RAND WATER

CORPORATE BUSINESS PLAN

1st July 2023

-

30th June 2028

2023/2024 to 2027/2028

DWS SUBMISSION

i. Table of Contents

ii. List of Tables

iii. List of Diagrams

iv. List of Abbreviations

ADD	Average Daily Demand
AIDR	Annual Infrastructure Development Report
BA	Basic Assessment
BDS	Blue Drop System
BER	Bureau for Economic Research
BOO	Built, Own, Operate
CAPEX	Capital Expenditure
CARA	Conservation of Agricultural Resources Act 1983
CMA	Catchment Mangement Agency
CSD	Central Supplier Database
CSI	Corporate Social Investment
DWS	Department of Water & Sanitation
EAC	Environmental Authorisation and Compliance
EDS	Enterprise Development Strategy
EE	Employment Equity
EIA	Environmental Impact Assessments
EMP	Environmental Management Program
GA	General Authorisations
GPEMF	Gauteng Provincial Environmental Management Framework
HIA	Heritage Impact Assessment
IDP	Infrastructure Development plan
IIWSS	Interm/Intermediate Water Supply Programme Strategy
IRIS	Integrated Regulatory Information Systems
IRR	Institutional Reform and Realignment Masterplan
IVRS	Integrated Vaal River System
KMSV	Katse, Mohale, Sterkfontein and Vaal Dams
KPI	Key Performance Indicator
LHWP	Lesotho Highlands Water Project
LIMS	Laboratory Information Management System
NDP	National Development Plan
NGO’s	Non Government Organisations
NPO	Non-Profit Organisation
NRW	Non-Revenue Water
PAT	Progress Assessment Tool
PFMA	Public Finance Management Act
PICC	Presidential Infrastructure Coordinating Committee
PRV’s	Pressure Reducing Valves

RWF	Rand Water Foundation
RWM	Rand Water Mpumalanga
SAM	Strategic Asset Management
SANS	South African National Standards
SCMD	Supply Chaim Management Division
SDG's	Sustainable Development Goals
SDG's	Sustainable Development Goals
SEDS	Socio Economic Development Strategy
SIV	System Input Volume
SMME	Small Micro Medium Enteprise
SOE	State Owned Organisation
SONA	State of the Nation Address
SRS	Sedibeng Regional Sanitation
TA	Technical Assistance
TBM	Tunnel Boring Machine
WC/WDM	Water Conservation and Water Demand Management
WHO	World Health Organisation
WSA	Water Services Authorities
WSI	Water Services Institutions
WUE	Water Use Efficiency
WULA	Waste Aspects and Water Use Related Impacts
WWTW	Water Water Treatment Works

1 Foreword

The year 2023 marks 120 years since Rand Water was established. It is indeed an occasion to honour the humble beginnings of Rand Water when it serviced only a few local municipalities. Today, Rand Water maintains a proud record of servicing Gauteng, Mpumalanga, and parts of North - West and Free State provinces. Rand Water aims to remain in existence and relevant for more than another 120 years.

There is a recognition that the purpose in nature of Rand Water requires transformation led by significant opportunities upstream and downstream of the Rand Water business. The Rand Water of the future must be modelled to take advantage of identified opportunities. Poor service delivery at municipal level presents such an opportunity. The Rand Water of the future requires agility to out-compete both public and private sector players, otherwise Rand Water itself may fail to survive into the future.

The provision of water coincides with the provision of energy. Wastewater Treatment Works have the potential to produce grey ammonia, grey hydrogen and methanol. These are the new sources of power in line with alleviating the impact of climate change. In addition, there are a number of projects in South Africa to produce green ammonia and green hydrogen from hydropower. These ideas demonstrate the symbiotic relationship between Rand Water entities that will be tasked with taking advantages of such lucrative opportunities. The Co-generation projects of Hydropower and Solar power contribute to the reduction in carbon emissions related to the traditional electricity generation.

Rand Water has identified Rand Water Services as a vehicle that will take advantage of these this business currently defined as secondary. Rand Water was appointed by DWS as an implementing agent under a Ministerial Directive for the Vaal River system intervention, and the Section 63 of the Water Services Act, Act 108 of 1997 (WSA, Act 108 of 1997) intervention. This work will be undertaken by Rand Water utilising its subsidiary, Rand Water Services. The role of the Rand Water Institute will be to develop aligned products and services through a rigorous exercise of Innovation (Rand Water Innovation Hub), and skills development (Rand Water Academy). Rand Water Foundation will provide services aligned to promoting the Rand Water brand in communities serviced by Rand Water. They will play an information gathering role on the behaviour and attitudes of customers. This information gathering role will be undertaken prior to service delivery, during service delivery, and after service delivery by Rand Water. These are the symbiotic relationships that will chart the survival and growth of this organisation.

Financial analysis demonstrates that Rand Water remains a going concern due to the prudence. The water requirements in the Rand Water area of service continue to grow, and gradually

outgrowing the Integrated Vaal River System (IVRS) output. Already, Rand Water's abstraction rights from the Vaal dam are exceeded. Rand Water is extensively engaged in Water Conservation and Demand Management initiatives by monitoring Water User assessments. This allows Rand Water to develop a nap showing areas of efficient and inefficient use among local municipalities. Rand Water is actively engaging municipalities with such identified challenges to implement strategies to reduce these huge water losses. Rand Water is continuing with its holistic and integrated approach to be effective in its strategic role regarding water conservation and demand management. This entails a focus on the entire urban water cycle (that is, from water resource, abstraction, purification, bulk distribution, reticulation, end-user consumption and return flow to the resource) to ensure continued impact in managing the demand for water and curtailing the water losses.

Reclamation and the Alternative Water Sources projects are aimed at mitigating this environmental risk. Rand Water's involvement in the construction of Wastewater Treatment Works would go a long way to alleviate the problem of contamination of our water sources. Sludge deposits are regulated for environmental safety, and the Water Treatment Residue Beneficiation project is aimed at reducing these deposits. Evidently, these ventures are good candidates for Green Investments. This is important because investors view Green Bonds favourably as they contribute towards their Environmental Social Governance ("ESG") targets. To further optimize internal efficiencies in primary business, there are programmes aimed at producing chemicals and large diameter pipelines for Rand Water's own use.

It is estimated that Rand Water has a 10-year period until it reaches its available water resource threshold. In the period between now and then, is a need to ensure compliance to the licensed abstraction volume. An initiative to implement Rand Water owned and controlled automated flow control valves within municipal systems will help reduce the current inflated demand through reducing water wastage in respective areas. In addition, progressive reduction of non-revenue water is a priority. As much as 300 Ml/d of water is unaccounted for. Reducing the majority of this would conserve the resource and improve our bottom line.

Added to this challenge of high non-revenue water, Rand Water's infrastructure requires to be urgently refurbished. These demand levels are not abating. The added pressure relates to the continuous postponement of completing Phase 2 of the Lesotho Highlands Water Project. Water supply challenges will continue to be experienced before October 2027 when it is anticipated to be completed.

An analysis shows that these circumstances have over-burdened infrastructure. Rand Water, therefore, finds itself in a situation that time must be allocated to urgently implement this programme. Therefore, Rand Water is urgently re-organising itself, with a capital expenditure

programme; and moderate credit and demand control measures that curb the annual average daily demand at 4262 Ml/day in 2023 and 2024.

As more planned maintenance becomes available, Rand Water's programme will increase significantly per annum. Over the next 5 years, Rand Water will exceed R28 billion. This will ensure that the planned return on investment for the relevant infrastructure is not compromised.

The default by local municipalities on outstanding debt continues to remain an area of concern, currently at 76 days. Rand Water is increasingly concerned with the larger metros failing to honour their debts. Tshwane and Ekurhuleni failed on numerous months to honour their debt obligations. These constitute 21 percent and 17 percent respectively of Rand Water's total revenue. Therefore, their late payments have a significant impact on the financial position of Rand Water.

Rand Water reviews the debt recovery strategy and considers the financial and economic circumstances of customers, and the implications thereof on Rand Water. Debt relief measures have been put in place to assist and support customers. Rand Water tightened debt collection processes and mechanics. Legal collection processes have been invoked against defaulting customers. The support to municipalities through Rand Water Services is anticipated to assist with issues of non-revenue water, revenue collection, and prudent financial resource management to the benefit of the water sector and the economic hub of South Africa.

2 Introduction

For 120 years, Rand Water has supplied bulk potable water to Gauteng and its surrounding areas. Rand Water's success is based on sharing the pioneering spirit that led to the growth of the city of Johannesburg. It is the same spirit that has driven Rand Water's growth in terms of infrastructure and quality. Rand Water has an internationally renowned reputation for supplying water of a quality that ranks among the best in the world. However, by the early 1970s, Rand Water's primary source of water, the Vaal River, had reached available abstraction capacity. The problems of future water supply for industries, commerce and domestic use in the Gauteng area were becoming increasingly serious.

