are not directly attributable to a service but are incurred in running a municipality as a whole, for example office space or computer software and all charges or recoveries. Capital financing costs are costs associated with financing infrastructure expansion or rehabilitation of existing assets, for example interest and redemption charges.

The Audited Annual Financial Statements for the previous financial year are finalised in January of the following financial period for the previous financial period, therefore this indicator will be reported annually in the Q3 of the following financial year for the previous financial year-end.

Evidence

The Audited Annual Financial Statements for the previous financial year as finalised in January of the following financial period for the previous financial period,

Q3 Target
49%

Q3 Actual
31.56%

Comment
Target not achieved

Reasons for Variance
Target not achieved

Remedial Action
N/A

3.1 City-Wide/Institutional SDBIP 2022/23

Refer to the City-wide SDBIP 2022/23.

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	Portfolio of Evidence	Revised Baseline (2021/22)	Annual Target (2022/23)	Planned Target Quarter 3	Actual Output Quarter 3	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	Planned Budget Quarter 3	Actual Expenditure Quarter 3
IDP Strategic Objective 1: To deliver reliable, affordable and sustainable services and ensure improved infrastructure maintenance															
Ekurhuleni Water Care Company (ERWAT)	Improved quality of water (incl. wastewater)	WS 4.31	Percentage of wastewater treatment capacity unused	Dated and signed report indicating actual flow received and treated per WCW and totalised for ERWAT system (19 WCW) drawn from LIMS (Laboratory Information Management System), in conjunction with the original or re-graded design hydraulic capacity (available capacity) per WCW for the ERWAT system (total of 19 WCW).	New indicator	-50%	-50%	-42%	-8%	The target has been met	-42%	Water Care Works received less flows.	The implementation of the capacity upgrade or extension is subject to the availability of funds. The currently allocated MTREF does not have provision for any Upgrade or Extension projects, ERWAT require additional funding on the current budget allocation. ERWAT	CAPEX	

Entity	Outcome	Ref No.	Performance Indicator	Portfolio of Evidence	Revised Baseline (2021/22)	Annual Target (2022/23)	Planned Target Quarter 3	Actual Output Quarter 3	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	Planned Budget Quarter 3	Actual Expenditure Quarter 3
													cannot commit to a specific date due to unavailability of budget		
	IDP Strategic Objective 2:TO Build a Clean, Capable and Modernised Local State														
	Improved Quality of water (including wastewater)	ERW1.1	Total revenue generated from external business	Invoices coupled with general ledger with a balance that agree to the amount reported	R 11 731 475	R34 000 000	R8 000 000	R10 076 793.00	R2 076 793.00	Target achieved and exceeded	Target achieved and exceeded	Target exceeded due to additional work carried out at a client' site.	No remedial action required	OPEX	R 4 831 935.48
Ekurhuleni Water Care Company (ERWAT)	To build a clean, Capable and Modernised Local State	ERW1.2	Audit Opinion	Dated and signed Audit report from AGSA	Unqualified	Unqualified	N/A	N/A	N/A	Unqualified	Target met as reported in Q2	N/A	None	OPEX	N/A
IDP Strategic Objective 4: To protect the natural environment and promote resource sustainability															
Ekurhuleni Water Care Company (ERWAT)	Improved Quality of water (including wastewater)	ERW1.3	Percentage compliance with wastewater treatment works license conditions and/or exemptions standards	Water quality analyses results of each Wastewater Treatment Works (from the LIMS) is downloaded. Spreadsheet is used to calculate average compliance of each of the 3 compliance categories and then the average of	85%	77.5%	75%	81%	6%	81%	81%	1. Decrease in the number of major industrial pollution incidens 2. Diltion due to stormwater ingress. .	N/A	R170 932 945.00	R117 951 523.61

Entity	Outcome	Ref No.	Performance Indicator	Portfolio of Evidence	Revised Baseline (2021/22)	Annual Target (2022/23)	Planned Target Quarter 3	Actual Output Quarter 3	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	Planned Budget Quarter 3	Actual Expenditure Quarter 3
				the 3 categories gives the overall compliance per WCW and then per ERWAT system (19 WCW). Applicable Water use authorization limits of each Wastewater Treatment Works											

3.2 Entity's SDBIP Score card with Key Performance Areas and Indicators 2022/23

Table 2: Departmental Entity's SDBIP

Entity	Outcome	Ref No.	Performance Indicator	Portfolio of Evidence	Revised Baseline (2021/22)	Annual Target (2022/23)	Planned Target Quarter 3	Actual Output Quarter 3	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	Planned Budget Quarter 3	Actual Expenditure Quarter 3
IDP Strategic Objective 2: To build a clean, capable and modernized local state															
Ekurhuleni Water Care Company (ERWAT)	Improved Quality of Water including Wastewater	1.M	Percentage of Capital Expenditure on Planned Projects	Finance year to date expenditure report	100.26%	95%	80%	62,24%	(17,76%)	62,24%	62,24%	Upward adjustment of Capital Budget	Accelerate expenditure on Projects that have been allocated budget	R90 136 355,20	R70 131 675,59
	Improved Quality of Water including Wastewater	2.M	Percentage expenditure on Repairs and	Expenditure report from Finance AND Listings of	91%	95%	75%	43%	7%	43%	43%	The reasons are attributed	Departmental expenditure is on	R33 828 913	R 34 657 607,00

Entity	Outcome	Ref No.	Performance Indicator	Portfolio of Evidence	Revised Baseline (2021/22)	Annual Target (2022/23)	Planned Target Quarter 3	Actual Output Quarter 3	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	Planned Budget Quarter 3	Actual Expenditure Quarter 3
			Maintenance Budget	R&M vote numbers and expenditure								to the fact that December is a short month and Invoices of an amount of R13 096 936,87 were submitted after the financial cut-off date of the 15th of December 2022 and therefore were not included as part of the total expenditure for Q2. When the department include late submitted invoices spending to date for Q2 is 52%.	track and Target for Q3 will be realized.		
	Improved Quality of Water including Wastewater	3.M	Percentage of procurement spend allocated to SMME's	Dated and signed Letter of appointment or subcontract with support (contract) amount	93%	45%	45%	93%	48%	R79 220 797.45	Target met	Contracts awarded to bidders with SMME(EME/QSE) status	None	OPEX/CAPEX	R79 220 797.45

Entity	Outcome	Ref No.	Performance Indicator	Portfolio of Evidence	Revised Baseline (2021/22)	Annual Target (2022/23)	Planned Target Quarter 3	Actual Output Quarter 3	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	Planned Budget Quarter 3	Actual Expenditure Quarter 3
				Award AND Listing (Register) of SMME supported with support amount											
	Improved Quality of Water including Wastewater	4.M	Number of Repeat Audit Findings	AGSA signed management letter	3	0.00	0	5.00	-5.00	N/A	Target not met	Although management resolved some findings, five (5) remained unresolved.	N/A – Reported in Q2 – The target was incorrectly set for Q3 due to the 2020 AGSA audit being conducted later than usual. The audit is normally conducted from September (AFS submission 31 August)	OPEX	N/A
	Improved quality of water including wastewater	4.M	Total rand value of surplus realised from revenue generated from external business	General Ledger with a balance amount that agrees with the amount reported AND	R7 017 841	R10 000 000	R2 000 000	R5 244 857.52	R3 244 857.52	Target achieved and exceeded	Target achieved and exceeded	Target exceeded due to additional work carried out at a client' site and vacancies in the	Recruit for existing vacancies	OPEX	R4 831 935.48

Entity	Outcome	Ref No.	Performance Indicator	Portfolio of Evidence	Revised Baseline (2021/22)	Annual Target (2022/23)	Planned Target Quarter 3	Actual Output Quarter 3	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	Planned Budget Quarter 3	Actual Expenditure Quarter 3
				Listing of invoices								department.			
	Financial Management	LED1.11	Percentage of total municipal operating expenditure spent on contracted services physically residing within the municipal area	Signed Expenditure report on municipal operating expenditure spent on contracted services	New indicator	8%	6%	93%.	87%	93%	Target met	Bids were awarded to bidders who scored the highest points as per the PPPFR Regulations	New PPP regulations were implemented as from January 2023 where bidders are required to claim points for being locally situated in the COE area	OPEX	R5 096 000
	Financial Management	FM1.12	Total Operating Expenditure as a percentage of Total Operating Expenditure Budget	Signed Excel spreadsheet as extracted from Budget statements for the period	New indicator	95%	70%	56%	14%	56%	Target not achieved	Variation primarily due to under expenditure in Employee costs, bulk purchases and repairs and maintenance	Management to enhance processes to mitigate the risk of under expenditure and to ensure targets are met.	OPEX	OPEX
	Financial Management	FM4.11	Irregular, Fruitless and Wasteful, Unauthorised Expenditure as a percentage of Total	The Audited Annual Financial Statements for the previous financial year as finalised in	New indicator	0%	0%	69% R687 692 088/ R992 461 489	69%	69%	Contracts on ho pending final investiga on				

Commented [CK1]: What happens then with the actual Q3 ytd figuers? Are we not adding it then?

Commented [CK2R1]: If we add it, the figures and % will be different: R687 692 088 + R57 726 882.09 =R745 418 970.09 / R992 461 489 = 75%

Commented [LM3R1]: Thanks Chantel, lets stick to the 2021/2022 F/Y as per the request. ^9% it is.

Entity	Outcome	Ref No.	Performance Indicator	Portfolio of Evidence	Revised Baseline (2021/22)	Annual Target (2022/23)	Planned Target Quarter 3	Actual Output Quarter 3	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	Planned Budget Quarter 3	Actual Expenditure Quarter 3
			Operating Expenditure	January of the following financial period for the previous financial period,								period audit.			
	Financial Management	FM5.31	Repairs and Maintenance as a percentage of property, plant, equipment and investment property	The Audited Annual Financial Statements for the previous financial year as finalised in January of the following financial period for the previous financial period,	New indicator	4%	4%	7.47%	3.47%	7.47%	Target achieved	NA	None	OPEX	OPEX
	Financial Management	FM6.13	Percentage of tender cancellations	Signed and dated SCM report containing tender cancellations in relation to the total number of tender business cases that was recorded, advertised and closed.	New indicator	5%	5%	13%	-8%	13%	Target not met	Bidder failed to perform on contract awarded.	Tender in the process of being resubmitted for re-advert.	OPEX	N/A
	Improved revenue and debtors management	FM7.33	Net Surplus /Deficit Margin for Wastewater	The Audited Annual Financial Statements for the previous	New Indicator	49%	49%	31.56%	17.44%	31.56%	Target not met			OPEX	OPEX

Entity	Outcome	Ref No.	Performance Indicator	Portfolio of Evidence	Revised Baseline (2021/22)	Annual Target (2022/23)	Planned Target Quarter 3	Actual Output Quarter 3	Variation	Actual Output Rating	Progress on Targets	Reason(s) for Variation	Remedial Action	Planned Budget Quarter 3	Actual Expenditure Quarter 3
				financial year as finalised in January of the following financial period for the previous financial period,											

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

NB: Reflect on the day to day activities that may not be in the Departmental Scorecard but constitute a key mandate of the department. Some of the day to day activities may be in the DH: Scorecards. This may also include the **Mayoral Lekgotla Action Plan, State of the City Pronouncements etc**

A Flows

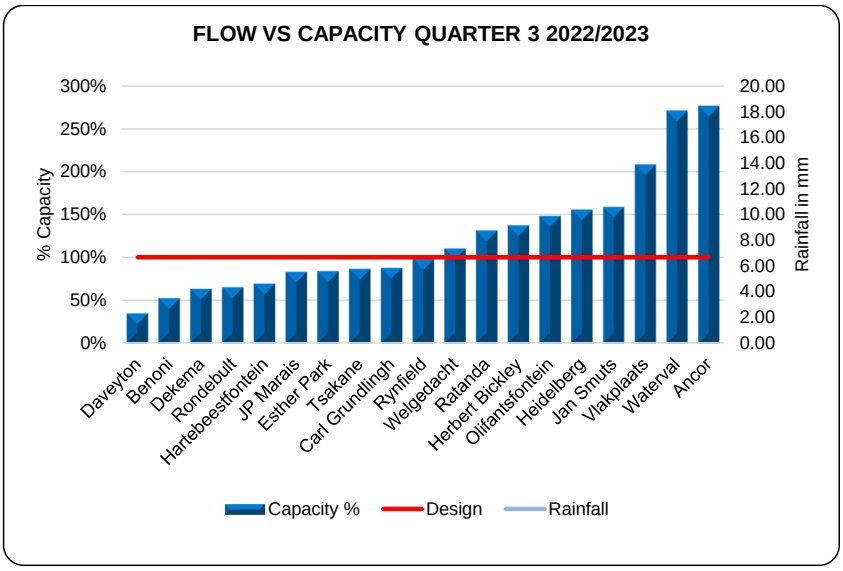


Figure 1

A total of 86 686. Ml was treated in Quarter 3, at an average of 963.19 Ml/day, utilising 155% of the available capacity as compared with Q2 of 83 251.61 Ml was treated at an average of 910.40 Ml/day, utilising 146% of the available capacity.

Flows

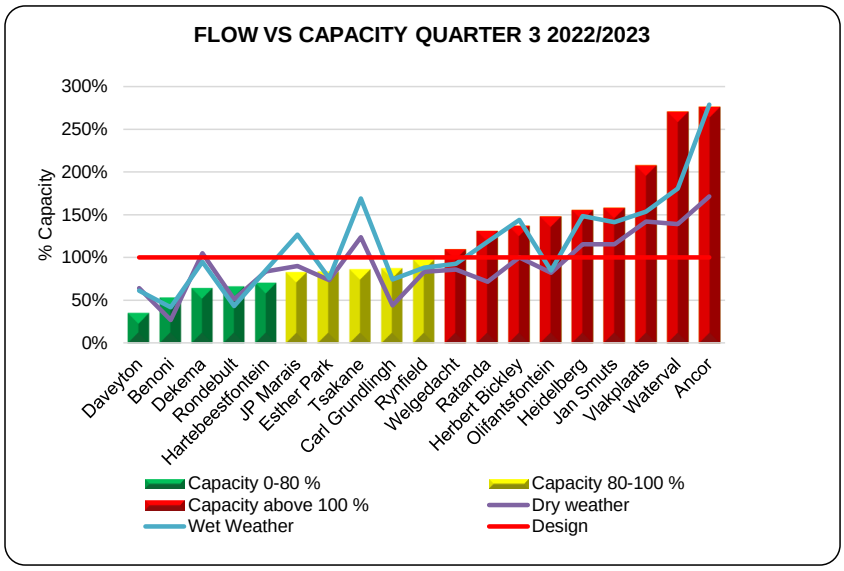


Figure 2

As can be noted in the above graph, during Q3 nine (9) out of nineteen (19) WCW were operating above their hydraulic design capacity, five (5) operating between 80% and 100% and five (5) below their hydraulic design capacity, during Q2 eight (8) out of nineteen (19) WCW were operating above their hydraulic design capacity, five (5) operating between 80% and 100% and six (6) below their hydraulic design capacity

In Q3. Ancor operated at 276%, Jan Smuts at 158%, Welgedacht at 110%, Heidelberg at 155%, Ratanda at 131%, Herbert Bickley at 137%, Olifantsfontein operated at 154%, Vlakplaats at 208% and Waterval operating at 270% of their capacity.

Until the overloaded WCW are upgraded/extended, serious challenges remain to support the CoE in meeting the Growth Development Strategy (GDS2055) and the development of the Aerotropolis.