The solution was to transfer water from the catchment area of the Tugela River to that of the Vaal. Since the water transfer over the Drakensberg required the construction of reservoirs, tunnels, and pumps, it opened the way to build a hydroelectric power station which could further exploit the potential of water resources being made available. In 1982 the project was completed, operating as a pumped storage scheme and as a pumping station for water transfer over the Drakensberg from the Tugela to the Vaal. In February 1998, the Lesotho Highlands Water Project (LHWP) began transferring water into the Vaal Dam.

The LHWP in its present form comprises six dams and three pumping stations. The flow of water in the Orange River is diverted through a series of tunnels through the Maluti Mountains, into the Eastern Free State, and then into the Vaal Dam. Rand Water extracts water from the Vaal Dam and purifies and disinfects the water at its Vereeniging and Zuikerbosch Purification and Pumping Stations. The water is then pumped to Zwartkopjes (Rand Water's main booster pumping station) and three satellite booster pumping stations situated at Palmietfontein, Eikenhof and Mapleton. From here, the water is then pumped again to the 58 reservoirs located through Rand Water's area of supply. It is from these reservoirs that water is delivered to Rand Water's customers.

Rand Water is the largest water utility in Africa, providing bulk potable water to a population that has grown to an estimated 14 million in Gauteng, parts of Mpumalanga, the Free State and North West provinces. Its customer base includes metropolitan municipalities, local municipalities, mines, industries, and farmers and a few individual households.

2.1 Rand Water Vision, Mission and Strategic Objectives

The vision of Rand Water, as stated in the Shareholder Compact, is the following: **To be a provider of sustainable, universally competitive water and sanitation solutions for Africa.** The mission of Rand Water is to consistently meet the expectations of our customers, partners and the government by strengthening our capacity to:

- Attract, develop and retain leading edge skills in water services.
- Sustain a robust financial performance.
- Develop and sustain globally competitive capabilities in core areas.
- Enter into and sustain productive partnerships; and
- Develop, test and deploy cost-effective technologies.

In order to attain its strategic intent, Rand Water has set the following strategic objectives, which will focus and direct the business activities of the organisation over the planning period.

- Achieve Operational Integrity and Use Best Fit Technology
- Achieve a High-Performance Culture
- Positively Engage Stakeholder Base
- Achieve Growth
- Maintain Financial Health & Sustainability

Rand Water aligns with the objectives of the Shareholder. Therefore, the Shareholder's objectives are met and cascaded throughout the organisation as shown below.

Table 1. Alignment of Strategic Objectives to DWS Performance Objectives

DWS Performance Objectives	Rand Water Strategic Objectives
Staff levels	*Achieve a High Performance Culture*
Training and Skills Development	
Engagement in secondary activities	*Achieve Growth*
Implementation of Ministerial directives	
Increased access to Services	
Bulk potable water quality compliance	*Achieve Operational Integrity and Use Best Fit Technology*
Capital expenditure programme	
Manage avoidable water losses	
Reliability of supply	
Effective Internal Controls and Risk Management	*Maintain Financial Health & Sustainability*
Financial reporting compliance	
Good Governance	
Improve key financial ratios	
Manage costs within the approved budget	
Achieve a High Performance Culture	*Positively Engage Stakeholder Base*
Achieve statutory reporting compliance	
Bulk supply agreements concluded with municipalities/other customers	
Corporate Social Responsibility Initiatives	
Increase BBBEE expenditure relative to operational projects	
Jobs Created	
Support Rural Development	

Each of the Rand Water strategic objectives are underpinned by specific goals, defined by key activities and targets. These are broadly categorized as follows:

a. Achieve Operational Integrity and Use Best Fit Technology
   - To ensure compliance to all statutory and regulatory requirements
   - To promote safety, health, environment and quality (SHEQ)
   - To increase protection of Rand Water's assets and personnel
   - To ensure continuous supply of water to customers
   - To ensure the quality and reliability of Rand Water assets
   - To effectively co-ordinate Rand Water’s information and communication technology and knowledge management
   - To maintain the quality of water
   - To improve internal processes within the Rand Water Group

b. Achieve a High-Performance Culture
   - To build integrity within the organization

- To build employee morale and satisfaction
- To build internal and external skills and capacity
- To retain staff through an attractive environment
- To transform Rand Water's employee profile to reflect demographics of area of supply.
- To provide required assurance at board level
- To retain Rand Water's institutional knowledge
- To benchmark and be universally competitive through engagements with the international environment

c. Positively Engage Stakeholder Base
   - To promote and implement initiatives that have a socio-economic development impact.
   - To reduce legal risk and thereby minimize the financial and reputational impact on Rand Water
   - To improve awareness of Rand Water and relations with external stakeholders including the international environment
   - To respond appropriately to Rand Water's environment
   - To respond effectively to the needs of stakeholders

d. Achieve Growth
   - To ensure that Rand Water infrastructure meets current and future demand.
   - To promote growth through new areas of supply
   - To promote growth through new product streams

e. Maintain Financial Health & Sustainability
   - To promote prudent financial management
   - To achieve optimal investment portfolio performance
   - To mitigate all financial risk for the Rand Water Group
   - To ensure that assets are fully utilised.
   - To ensure that tariff is determined accurately from Rand Water's environment.

Rand Water is aware of the Interim/Intermediate Water Supply Programme Strategy (IIWSS) and committed to its objectives. Rand Water will align itself to the process and make the relevant resources available in support and implementation thereof, as agreed upon as part of the programme.

Rand Water has also undertaken a comprehensive exercise to further define all Corporate KPIs in a separate document – Corporate KPI Set – Terms and Definitions. This is also being revised in line with the revision by DWS.

3 Policy Statement

Policy statements tend to be static and need not to be reprinted. Rand Water promises to provide policy statements in an event that requires it to. A separate volume will be submitted to DWS to ensure that the department is well informed.

4 Overall Performance

The organization is proud that it continues to meet its mandate of continuous supply of potable water without fail. Rand Water was able to meet its SANS Composite Indicator on the quality of water. In addition, Rand Water was able to supply its 18 municipal customers without a failure exceeding 24 hours.

In addition, the organization remains an engaged corporate citizen that meets its BBBEE targets, corporate social investment targets, and support to local municipalities. On the financial aspect, the net profit margin target was also met; an indication of prudent management that leads to long-term viability and sustainability.

However, there were some challenges. The challenging global and local economic environment, largely brought on by increasing global input prices, have led to more introspection within the organisation. At this crucial moment, Rand Water continues to concentrate on identifying these global risks and finding solutions that will continue to lead to the long-term viability and sustainability of the organisation. The continuing impact of global economic downturn and Covid-19 has affected externally driven KPIs, such as debtor days.

The continuing financial dire straits facing local municipalities has affected Rand Water. An increasing number of municipalities are failing to pay Rand Water on time. In terms of late payments, Rand Water is assisting with customer engagement regarding long outstanding debt as well as regular defaulters for late payments. On a monthly basis, a report of all arrears owed by each municipality together with its ageing is submitted to National Treasury and the Department of Water and Sanitation as per Section 41(2) (b) of the MFMA. In light of this Board Resolution, Rand Water has issued Section 3, (in terms of the Legal Proceedings Against Certain Organs of State Act) letters to all defaulting Municipalities and summonses.

In this environment, Rand Water recognises the importance of compliance to all governance, statutory and regulatory requirements. Rand Water has been affected by legislative changes that have occurred in the procurement environment. These changes have taken time to understand and implement. The affected area relates to some KPIs in the capital expenditure program; that

is capital expenditure as a percentage of target. However, the organisation was able to put concerted effort in attaining another component of the capital expenditure, which relates to the completion of milestones. Rand Water continues to engage with National Treasury on a quarterly basis to identify areas of improvement, new legislation that may impact on Rand Water, and conclude on outstanding issues and submissions to National Treasury.