Flow and Rainfall table

	Design Hydraulic Capacity (Ml/d)	Actual Flow Q3(Ml/d)	Rainfall Q3 (mm)
Ancor	15.00	41.35	251.00
Benoni	7.50	3.92	358.00
Carl Grundlingh	5.20	4.55	381.70
Daveyton	19.00	6.64	198.00
Dekema	31.00	19.67	528.50
Esther Park	1.40	1.18	450.00
Hartebeestfontein	63.00	43.68	332.50
Heidelberg	5.40	8.39	643.00
Herbert Bickley	15.10	20.70	264.70
Jan Smuts	6.00	9.49	308.50
JP Marais	15.00	12.46	282.00

	Design Hydraulic Capacity (Ml/d)	Actual Flow Q3(Ml/d)	Rainfall Q3 (mm)
Olifantsfontein	65.00	100.20	510.00
Ratanda	4.70	6.16	315.00
Rondebult	20.00	13.05	417.60
Rynfield	9.80	9.57	281.00
Tsakane	20.00	17.22	227.00
Vlakplaats	55.00	114.27	471.40
Waterval	170.00	459.42	300.00
Welgedacht	95.00	104.43	232.00

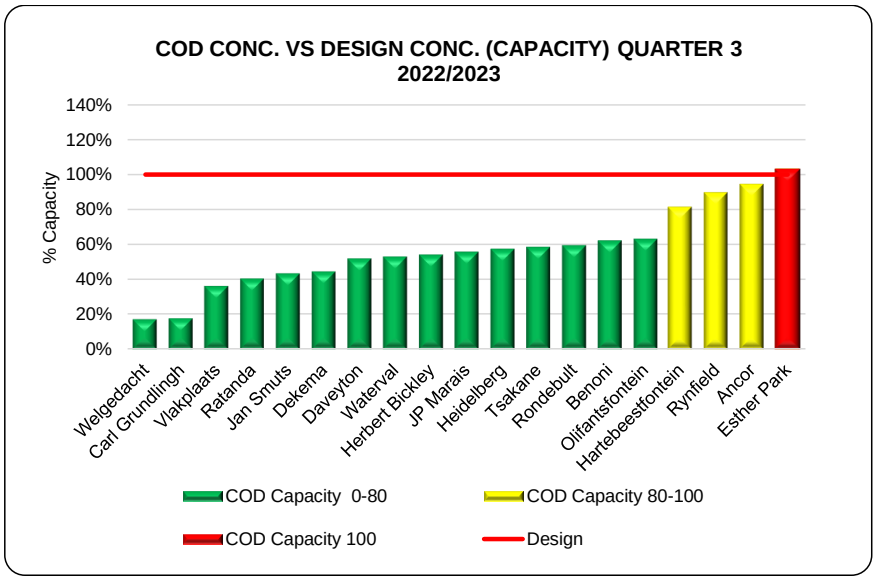


Figure 3

As can be noted, 1 (one) WCW operated above 100% organic capacity, 3 (three) WCW's operated between 80-100% of the organic design capacity and 15 (Fifteen) below their design capacity during Q3 (wet season), as compared to Q2 where 3 (three) WCW operated above 100% organic capacity, 5 (five) WCW's operated between 80-100% of the organic design capacity and 11 (Eleven) below their design capacity

3.4 Plant Specific Challenges

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
Benoni	The Plant complied with overall WUL effluent standards with Overall compliance of Chemical = 97% Physical= 94% Micro = 88%	Plant operated at 52 % of re-graded hydraulic capacity in Q3	Plant operated at 49% of re-graded organic capacity in Q3	There were abnormal flow fluctuations in Q3 due to broken rising main at Tom Jones and Apex pump stations and pumps failures at Tom Jones.	There was 1 high strength of COD from industrial pollution in Q3	2 Level 3 Equipment failures occurred in Q3	There were 4 power outages in Q3 and duration was 35 hrs	Open digesters walls are cracking, Humus tank weirs plates worn out	None	None	Dried sludge is stockpiled at the plant.	Unlined sludge paddies and maturation ponds could cause possible ground water pollution in Q3	None	None	Sludge classification A1c. Sludge Samples were taken to the Laboratory for analysis of the new sludge classification. Screenings and grits that are generated at the plant and are collected by CoE.	Road is accessible	Portable water is available

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
	And the overall compliance is 93% in Q3																
Esther Park	Plant did t comply with both the target of 84% and the WUL standard best practice of 90%	Plant operated at 84 % of hydraulic capacity (Based on regraded capacity of	Plant operated at 91 % of organic capacity for Q3.	18x abnormal flows recorded for Q3 above regraded design capacity of 1.4 Ml/d	0x Industrial effluent pollution incidents in Q3.	7 Level 3 Equipment failures occurred in Q3.	12x power failure incidents recorded in Q3 lasting for total downtime of 32 hours. – Load sheddin g 2x Unplanned power failures	Reactor walls are leaking	Not applicable	None	Not applicable	Not applicable	Not applicable	Not applicable	Screenings and grits are collected by the CoE	Access road was upgraded in Feb 2023.	Drop in water pressure occasionally that affects chlorine dosing

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
	Q3 2022/2023 Physical: 95% Chemical: 95% Micro: 82%. Q3 overall compliance = 91%	1.4 Ml/d)					(cable theft/ CoE) lasting for 37 hours										
Hartebeestfontein	Plant complied with WUL effluent standards target	Plant operated at 70% of hydraulic cap	Plant operated at 81% of organic	The plant experienced fluctuations inflows in January-	Plant received industrial high strength effluent 25	41 Level 3 Equipment failures occurr	There were 221 power outages in January -March 2023 (Q3) for	Aging infrastructure: Ferric plant, chlorine, thickeners,	Digester 1, 4,6 and 9 sludge recirculation nozzl	There were no veld fires experienced in Janu	117 000kg of dry sludge was irrigated to the 200	Borehole two has high concentration of	Sinkhole next to the fence towards FST 5 & 6 and	License amendment with relaxation on Electrical condu	Sludge classification is B2c, not suitable for the intended purpose; this requires	The grading need to be done around the fence by	There was 1 portable water leakage next to

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
	of 50% and fail to comply with best practice target of 90% with the actual of 57%. January-March 2022/2023 (Q3)	acity.	capacity	March 2023 (Q3) due to continuous load shedding and heavy rainfall (643 mm) with an average flow of 43.77 Ml/d.	times out of 90 days during January-March 2023 (Q3).	ed in Q3.	duration of 473 hours.	clarifier 1-4 bridge and siphons.	es blocked. Digester 1-9 feeding lined was blocked.	ary-March 2023 (Q3)	hectares farm.	Nitrates.	around the Farm.	ctivity, Ammonia, E.coli and COD.	further engagement with the farmer.	June 2023. Sampling point access road need to be graded.	module 1 & 2 MCC room.

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
	Physical: 84% Chemical 61% Micro: 26% Overall compliance: 57%.																
Olifantsfontein	The Plant complied with overall WUL	Plant operated at a hydraulic	Plant operated above origi	There were abnormal fluctuations of	Plant received industrial high streng	18 Level 3 Equipment failures	There was 5 power failures in Q3 22-23 with a	Module 3 Anaerobic digesters.	Digester 4 of 6 digesters are block	There was no veld fires	Total sludge of 229 942 kg was produced in	Unlined emergency dams contaminati	2 x Sinkholes behind and in front	Olifantsfontein WUL is stringent on Ammo	Sludge is classified into three streams: (1). Dewatering	Road to upstream sampling point	YES, there is a water leak that is

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
	effluent standards with compliance of Chemical = 58.60 % Physical= 42.60 % Micro = 82.84 % The average compliance target of 60%	capacity of 148 % in Q3 22-23 With an average flow of 96ML/d with 91% and regraded Capacity of 65ML/D	nal design capacity of 68835 kg/d by 92% in Q3 22-23. With 93% in January and 76.% in February and 104	inflows in Q3 22-23 With ranges of 97-123 Ml/d in January, 103 - 165 Ml/d in February , and 88-100 Ml/d in March 2023.	th effluent (very high Electrical Conductivity above 100 mS/m) with 22 days in Q3 22-23 (10 days in January 4 days	occurred in Q3.	duration of one hour in January 2023 and 3.50 in March 2023, the. Two genset was in operation with 572 L diesel consumption,		ed due to sand accumulation	in Q3 2022	Q3 22-23. With 57 416 kg in January, 33 985 kg in February , and 138 542kg in March. Sludge production is affected by frequent FBP breakdowns. Sludge is dispose	ng borehole no.2& 3. Borehole 1 runs dry during dry seasons	of the old laboratory which occurred in Dec 2019 still not rehabilitated	nia of < 2mg/l, SS of 15 mg/l and EC of < 80 mS/m.	unit(B3a), the sludge not suitable for cultivating crops such as fruits trees (2). Drying beds (A3a), No restrictions and requirements apply 3) Grit and screenings is waste that should be	need to be graded and there is high erosion on the banks. To be reported to the CoE..	reoccurring and resulting in water loss

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
	was achieved in Q3 22-23 with the overall compliance of 61.35 %.	with 148 %	% in December 2023.		in February and 8 days in March 2023) Plant also experiences fine sand ingress, and fats pollution that solidifies in sedimentation tanks						d on different farms around Bapsfontein area and is used for agricultural purposes				dumped at specialised land fill under strict conditions to ensure ENV compliance, waste management by the city has been affected by lack of collection from site, leading to stockpiling and odour complaints.		

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
					as scum.												
Rynfield	Plant did comply with WUL effluent standard. Compliance Physical: 100 % Chemical: 75 % and	Plant operated at 98% of re-graded hydraulic capacity in Q3, which was above the design capacity.	Plant operated at 95% of re-graded organic capacity for Q3	There was low flows received during the Q3 from 21 February 2023 to 30 March due to Pump station which was operational	None	4 Level 3 Equipment failures occurred in Q3.	There were 225 power outages in Q3 with the duration of 470hrs.	. 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 and maturation ponds could cause possible ground water pollution	None	None	CoE collects screenings and grits from the inlet works. Dried sludge is stockpiled on the plant	None	None

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
	Micro: 87% Average compliance 87%																
Ancor	Plant compliance for Q3 is 73% non-compliant parameters: Chemical 59%, Physical 92% and Micro 55 %	Plant operated at 276 % of its hydraulic capacity	Plant operated at 95% of organic capacity, which is lower than the loads received	Ancor experienced storm water ingress during heavy rainfall, worsening the overloaded hydraulic capacity; however, the	Plant received high COD industrial effluent on 8 of 90 days. In Q3, decrease due to no storm water ingress	0 Level 3 Equipment failures occurred in Q3.	8 outages occurred (99 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 blocked with sand and are not in operation. This causes the plant to run out of sludge handling	No veld fires occurred during Q3.	Stockpile area not lined. Stockpiles on plant is a risk due to veld fires and environmental pollution	Unlined sludge paddies pollute underground water	Area around humus tanks and final effluent channel are dolomitic according to Geotech study perfo	N/A	CoE removes solid waste (screenings and grit).	Access road in bad condition with lots of potholes	N/A

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
			pre-lockdown, Q3-.	RSA COVID -19 lockdown reduced flows to the WCW.					capacity, which prevent proper de-sludging and resulting in non-compliances.				rmed.				
Daveyton	Plant compliance for Q3 22/33 is 93.63 %.	Plant operated at 35% of its hydraulic capacity in Q3.	Sufficient capacity. Plant operated at 51.6 % of its organic	Numerous sewer blockages in the CoE network, Power supply interruption at Etwat	N/A. Domestic only.	5 Level 3 Equipment failures occurred in Q3.chlorine booster pump, RAS	205 power failures totaling 469 hours in Q3 .	CCT sometimes leaking. Do not have direct impact on the operation of the plant at the	N/A	There were no veld fire incidents in Q3.	Sludge lagoons are unlined Space for solar drying is in-sufficient	Unlined sludge lagoons pollute the ground water.	N/A	N/A	Screenings is collected by COE for proper disposal.	N/A	N/A

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
			capacity in Q3.	wa ext.10 pump station and potable water supply interruption to Etwatwa lead to inconsistent and irregular flow to the plant.		pump, Compactor at Inlet works, chlorine booster pump suction pipe, and Bypass valve to Welgedacht.		moment									

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
JP Marais	Plant compliance for Q3 is 96%.	Sufficient capacity. Plant operated at 83% of hydraulic capacity	Sufficient capacity. Plant operated at 46% of organic capacity	None in Q3	None in Q3	15 Level 3 Equipment failures occurred in Q3, namely: Aerator Gearbox 1S x2, Aerator Gearbox 4N x2, Aerator Gearbox 4S x2, WAS pump 1 x3, WAS	169 load shedding (486 hours) and power failure occurred 11 times (13 hours).	None	N/A	No veld fire incident experienced in Q3	Sludge pumped to Welgedacht, where it is treated.	Some boreholes polluted. Ongoing monitoring of boreholes.	No dolomitic soil	N/A	CoE removes solid waste (screenings and grit) except for PST screenings, due to no screen compactor.	N/A	N/A

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
						pump 2 x2, Screen compactor, PST Fine screen x2, WAS pipeline to Welgedacht with 6% ratio impact on compliance											
Welgedacht	Plant compliance for Q3 is 88%.	WCW operated above design cap	Sufficient capacity WCW operated at	None	1 x Colored influent	41 Level 3 Equipment failures occurr	3 x power outages which lasted for 22 hours due to failures	N/A	N/A	No veld fires occurred during Q3.	None	Unlined De-chlorination channels and Emer	N/A	N/A	Contractor removes solid waste (screenings and grit).and dispose	Gravel access road in very bad condi	No potable water supply to the plant. Bore

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
		acity of 110 % of its capacity	30% organic capacity.			ed in Q3.	at Eskom substation and planned Eskom and internal outages					gency dam			at licensed solid waste site.	tions and very slippery when wet.	hole water used for hygiene. Drinking water is being transported in from other plants.
Jan Smuts	Plant compliance for Q3 is 77%.	Plant operated at 158 % of its hydraulic capacity.	Plant operated at 54% of its organic capacity.	15 days of High incoming flows in Q3	Plant received industrial high strength effluent on 1 of the 90	Q3, no critical equipment failures.	214 Power outages (428 hours total) due to load sheddding, Generator backup	Humus Tanks scum boards, digester number 2's wall, drying beds'	None	None	Dried sludge is stockpiled on site.	Unlined sludge stockpile area can cause groundwater	No	No	Screenings incinerated at the plant and the grit buried on site. This practice does not comply with WUL	Fair	Rand Water

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
					days in Q3.		was operational	walls and the bio-filters' feed flow division box/tower.				pollution.			conditions.		
Heidelberg	3333399	Plant operated at 155% of its hydraulic capacity	Plant operated at 52% of organic capacity	High incoming flows	The plant received 1 high CODs and 0 high NH3s levels that are above the design in the current	8 Level 3 Equipment failures occurred in Q3.including one aerators with gearbox issues and 2x Gener	Heidelberg had 181 power outages with a duration of 410 hours. Diesel used was 14497 L	The joint sealants of Carousel reactor concrete wall are damaged	None	No veldfires occurred during Q3.	Sludge at the plant stockpiled after dewatering, and is also applied/irrigated to the lands and could potentially contaminate ground	Unlined sludge paddies/lack of groundwater monitoring in the sludge paddies	None	None		The access road to Heidelberg works require a new-tarred road is required	Leakage on the pipeline to the inlet works due to a rusted pipeline.

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
					quarter.	ators failing to start. Chlorine dosing pumps failing to pump and RAS pumps with torn out V-Belts.					water resources					urgently	
Herbert Bickley	Plant Complied with WUL effluent standards (**Q2 - 85%**)	Plant operated at 137% of hydraulic capacity	Plant operated at 46% of organic capacity	High incoming were experienced in Q3.	Plant received industrial high strength effluent on 09 of	4 Level 3 Equipment failures occurred in Q3.2x boost	Herbert Bickley had 133 power outages which lasted 286 hours	Anaerobic digesters cracked concrete structures,	4 out of 8 digesters not in use due to blockages and leakin	No veldfires occurred during Q3	Sludge used for irrigation at instant lawn	Irrigation of sludge for Instant lawn is a source of	None	None	Collected by CoE to a dedicated landfill site	Access road to the plant damaged and requires an	None

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
	Physical 94%, Chemical 96.% and Micro 64%				90 days	er pumps, 1xsludge to land pump, 1x chlorine dosing systems.	Diesel used was 18590L	Biofilter 1 ans 2 have cracked concrete structures,	g digester pipes			pollution Activities are carried out as per Guidelines				upgrade	
Tsakane	Plant compliance for Q3 is 90.43 %.	Sufficient capacity. Plant operated at 86% of hydraulic capacity.	Sufficient capacity. Plant operated at 79% of organic capacity.	Minimal incoming flow was experienced at the plant due to equipment breakdowns and spillag	No pollution.	11 Level 3 Equipment failures occurred in Q3.namely, Sludge to land pump no.1& no.2x	Tsakane had 221 power outages which lasted 486 hours Diesel used was 26 858L. 1 x Backup generator	Digesters and channel for raw sewage feeding HYBACS concrete structures cracke	N/A	No veldfires occurred during Q3	Sludge pumped to unlined lagoons/paddies for solar drying. Drying beds have been decommissioned	Unlined sludge lagoons and paddies/lack of groundwater monitoring at the sludg	None (There's a dolomitic report that shows none at Tsakane)	None	Screenings and grit collected by CoE to a dedicated landfill site	None	Potable water leaks next to Tsakane hostel. It also creates a wetland next to the

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
				es at Reticulation pump stations (Rockville, Extension 11 and 22)		2 Compactor no.1. Clarifier no.1 scum hopper. Repair compactor no.1 Servicing of Tsakane Generator Repair scum pump no.1 Repair a coupling for PST	available.	d and leaking				e lagoons and paddies. Unfenced drying paddies					fence.