Table 2. Corporate KPI - 30th June 2022

CORPORATE KEY PERFORMANCE INDICATORS FOR FINANCIAL YEAR ENDING 30TH JUNE 2022									
		Weight					Actual	Result	Weighted Result
No.	Key Performance Indicator	FINAL		Unit	2022 Base	2022 Target		Step	
1	SANS 241 - Composite Indicator	30%	30%	%	98.33%	98.33%	99.33%	100%	30.0%
2	Number of days supply disrupted divided by total number of possible supply days	30%	30%	Days	0	0	0	100%	30.0%
3	Unqualified audit report	20%	20%	%	100%	100%	100%	100%	20.0%
4	% of staff leaving	5%	5%	%	5%	5%	1.41%	100%	5.0%
5	Municipalities contracted to Rand Water (Bulk contracts)	10%	10%	%	100%	100%	100%	100%	10.0%
6	Timeous submission of Shareholder's Compact and Corporate Business Plan	5%	5%	%	100%	100%	100%	100%	5.0%
		100.0%	100.0%						100%
1	Avoidable water lost as a percentage of water produced	3.0%	3.1%	%	5.5%	5.0%	4.72%	150%	4.6%
2	Board Member Attendance of all Board / Committee Meetings	1.0%	1.0%	%	75.0%	80.0%	91.42%	150%	1.5%
3	Resolutions Taken by the Board as a Percentage of Resolutions Required	2.0%	2.1%	%	85.0%	95.0%	100.0%	150%	3.1%
4	Number of All Repeat and Unresolved Audit Findings (Internal, ISO, SANS, SABS)	3.0%	3.1%	Number	0	0	0	100%	3.1%
5	Gross profit margin (Primary Activity)	4.0%	4.1%	%	31.0%	32.1%	30.1%	0%	0.0%
6	Gross profit margin (Secondary activity)	3.0%	3.1%	%	2.5%	5.0%	6.4%	150%	4.6%
7	Net profit margin (Primary Activity)	5.0%	5.2%	%	19.0%	19.9%	21.6%	150%	7.7%
8	Net profit margin (Secondary activity)	4.0%	4.1%	%	0.0%	1.0%	12.1%	150%	6.2%
9	Current Ratio	4.0%	4.1%	Ratio	2.50	3.14	3.51	150%	6.2%
10	Debt equity	3.0%	3.1%	Ratio	0.10	0.36	0.14	150%	4.6%
11	Return on assets	2.0%	2.1%	%	7.0%	8.5%	8.4%	93%	1.9%
12	Debtor Days	3.0%	3.1%	Days	75	70	77	0%	0.0%
13	BBBEE Spend as a % of Total Expenditure	2.0%	2.1%	%	80.0%	85.0%	117.9%	150%	3.1%
14	Award of work to BBBEE Compliant Entities through Tender Systems	2.0%	2.1%	%	80.0%	85.0%	100.0%	150%	3.1%
15	% Variance from Budgeted Expenditure	3.0%	3.1%	%	30.0%	15.0%	-0.5%	150%	4.6%
16	Capital Expenditure (as a % of budget)	5.0%	5.2%	%	92.5%	95.0%	78.2%	0%	0.0%
17	% Completion of Projects (Achievement of Milestones on Priority 1 and 2 Projects)	5.0%	5.2%	%	92.5%	95.0%	127.0%	150%	7.7%
18	Repairs and maintenance expenditure as a % of budget	3.0%	3.1%	%	92.5%	95.0%	115.8%	150%	4.6%
19	Actual CAPEX on growth projects as % of budget			%	10.0%	15.0%			
20	Year on year growth in secondary (other) activities	7.0%	7.2%	%	-30.0%	-14.2%	-62.3%	0%	0.0%
21	Staff remuneration as % of total operating expenditure	3.0%	3.1%	%	24%	15%	18.3%	150%	4.6%
22	Permanent and Contract (direct) Jobs Created	2.0%	2.1%	Number	56	80	278	150%	3.1%
23	Temporary (Indirect) Jobs Created - from RWF and RW Contractors	2.0%	2.1%	Number	2720	3200	3271	105%	2.2%
24	Percentage Spent on Corporate Social Investment	2.0%	2.1%	%	92.5%	95.0%	100.0%	150%	3.1%
25	Number Trained by Rand Water (Learnerships)	2.0%	2.1%	Number	60	65	92	150%	3.1%
26	Number trained by Rand Water (Bursaries)	1.0%	1.0%	Number	11	20	22	123%	1.3%
27	Number trained by Rand Water (Graduate Programmes)	2.0%	2.1%	Number	88	105	132	150%	3.1%
28	Number of Breaches of Materiality and Significance Framework	2.0%	2.1%	Number	0	0	0	100%	2.1%
29	Total Number of Identified Municipalities Supported by Rand Water	4.0%	4.1%	Number	1	2	3	150%	6.2%
30	Female Recruited in Management and Technical Positions (External and Internal (M-Q))	3.0%	3.1%	%	48.0%	51.0%	69.84%	150%	4.6%
31	Employee Engagement Survey	3.0%	3.1%	%	68.0%	72.0%	68%	0%	0.0%
32	Customer Satisfaction Survey	3.0%	3.1%	%	80.0%	82.5%	85.1%	150%	4.6%
33	Progress Made on New Ministerial Directives (as a % of Implementation Plan)	4.0%	4.1%	%	85.0%	95.0%	100.0%	150%	6.2%
	Organisational Performance	97.0%	100.0%						111.03%

4.1 Performance information explanations

Explanatory notes to the performance information:

1. Bulk potable water quality compliance

The set target was achieved as Rand Water complied with the SANS 241 – Composite Indicator as a result of Rand Water's commitment to maintaining world-class operations.

2. Manage avoidable water losses.

The set target was achieved as Rand Water undertook comprehensive monitoring of the network; timeous detection; and resolution of leaks.

3. Number of days supply interrupted as a percentage of possible supply days.

During the year under review, Rand Water had to undertake critical planned maintenance as the entity executed its comprehensive capital expenditure programme. However, the entity maintained its proud record of supplying local municipalities without interruptions.

4. Actual CAPEX spends on expansion-related projects as a percentage of budget.

Rand Water recognises the need for water and sanitation services beyond its current mandate. The projects that Rand Water intended to implement require approval by the Department. This indicator measures the actual capital expenditure on growth related projects as a percentage of budgeted expenditure. To avoid confusion, the term 'expansion' has been replaced with 'growth'. Growth relates to secondary and other activities outside of provision of bulk potable water. For the year under review, Rand Water has yet to allocate any capital expenditure to expansion projects. Rand Water's experience is that growth projects can be directed by the Minister can be ad hoc and /or can arise during the year. The target is currently 15% of budgeted capital expenditure for that project that will arise during the year.

5. Annual external audit

This is outstanding, awaiting the audit opinion of the AGSA.

6. Improve Financial Ratios

a. Current Ratio

The set target was not achieved. This is attributable to a reduction in net cash from operations.

b. Gross income margin % (primary activity)

The set target was not achieved. The increased abstraction volumes in line with higher demand have contributed significantly to the increased cost of raw water purchases, energy, and chemicals.

c. Gross income margin (secondary activity)

The target was met due to projects being executed within budgeted costs and did not erode the set margin.

d. Net income margin (primary activity)

The net profit margin (primary activity) target was achieved. This is attributable to the reversals of prior Expected Credit Loss as customers begin to make payment on prior defaults and the higher finance income as a result of interest rate hikes of 100bps in the current financial year.

e. Net income margin (secondary activity)

The set target was met due to the very high net income. This arose due to a reversal of the Expected Credit Loss (ECL) following the recovery of long outstanding debt on the War on Leaks and the Sedibeng Regional Scheme projects.

f. Debt equity

The set target was met. The increase in equity from net profit also contributing positively to financial gearing.

g. Return on Assets

The set target was missed by a marginal variance of -0.1%. The target was not achieved as a result of significant increases in the cost of raw water including the treatment regime coupled with 11.28% increase per kWh in the cost of energy.

h. Debtor days

The set target was missed. COVID-19 continues to impact municipal revenues and their ability to pay for services. Increase in debtor days is mainly caused by customers who did not honour their overdue accounts.

i. Repairs and maintenance expenditure as a percentage of budget

The set target was achieved. Critical work has been accelerated, which had been halted during the various COVID-19 lockdown periods.

j. Staff remuneration as % of total operating expenditure

The set target was achieved. Staff remuneration remains within set parameters. Staff remuneration remains market related. This KPI is particularly useful in benchmarking with other water boards and State-Owned Entities.

7. B-BBEE expenditure and awards

a. Spend increased and increased new entrants awarded contracts in the financial year. Rand Water exceeded its target in line with continuing efforts in these difficult circumstances.

b. Awarding of work to B-BBEE compliant entities through the tender systems. The target was exceeded due to close monitoring, demonstrating the organisation's extensive effort over an extended period.

8. Actual expenditure compared with budgeted expenditure.

The target variance was achieved due to close monitoring and measures to contain costs within budget.

9. Capital expenditure programme.

a. Overall project expenditure within R target

The set target was not achieved. Owing to the critical changes in the regulatory environment as a result of no new awards of contracts made for capital projects for the period under review.

b. Overall project completion dates within targets

The set target was achieved with the completion of 19 projects against a target of 15 projects for the year.

10. Year-on-year growth in secondary (other) activities

The target for year-on-year growth in secondary(other) activities was not achieved as a result of the late approval of the budget for some projects, and the withdrawal of important projects by stakeholders due to budgetary constraints.

11. Municipalities/Other Customers with bulk supply agreements

Rand Water continues to achieve the set target as the organisation has long-standing contracts with customers.

12. New Ministerial directives issued are implemented on time, progress against implementation plan.

On 5th March 2021, and revised on 6th July 2021, Rand Water received a directive to be the implementing agent for the Vaal Intervention in terms of Section 63 of the Water Services Act at Emfuleni Local Municipality. Rand Water met agreed upon targets with DWS for the financial year.

13. Total Number of identified Municipalities supported with signed contracts, MoUs, etc.

This is an activity in support of the shareholder objectives of supporting rural based municipalities. DWS is interested in the ability of water boards to provide support in the provision of water and sanitation services through contracts, MoUs, etc. This KPI measures the number of agreements that Rand Water has entered into with local municipalities. Each agreement has specific

deliverables and timelines, which determine the attainment of the agreement. Rand Water met the set target.

14. All statutory reports submitted on time.
Rand Water met the target for submitting all statutory reports to all relevant stakeholders.

15. Staff turnover
Rand Water exceeded its set target as the organisation continues in its efforts of cementing a high-performance culture.

16. Skills and capacity building
Rand Water is required to develop and train employees annually through training planned in the workforce skills plan. All the training targets (learnerships, graduate programmes and bursaries) were attained.

17. Jobs Created

a. Total number of permanent and contract (direct)
   Rand Water exceeded its set target.

b. Total number of Temporary (indirect)
   Rand Water exceeded its set target due to the extensive work undertaken by the Rand Water Foundation with communities.

18. Board Effectiveness

a. Board Member attendance of all Board/committee meetings
   Board member attendance of Board and Board subcommittee meetings exceeded the set target.

b. Decision making: % number resolutions taken by the Board vs number of resolutions required.
   This measures the number of resolutions that are passed/taken by Board as a percentage of the total number of resolutions. The set target was met.

19. Number of repeat internal audit findings.
There were no new repeat findings identified during the financial year under review.

20. Breaches of materiality and significance framework
There were no breaches of materiality reported.

21. Percentage spent on Corporate Social Investment
Projects were executed as planned leading to the attainment of the set target.

22. Females recruited in management and technical positions (External and Internal M-Q)
Rand Water exceeded its set target, demonstrating the organization's commitment to employment equity.

23. Employee Engagement Survey
This KPI is measured every two years to allow the organization to implement remedial and corrective actions in the year the survey is not undertaken. In the year under review, Rand Water did not attain the set target.

24. Customer Satisfaction Survey
Rand Water continues to enjoy a satisfactory environment with its customers exceeding its set target.

5 Governance Structures

5.1 Board of Directors (New Members Effective – 21st September 2022)

Mr. Ramateu Monyokolo (58)
Non-Executive Member (Chairperson of the Board)

Mr. Monyokolo was first appointed to the Board of Rand Water on 17 February 2016 and reappointed for his second term on 20 September 2018. He is currently serving his third consecutive term on the Board of Rand Water, having been reappointed on 21 September 2022.

Mr. Monyokolo holds the following qualifications:
• Master in Business Administration (MBA)
• Executive Development Programme (EDP)
• Management Advanced Programme (MAP)
• Certificates in:
» Enhanced Coaching Practice Facilitating Sustainable Learning and Change
» Community Leadership Development Programme
» Managing Telecommunications Environment, Policy and Regulation
» Telecommunication Proficiency
» Business Risk Management

» Effective Director Programme
» Multi-Party Negotiations
» Conciliation, Mediation and Arbitration and Industrial Relations

A naturally driven management professional with over thirty years' experience in both operational and strategic leadership in public civil society, and private sector. Mr. Monyokolo currently serves as Non-Executive Board Member at Gauteng Gambling Board, Chairperson at Gaming and Responsible Gambling Committee, and Chairperson at Africa Beyond Fourth Industrial Revolution.

He is the Executive Director of ReRa & Associates Proprietary Limited, a management consulting business involved in business process optimisation to achieve organisational efficiency, effectiveness, and competitiveness. His experience includes, amongst other things, Business Process Optimisation, Executive Coaching and Mentoring, Change Management, Project Management, Industrial Relations, Stakeholder Management, Multiparty Negotiations, Risk Management, Marketing, Retail Management and Community Development. He was appointed as an Eminent Person Group (EPG) member to oversee the drafting of the White Paper and the Telecommunications Act of 1996. He has initiated, managed, and participated in strategic impact projects including the Municipal Infrastructure Performance Management Information System (MIPMIS), the Intelligent Number Plate and New Number Plate Combination System, Telecentres, Early Warning System for Service Delivery Unrests, and Driver License Testing Centres Data Cleanup for audit compliance. He has been part of and led B-BBEE consortiums and raised capital to acquire shares in both the private and public sector organisations.

Ms. Malande Tonjeni (44)
Non-Executive Member (Deputy Chairperson)

Ms. Tonjeni holds the following qualifications:

• CA (SA)
• Certified Director (IOD SA)
• Retirement Fund Trustee Qualification (BATSETA)

Ms. Tonjeni is a qualified Chartered Accountant, Certified Director and Professional Retirement Fund Trustee. She is a seasoned Finance. Executive and General Manager in mining, engineering, advisory services, auditing and financial services industries. She currently works as an independent director on private and public entities, as well as an independent trustee on pension funds and employee share trusts.

Mr. Anthony Nala Mhlongo (56)

Mr. Mhlongo holds the following qualifications:

- Bachelor of Commerce
- Bachelor of Commerce (Hons)
- Chartered Management Accountant: ACMA
- Chartered Global Management Accountant: CGMA
- Chartered Accountant: CA(SA)
- Advanced Taxation Certificate: ATC

Mr. Mhlongo has approximately 30 years' cumulative work experience which ranges from Financial Management, Accountancy, Enterprise-Wide Risk Management, Auditing, Business Process Re-Engineering (BPR), Corporate Taxation, Treasury Management, Project and Corporate Finance, Assets Management, Entrepreneurship, Management of Shared Services Centres, Property Development General Management, Farming, Human Capital, Systems implementations/ Conversions, Development of Business Cases, Strategy Development and Corporate Governance.

Mr. Solomon Mngomezulu (56)

Non-Executive Member

Mr. Mngomezulu holds the following qualifications:

- Bachelor of Arts in Law
- Bachelor of Laws (LLB)
- Master of Business Administration (MBA)
- Post graduate diploma in Company Direction and Alternative Dispute resolution

Mr. Mngomezulu is an admitted Attorney of the High Court of South Africa. He has over 20 years' experience in the legal, governance, risk and compliance environment, having served as Company Secretary, Legal Counsel, Professional Corporate Governance Advisor and a Director.

He specialised in commercial legal work, with focus in corporate law, Public Finance Management Act, Contract law, Pension Fund and Labour law as well as King Reports. He has worked for organisation such as Bargaining Council for Laundry Dry Cleaning and Dyeing trade, Education Labour Relations Council, Natref, Sasol Limited and ATNS. He has consulted in institutions such as Bargaining Council for Logistic and Freight Industries, Department of Public Enterprise

(Presidential State-Owned Council) and Joburg Property Company. He has been extensively involved in community work through various structures including Sowiso Foundation as a Non-Executive Director and Programme Co-ordinat**or.**

Mr. Gcinumzi Qotywa (46)
Non-Executive Member
Mr. Qotywa holds the following qualifications:

- Master in Business Administration (MBA)
- Master of Arts in Environment & Society
- Bachelor of Arts (Hons) in Environmental Studies
- Bachelor of Arts (Education)
- Programme for Leadership Development (PLD)

Mr. Qotywa is a Personal Development Leadership Coach and Chief Executive Officer of Nondzaba Consulting (Pty) Ltd focusing on Leadership and Strategy. He currently serves in the boards/ councils of the following entities: Joe Gqabi Economic Development Agency (JOGEDA) SOC Ltd, King Sabata Dalindyebo TVET College, and Eastern Cape Rural Development Agency (ECRDA).

Dr. Nomusa Zethu Qunta (53)

Non-Executive Member
Dr. Qunta holds the following qualifications:

- Bachelor in Administration
- Bachelor of Commerce (Hons)
- Master in Commerce (Economics)
- Master in Business Administration
- PHD in Governance

Dr. Qunta currently serve as non-executive director for National Nuclear Regulator in South Africa and serve as chairperson of the Human Resources and Remuneration Committee. She also serves as Deputy chairperson of Ingonyama Trust Board, and chairperson of the Human Resources and IT Committee, Non-executive director of Durban International Convention Centre, and chairperson of the Nominations and Ethics Committee, and Non-executive director of Ezemvelo KZN Wildlife Board and chairperson of the Human Resources and Remuneration Committee.