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
						pump no.1 Street lights next to the control room not working Chlorine building, outside lights not working Floating aerator no.10, aerator tripping on											

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
						overload. Screen no2, assist with screen no.2. Chain is out of alignment. Repair leaking sludge to land pipeline.											
Carl Grundlingh	Plant Complied with WUL effluent	Plant operated at 87% of its	Plant operated at 20,61%	None	No Pollution	2 Level 3 Equipment failures	None	None	N/A	No veldfires occurred during Q1	Land application of sludge is being used	Unlined sludge to land posing	None	None	Collected by CoE to a dedicated landfill site	Access road to the plant is dama	None

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
	standards (88%) Q3	hydraulic capacity	of organic capacity,			occurred in Q3. (1xBrush Aerator 4, Floating Aerator 1 and Circuti floating aerator 7 blowe)						ground water pollution				ged and requires an upgrade.	
Ratanda	Plant Complied with WUL effluent standards (91%) Q3	Plant operated at 131% of its hydraulic capacity,	Plant operated at 60% of organic capacity,	WCW experienced low flow on 7th to 13th March due to water supply	None	14 Level 3 Equipment failures occurred in Q3.Aerator no 2,	WCW experienced 81 load shedding events and 10 unplanned power outage with the	Drying beds drainage system and chlorine contact tanks are badly	N/A	No veldfires occurred during Q3	Dried sludge is stockpiled on-site, potential groundwater pollution	Unlined sludge ponds and leaking drying beds, potential	None	None	Screenings and grit generated at the plant are still being buried and this practice is not environm	The access road to Ratanda Works is severely dama	No link to the Municipal Potable Water Supply, water

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
				decline from Rand Water as per Lesedi LM notice dated 06 March 2023.		internal recycle pump 3, generator software. And WAS pump	total duration of 226 hours in Q3	leaking structures				groundwater pollution			entally friendly. Potential groundwater pollution. Quotation sourced for legal disposal site	ged and a new-tarred road is required urgently	transported from Heidelberg Works and borehole water is used for other domestic purposes
Dekema	Plant did not comply with WUL effluent standard	Plant operated at 63% of hydraulic capacity	Sufficient capacity. Plant operated at 49%	Plant received high flows on 0 out of 90 days	Plant received high COD industrial effluent on 1 of	8 Level 3 Equipment failures occurred in Q3.Namely	221 Outages occur (487 hrs total) Load shedding is a big concern.	Channels feeding sections partially collapsed. Biofilte	1 out of 12 Anaerobic digesters is blocked	No veld fires occurred during Q2	Sludge pumped to unlined paddies for solar drying and dried sludge	Unlawful disposal of grit and screenings (grit and scree	None	N/A	Screenings and grit generated at the plant are still being buried and this practice is not	The access road to Dekema WCW needs to	N/A

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
	Average compliance: 76% Q3 Compliant Parameters- Physical – 95% Chemical: 93% Micro: 62%		organic capacity		90 days	: 1 x Cascade pump, 1 x Mechanical screen and 2 x Biofilter pump, 3 x Degritter pump and 1x Fine screen.		rs and digesters wall are cracked.			spread to land area to be ploughed into land.	nings are buried on-site in a trench).			environmentally friendly. Potential groundwater pollution – Towards the end of Q3, the contract for collecting screenings and grits began.	be tarred as it gets muddy and slippery during rainy season.	

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
Rondebult	Plant did comply with WUL effluent standard Average compliance: 89.86 % Q3 Compliant Parameters- Physical – 98.85 % Chemical :	Plant operated at 65% of hydraulic capacity	Exceeded organic capacity. Plant operated at 59% organic capacity	The plant received an average of 13.05 ML/d for Q3 and highest flow recorded was 30.53 Ml/d on the 19 March due to continuos storm water ingress (rainfall = 45 mm)	Plant received high COD industrial effluent on 2 of 90 days and NH3 on 0 of 90 days	8 Level 3 Equipment failures occurred in Q3. January 2023 Namely: 1x Primary biofilter feed pump #5 February 2023 Namely : 1x Leaking	27 Outages with the total hours of 100 occurred during Q3 , 21 power outages due to loadshedding with a total hors of 54. 6 power outages due to CoE power interruptions(cable theft, cable faults, high voltage)	Channels feeding sections partially collapsed. Biofilters and digesters wall are cracked. Biofilter walls cracked. Brick work of open channels are unstable, collap	None	No veld fires occurred during Q3	Sludge pumped to unlined paddies for solar drying and dried sludge spread to land area and ploughed into land.	Unlawful disposal of grit and screenings (grit and screenings buried on-site in a trench).	None	N/A	Collection and transportation of waste(screening and grit) to a waste disposal site done by MCC security and Projects ERW202107/TNDR-003 .	The access road in and around the plant are deteriorating and will need attention soon.	N/A

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
	92.78% Micro: 77.96%					anaerobic digester pipeline 1x Secondary biofilter feedpump# 20 March 2023 Namely: 1x Inflow meter	with a total hours of 46 (Load shedding is a big concern.	sing and cracked. The feed pipe from the primary biofilters to the secondary biofilters has collapsed. Anaerobic digester #4 and #5 walls have cracks. Digester #6 dome									

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
								has open/ visible cracks on the surface									
Vlakplaats	Plant did not comply with WUL effluent standards: Average compliance: 39% Q3 Compliant Para	Plant operated at 208% of hydraulic capacity. Needs to be upgraded	Plant operated at 34% of organic capacity	High flows of up to 171 Ml/day occurred from dates due to storm water ingress. Rainfall measured at the plant was	Plant received industrial high strength effluent on 0 of 90 days	14 Level 3 Equipment failures occurred in Q3. - Namely: 1 x faulty electrical cable at main gate 2xPower outage at	194 Outages occur (518 hours in total) due to Load sheddding and cable theft.	Office building have some cracks.	None	No veld fires occurred during May.	Dried sludge is stockpiled on the drying beds. Demand for instant lawn application is seasonal	Unlined Maturation pond.	Area around bio filters at Mod A are dolomitic	N/A	Screenings and grit tender is awarded generated solid waste at the plant is disposed to landfill site starting from the 1 Feb 2023	Access road to DBF dosing station is slippery during rainy season	None

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
	meters- Physical – 74% Chemical : 38% Micro : 4%			96 mm.		Module D&C, 1 x failure of ferric dosing, 2 x failure of Module 4 Level 3 Equipment failures occurred in Q3.B&D generator 3x failure of rawsludge											

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
						pumps 5xfailure of humus pumps 1x failure of inlet works screen. 1x failure of Mobile pump.											
Waterval	WCW did not comply to WUL effluent standards:	Plant operated above capacity (operate	Sufficient capacity Plant operated at 53%	Average flow of up to 459 Ml/day received due to	Plant received industrial high strength effluent on	75 alert level 3 Critical equipment failures occurr	0 Hours planned blower outage	None	None	0 veld fires at sludge land occurred	Dried sludge is stockpiled on the plant. Demand for agricult	Unlined Emergency dams.	None	N/A	Screenings and grit generated at the plant are now disposed at landfill site, this	N/A	

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
	Average compliance: 75 % Q3 Compliant Parameters- Physical – 88% Chemical: 82 % Micro: 55%	d at 270 % capacity)	organic capacity.	developments and bypasses for upstream plants.	1 of 90 days. Plant is receiving and treating 30 m^3 of leachate daily from Enviro Serv	ed in Q3 2023 Mainly from 12 x Inlet screen failures, 5 x transfer pump and seeding pump stage 2 to 1, 12 x PST screen and desludging valves, 9 x Blower failure				during Q3	ural application is seasonal.				to prevent underground seepage		

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
						s, 5 x RAS pump and balancing screw pump failure, 9 x DAF recirculation failure, 7 x aerator failure, 1 x cornel pump, 2 x wash water failure, 2 x power dip, 5 x SST failure											

Plant	Non-compliance of final effluent	Hydraulic Capacity	Organic Capacity	Abnormal fluctuations in inflow	Industrial effluent	Level 3 Equipment Failure	Power outages	Ageing infrastructure	Blocked digesters	Veld fires	Sludge stockpiling	Groundwater pollution	Dolomitic soil	Very Strict WUL standard	Solid Waste Management	Access Roads	Potable water
						s, 1 x WAS pump failures, 2 x Axial pump, 2 x sludge pipe leakages, 1 x Poly pump failure, 1 x Degritting valve failure, 1 x SCADA signal failure											

3.5. Project/Infrastructure Report

3.5.1 Running Projects

ERWAT currently has no projects aimed at improving the Capacity of the plants due to insufficient budget. The current projects are purely for optimising the plants. Availability of budget continues to be a major challenge for the institution and the implications/consequence thereof is dire.

3.5.2 Planned Projects

This section includes all major projects that will contribute to the Mega Catalytic projects such as the John Dube Development. ERWAT receives new township applications timeously from CoE and provide responses about the capacity availability at various Water Care Works as and when applications are received. This section focuses on feasibilities studies and major projects at ERWAT Water Care Works (WCW), for projects that contribute either directly or indirectly to the flagship projects.

COE and ERWAT undertook a comprehensive "*Wastewater Conveyance and Treatment Systems Regionalisation and 50-year Master Plan*" that will give strategic direction for future wastewater system extensions/consolidation planning, investment and implementation for the next fifty (50) year planning horizon. The plan cover all the Water Care Works operated by ERWAT and conveyance systems within the CoE operational area with the intention to optimize existing WCW systems and wastewater conveyance systems. The proposed "*Wastewater Conveyance and Treatment Systems Regionalisation and 50-year Master Plan*", is to reduce the number of WCWs operated by ERWAT from 19 to 10. The urgent required WCW capacity upgrades to accommodate the short to medium term capacity requirements in line with the Regionalization and 50-year Master Plan is summarized below.

No	**Water Care Works (WCW)**	**CAPEX Requirements**	
1	Jan Smuts	R	58 500 000,00
2	Vlakplaats	R	364 000 000,00
3	Waterval	R	3 250 000 000,00
4	Ancor	R	455 000 000,00
5	Herbert Bickley	R	325 000 000,00
6	Olifantsfontein	R	650 000 000,00
7	Welgedacht	R	780 000 000,00
8	Ratanda	R	130 000 000,00
9	Hartebeestfontein	R	494 000 000,00
10	Rondebult	-	
		R6 506 500 000,00	

3.5.1.1 Ancor WCW

a) The Ancor water care works is situated in Springs and falls within the DD5 drainage district. The original design capacity of the plant was 32 Mℓ/d. Conventional biological filtration is employed as the main treatment process. The plant capacity has been downgraded to 15 Mℓ/d. The plant is currently operating above its design capacity, which leads to poor quality of the final effluent. Ancor has older trickling filter technology, which is not suitable to treat high strength sewerage containing industrial pollutants. The new Daggafontein Megacity that is currently under construction directly opposite the plant will require a connection to the Ancor outfall were within this financial year.

b) Plans are currently underway to upgrade the plant to 50 Mℓ/d in order to enhance the treatment capacity. These upgrades will ensure that future developments flows are accommodated thereby meeting the required standards as stipulated by the department of water and sanitation (DWS).

	PLANNED PROJECTS	BUDGET REQUIRED	STATUS /COMMENTS	COMMISSIONING DATE
1	35 Mℓ/d Plant Upgrade	R 455 000 000,00	The capacity treatment plant upgrade is planned in relation to the 50-year master plan.	The commissioning of the project is subject to the availability of funds.

3.5.1.2 Vlakplaats WCW

a) Vlakplaats water care works is situated in Vosloorus and falls within the DD6 drainage district. The original design capacity of the plant was 83 Mℓ/d. The plant capacity has been downgraded to 55 Mℓ/d. The plant is currently operating above its design capacity, which leads to poor quality of the final effluent. Vlakplaats flow distribution project is currently under construction phase to augment and add a peak flow balancing capacity into the plant by converting the old existing ponds into a balancing tank.

b) Plans are currently underway to upgrade and restore its original capacity of 83 Mℓ/d in order to enhance the treatment capacity. These upgrades will ensure that the plant meet the required standards as stipulated by the department of water and sanitation (DWS).

PLANNED PROJECTS		BUDGET REQUIRED	STATUS /COMMENTS	COMMISSIONING DATE
1	28 Mℓ/d Plant Upgrade	R 364 000 000,00	The capacity treatment plant upgrade is planned in relation to the 50-year master plan.	The commissioning of the project is subject to the 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 2021/2022

3.5.1.3 Welgedacht WCW

a) The Welgedacht water care works is situated in Springs and falls within the DD5 drainage district. The original design capacity of the plant was 85 Mℓ/d. Module 2 have been commissioned and is currently undergoing defects liability period. The plant capacity has been upgraded to 95 Mℓ/d.

b) Plans are currently underway to upgrade the plant to 155 Mℓ/d in order to enhance the treatment capacity. These upgrades will ensure that future developments flows are accommodated thereby meeting the required standards as stipulated by the department of water and sanitation (DWS).

	PLANNED PROJECTS	BUDGET REQUIRED	STATUS /COMMENTS	COMMISSIONING DATE
1	60 Mℓ/d Plant Upgrade	R 780 000 000,00	The capacity treatment plant upgrade is planned in relation to the 50-year master plan.	The commissioning of the project is subject to the availability of funds.

3.5.1.4 Herbert Bickley WCW

a) The Herbert Bickley water care works is situated south of Nigel town and falls within the DD5 drainage district. The original design capacity of the plant was18.75 Mℓ/d. The plant capacity has been downgraded to 15.1 Mℓ/d.

b) Plans are currently underway to upgrade the plant to 40.1 Mℓ/d in order to enhance the treatment capacity. These upgrades will ensure that future developments flows are accommodated thereby meeting the required standards as stipulated by the department of water and sanitation (DWS).

	PLANNED PROJECTS	BUDGET REQUIRED	STATUS /COMMENTS	COMMISSIONING DATE
1	25 Mℓ/d Plant Upgrade	R 325 000 000,00	The capacity treatment plant upgrade is planned in relation to the 50-year master plan.	The commissioning of the project is subject to the availability of funds.

3.5.1.5 Waterval WCW

a) The Waterval water care works is the largest works operated by ERWAT and is situated in the DD6 area at the Kliprivier. The original design capacity of the Waterval wastewater care works was155 Mℓ/d. The plant capacity has been upgraded to 170 Mℓ/d.

b) Plans are currently underway to upgrade the plant to 420 Mℓ/d in order to enhance the treatment capacity. These upgrades will ensure that future developments flows are accommodated thereby meeting the required standards as stipulated by the department of water and sanitation (DWS).

	PLANNED PROJECTS	BUDGET REQUIRED	STATUS /COMMENTS	COMMISSIONING DATE
1	New 250 Mℓ/d Module 5 - Extension	R3 250 000 000,00	The capacity treatment plant upgrade is planned in relation to the 50-year master plan	The commissioning of the project is subject to the availability of funds.

Conclusion:

ERWAT is striving and working hard towards addressing all Mega Catalytic projects to accommodate all new developments within the City of Ekurhuleni. As per table above, the mentioned Water Care Works need to be upgraded urgently to cater for the current backlog in capacity and to make provision for future housing and industrial developments. ERWAT does not have enough Capex funds to extend/upgrade the plant.