Mr. Luvuyo Ntoyi (Pr. CPM) (43)
Non-Executive Member

Mr. Ntoyi holds the following qualifications:
• National Diploma in Civil Engineering
• Bachelor's Degree Technology (B-Tech) in Civil Engineering
• Master in Business Administration (MBA)
• Certificate in Municipal Finance Management Programme (MFMP)
• National Diploma in Public Finance Management and Administration
• National Certificate in Local Economic Development

Mr. Ntoyi was a Chairperson of Universitas Academic Hospital from April 2020 – May 2022. He has been reappointed as the Chairperson of Universitas Academic Hospital for the second successive term from 1 September 2022 – December 2025. He is also a member of the Board in Bloem Water and currently serving as a Chairperson of Capital Project and Fixed Assets Committee. He is registered as a member of Institute of Directors in Southern Africa (IDOSA). He is currently an Executive Director in LXN Group of Companies and specialises in Engineering Services, Property Development and Construction Management Services

Ms. Zanele Monnakgotla (51)
Non-Executive Member

Ms. Monnakgotla holds the following qualifications:

• Bachelor of Commerce LLB
• Master in Laws LLM (Tax)
• Master in Finance

Ms. Monnakgotla currently serve as a non-executive director for Philafrica Foods Ltd – Social and Ethics Committee; Ecobank Transnational Incorporated - IT Social and Reputation Committee; Sasol South Africa Limited – Governance Committee; Sasol Khanyisa Group and Public – Social And Ethics Committee.

Ms. Clarinda Elizabeth Simpson (48)

Non-Executive Member

Ms. Simpson holds the following qualifications:

• Bachelor of Accounting Science
• Bachelor of Accounting Science (Hons)
• Post Graduate Diploma in Auditing
• Certificate Theory Accounting – CTA

Ms. Simpson is a qualified CA(SA) registered with the South African Institute of Chartered Accountants. She possesses extensive experience in financial management and auditing spanning a period of 21 years with at least 16 years at executive level having commenced as Senior Audit Manager at the AGSA before being appointed Head of Finance at FSB and progressing to occupy the CFO position at ICASA, interim CFO at the Media Development and Diversity Agency, CFO of the Export Credit Insurance Corporation of SA SOC LTD, acting CFO of NEDLAC, SAFCOL interim CFO, and CFO of the South African Diamond and Precious Metals Regulator (SADPMR).

Mr. Simphiwe Nicholas Khondlo (55)

Non-Executive Member

Mr. Khondlo holds the following qualifications:

• Master in Engineering Management
• Bachelor of Science in Agricultural Engineering
• National Diploma in Civil Engineering.

Mr. Khondlo served as a non-executive director for about two decades in a number of entities like Johannesburg Water, Mvula Trust, Border Cricket, and Aspire. He also served as a deputy chairman of the council of Walter Sisulu University. He is currently part of the outgoing board of TCTA, where he served for many years in many capacities including chairing the board. He was admitted as a Chartered Director (SA) by the CD(SA) Governing Body and Institute of Directors in Southern Africa in October 2018.

Ms. Boitumelo Gwendolyn Mahuma-Madida (50)
Non-Executive Member

Ms. Mahuma-Madida holds the following qualifications:

• Bachelor of Commerce
• Bachelor of Commerce (Hons)
• Executive Development Program

Ms. Mahuma-Madida has been involved with private companies since 2004 to date, where she gained ample experience in the fields of strategy formulation and business development for the various companies involved in, be in regard to manufacturing, business development or board participation specifically in the infrastructure space.

She was a major player in the ready-mix business space, making her the one of the first women involved in the supply of ready-mix concrete. She is a founder and shareholder of the largest women owned steel merchant in SA a business which led her and her partner being named amongst the Leading Women Owned businesses at the Premier Business Awards in 2018 (sponsored by the Department of Trade and Industry).

Ms. Lethabo Mashamaite (46)
Non-Executive Member

Ms. Mashamaite holds the following qualifications:
• Master in Business Administration, Marketing and Finance
• Bachelor of Technology Degree in Marketing
• National Diploma Marketing
• Certificate in Project Management

Ms. Mashamaite has 13 years board experience, serving as Non-Executive Director, Chairperson of Remuneration/ Corporate Support, Chairperson of Social and Ethics Committee, and Member of Audit, Risk and IT Committees. She has served in both public and private sector entities; on the board of Joshco for 3 years and the JRA for 6 years whereby she was part of the team that lead the development of company turnaround strategy and achieved clean audits between 2012 and 2018. She is currently on the board of Thales South Africa Systems, as NED and Chairperson for Social and Ethics committee.

Mr. Sipho Mosai (50)

Executive Member (Chief Executive)

Mr. Mosai holds the following qualifications:

- Bachelor of Science (Microbiology and Biochemistry)
- Bachelor of Science (Hons) (Microbiology)
- Master of Science (Microbiology)
- Master of Business Administration (MBA)

Mr. Mosai is the current Chief Executive of Rand Water. He served at the Board of the Construction Industry Development Board (CIDB) where he Chaired the Human Resources subcommittee of the board in his first term and the Chairperson of the Audit and Risk Committee in his second term. He currently serves at the Board of Rand Water Foundation (RWF) and Rand Water Services.

5.2 Board Member Attendance

Table 3. Board Meetings – Quarter 1 – July 2022 – September 2022

The overall Board member attendance stood for the quarter was 94.44%.

ATTENDANCE AT BOARD, SUB-COMMITTEE MEETINGS
(01 July - 30 September 2022)

BOARD

Month		Ordinary Meeting July 2022	Ordinary Meeting August 2022	Ordinary Meeting September 2022	Special Meeting	Total Meetings	Total Attended	%
Surname/Date	Ini	28/07/2022	30/08/2022	No meetings	No meetings	No meetings		
Hashatse	MF	1	1	0	0	2	2	100,0
Mbonambi	MK	1	1	0	0	2	2	100,0
Makibinyane	LL	1	1	0	0	2	2	100,0
Mbileni	NGJ	1	1	0	0	2	2	100,0
Molokoane-Machika	SF	1	1	0	0	2	2	100,0
Maziya	SN	1	1	0	0	2	2	100,0
Phili	PT	1	1	0	0	2	2	100,0
Pandor	AM	1	1	0	0	2	2	100,0
Mosai	SA	1	1	0	0	2	2	100,0
Ntsaba	MM	1	1	0	0	2	2	100,0
Mbanjwa	SP	1	1	0	0	2	2	100,0
Kabi	MM	1	1	0	0	2	2	100,0
Monyokolo	RJ	1	1	0	0	2	2	100,0
Percentage attained						26	26	100,0

CAPITAL INVESTMENT COMMITTEE

Month		Ordinary Meeting July 2022	Ordinary Meeting August 2022	Ordinary Meeting September 2022	Special Meeting	Total Meetings	Total Attended	%
Surname/Date	Ini	07/07/2022	No meetings	No meetings	No meetings			
Makibinyane	LL	1	0	0	0	1	1	100,0
Phili	PT	0	0	0	0	1	0	0,0
Molokoane-Machika	SF	1	0	0	0	1	1	100,0
Maziya	SN	1	0	0	0	1	1	100,0
Ntsaba	MM	1	0	0	0	1	1	100,0
Mbanjwa	SP	1	0	0	0	1	1	100,0
Percentage attained						6	5	83,3

AUDIT COMMITTEE

Month		Ordinary Meeting July 2022	Ordinary Meeting August 2022	Ordinary Meeting September 2022	Special Meeting	Total Meetings	Total Attended	%
Surname/Date	Ini	21/07/2022	16/08/2022	No meetings	No meetings			
Kabi	MM	1	1	0	0	2	2	100,0
Makibinyane	LL	1	1	0	0	2	2	100,0
Pandor	AM	1	1	0	0	2	2	100,0
Mbileni	NGJ	1	1	0	0	2	2	100,0
Mafuleka	A	1	1	0	0	2	2	100,0
Monnakgotla	Z	1	1	0	0	2	2	100,0
Percentage attained						12	12	100,0

HUMAN RESOURCES AND REMUNERATION COMMITTEE

Month		Ordinary Meeting July 2022	Ordinary Meeting August 2022	Ordinary Meeting September 2022	Special Meeting	Total Meetings	Total Attended	%
Surname/Date	Ini	19/07/2022	No meetings	No meetings	No meetings			
Mbonambi	MK	1	0	0	0	1	1	100,0
Mbanjwa	SP	1	0	0	0	1	1	100,0
Pandor	AM	1	0	0	0	1	1	100,0
Mbileni	NGJ	1	0	0	0	1	1	100,0
Mr Monyokolo	RJ	1	0	0	0	1	1	100,0
Percentage attained						5	5	100,0

RISK COMMITTEE

Month		Ordinary Meeting July 2022	Ordinary Meeting August 2022	Ordinary Meeting September 2022	Special Meeting	Total Meetings	Total Attended	%
Surname/Date	Ini	22/07/2022	No meetings	No meetings	No meetings			
Molokoane-Machika	SF	1	0	0	0	1	1	100,0
Ntsaba	MM	1	0	0	0	1	1	100,0
Pandor	AM	1	0	0	0	1	1	100,0
Mr Monyokolo	RJ	1	0	0	0	1	1	100,0
Kabi	MM	1	0	0	0	1	1	100,0
Mosai	SA	0	0	0	0	1	0	0,0
Percentage attained						6	5	83,3

TREASURY COMMITTEE

Month		Ordinary Meeting July 2022	Ordinary Meeting August 2022	Ordinary Meeting September 2022	Special Meeting	Total Meetings	Total Attended	%
Surname/Date	Ini	25/07/2022	No meetings	No meetings	No meetings			
Phili	PT	1	0	0	0	1	1	100,0
Makibinyane	LL	1	0	0	0	1	1	100,0
Kabi	MM	1	0	0	0	1	1	100,0
Maziya	SN	1	0	0	0	1	1	100,0
Mbonambi	MK	1	0	0	0	1	1	100,0
Percentage attained						5	5	100,0

NOMINATION COMMITTEE

Month		Ordinary Meeting July 2022	Ordinary Meeting August 2022	Ordinary Meeting September 2022	Special Meeting	Total Meetings	Total Attended	%
Surname/Date	Ini	No meetings	No meetings	No meetings	No meetings			
Hashatse	MF	0	0	0	0	0	0	0,0
Mbonambi	MK	0	0	0	0	0	0	0,0
Mr Monyokolo	RJ	0	0	0	0	0	0	0,0
Mosai	SA	0	0	0	0	0	0	0,0
Percentage attained						0	0	0,0

Table 4. Board Meetings – Quarter 2 – October 2022 – December 2022

The overall Board member attendance stood for the quarter was 98.97%.

ATTENDANCE AT BOARD, SUB-COMMITTEE MEETINGS 01 October 2022 - 31 December 2022)								
BOARD								
Month		Ordinary Meeting October 2022	Ordinary Meeting November 2022	Ordinary Meeting December 2022	Special Meeting	Total Meetings	Total Attended	%
Surname/Date	Ini	28/10/2022	No meetings	14/12/2022	6/10/2022	No meetings		
Mr. Monyokolo	R	1	0	1	1	3	3	100.0
Ms. Tonjeni	M	1	0	1	1	3	3	100.0
Dr.Qunta	N	1	0	1	1	3	3	100.0
Mr. Khondlo	S	1	0	1	1	3	3	100.0
Ms. Mahuma-Madida	G	1	0	1	0	3	2	66.7
Ms. Mashamaite	L	1	0	1	1	3	3	100.0
Mr. Mhlongo	A	1	0	1	1	3	3	100.0
Mr. Mngomezulu	S	1	0	1	1	3	3	100.0
Ms. Monnakgotla	Z	1	0	1	1	3	3	100.0
Mr. Ntoyi	L	1	0	1	1	3	3	100.0
Ms. Simpson	C	1	0	1	0	3	2	66.7
Mr. Qotywa	G	1	0	1	1	3	3	100.0
Mr. Mosai	S	1	0	1	1	3	3	100.0
Percentage attained						39	37	94.9
TREASURY AND CAPITAL INVESTMTREASURY AND CAPITAL INVESTMENTS COMMITTEE (TCIC)								
Month		Ordinary Meeting October 2022	Ordinary Meeting November 2022	Ordinary Meeting December 2022	Special Meeting	Total Meetings	Total Attended	%
Surname/Date	Ini	No meetings	No meetings	8/12/2022	No meetings			
Mr. Khondlo	S	0	0	1	0	1	1	100.0
Ms. Simpson	C	0	0	1	0	1	1	100.0
Dr.Qunta	N	0	0	1	0	1	1	100.0
Mr. Ntoyi	L	0	0	1	0	1	1	100.0
Mr. Qotywa	Q	0	0	1	0	1	1	100.0
Mr. Mhlongo	A	0	0	1	0	1	1	100.0
Percentage attained						6	6	100.0
HUMAN RESOURCES AND REMUNERATION COMMITTEE (HR&REMCO)								
Month		Ordinary Meeting October 2022	Ordinary Meeting November 2022	Ordinary Meeting December 2022	Special Meeting	Total Meetings	Total Attended	%
Surname/Date	Ini	No meetings	11/11/2022	9/12/2022	No meetings			
Ms. Mahuma-Madida	G	0	1	1	0	2	2	100.0
Ms. Mashamaite	L	0	1	1	0	2	2	100.0
Mr. Ntoyi	L	0	1	1	0	2	2	100.0
Mr. Qotywa	G	0	1	1	0	2	2	100.0
Mr. Khondlo	S	0	1	1	0	2	2	100.0
Mr. Mngomezulu	S	0	1	1	0	2	2	100.0
Percentage attained						12	12	100.0

GROUP AUDIT AND RISK COMMITTEE (GARC)								
Month		Ordinary Meeting October 2022	Ordinary Meeting November 2022	Ordinary Meeting December 2022	Special Meeting	Total Meetings	Total Attended	%
Surname/Date	Ini	25/10/2022	29/11/2022	No meetings	No meetings			
Ms. Monnakgotla	Z	1	1	0	0	2	2	100.0
Ms. Tonjeni	M	1	1	0	0	2	2	100.0
Ms. Mahuma-Madida	G	1	1	0	0	2	2	100.0
Mr. Ntoyi	L	1	1	0	0	2	2	100.0
Mr. Qotywa	G	1	1	0	0	2	2	100.0
Mr. Mhlongo	A	1	1	0	0	2	2	100.0
Percentage attained						12	12	100.0
SOCIAL AND ETHICS COMMITTEE (SET)								
Month		Ordinary Meeting October 2022	Ordinary Meeting November 2022	Ordinary Meeting December 2022	Special Meeting	Total Meetings	Total Attended	%
Surname/Date	Ini	No meetings	9/11/2022	No meetings	No meetings			
Ms. Tonjeni	M	0	1	0	0	1	1	100.0
Dr. Qunta	N	0	1	0	0	1	1	100.0
Ms. Simpson	C	0	1	0	0	1	1	100.0
Ms. Mashamaite	L	0	1	0	0	1	1	100.0
Mr. Mngomezulu	S	0	1	0	0	1	1	100.0
Mr. Khondlo	S	0	1	0	0	1	1	100.0
Percentage attained						6	6	100.0
NOMINATION COMMITTEE								
Month		Ordinary Meeting October 2022	Ordinary Meeting November 2022	Ordinary Meeting December 2022	Special Meeting	Total Meetings	Total Attended	%
Surname/Date	Ini	No meetings	No meetings	No meetings	No meetings			
Mr. Monyokolo	R	0	0	0	0	0	0	0.0
Mr. Mosai	S	0	0	0	0	0	0	0.0
Ms. Tonjeni	M	0	0	0	0	0	0	0.0
Ms. Monnakgotla	Z	0	0	0	0	0	0	0.0
Percentage attained						0	0	0.0

Table 5. Board Meetings – Quarter 3 – January 2023 – March 2023

The overall Board member attendance stood for the quarter was 96.15%.