ERWAT is exploring opportunities to determine appropriate technology solutions for the plant capacity upgrade or retrofit projects through Expression of Interest (EOI) for the water care works that are operating above the design capacity. As funding becomes available the upgrading or retrofitting all the water care works that are operating above the design capacity shall be implemented

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	485 427 553	510 067 061	139 836 519	113 673 189	26 163 331	309 204 335	200 862 726
Remuneration of Directors	3 374 802	3 374 803	843 701	317 506	526 195	954 953	2 419 850
Bad Debts (Provision for Bad Debts)	1 742 850	1 742 850	435 713	-	435 713	(1 538 651)	3 281 501
Depreciation	102 999 602	102 999 602	25 749 901	25 749 899	2	77 249 701	25 749 901
Pumpstations	-	-	-	-	-	-	-
Repairs and Maintenance	135 315 650	205 303 526	86 319 820	34 657 607	51 662 213	92 502 861	112 800 665
Interest Expense	41 252 448	26 188 054	(985 184)	7 794 349	(8 779 533)	21 940 832	4 247 222
Intervention Expenses	-	-	-	-	-	-	-
Bulk purchases	349 744 361	332 024 644	74 146 303	59 273 825	14 872 478	183 512 376	148 512 268
General Expenses - Other	195 790 579	203 987 935	55 095 662	36 249 044	18 846 617	87 921 293	116 066 642
TOTAL OPERATING EXPENDITURE	**1 315 647 845**	**1 385 688 475**	**381 442 434**	**277 715 419**	**103 727 014**	**771 747 700**	**613 940 775**

Expenditure:

Year to date ERWAT has spent 56% (R771 747 700/R1 385 688 475) of the total approved budget. The total overall underspending in the 3rd Quarter of R103 727 014 is due to the following reasons:

1. Employee costs due to a moratorium placed on recruitment by the COE resulted in delayed recruitment of vacant positions.
2. A reduction in the number of Directors from 8 to 5 compared to the prior years.
3. Interest expense, the variance is due to the realignment of the budgeted finance costs

4. Repairs and Maintenance, under expenditure due to an amount of R62,3m in committed orders that could not be completed by the end of the 3rd quarter but will be completed by the end of the 4th quarter.
5. Interest expense savings due to lower interest rates paid on the outstanding balance of loan facilities.
6. Bulk purchases, due to issues with the supply of Ferric and Chlorine for a few months (Problems with NCP, which could not produce). Load shedding significantly impacts the electricity charges, which are included in Bulk purchases (Fuel costs increased). Provision has been made for the Eskom annual increase in April 2023 which still needs to be realised.
7. General expenditure, mainly due to the timing differences of expenditure yet to be incurred such as insurance costs.

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
CAPITAL PROJECTS	R91, 558, 800.00	R112 670 444,00	R35 201 075,2	R6 098 089,99	R29 102 985,21	R112 670 444,00	R70 131 675,59	-R20 004 679,61	62,24%

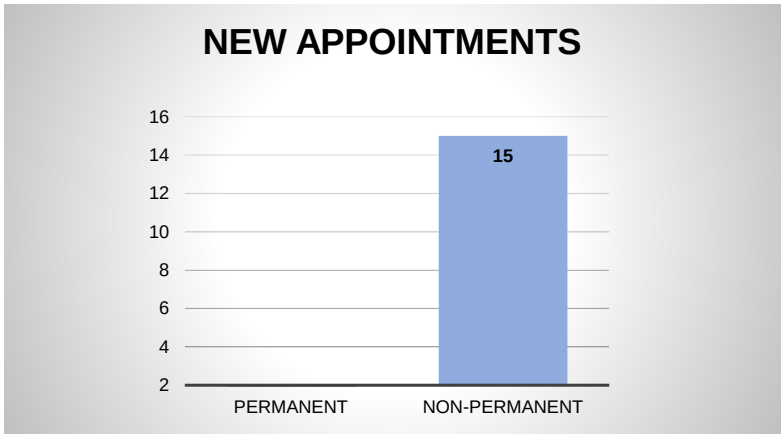
Vote number	COST CENTRE	DEPARTMENT NAME	Original Capital Budget (2022/23)	Adjustment budget (2022/23)	Actual spend (YTD) 2022/2023	% Spend
73436456020TCXBCZZER	7343	SCIENTIFIC SERVICES	6 000 000,00	13 795 429,00	7 866 806,04	
73436460020TCXBAZZER	7343	SCIENTIFIC SERVICES	-	-		
73536449420TCXBHZZER	7353	OLIFANTSFONTEIN	35 312 152,00	19 737 366,00	18 355 167,80	
73546449420TCXBHZZER	7354	HARTEBEESTFONTEIN	8 490 288,00	11 403 473,00	2 519 871,67	
73616449420TCXBHZZER	7361	ANCOR	3 649 929,00	1 476 226,00	1 476 230,37	
73626449420TCXBHZZER	7362	BENONI	1 300 000,00	3 241 519,00	2 178 114,23	
73636449420TCXBHZZER	7363	C GRUNDLING	7 667 353,00	17 804 635,00	1 906 968,00	
73646449420TCXBHZZER	7364	HEIDELBERG	1 903 968,00	1 903 968,00	1 902 306,39	
73656449420TCXBHZZER	7365	H BICKLEY	1 992 409,00	1 776 122,00	1 776 121,91	
73666449420TCXBHZZER	7366	JAN SMUTS	348 193,00	1 294 195,00	655 310,20	
73676449420TCXBHZZER	7367	J P MARAIS	1 991 510,00	3 806 364,00	3 603 030,49	
73686449420TCXBHZZER	7368	DAVEYTON	703 652,00	922 216,00	917 345,26	
73696449420TCXBHZZER	7369	RYNFIELD	1 458 276,00	1 377 953,00	1 350 520,44	
73706449420TCXBHZZER	7370	RATANDA	1 194 389,00	1 194 389,00	1 193 191,91	
73716456020TCXBCZZER	7371	TSAKANE	1 795 545,00	1 827 846,00	1 827 843,40	
73726449420TCXBHZZER	7372	WELGEDACHT	7 042 079,00	10 652 254,00	7 925 075,71	
73816449420TCXBHZZER	7381	DEKEMA	2 864 932,00	5 015 052,00	2 585 066,72	
73826449420TCXBHZZER	7382	RONDEBULT	1 230 408,00	1 180 585,00	1 180 584,60	
73836449420TCXBHZZER	7383	VLAKPLAATS	3 122 956,00	4 717 913,00	2 940 967,55	
73846449420TCXBHZZER	7384	WATERVAL	3 490 761,00	9 542 939,00	4 605 666,88	
Invoices pending processing to GL					3 365 485,43	
TOTAL			**91 558 800,00**	**112 670 444,00**	**70 131 675,00**	62,24%

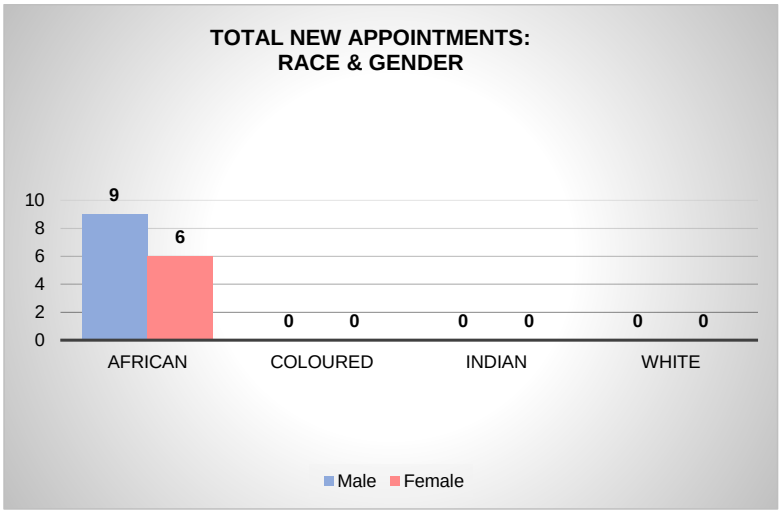
4. Human Resources

Table 7: Staff Movements

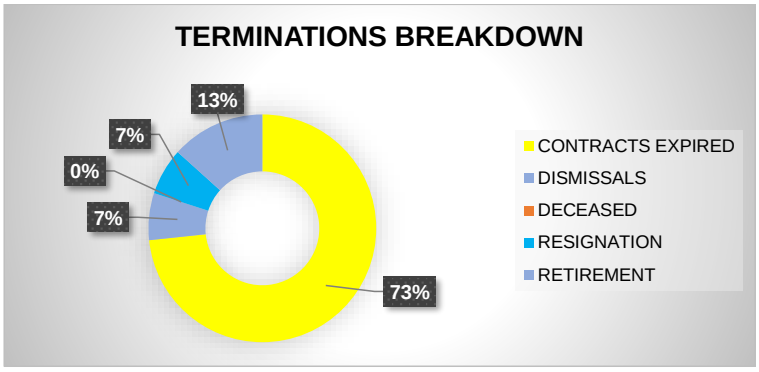
Staff Movements	African		Coloured		Indian		Whites		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
Recruitments	9	6	0	0	0	0	0	0	15
Resignations	1	0	0	0	0	0	0	0	1
Retirements	2	0	0	0	0	0	0	0	2
Contract Expired	7	3	0	0	0	0	1	0	11
Dismissals	1	0	0	0	0	0	0	0	1
Deceased	0	0	0	0	0	0	0	0	0
Promotions	0	0	0	0	0	0	0	0	0

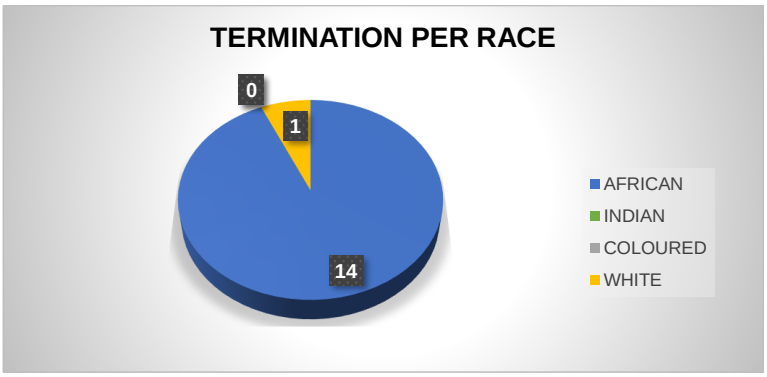
4.1.1 Appointments





4.1.2 Terminations





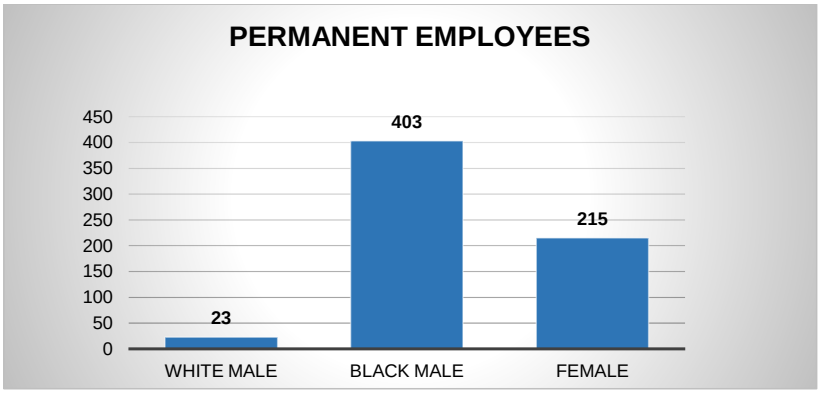
Status Analysis

1. During the period under review, 15 employees were appointed.

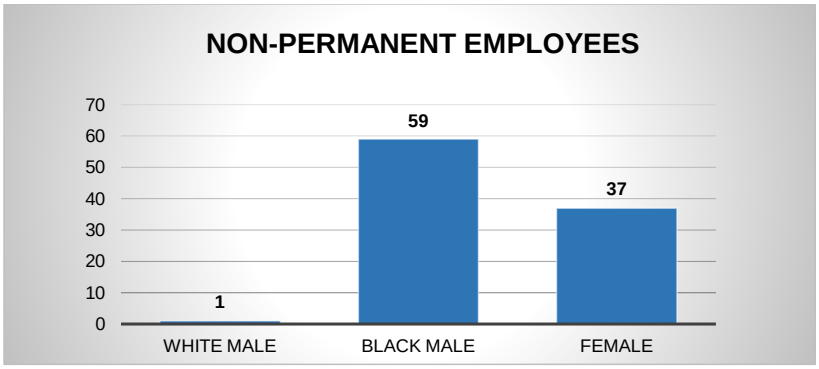
2. During the period under review, 15 employees exited the organisation for the following reasons;

   a) 11 contracts expired;
   b) 1 employee resigned;
   c) 1 employee was dismissed as a result of Disciplinary hearing; and
   d) 2 employees went on retirement during the period under review

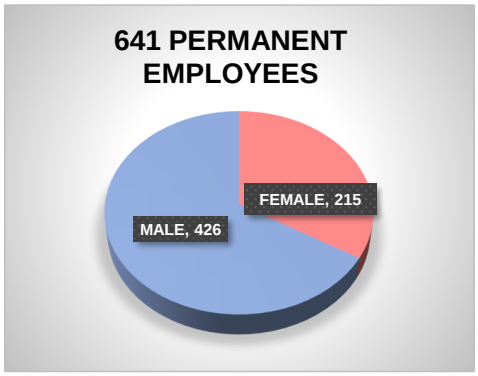
4.2 Employment Equity Demographics

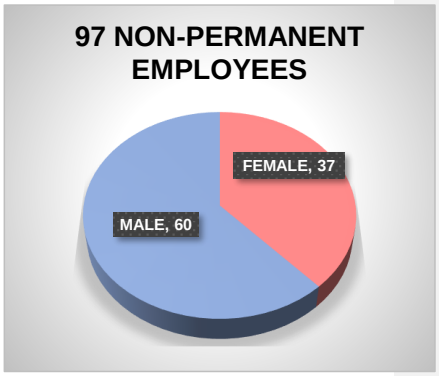


ERWAT has **641** permanent employees.



ERWAT has **97** non-permanent employees.





Status Analysis

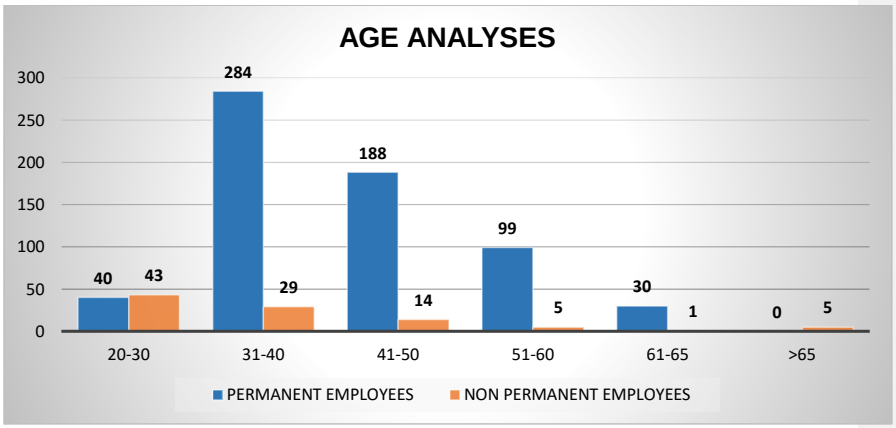
1. The employment demographics of ERWAT as at 31st March 2023 reflects:

   a) Females in both permanent and non-permanent positions within ERWAT account for 252 or 34% of total positions filled.
   b) Males in both permanent and non-permanent positions within ERWAT account for 486 or 66% of total positions filled.

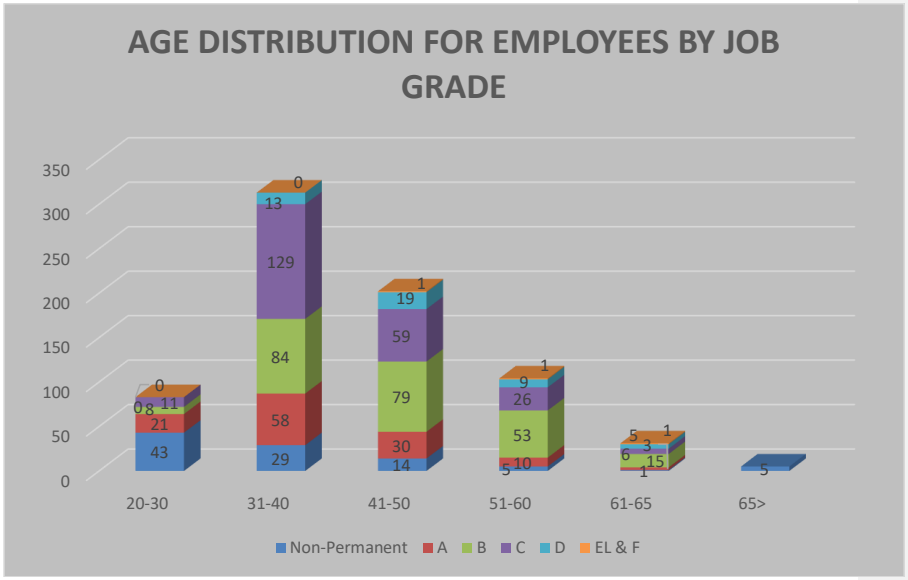
4.3 Employment Equity Update

The micro-structures have been streamlined and other vacancies removed. The EE committee will have a meeting in Quarter 4 to align the streamlined micro-structures with the EE plan.

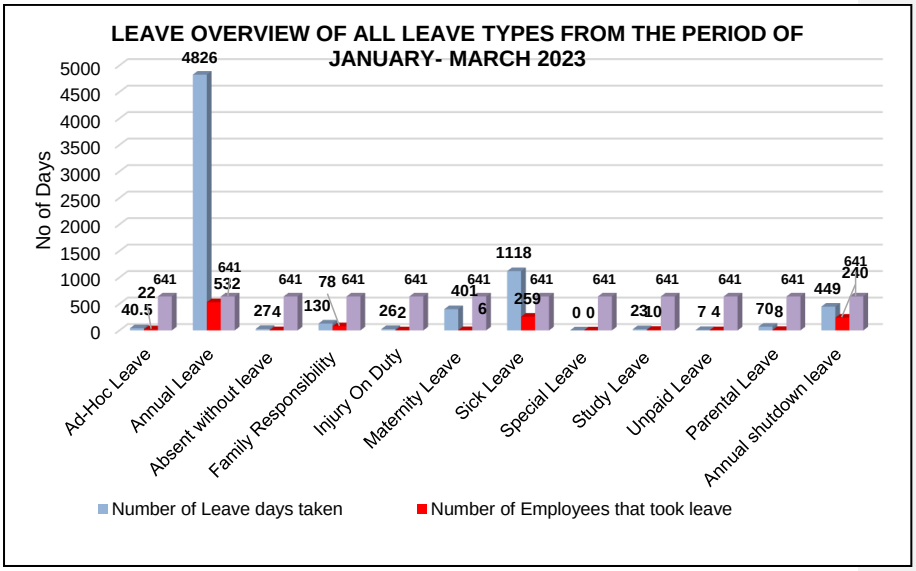
Age Analysis

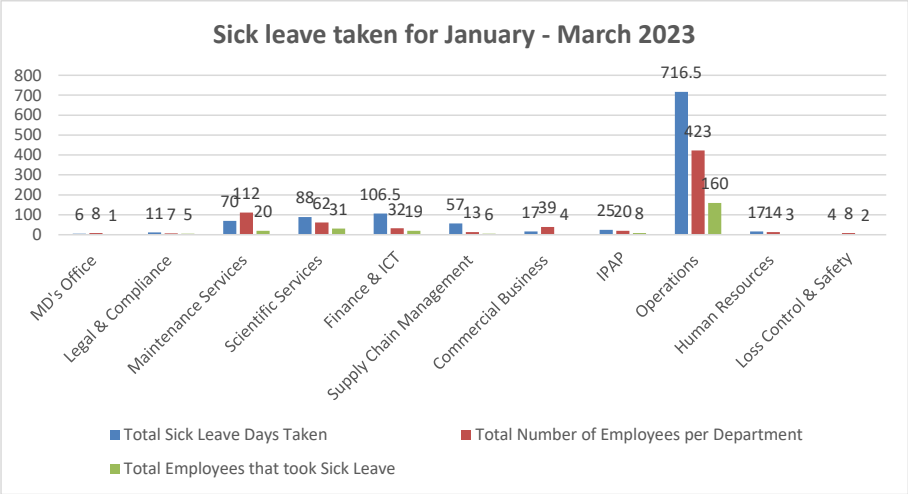


- Average age as at 03/2023 = 35



4.4 Leave Management





Status Analysis

1. Total number of employees who took sick leave during the period under review are 259. The total sick leave taken equates to an approximate minimum of 4.3 days per employees.

4.5 Overtime Trends

	Quarter 1	Quarter 2	Quarter 3
Total Hours	62 663.25	55 619.00	66 808.33
Total Cost	9 542 791.88	7 969 398.70	7 094 827.99
Budget	10 374 757.25	10 374 757.25	10 374 757.25

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

4.6 Training and Development

A total of 125 employee were trained during the quarter, which was as follows:

a) 40 delegates enrolled for Learnership SAQA ID 58951: National Certificate in Water and Wastewater Treatment Process Operations: 136 Credits on Level 2, start date on the 28th of March 2022

b) 10 unemployed learners enrolled for Learnership SAQA ID 61709: FET Training Certificate in Water and Wastewater Treatment Process Control Supervision: 166 Credits on Level 4, start date on the 28th of March 2022

c) 33 Delegates attended the Lead Incident Investigation Training from the 13th of March 2023 (on-going)

d) 18 Employed Learners started the Water and Wastewater Treatment Process Operations: 136 Credits on Level 2, start date 13th of March 2023 at JP Marais

e) 24 Employed Learners started the Water and Wastewater Treatment Process Operations: 136 Credits on Level 2, start date 13th of March 2023 at Head Office

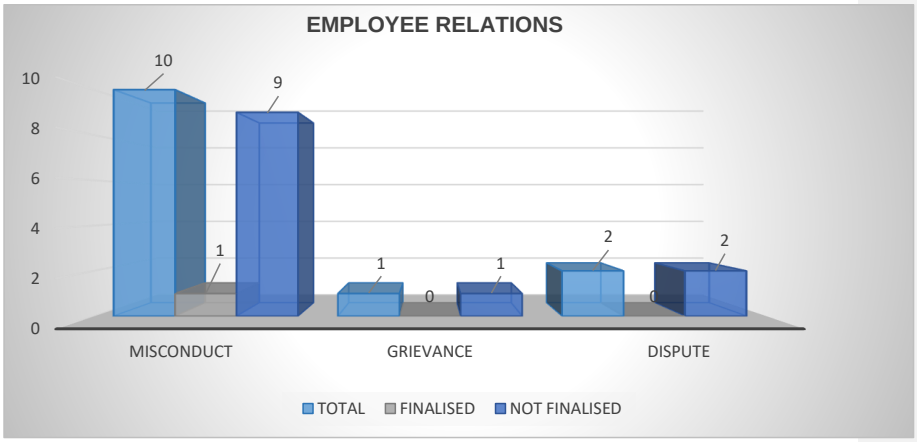
4.7 Performance Management

Status Analysis

Quarter 4 (2021/2022 year-end) evaluations were completed for all employees (permanent and non-permanent) during Quarter 3.

4.8 Employee Relations

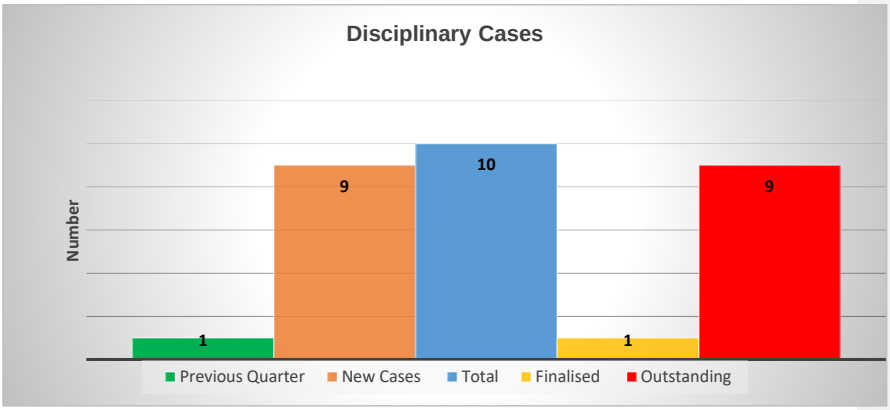
The HR department, has received, recorded and administered the following processes for the reporting quarter, below is the statistical data of all cases and the analysis thereof.



4.8.1. Disciplinary Cases

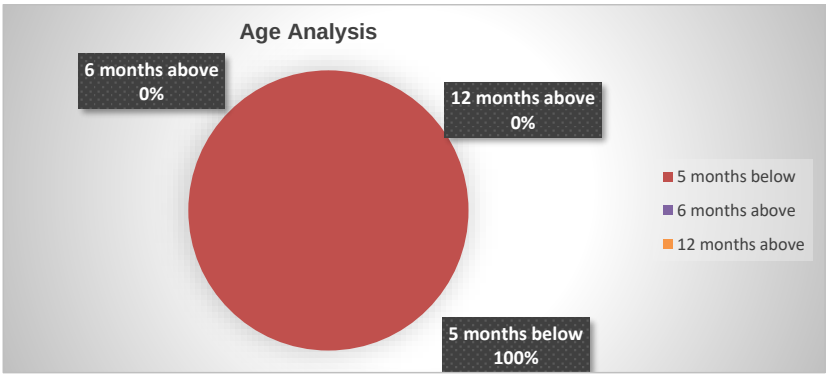
a) One (1) case was not concluded in the previous quarter hence brought forward.

b) Nine (9) new cases were received; the total for all disciplinary cases is ten (10). Total cases finalized is one (1) with a remaining balance of nine (9) cases outstanding.



4.8.2. Age Analysis of Disciplinary cases

1. The age analysis of the nine (9) cases outstanding, 100% are below five (5) months, 0% above four (4) months and 0% are above twelve (12) months old.

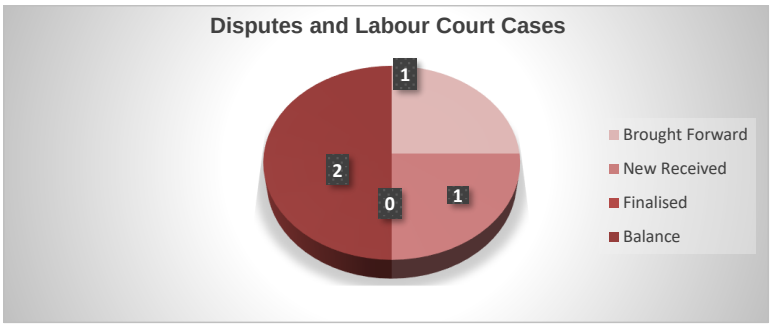


The age analysis of the nine (9) outstanding cases is as follows:

a) Cases that are less than (1) month old =9
b) Cases that are more than twelve (12) months old=0

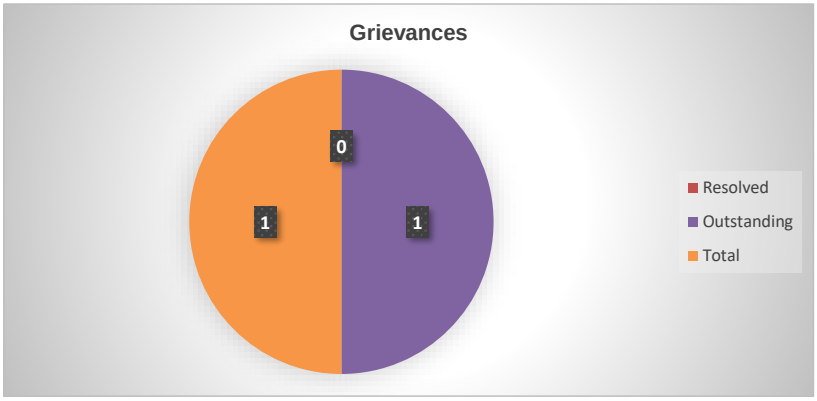
4.8.3. Disputes, Arbitrations & Labour Court Cases

a) Total cases brought forward One (1) as at end of previous quarter.
b) One new case was received
c) Two cases have not been finalised.
d) In respect of disputes at the bargaining Council and Labour Court cases, ERWAT is sitting at two (2) cases.
e) The above case is pending adjudication at the appropriate forums.



The graph illustrates the statistical data of disputes at the Bargaining Council and Labour Court, as at the end of Q3, with two (2) cases still pending.

4.8.4. Grievances



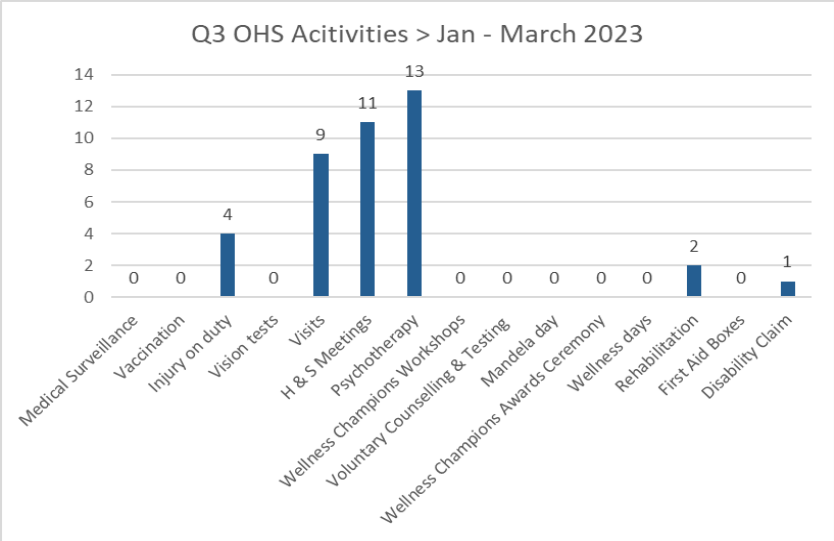
Total grievances outstanding is one (1).

4.8.5. Suspensions

There are no suspensions for the period under review.

4.9 Employee Wellness Programme & OHS

ERWAT Occupational Health Services offers Wellness Programme as follows:



During the period under review:

a) 4 injuries on duty were reported;
b) 9 plant visits were conducted;
c) 11 H&H Meetings was attended;
d) 13 Psychotherapy sessions was scheduled;
e) 2 Rehabilitations were conducted;
f) 1 Disability claim was submitted.

4.10 Percentage of Salary to OPEX.

Table 8: Percentage of Salary to total Opex

	Quarter 1	Quarter 2	Quarter 3	YTD – Actual
Total Manpower Cost	97 280 598,00	98 887 995,00	113 990 695,00	310 159 288,00
Total Opex	209 425 274,00	286 145 657,00	276 176 768,76	771 747 699,76
% of Salary to Opex	**46%**	**35%**	**41%**	**40%**

5. Procurement Practices, Job Creation and Mainstreaming

1. BEE spend in respect of supplier and contractor (PDIs)
2. Job creation is encouraged by including a provision for locally situated bidders within the set criteria in the functionality section where it could be broken down further where bidders could be scored for indicating in the supporting documents and tables their intention to employ new staff from the areas they will be operating from in the event that

they are awarded a tender. This is however included on a case-by-case basis where it is practically implementable.