ATTENDANCE AT BOARD, SUB-COMMITTEE MEETINGS (01 January 2023 - 31 March 2023)									
BOARD									
Month		**Ordinary Meeting January 2023**	**Ordinary Meeting January 2023**	**Ordinary Meeting February 2023**	**Ordinary Meeting March 2023**	**Special Meeting**	**Total Meetings**	**Total Attended**	**%**
Surname/Date	**Ini**	**23/01/2023**	**31/01/2023**	**No meetings**	**24/03/2023**	**No meetings**	**No meetings**		
Mr. Monyokolo	R	1	1	0	1	0	3	3	100.0
Ms. Tonjeni	M	1	1	0	1	0	3	3	100.0
Dr.Qunta	N	1	1	0	1	0	3	3	100.0
Mr. Khondlo	S	1	1	0	1	0	3	3	100.0
Ms. Mahuma-Madida	G	0	1	0	1	0	3	2	66.7
Ms. Mashamaite	L	1	1	0	1	0	3	3	100.0
Mr. Mhlongo	A	1	1	0	1	0	3	3	100.0
Mr. Mngomezulu	S	1	1	0	1	0	3	3	100.0
Ms. Monnakgotla	Z	1	1	0	1	0	3	3	100.0
Mr. Ntoyi	L	1	1	0	1	0	3	3	100.0
Ms. Simpson	C	1	1	0	1	0	3	3	100.0
Mr. Qotywa	G	1	1	0	1	0	3	3	100.0
Mr. Mosai	S	1	1	0	1	0	3	3	100.0
Percentage attained							**39**	**38**	**97.4**
TREASURY AND CAPITAL INVESTMTREASURY AND CAPITAL INVESTMENTS COMMITTEE (TCIC)									
Month		**Ordinary Meeting January 2023**	**Ordinary Meeting February 2023**	**Ordinary Meeting March 2023**	**Special Meeting**	**Special Meeting**	**Total Meetings**	**Total Attended**	**%**
Surname/Date	**Ini**	**No meetings**	**21/02/2023**	**No meetings**	**No meetings**	**No meetings**			
Mr. Khondlo	S	0	1	0	0	0	1	1	100.0
Ms. Simpson	C	0	1	0	0	0	1	1	100.0
Dr.Qunta	N	0	1	0	0	0	1	1	100.0
Mr. Ntoyi	L	0	1	0	0	0	1	1	100.0
Mr. Qotywa	Q	0	1	0	0	0	1	1	100.0
Mr. Mhlongo	A	0	1	0	0	0	1	1	100.0
Percentage attained							**6**	**6**	**100.0**
HUMAN RESOURCES AND REMUNERATION COMMITTEE (HR&REMCO)									
Month		**Ordinary Meeting January 2023**	**Ordinary Meeting February 2023**	**Ordinary Meeting March 2023**	**Special Meeting**	**Special Meeting**	**Total Meetings**	**Total Attended**	**%**
Surname/Date	**Ini**	**No meetings**	**22/02/2023**	**No meetings**	**No meetings**	**No meetings**			
Ms. Mahuma-Madida	G	0	1	0	0	0	1	1	100.0
Ms. Mashamaite	L	0	1	0	0	0	1	1	100.0
Mr. Ntoyi	L	0	1	0	0	0	1	1	100.0
Mr. Qotywa	G	0	1	0	0	0	1	1	100.0
Mr. Khondlo	S	0	1	0	0	0	1	1	100.0
Mr. Mngomezulu	S	0	1	0	0	0	1	1	100.0
Percentage attained							**6**	**6**	**100.0**

GROUP AUDIT AND RISK COMMITTEE (GARC)									
Month		**Ordinary Meeting January 2023**	**Ordinary Meeting February 2023**	**Ordinary Meeting March 2023**	**Special Meeting**	**Special Meeting**	**Total Meetings**	**Total Attended**	**%**
Surname/Date	**Ini**	**27/01/2023**	**No meetings**	**17/03/2023**	**No meetings**	**No meetings**			
Ms. Monnakgotla	Z	1	0	1	0	0	2	2	100.0
Ms. Tonjeni	M	1	0	1	0	0	2	2	100.0
Ms. Mahuma-Madida	G	1	0	1	0	0	2	2	100.0
Mr. Ntoyi	L	1	0	0	0	0	2	1	50.0
Mr. Qotywa	G	1	0	1	0	0	2	2	100.0
Mr. Mhlongo	A	1	0	0	0	0	2	1	50.0
Percentage attained							**12**	**10**	**83.3**
SOCIAL AND ETHICS COMMITTEE (SET)									
Month		**Ordinary Meeting January 2023**	**Ordinary Meeting February 2023**	**Ordinary Meeting March 2023**	**Special Meeting**	**Special Meeting**	**Total Meetings**	**Total Attended**	**%**
Surname/Date	**Ini**	**No meetings**	**23/02/2023**	**No meetings**	**No meetings**	**No meetings**			
Ms. Tonjeni	M	0	1	0	0	0	1	1	100.0
Dr. Qunta	N	0	1	0	0	0	1	1	100.0
Ms. Simpson	C	0	1	0	0	0	1	1	100.0
Ms. Mashamaite	L	0	1	0	0	0	1	1	100.0
Mr. Mngomezulu	S	0	1	0	0	0	1	1	100.0
Mr. Khondlo	S	0	1	0	0	0	1	1	100.0
Percentage attained							**6**	**6**	**100.0**
NOMINATION COMMITTEE									
Month		**Ordinary Meeting January 2023**	**Ordinary Meeting February 2023**	**Ordinary Meeting March 2023**	**Special Meeting**	**Special Meeting**	**Total Meetings**	**Total Attended**	**%**
Surname/Date	**Ini**	**No meetings**	**No meetings**	**No meetings**	**No meetings**	**No meetings**			
Mr. Monyokolo	R	0	0	0	0	0	0	0	0.0
Mr. Mosai	S	0	0	0	0	0	0	0	0.0
Ms. Tonjeni	M	0	0	0	0	0	0	0	0.0
Ms. Monnakgotla	Z	0	0	0	0	0	0	0	0.0
Percentage attained							**0**	**0**	0.0

5.3 Introduction to Governance within Rand Water

Rand Water is a water board established and governed in terms of Chapter 6 of the Water Services Act No. 108 of 1997 (the Water Services Act). It is listed as a National Government Business Enterprise in Schedule 3b of the Public Finance Management Act No.1 of 1999. The Government of the Republic of South Africa, through the Department of Water and Sanitation ("the Executive Authority"), duly represented by the Minister of Water and Sanitation, is the sole Shareholder of Rand Water.

Diagram 1. Governance Framework

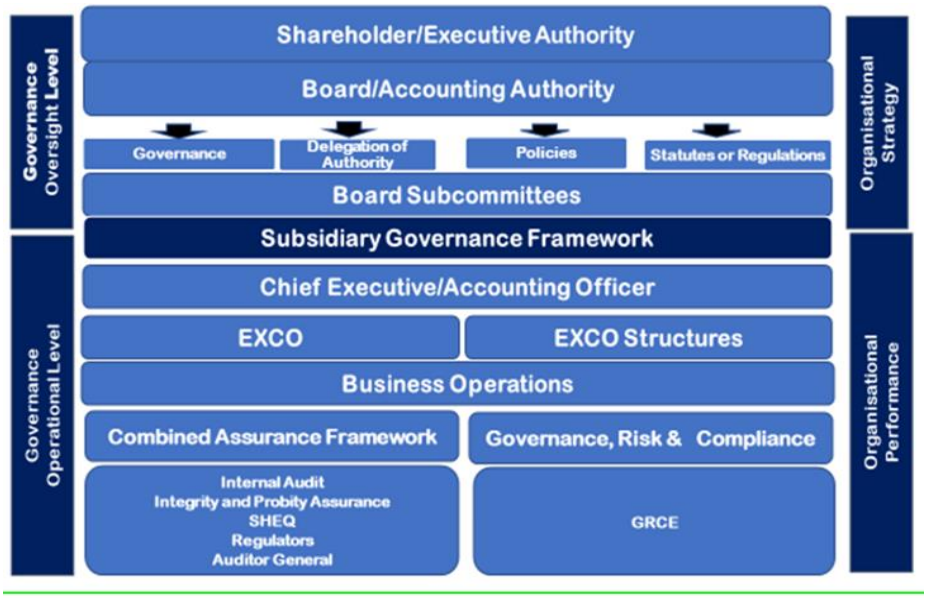
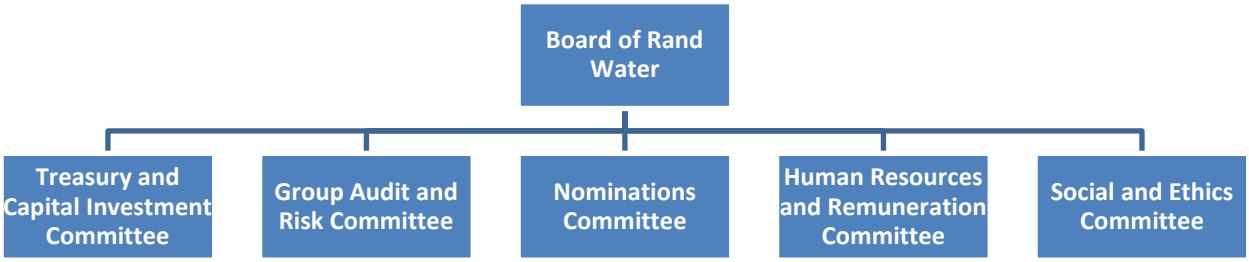


Diagram 2. Governance Structure



The Board is the focal point and the custodian of the corporate governance framework which is the overarching policy that directs how all governance structures should operate. Rand Water's corporate governance framework clearly articulates the basic principles and operational processes for the application of good corporate governance throughout the governance structures within the business.

The Board views good governance as a vital component in operating a successful and sustainable business, as well as providing assurance to all stakeholders. To that end, the Board continues to adhere to the principles of the King Report on Corporate Governance for South Africa (King IV) which was adopted in the 2016/17 financial year. This ensures the Board's pivotal role in creating value by setting policy, overseeing corporate governance, compliance frameworks and control environment as well as maintaining sound corporate governance practices within the organisation.