3. ERWAT is not in a position to utilise the EPWP program due to being and Entity and cannot apply directly to National Treasury for this grant through the Division of Revenue Act. Going forward, ERWAT will during its budget cycle identify potential projects where the EPWP can be included and utilised. ERWAT will require access and training on the respective EPWP portal for registration of projects and reporting.
4. GEYODI

CATEGORY	TOTAL FOR 3RD QUARTER
0% HDI / JURISTIC PERSON	R 23 333 333.00
1-50% HDI	R 6 444 000.00
51-99% HDI	R 2 250 000.00
100% HDI	R 54 916 666.00
TOTAL	**R 86 943 999.00**
SIZE OF COMPANY	
LARGE	R 4 500 000.00
MEDIUM	R 25 333 333.00
SMALL	R 57 110 666.00
MICRO	R -
TOTAL	**R 86 943 999.00**
AWARDS MADE TO:	
FEMALES	R 27 583 333.00
BLACK FEMALE 1-100%	R 27 583 333.00
HDI 1-99%	R 29 583 333.00
100% HDI	R 34 027 333.00
MILITYARY VETERANS	R -
PWD	R -
YOUTH	R -
BBEEE SCORE CARD	
EME	R 57 110 666.00
QSE	R 25 333 333.00
GENERIC	R 4 500 000.00
TOTAL	**R 86 943 999.00**
AWARD MADE TO	
COE BASED COMPANIES	R 80 443 999.00
NON-COE BASED	R 6 500 000.00
CONTRACTED SERVICES	R -
	R 86 943 999.00

The following table and charts indicate the respective BEE spend and GEYODI expenditure for Quarter 3 (Period: January 2023 – March 2023):

PERSON

Figure 1

TRANSACTIONS IN SUPPORT OF HDI OWNED BUSINESSES	PAID IN THE RESPECTIVE % CATEGORIES
Service providers with 0% HDI ownership	R23 333 333
Service providers with 1 -50% HDI ownership	R6 444 000
Service providers with 51 - 99% HDI ownership	2 250 000
Service providers with 100% HDI ownership	R54 916 666

Figure 2 shows the bids indicating expenditure spent on companies accredited according to the recognized B-BBEE score cards for Quarter 3 (Period: January 2023 – March 2023):

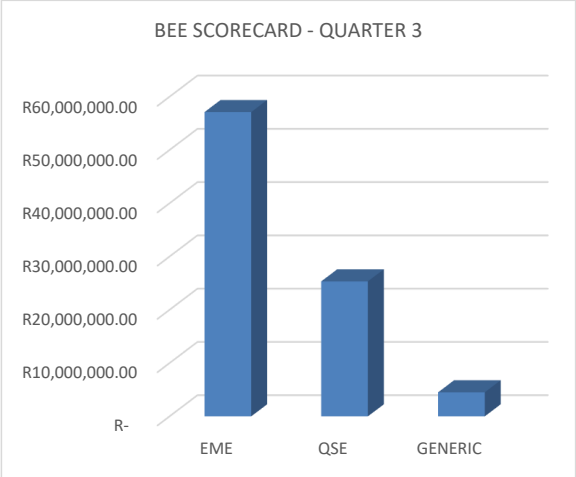


Figure 2

TRANSACTION IN SUPPORT OF THE RESPECTIVE BEE CHARTERS	PAID IN THE RESPECTIVE ACCREDITATION CATEGORIES
Service providers with EME BEE Accreditation	R57 110 666
Service providers with QSE BEE Accreditation	R25 333 333
Service providers with GEN BEE Accreditation	R4 500 000

Figure 3 shows the bids indicating expenditure spent on companies owned by GEYODI for Quarter 3 (Period: January 2023 – March 2023):

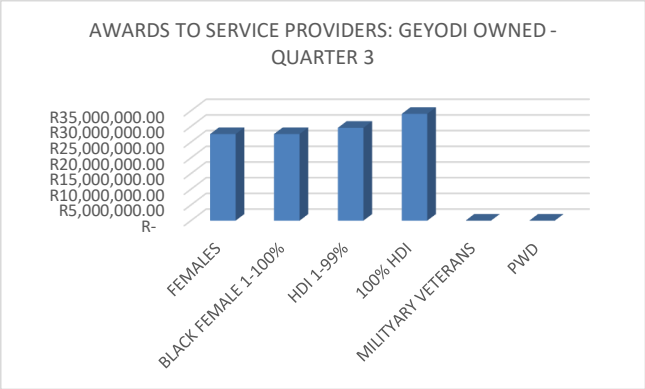


Figure 3

TRANSACTION IN SUPPORT OF GEYODI OWNERSHIP	PAID IN RESPECTIVE % CATEGORIES
Businesses owned by Women	R27 583 333
Businesses owned by 1- 100% Black Women	R27 583 333
Businesses owned by 1- 99%HDI	R29 583 333
Businesses owned by 100%HDI	34 027 333
Businesses owned by Military Veterans	R0
Businesses owned by PWD	R0
Businesses owned by Youth	R0

Figure 4 shows the bids indicating expenditure spent on companies based in COE and non-COE for Quarter 3 (Period: January 2023 – March 2023):

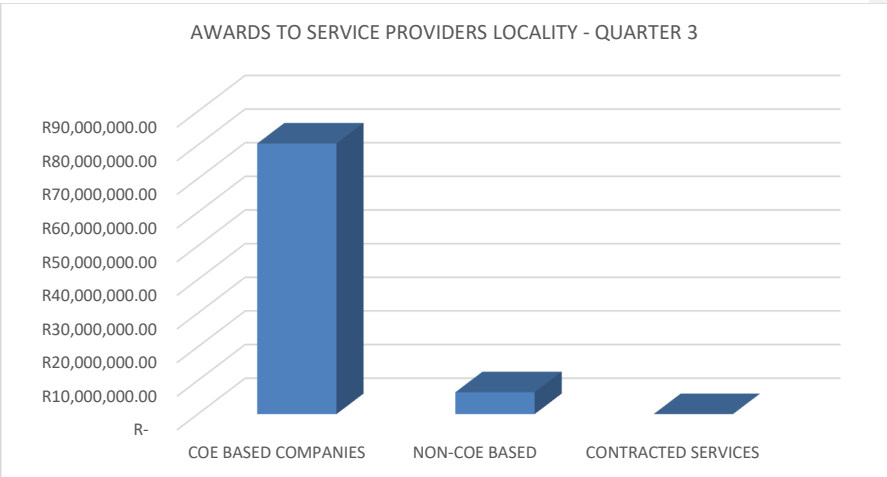


Figure 4

TRANSACTION IN SUPPORT OF BUSINESSES LOCATED WITHIN/OUTSIDE COE AREA	PAID IN RESPECT OF LOCALITY
Service providers located **WITHIN** the COE Area	R80 443 999
Service providers located **OUTSIDE** COE Area	R6 500 000

6. Risk Management

9.1 SUMMARY OF RISKS

The Board of Directors has committed to the process of risk management in the Board Charter which states that the board appreciates that strategy, risk, performance and sustainability are inseparable and give effect to this by satisfying itself in that all material risks and business plans have been duly considered, addressed by management. Risk Management has become an integral part of strategy setting, forming part of senior management's Key Performance Areas.

ERW1. Inadequate integrated planning between the City and the Entity

An integrated approach is key to ensuring that there is adequate capital injection in order to be able to achieve the entity's infrastructure requirements as set out in the 50 year Master Plan that will eventually increase the operational capacity. This can be realised by the entity being part of the City's Capital Investment Forum to benefit from the full value chain of planning.

ERW2. Inadequate Capacity to treat wastewater

Ekurhuleni is fast becoming a city that is growing at a rapid pace, placing a high burden on infrastructure capacity. The current status quo: The Infrastructure is old and operating above their design capacity, resulting in frequent breakdown of critical equipment

ERW3. Inadequate Cash flow to meet business requirements

ERWAT derive a substantial portion of its revenue from CoE (user charges, grants funding etc.), the potential delays in the payment from COE to ERWAT has a detrimental impact in the entity's ability to settle its short term obligations as they become due.

ERW4. Inadequate/limited revenue generation to supplement the approved budget

ERWAT receives its operational and capital budget from the City of Ekurhuleni. The entity strives to augment its total budget by generating additional income through the commercial business department. There is a growing number of private companies offering the same services as ERWAT thus making the water sector highly competitive

ERW5. Inability to achieve Capital Expenditure set target

There is a growing trend within the country of project disruptions by communities and business demanding a stake in the project. These can include other factors such as unavailability of material and unfavourable weather conditions at construction sites.

ERW6. Inadequate preparedness in the event of an emergency/disaster.

The water care works are both hydraulically and organically overloaded threatening future growth of the City and receiving environment. Conditions that contribute to these threats are aged treatment infrastructure without water flow diversion capabilities and no emergency dams that can act as mitigation.

ERW7. Potential loss of key skills

ERWAT recognises there is a growing demand of skilled personnel in the water sector (Ref: Scarce Skills 2019, Vol 6). The loss of key skills within the organisation remains a threat that can impact negatively on the organisational objectives. Some of the employees may succumb to the pandemic.

ERW8. Potential delay in supply and delivery of critical goods/services

The entity imports some of the equipment and consumables that is critical in testing water for the City, the entity and customers. There are long lead times in the global supply chain due to the pandemic and restrictions by various countries.

ERW9. Potential loss of the ISO 17025 Accreditation

Aging laboratory equipment is a threat to losing the ISO certification gives the general public and customers an assurance that ERWAT applies best practice in while testing the water, it is a requirement for both the Blue drop and Green drop standards. The

ERW10. Potential Loss of, and Unauthorised Access Critical Information

The Protection of Personal Information Act places a burden on the entity to safeguard more responsibility to personal information of employees, customers and other stakeholders.

ERW11 Potential injuries to personnel, visitors and contractors

The entity strive to fully comply with the requirements of Occupational Health and Safety Act by providing a safe working environment. Inadequate maintenance of equipment poses a safety risk to employees.

Strategic Risk Mitigations

Management and the Board ensures that there are adequate risk mitigation plans in place to strengthen the current control environment. Some of the risk mitigations as identified require a huge budget such as the upgrading of infrastructure.

ERWAT Strategic Risks

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
ERW1	**Inadequate Integrated planning between the City and the Entity**	CF 1.1	Inadequate communication and coordination between ERWAT and City departments (City planning, Water & Sanitation, waste storm cluster)	CC1.1.	Service delivery Agreement	Medium	RAP1.1	Addendum to the SDA **(2021/22)** Final review of the Service Delivery Agreement and table at the relevant committee for approval	Action plan completed on the entity side - The SDA agreement has been approved by the Board of Directors in August 2022 and is pending final approval by the COE.	Action plan completed on the entity side
		CF 1.2	Lack of participation in some of the forums established by the City.(e.g. Capital Investment Forum where decisions are taken)	CC1.2	MMC Senior Management Quarterly Meetings		RAP1.2	Identify City's forums that are relevant to ERWAT, and formally request to be included as a permanent invitees. (Capital Investment Forum)	A formal letter submitted to the City requesting entity participation in the Capital Investment Forum.	Action plan in progress – The entity is still awaiting a response from the City.
				CC1.3	Participation at Technical Cluster Meetings					
				CC1.4	CoE Corporate Governance Framework					
ERW2	**Inadequate Infrastructure to treat wastewater**	CF 2.1	a) Outdated, aging and inadequate infrastructure to treat high strength industrial effluent due to lack of budget to implement capacity related projects. **Current Capacity** (14 WCWs operating above 100% capacity, 3WCWs operating at 80+ to 100% and only 2 WCWs operating	CC2.1.1	Development & Engineering Contribution Policy	High	RAP2.1.1	Investigate other potential sources of funding for the upgrading of infrastructure (to increase capacity (e.g. PPP etc.)	A report on Public Private Partnerships was submitted to the Board and City 's Technical Cluster for Council approval. The report was tabled at Board meeting on the 18th of August 2022- board approval still pending	Action plan closed. Legislation does not allow the entity to enter into PPP transactions. The PPP initiative will be led by the City. Progress made by the City will be reported in quarter 4.
				CC2.1.2	50-Year Master Plan (Facilities Development Plan)		RAP2.1.2	No further action plan to be implemented. There is an urgent need to implement capacity	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
								related projects however there is no budget.		
			b) Outdated, aging and inadequate technology to treat high strength industrial effluent due to lack of budget to implement newer technologies .	CC2.1.3	Wastewater Risk Abatement Plans		RAP2.1.3	Implementation the MTREF 2022-2023 CAPEX Plan Project 1 Olifantsfontein Intervention Project	CAPEX Target – R62 855 061,89 (68.65%) Actual Target – R64 032 575,60 (69.94%) Phase 1a and 1b The commissioning of two phase has been completed and handover to Operation Department on the 8th June 2022. Phase 1c and 1d The project are still in procurement stage awaiting the budget availability.	
				CC2.1.4	Wastewater Research and Development Program		RAP2.1.4	Organic testing of industrial effluent	Organic profiling has been completed on 440 industrial source scans (260 for North East Region Sources and 180 for South West Region Sources). Industries exceeding bylaw limits are being screened on a monthly basis.	Organic profiling has been completed on 492 industrial source scans (291 for North East Region Sources and 201 for South West Region Sources). Industries exceeding bylaw limits are being screened on a monthly basis.
				CC2.1.5	CoE Schedule A Bylaws Analysis of samples by ERWAT		RAP2.1.5	No further risk action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
				CC2.1.6	Incident management protocol (IMP) .		RAP2.1.6	Tracking of incidents and on a quarterly to assist in planning to build operational resilience	279 critical equipment breakdown were recorded due to loadshedding.	97 critical equipment breakdowns were recorded due to load shedding this quarter.
		CF2.2	Inadequate implementation of maintenance plans leading unavailability of equipment	CC2.2.1	Asset Management Policy & Asset Management Strategy		RAP2.2.1	Review the Asset Management Policy and Strategy	Asset Management Policy still under review and will serve at the next board meeting in January 2023.	Asset policy still under review.
				CC2.2.2	Asset Management Care Plans, limited available budget		RAP2.2.2	Implementation of Maintenance Plan 2022/2023	Target 50% - R XXXXX and Achieved 43% RXXXXX. The reasons are attributed to the fact that December is a short month and Invoices of an amount of R13 096 936,87 were submitted after the financial cut-off date of the 15th of December 2022 and therefore were not included as part of the total expenditure for Q2. When the department include late submitted invoices spending to date for Q2 is 52%.	The budget is limited but work is being done, this quarter we achieved 64% of the allocated budget for planned maintenance.
				CC2.2.3	Equipment Operating Manuals		RAP2.2.3	No further risk action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
		CF 2.3	Inadequate budget allocation to maintain infrastructure	CC2.3.1	Maintenance budget		RAP2.3.1	Implementation of the 2022/2023 Maintenance Plan	Target 50% - RXXXXX and Achieved 43% RXXXXX. The reasons are attributed to the fact that December is a short month and Invoices of an amount of R13 096 936,87 were submitted after the financial cut-off date of the 15th of December 2022 and therefore were not included as part of the total expenditure for Q2. When the department include late submitted invoices spending to date for Q2 is 52%.	Target 75% - R 92 502 861,00 and Achieved 68,36 % We have an amount of of R 62 357 381,80 committed in orders that could not be completed by the end of the 3rd Quarter but will be completed by the end of the 4th Quarter
		CF 2.4	Delays in bringing back equipment's and services due to long lead time of spares of spares sourced overseas and inadequate service master contracts	CC2.4.1	Maintenance Service contract		RAP2.4.1	Expand the pool of Service Master Contracts established in the 2021/2022 FY for critical equipment both electrical and mechanical	Action completed.	Action plan completed
				CC2.4.2	ERWAT Procurement Plan					
		CF 2.5	Storm water ingress (be incorporated into he CoE register)	CC2.5.1	No current control		RAP2.5.1	No further risk action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
		CF 2.6	Rapid population and industrial growth within CoE	CC2.6.1	50 Year Master Plan		RAP2.6.1	No further risk action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
ERW3	**Inadequate Cash flows to meet business requirements**	CF 3.1	Lack of a consolidated cash-flow forecast based on actual departmental requirements	CC3.1	Cash-flow projections are created based on assumptions of a uniform monthly expenditure	Medium	RAP3.1	Implementation of cash-flow projections taking into account the actual departmental cash-flow requirements	Cash flow projections are performed quarterly based on the estimated expenditure and reported to the Board	The projections are adjusted with the actual cash balance at the beginning of each projection to take into account actual cash flows
		CF 3.2	Unforeseen increases in overhead costs such as labour costs, overtime and increase to the pay scales, etc.	CC3.2.1	Overtime Policy			No further risk action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the controls to be adequate.
				CC3.2.2	Leave Encashment (Leave Policy)					
				CC3.2.3	Remuneration Policy					
				CC3.2.4	Monitoring of actual expenditure against approved budget and taking conservative approach to cash flows management					
		CF 3.3	Inadequate budgetary increases granted by the CoE due to economic pressures (Historic and Current)	CC3.3	Budget deficiency Formal Communicating to all stakeholders not receiving adequate funds to discharge its mandate and		RAP3.3.1	Investigate other sources of funding.(e.g. PPP)	A report on Public Private Partnerships was submitted to the Board and City 's Technical Cluster for Council approval. The report was tabled at Board meeting on the 18th of August 2022- board approval still pending	Action plan closed. Legislation does not allow the entity to enter into PPP transactions. The PPP initiative will be led by the City. Progress made by the City will be reported in quarter 4.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
							RAP3.3.2	Update the Financial Model and determine Cost Reflective Tariff in order to motivate for additional funding.	The Accountant updated the Financial Model using the 30 June 2022 budget and expenditure during December 2022. The updated model is currently under review to ensure the accuracy of the cost-reflective tariff and will be finalised during Quarter 3.	The Financial Model that is based on the latest approved annual financial statements is completed and is currently under review, enhancements are being made to the model by the Accountant to align it with the actual expenditure in the financial statements as the original template relied on estimates for certain expenditure items which influences the accuracy of the cost reflective tariff. Whilst the cost reflective tariff may provide a basis to motivate for annual increases in the service charges revenue from the CoE, the CoE has limited these increase to 5.3% during their approval of the MTREF budget in March 2023.
		CF3.4	Available funds not prioritised in order of its most effective use.	CC3.4.1	Cost Containment Policy		RAP3.4.1	Development and Implementation of a cost containment strategy	Progress to be reported in quarter 2	No progress.
		CF3.5	Significant loan repayments resulting in cash-flow shortages	CC3.5.1	Cash-flow management by arrangement of partial payment with suppliers in order to stretch available funds.		RAP3.5.1	Review of Credit Management Policy to incorporate charging of interest.	Action plan completed.	Action plan completed

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
		CF4.6	Inadequate measures for granting credit and revenue collection	CC4.6.1	Credit Collection and Debt Management policy		RAP3.6.1	Appointment of credit vetting agency	To report in quarter 3	An application was made to National Treasury during March 2023 to utilise the Transversal contract for debt collection services (RT27-2019). The contract expires on 30 June 2023 but management intends to utilise it while it is still available. The application to National Treasury to participate in this contract is pending approval which is anticipated to be granted in April 2023. In addition, the legal services tender also makes provision for commercial services such as credit vetting and debt collection, by 31 March 2023, the tender was still out on advert.
		CF3.7	Delayed settlement of invoices raised by ERWAT for payment by the CoE in relation to service charges and CAPEX grants	CC3.7.1	Credit & Debt Management Policy		RAP3.7.1	Review of the SDA to include processes for to address late payment of invoices.	The SDA agreement has been approved by the Board of Directors in August 2022 and is pending final approval by the COE. The late payment of invoices by Government entities has been adequately addressed in the Credit Control and Debt Management policy.	The SDA agreement has been approved by the Board of Directors as well as the CoE. The late payment of invoices by Government entities has been adequately addressed in the Credit Control and Debt Management Policy.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
		CF 3.8	Unilateral budget cuts imposed on ERWAT by CoE Water and Sanitation department.	CC3.8.1	MTREF Budget 2021-2023		RAP3.8.1	No further risk action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
ERW4	**Inadequate revenue generation to supplement the approved budget**	CF 4.1	Inability to secure new business due to overhead costs that are higher than that of competitors.(such as Manpower, laboratory, etc.)	CC4.1.1	Manpower Costing in terms of existing pay scales.	High	RAP4.1.1	No further risk action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC4.1.2	Pricing Model. (Scientific Services Price Schedule)		RAP4.1.2	Review of the Pricing Model.	**Phase 1 – Update Financial Model** The accountant was appointed in October 2022 and has updated the Financial Model using the 30 June 2022 budget and expenditure during December 2022. The updated model is under review to ensure the accuracy of the cost-reflective tariff and will be finalised during Quarter 3. **Phase 2 – Review Pricing Model** Once the review of the financial model has been completed the review of the pricing model will commence as the two models are interrelated.	Phase 1 – Update Financial Model During the review of the Financial model in Quarter 3, the estimates and assumptions used when developing the financial model template were queried and enhancements were recommended by the reviewer to align the model with the actual audited financial statements expenditure. The updating and finalization of the financial model by the accountant with the necessary enhancements will therefore extend into Quarter 4. Phase 2 – Review Pricing Model Once the review and updating of the financial

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
										model has been completed, the review of the pricing model will commence as the two models are interrelated.
				CC4.1.3	Manually costing per project basis.		RAP4.1.3	No further risk action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC4.1.4	Quarterly Business reviews		RAP4.1.4	No further risk action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
		CF4.2	Loss of existing business through insourcing and companies closing down or reducing costs	CC4.2.1	Customer Satisfaction Survey		RAP4.2.1	Develop of Sales Strategy and market penetration plan	The tender to be re-advertised on the open market upon receipt of the non-award letter and the observing the cooling-off period.	In progress - to be advertised to open market upon receipt of the non-award letter and the observing the cooling-off period.
		CF4.3	Legislative Limitations/MFMA Section 164 Forbidden Activities.	CC4.3.1	No current control		RAP4.3.1	Seek Legal opinion from CoE on the interpretation of the Sec 164 Forbidden activities and the MSA	Legislation allows for the entity to conduct business with other municipalities upon approval of such request by the municipality council.	Action plan completed.
		CF4.4	Business requirements limiting of entry to new market (Level of BBB-EEE Compliance/Inadequate and/or no BBEE certificate)	CC4.4.1	No current control		RAP4.4.1	Annual review of BBB EE Compliance.	B-BBEE Verification Certificate was issued in quarter 2 and valid for one –year.	Action plan completed. (current certificate valid till October'2023)

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
		CF 4.5	Expiry of existing customer contracts/non-renewal of expired contracts	CC4.5.1	Customer Satisfaction Survey		RAP4.5.1	Annual Customer Service Survey	The Annual Customer Service Survey tender document approved by the Bid Specification Committee for advertising in the open market.	In progress - The tender is at BSC stage and will be advertised after the BSC approval.
ERW5	**Possible failure to achieve Capital Expenditure set target**	CF 5.1	Planning, SCM processes and systems not fully integrated online	CC5.1.1	ERWAT Infrastructure Planning & Projects Procurement Plan		RAP5.1.1	No further mitigation to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC5.1..2	Supply Chain Management Policy		RAP5.1..2	No further mitigation to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
		CF 5.2	Continuation of project (roll-over) not provided in the next financial year (vote not created).	CC5.2.1	Annual CAPEX Plan with projected cash flows for each project		RAP5.2.1	No further mitigation to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
		CF 5.3	Delays in Supply Chain Management processes. (Including the effect of the Pandemic)	CC5.3.1	Supply Chain Management Committees appointed with weekly meetings to speed up SCM processes		RAP5.3.1	No further mitigation to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC5.3.2	Bid Committees tracking register implemented.		RAP5.3.2	No further mitigation to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
		CF	Late payment of contractors due to	CC5.4.1	Creditors Policy	Medium	RAP5.4.1	No further mitigation to be implemented	There will be no reporting for the	There will be no reporting for the quarter under review. Management deemed the control to be adequate.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
		5.4	USDG Invoices being paid late						quarter under review.	
		CF5.5	Members of the community and the local business forums demanding to be sub-contracted in the project.	CC5.5.1	Community Liaison Officer Appointed through ward councillors to assist with community engagement.		RAP5.5.1	Engage CSR office prior to commencement of construction project. (CSR plan to include Projects)	There were no new projects in quarter 2.	Action plan closed. No new projects in 2022/2023 FY
				CC5.5..2	Sub-contracting to local business on projects that requires less technical skills.		RAP5.5..2	No further mitigation to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
		CF5.6	Potential disruptions such as Contractor employees going on strike and/or any other disruption caused by contractor	CC5.6.1	Invoke penalties for poor performance in line with the Supply Chain Management Policy and related Service Level Agreements		RAP5.6.1	No further mitigation to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
		CF5.7	Denial of contractor's access to ERWAT sites due to labour unrest	CC5.7.1	Disciplinary Procedure		RAP5.7.1	Disciplinary processes to be taken for illegal strikes as and when they arise	There was an Illegal strike by shiftworkers in the Operations Deptment on the 31 Oct- 9 Nov. 2022. Employees were ordered to go back to work by management. Disciplinary action is in progress.	In progress - Disciplinary Hearing has been scheduled for the 31st of March for implicated employees. Update on progress will be given in Q4.
		CF5.8	Denial of contractor's access to ERWAT sites due to community unrest	CC5.8.1	Business Continuity Management Policy		RAP5.8.1	Review the Business Continuity Policy	Action plan completed.	Action plan completed

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
		CF5.10	Termination of contract due to poor performance of the contractor and Unexpected withdrawal from projects by the contractor.	CC5.10.1	Service Level Agreement		RAP5.10.1	No further action plan identified	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
ERW6	**Inadequate preparedness in the event of an emergency/ disaster.**	CF6.1	Some plants of the 19 Wastewater Care Works do not have wastewater bypassing systems and emergency dams	CC6.1.1	Water Bypass System for some Wastewater Care Works and emergency dams		RAP6.1.1	No further mitigation identified	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
		CF6.2	Some of the Infrastructure built on dolomitic areas	CC6.2.1	Geo tech studies conducted (every three years)		RAP6.2.1	Benchmarking of ERWAT's Geotechnical Standard Operating Procedure with CoE.	Progress to be reported in quarter 3	
		CF6.3	Inadequate Business Continuity Management Program	CC6.3.1	Business Continuity Management Policy		RAP6.3.1	Review Business Continuity Management Policy	Action plan completed.	Action plan completed
					Agreement between ERWAT and Lesedi			Review the Agreement between ERWAT and Lesedi Municipality	A Memorandum of Agreement drafted between Lesedi and ERWAT. still at inputs stage.	In progress - The current memorandum between ERWAT and Lesedi ends in June 2023. The review is in progress
				CC6.3.2	Incident Management Protocol (Emergency Response Plan)	High	RAP6.3.2	Tracking of incidents and on a quarterly to assist in planning to build operational resilience	279 critical equipment breakdown were recorded due to loadshedding.	97 critical equipment breakdowns were recorded due to loadshedding. Shortage of Ferric chloride was recorded for 11 WCW. This is due to a national shortage

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
				CC6.3.3	Business Continuity Management Risk Assessments for Water Care Works and Support Services		RAP6.3.3	No further action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC6.3.4	BCM Business Impact Analysis		RAP6.3.4	No further action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC6.3.5	Critical Supplies Register		RAP6.3.5	Update the Critical Supplies Register	The Critical Supplier Register reviewed for continuity and contracts are in place for the goods and services identified as critical. The register is updated as and when goods and services are identified.	Action plan completed
				CC6.3.6	Business Recovery Plans		RAP6.3.6	Testing of 3 Business Recovery Plan	Progress to be reported in quarter 3	ICT Disaster Recovery Plan tested (Medium Complexity) restored files from File Server. One (1) out of three (3) Recovery Plans tested.
				CC6.3.7	BCM Steering Committee		RAP6.3.7	BCM Communications and Awareness	Progress to be reported in quarter 3	BCM Awareness Flash drafted for quarter 3 and 4
				CC6.3.8	BCM Infrastructure Condition Assessments		RAP6.3.8	Request the city's Dolomite Division to assist in Conducting Dolomite Hazard Risk Assessment, in line with the CSIR requirements	Progress to be reported in quarter 3	

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
				CC6.3.9	ICT Disaster Recovery Plan		RAP6.3.9	No further action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
ERW7	**Potential loss of key skills**	CF7.1	Unexpected loss of key employees due to the resignation, death(Natural/ COVID-19), etc	CC7.1.1	Recruitment Policy	Medium	RAP7.1.1	'No further action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC7.1.2	ERWAT Recruitment Plan		RAP7.1.2	Implementation of 2022/23 recruitment plan	Recruitment is on hold, due to austerity measures imposed on the Entity by the City.	The Moratorium on Recruitment has been lifted. The Recruitment process has started and progress will be reported in quarter 4.
				CC7.1.3	Competency Based Progression Plan		RAP7.1.3	No further risk action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC7.1.4	Skills Audit		RAP7.1.4	Finalise the Work skills Capacity Exercise	Action plan completed. The gathering of information for the Work skills Capacity Exercise completed.	Action plan completed
				CC7.1.5	Covid 19 Policy		RAP7.1.5	Review the COVID-19 Policy	Progress to be reported in quarter 3. Policy to be revised and amended as a Dreaded Disease Policy to be submitted in Quarter 3 to Board for approval.	Policy document done and renamed Epidemic/Pandemic Policy, still to be sent out for inputs from the relevant stake holders.
				CC7.1.6	Covid 19 Standard Operating Procedure		RAP7.1.6	No further action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC7.1.7	Covid 19 Risk Assessment		RAP7.1.7	Conduct COVID-19 Personnel Risk Assessment that will	Action plan completed	Action plan completed

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
								inform COVID-19 Policy Stance		
				CC7.1.8	6-year Training and Development Plan		RAP7.1.8	Implementation of 2022/23 annual Training Plan	A total of 211 employees have attended various training programmes.	42 Employees Started the NQF Level 2 Learnership, from Operations Department.
		CF7.2	Dissatisfaction in the Working Environment (e.g. not fitting in with the organisation's culture and inadequate working resources)	CC7.2.1	Employee Benefits Policies		RAP7.2.1	Review of Human Resources Policies as and when the need arise	Action plan completed. Tool of trade policy approved by the Board at a board meeting held 29 November 2022	Action plan completed.
				CC7.2.2	Conducted climate survey		RAP7.2.2	No further action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC7.2.3	Psychosocial support		RAP7.2.3	Implement Employee Support Programmes	Ongoing Counselling conducted internally by ERWAT inhouse-Occupational Health Nurse Practitioner (OHNP).	Ongoing Counselling conducted internally by ERWAT inhouse-Occupational Health Nurse Practitioner (OHNP).
				CC7.2.4	Management Development Program		RAP7.2.4	Implement the Management Development Program	2nd Group of Management Development Program will Commence in January 2023.	There are delay in the commencement 2nd group of Management Development Program due to availability on vendor's side. 2nd Group of Management Development Program will Commence in May 2023.
		CF7.3	Individuals not coping with the workload pressure, expectations on individuals not met	CC7.3.1	Personal Development Plans		RAP7.3.1	Review of Personal Development Plans	Action completed.	Action plan completed
				CC7.3..2	Exit Interview as and when a need arise		RAP7.3..2	No further action plan identified	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
			and career advancement							
ERW8	**Potential delays in the supply and delivery of critical goods and services**	CF 8.1	Late commencement of bid processes by user department and non-awarded bids that need to go through a re-tendering process	CC8.1.1	Supply Chain Management Policy	high	RAP8.1.1	Review of the Supply Chain Management Policy	Action completed.	Action plan completed
				CC8.1.2	SCM Turn Around Time Procedure		RAP8.1.2	No further risk action plan to be implemented	There will be no reporting for the year under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC8.1.2	ERWAT Procurement Plan		RAP8.1.2	Review the 2022/23 Procurement Plan for the 2023/2024 FY	Action completed. Procurement Plan is approved and will be updated in Q3 after approval of the adjustment budget.	Action plan completed. The Procurement Plan has been updated to include new projects.
				CC8.1.2	SCM Bid Committees		RAP8.1.2	No further risk action plan to be implemented	There will be no reporting for the year under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC8.1.3	SCM Document Movement Control Tracking Register implemented		RAP8.1.3	No further risk action plan to be implemented	There will be no reporting for the year under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
		CF 8.2	Inadequate monitoring of contract term by the user department	CC8.1.4	Contract Management Register		RAP8.1.4	Review the contract Management Register	Ongoing Process, it is updated on an as and when required basis.	Action plan completed
		CF 8.3	Limitations set under the delegation of authority	CC8.1.7	Delegation of authority		RAP8.1.7	Review of the SCM Delegations of Authority	Progress to be reported in quarter 3.	Action plan completed. The SCM Delegation of Authority was reviewed and approved in January 2023.
		CF 8.4	Long lead time to deliver goods/ services due to external factors such	CC8.1.9	Critical Suppliers of Goods and Services Register		RAP8.1.9	Review the Critical Supplies Register	Action plan completed. The Critical Supplier Register reviewed for continuity and	Action plan completed.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
			as COVID-19, Rise in Logistics Cyber Attacks, Shortage of supplies & Consumables etc						contracts are in place for the goods and services identified as critical. The register is updated as and when goods and services are identified.	
ERW9	**Potential loss of the ISO 17025 Accreditation**	CF 9.1	Aging instrumentation, scarcity of spares and discontinuation of instruments could result in loss of the approved testing methods impacting on service delivery both internally and externally	CC9.1.1	Scheduled maintenance in accordance with ERWAT's Instrumentation maintenance Plan	High	RAP9.1.1	No further action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
		CF 9.2	Lack of budget for maintenance of the Laboratory building	CC9.1.2	Ad-hoc minor maintenance by the Maintenance Department on a daily, weekly and monthly basis.		RAP9.1.2	Implementation of building maintenance plans including power supply loads, building/ roof leaks, etc.	To report in quarter 3.	Building maintenance has begun in Q3 and the following items are completed: ➢ repairs to certain laboratory cupboards, ➢ exterior entrance upgraded, ➢ rusted awnings have been repaired ➢ corroded concrete gulley's replaced. outside waste storage facility has been repainted and flooring sealed.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
		CF9.3	Lack of control of the laboratory internal environmental temperature resulting in temperature fluctuations that are not within the required limits for the instruments to function and unsuitable temperatures for employees to work in.	CC9.1.3	Environmental Monitoring (daily)		RAP9.1.3	Install a new Heating Ventilation Air Conditioning (HVAC) system.	Final commissioning and temperature control is still in the process of being optimised.	Temperature control has been optimised. The final snag list items are receiving attention and the project will be completed by Quarter 4.
		CF9.4	Power and water supply disruption due to loadshedding and unstable water supply	CC9.4.1	UPS at the Laboratory on certain instruments and central generator at Head office		RAP9.4.1	No further action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC9.1.2	Maintenance department assist with reporting power and water disruptions.		RAP9.1.2	No further action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC9.1.3	Storage tanks for de-ionised water.		RAP9.1.3	Review existing emergency water supply capacity	Installation complete	Action plan completed
ERW10	**Potential Loss of, and Unauthorised Access Critical Information**	CF10.1	Aging ICT infrastructure leading to higher hardware failure (40% of the Server Hardware has reached end of life support, leading to dificulties in procuring	CC10.1.1	Asset Management Policy, Strategy and Plans	High	RAP10.1	No further action plan to be implemented	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
			replacement spare, warranties, etc)							
		CF10.2	Inadequate of cyber security awareness and behaviour	CC10.1.2	ICT security awareness program		RAP10.2	Develop (31 Dec 2022) and implement an ICT Cybersecurity Awareness Program	Action plan completed.	Action plan completed
		CF10.3	Inadequate Information Security Controls	CC10.1.3	ICT Security Policy and Procedures		RAP10.3	Development and approval of Standard Operating Procedures, Frameworks and Guidelines: 1. Security Patch Management Standard Operating Procedure 2. Security Configuration Standards	1. Developed an SOP for patch management. 2. In the process of developing a guideline for configuration standards" - Progress to be reported in quarter 3.	Cyber SAECURITY Awareness flash circulated on he 30th March 2023.
		CF10.4	Non- adherence to ICT Policies and Procedure	CC10.1.4	Disciplinary Procedure Induction Program		RAP10.4	Raise Awareness on ICT Policies through quarterly news flash	Flash for Q2 on Call Logging requirements have been circulated.	Security configuration standard developed.
		CF10.5	Inadequate maintenance of Assets that are critical to ICT Environment (e.g fire equipment in the server room, air conditioning system, UPS, Power	CC10.1.5	Manually Monitoring of Equipment & Environmental Conditions		RAP10.5	Implementation of Environmental Monitoring System on temperature and power	Air Conditioning Systems have been serviced for both Production and DR Environment for the quarter under review.	Air Conditioning Systems have been serviced for both Production and Disaster Recovery Environment for the quarter under review. The Air Conditioning and the fire suppression systems must be serviced in Q4.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
			Generators, location of server room, etc)							
ERW11	**Potential injuries to personnel, visitors and contractors**	CF11.1	Non- Compliance/ disregarding (Knowingly or unknowingly) Occupational Health & Safety policies and Standard operating procedures. (e.g. Inappropriate use of PPE;)	CC11.1.1	Occupational Health & Safety Policy	High	RAP10.1.1	a)Review of the Occupational Health & Safety Policy	OHS Policy was tabled and approved by the Board Nov.2022.	Action plan completed
								b) Review of the OHS legal appointments	To be reported in quarter 3.	
				CC11.1.2	Occupational Health & Safety Procedures (SOPs) -MS- SOP-SA002 Health and Safety Representative Procedure -MS- SOP-SA003 Accident Reporting and Investigation Procedure -MS- SOP-SA004 Permit to Work Procedures -MS- SOP-SA005 Confined Space Procedure -MS- SOP-SA006 Excavation Procedure -MS- SOP-SA007 Wearing of Safety Harness -MS- SOP-SA008 Fall Protection Plan -MS- SOP-SA009 Control of contractors working at ERWAT -MS- SOP-SA0010 HSE Plan		RAP10.1.2	No further action plan identified	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC11.1.3	Occupational Health & Safety Committees		RAP10.1.3	No further action plan identified	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
				CC11.1.4	6-year training plan		RAP10.1.4	Implementation of 2022-2023 OHS Training, in line with the ERWAT wide training plan	•29 Delegates attended Emergency Evacuation training Programme on 27-28 October 2022 •33 Delegates attended SHE Rep training Programme on 25-26 October 2022	3 Employees from operations attended the SAMTRAC course 23-27 Jan 2023 33 Employees have been trained on Incident Investigation (Still ongoing)
				CC11.1.5	Safety Awareness Program (Central Safety Meetings, District safety meeting & Tool box talks)		RAP10.1.4	Conduct Medical surveillance	Counselling conducted internally by the ERWAT In-house nurse. No vaccinations were reported for the period under review.	Counselling conducted internally by the ERWAT in-house nurse. No vaccinations were reported for the period under review.
				CC11.1.6	Safety Induction		RAP10.1.4	No further action plan identified	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
		CF11.2	Deteriorating workplace condition due to inadequate maintenance	CC11.1.7	2022/2023 Maintenance Plan		RAP10.1.4	No further action plan identified	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control to be adequate.
				CC11.1.7	Medical Surveillance policy		RAP10.1.4	Review of the Medical Surveillance Policy to incorporate Compulsory medical examination as part of recruitment process and period medicals for high risk employees	The policy is under review. Inputs into policy has been obtained from service provider.	
		CF1	Unauthorised entry to ERWAT properties with the aim of	CC11.1.9	Security Services Policy		RAP10.1.4	No further action plan identified	There will be no reporting for the quarter under review.	There will be no reporting for the quarter under review. Management deemed the control deemed to be adequate.

REF	Risk Title	Contributing Factors		Current Mitigation Controls		RR	Risk Action Plan 2022/2023		Detailed Progress Quarter 2	Detailed Progress Quarter 3
		1.3	Vandalising, theft,(armed robberies)	CC11.1.10	Security Services Standard Operating Procedure -Security Operations Room Procedure -Security Systems Procedure -Trespass procedure -Guarding Procedure -Incident Reporting Procedure		RAP10.1.4	Implementation of Security Awareness Program	To be reported in quarter 3.	
				CC11.1.11	Security Induction Program		RAP10.1.7	No further action plan identified	There will be no reporting for the quarter under review. Management deemed the control deemed to be adequate.	There will be no reporting for the quarter under review. Management deemed the control deemed to be adequate.

Emerging Risks (Narrative)

7. Legislative (only if applicable to your department)

Compliance with legislation that applies to the entity is critical to the existence and operations of ERWAT. Management and the board has identified and prioritised seven (7) key legislation for monitoring. Compliance risk management plans are developed to ensure that all the risks are mitigated. Any changes to legislation is aligned with internal policies and processes The Regulatory Landscape consist of the following

1. Companies Act 71 of 2008

2. Municipal Systems Act 32 of 2000

3. National Water Act 36 of 1998

4. National Environmental Management Act

5. Municipal Finance Management 56 of 2003

6. Labour Relations Act 66 of 1995

7. Occupational Health and Safety Act 85 of 1993

8. Disaster Management Act 57 of 2005

8. Key Audit Matters and Progress

ERWAT obtained an unqualified audit opinion from the AGSA for the 2021/2022 financial year.

Twenty-five (25) findings were included in the Management Report, of which five (5) were audit report items. Of these twenty-five (25) findings, eighteen (18) have been okay – manageable issues and seven (7) have been good – going as planned. No findings have been resolved to date (31 March 2023).

No	Finding Heading	Status	Action Plan
1	Reasonable steps not taken to prevent irregular expenditure	**Okay – manageable issues**	Perform a gap analysis on all SCM matters policies and procedures to ensure compliance with applicable laws and regulations. Update, implement and create awareness on the revised SCM policies and procedures. Enhance review processes of procurement processes using the checklists to ensure compliance with applicable laws and regulations prior to awards on bids. Review SCM structure and role profiles to ensure role clarity and enhance accountability. Develop and implement bid committee charters to clarify and enhance bid committee roles and responsibilities. Develop and implement a training plan for SCM officials and committee members. Monitor the contract register monthly and communicate contract expiry with end users. Develop bid evaluation compliance checklist Implement and create awareness about the bid evaluation checklist.
2	B-BBEE points allocated to a bidder who did not submit a valid certificate	**Okay – manageable issues**	Develop bid evaluation compliance checklist. Implement and create awareness about the bid evaluation checklist. Review and assess B-BBEE certificates/ applicable documents submitted by bidders to claim preferential points submitted to confirm validity. Appoint a bid probity function.

			Review bid evaluation process prior to award to ensure compliance with applicable laws and regulations. Independent review either to be performed by the MD committee or an independent person.
3	B-BBEE points allocated to a bidder who did not submit a valid certificate for the sub-contractor	**Okay – manageable issues**	Develop bid evaluation compliance checklist. Implement and create awareness about the bid evaluation checklist. Review and assess B-BBEE certificates/ applicable documents submitted by bidders to claim preferential points submitted to confirm validity. Appoint a bid probity function. Review bid evaluation process prior to award to ensure compliance with applicable laws and regulations. Independent review either to be performed by the MD committee or an independent person.
4	Feasibility for sub-contracting not considered for tenders above R30 million	**Okay – manageable issues**	Develop bid evaluation compliance checklist Implement and create awareness about the bid evaluation compliance checklist. Appoint a bid probity function. Review bid evaluation process prior to award to ensure compliance with applicable laws and regulations. Independent review either to be performed by the MD committee or an independent person. Review SCM Policy to include 2022 PP Regulations. Standard bid document will be reviewed to include all the mandatory requirements in line with the BSC Compliance checklist including a draft SLA.
5	Amount of the contract awarded is not in line with the CIDB grading requirements	**Okay – manageable issues**	Develop and implement bid evaluation compliance checklist. Appoint a bid probity function. Review bid evaluation process prior to award to ensure compliance with applicable laws and regulations. Perform risk assessment for emerging contractor who is registered on a grade which is one level lower than the required. Perform CIDB notification based on the nature of the financial or management support.
6	Misstatements identified in the notes to annual financial statements submitted for audit financial instruments and Fruitless	**Good – going as planned**	Agree the disclosure note to the financial statement to ensure accuracy. Enhance review of the disclosure note to the financial statements.

	and wasteful expenditure note		
7	Incorrect disclosure of deviations in the note to the financial statements	**Okay – manageable issues**	Enhance the deviation register to align it to Regulation 36. Enhance the review of the deviation register note in the financial statement.
8	Misstatements identified in the notes to annual financial statements submitted for audit Related party disclosure note	**Good – going as planned**	Agree the disclosure note to the financial statement to ensure accuracy. Enhance review of the disclosure note to the financial statements.
9	Disclosure of principal-agent arrangement not in compliance with GRAP 109	**Good – going as planned**	Agree the disclosure note to the financial statement to ensure accuracy. Enhance review of the disclosure note to the financial statements.
10	Reported performance information not consistent with the approved business plan	**Good – going as planned**	Management will consider a dedicated person to conduct quality assurance on SDBIP & Annual Performance Information. Management will enhance the reviews to ensure the accuracy, validity and completeness of the performance information reported.
11	The amount of fruitless and wasteful expenditure as per the register submitted for audit does not agree with the amount disclosed in the financial statements	**Okay – manageable issues**	Enhance the fruitless and wasteful expenditure register. Enhance the review of the fruitless and wasteful expenditure note in the financial statement.
12	Reasonable steps not taken to prevent fruitless and wasteful expenditure	**Okay – manageable issues**	Perform a gap analysis on all SCM matters policies and procedures to ensure compliance with applicable laws and regulations. Update, implement and create awareness on the revised SCM policies and procedures. Enhance review processes of procurement processes using the checklists to ensure compliance with applicable laws and regulations prior to awards on bids.
13	The amount of irregular expenditure as per the register submitted for audit does not agree with the amount disclosed in the financial statements	**Okay – manageable issues**	Enhance the irregular expenditure register. Enhance the review of the irregular expenditure note in the financial statement.

14	Information for losing bidders to tenders awarded has not been provided	**Okay – manageable issues**	Develop and Implement document register, to ensure that all documents movement is accounted for. Request hard copy file and electronic bid proposal submission. Management will ensure that all bids (unsuccessful) are kept with the external storage (AGS) and proper records are in place.
15	Some information supporting contract management has not been provided	**Okay – manageable issues**	Develop and Implement document register, to ensure that all documents movement is accounted for. Request hard copy file and electronic bid proposal submission. Management will ensure that all bids (unsuccessful) are kept with the external storage (AGS) and proper records are in place.
16	Site visit observations	**Okay – manageable issues**	Prioritise the implementation of asset replacement to renew of ageing infrastructure on MTREF. Implement WCWs capacity upgrade and extension projects, to ensure that WCWs operate within their design capacity, to prevent overloading and equipment failure.
17	Compliance with license conditions	**Good – going as planned**	Prioritise the implementation of asset replacement to renew of ageing infrastructure on MTREF. Implement WCWs capacity upgrade and extension projects, to ensure that WCWs operate within their design capacity, to prevent overloading and equipment failure.
18	Prior period error note 32 has been overstated	**Good – going as planned**	Agree the disclosure note to the financial statement to ensure accuracy. Enhance review of the disclosure note to the financial statements.
19	Expenditure transactions incorrectly classified	**Good – going as planned**	Review the general ledger accounts to ensure that transactions are correctly classified. Process correcting entries for errors identified.
20	CIDB Grading requirements advertised in the newspaper is not the same as the requirement per the approved specifications	**Okay – manageable issues**	Develop and implement bid committee Compliance Checklist. Bid advertisement will be reviewed and signed off by the SCM Manager prior to placing advertisement.

21	The tender was awarded to a different service provider than the one who was initially recommended by BAC	**Okay – manageable issues**	Develop and implement bid evaluation compliance checklist. Appoint a bid probity function. Review bid evaluation process prior to award to ensure compliance with applicable laws and regulations. Develop and implement bid committee charters. Appoint bid committee scribers for each committee and ensure that the role of the secretariat are clearly defined.
22	Tender award to the service provider is not economical	**Okay – manageable issues**	Develop and implement bid evaluation compliance checklist. Appoint a bid probity function. Review bid evaluation process prior to award to ensure compliance with applicable laws and regulations.
23	The winning bidder not disqualified for failing pre-qualifying condition	**Okay – manageable issues**	Develop and implement bid evaluation compliance checklist. Appoint a bid probity function. Review bid evaluation process prior to award to ensure compliance with applicable laws and regulations.
24	Incomplete contract register and RFQ register	**Okay – manageable issues**	Review and update the contracts register to ensure completeness of the register. Implement the contract management policy.
25	Tender awarded to a supplier who submitted a partially completed bid document	**Okay – manageable issues**	Develop and Implement document register, to ensure that all documents movement is accounted for. Request hard copy file and electronic bid proposal submission. Management will ensure that all bids (unsuccessful) are kept with the external storage (AGS) and proper records are in place.