Rand Water also adheres to the requirements of the Johannesburg Stock Exchange's Debt Listings Requirements (JSE DLR), as amended. As a debt issuer, Rand Water is mandated in terms of the amended JSE DLR, to implement and disclose King IV corporate governance practices in addition to complying with the IFRS.

5.3.1 Composition and Term of the Board

The current Board of Directors of Rand Water comprises twelve (12) Non-Executive Members, including the Chairperson and Deputy Chairperson, and one (1) Executive Member, being the Chief Executive.

The appointment of the members was approved by Cabinet in September 2018 to assume office effective 01 October 2018. In terms of Schedule 1 of the Water Services Act, members will serve a term not exceeding four years. The Board is serving the fourth year of the current four-year term which will terminate on 19 September 2022.

For the financial year under review, the Board has appointed an independent non-executive member of the Group Audit Committee. There were no new appointments, resignations and rotations within the Board.

5.3.2 Board Demographics

The Minister recognizes the importance of constituting a board that has the optimal mix of skills, expertise and experience to ensure that the board, as a collective, is equipped to guide the business and strategy of the Rand Water. Members have been appointed for their varied leadership qualities to ensure exposure to a wide range of perspectives to facilitate robust discussions. The Minister has increased the number of women serving on the Board of Rand Water from 50% in the previous term to 62% in the current board term. With the exception of the Chief Executive, all members are the non-executive members for purposes of ensuring a more objective assessment of matters.

5.3.3 Board Induction, Training and Development

The Chief Executive continually provides information to board members on the Rand Water business and changes in the business landscape to keep them abreast with the ever changing and evolving business and corporate governance requirements. To ensure access to appropriate balance of knowledge, skills, experience, experience and independence, members are given opportunities to attend training to better understand their fiduciary duties and responsibilities as directors and to keep abreast of legislative and regulatory changes and best practice. The Board also makes use of external expertise on matters outside their knowledge, skills and experience.

Furthermore, members are accorded an opportunity to visit Rand Water's project implementation sites as part of exercising their oversight role. Board members are briefed on legal developments and changes in the risk and general business environment on an on-going basis.

5.3.4 Conflict of Interest

This is a standing agenda item at all meetings of the governance structures of Rand Water. Potential conflicts of interest are assessed through a formal process conducted by internal assurance providers and a report in this regard is submitted to the Board for information. Where conflicts of interest may exist, members are requested to recuse themselves from discussions on such matters.

The Board subscribes to the principle that conflicts of interest should be avoided and declared. Members are required to declare any personal financial interests that may pose a potential conflict of interest through a formal disclosure process that takes place annually or as and when their circumstances change. At each Board and sub-committee meeting, members and Management declare their interests regarding any agenda item, to prevent personal interests from subverting the interests of the organisation.

5.3.5 Performance Evaluation of the Board

For purposes of ensuring continuous improvement in the Board's performance and effectiveness, members are individually subjected to a process of performance evaluation on an annual basis. The process is conducted in accordance with the Policy regarding Board Practices and the Remuneration of Board Members of Entities Reporting to the Minister of Water and Sanitation and includes the assessment of performance of the governance structures.

For the financial year under review, the Board Chairperson has conducted one on one performance evaluation sessions with individual board members with a view to assess the overall performance of the Board. The final report on the outcomes of the evaluation of the Board has been submitted to the Minister of Water and Sanitation.

5.3.6 Delegation of Authority

The Board recognises the importance of implementing the Delegation of Authority (DoA) Framework within the Rand Water governance structures to promote independent judgment and assist with balance of power and effective discharge of its duties.

Rand Water's DoA Framework outlines the levels of materiality in relation to the business and has reserved specific powers for its decision making and delegated certain powers to its sub-committees and the Chief Executive. The Chief Executive has also been granted the authority to sub-delegate further to management and throughout the organisation. The DoA Framework does not in any way divest the Board of its responsibilities, authority and duties.

5.4 Chairperson and Chief Executive

The Chairperson is a non-executive member of the Board and is responsible for leading the Board. The Chief Executive is responsible for providing ethical leadership and ensuring the operations are aligned with the strategy. The Chief Executive reports to the Board and is ultimately responsible for the day-to-day running of the business which includes formulating strategies and policies which are approved by Board for implementation.

The roles of the Chairperson and Chief Executive are independent and separate. This division of responsibilities ensures balance, and that no individual has unrestricted decision-making authority. Both parties operate in terms of distinct mandates.

5.5 Rand Water Board Charter

The Board has adopted an appropriate Board Charter, has regulated its affairs in compliance with this charter and is satisfied that it has discharged its responsibilities contained therein. The members collectively understand their roles and responsibilities, as outlined in the Board Charter and the Water Services Act. The Board Charter is reviewed every two (2) years or as and when legislative, policy and regulatory developments dictate.

6 Rand Water Group of Companies including Subsidiaries

6.1 Rand Water Foundation

6.1.1 Mandate

The Rand Water Foundation was established to carry out the Corporate Social Investment (CSI) Programme of Rand Water. Established in 2001, the Foundation was registered as a Section 21, Non-Profit Organisation (NPO) in terms of Companies' Act of 1973. The Companies Act was subsequently reviewed and in terms of Companies Act of 2008 that came into effect on 01 May 2011, the RWF is now recognised in terms of Section 10 of the Companies Act of 2008. The Rand Water Foundation (RWF) represents Rand Water s' CSI legal developmental entity, and the Foundation exists to carry out the social and economic responsibility role of Rand Water.

Rand Water Foundation has been operational since 2003.The Foundation is mandated to: promote and support the delivery of water related services to communities in the areas falling within and outside Rand Water's area of supply; coordinate, administer and manage Rand Water's Corporate Social Investment resources by undertaking community development projects in partnership with various donors and relevant stakeholders.

In addition to this mandate, the Shareholder acknowledges that Rand Water Foundation has a strategic developmental role that may require decisions not always optimal from a commercial perspective, but contribute to Rand Water's socio economic developmental imperatives, the Department of Water and Sanitation (DWS)'s developmental priorities, and National Government's broader objectives and the growth and development in South Africa and Africa.

6.1.2 Business Rationale

Being in its 17th year of operating, there has been a paradigm shift in terms of prioritisation and alignment of the business of the Foundation to the core business of Rand Water as the shareholder, as well as responding to the DWS ministerial call for alignment of developmental activities in order to enhance fulfilment of the developmental role of Rand Water. Since operational in 2003, the Foundation grew to become the Corporate Socio-Economic Development arm of Rand Water, incorporating and integrating Rand Water s' Corporate Social Investment (CSI) activities. Rand Water Foundation is a vehicle through which Rand Water fulfils its commitment to helping Government in achieving a vision of a better life for all, by promoting job

creation, skills transfer, enterprise development, community capacity building, and poverty eradication among communities in South Africa and beyond. As a result, the Rand Water Foundation becomes a socio-economic change agent of Rand Water.

In his State of the Nation Address on 7th February 2019, the President emphasised expansion of small business incubation programme and creation of jobs for the unemployed youth as key to stimulating economic activity and employment, in a long run building the economy of the country and fostering social cohesion. The President further highlighted government's determination to eradicate unsafe and inappropriate sanitation facilities in schools within the next three years in order to create safer learning environment throughout the country. In driving and managing significant water and environment related business in society, the Foundation remains developmental in approach focusing on areas aligned to the core business of Rand Water.

Furthermore, the developmental business of the Foundation acknowledges the political economy within which Rand Water operates, revealing the dynamics within which the company must understand to survive from the socio-economic perspective. Interventions aimed at contributing towards addressing societal issues such as high rate of unemployment among young people especially from previously disadvantaged communities, and ailing public health among others are in place. In addition to the significant water and environment related projects, educational and health related projects are undertaken in support of government's education and health systems in the country. In response to the high rate of unemployment all the RWF projects are implemented to create jobs for local communities. This is to ensure that Rand Water continues to help Government in improving on the lives of the people. The Non-Governmental Organisations (NGOs') sector and the vulnerable groups entailing women, youth, children and people with disability are in no way excluded from developmental interventions by the Rand Water Foundation.

The RWF's business evolution is in response to implications of the environmental scan, as well as alignment with the Shareholder's strategic direction, the developmental imperatives of DWS, Sustainable Development Goals (SDGs), the broader Corporate Social Investment (CSI) imperatives, performance evaluation in terms of the Medium Term Strategic Framework, the Presidential and the Shareholder Outcomes, and the National Development Plan (NDP), the country's vision for 2030.

This business plan defines the core purpose of the Foundation and locates its key central role of driving the Socio-Economic Development (SED) Programme of Rand Water as a "Choice provider of sustainable, universally competitive bulk treated water and sanitation solutions for Africa". The Foundation's business activities will in the next five years be re-engineered to ensure improved value add and return on investment to core business, through closer ties and linkages with municipalities, Rand Water's stakeholder base. This Business Paradigm Shift will also see the

Foundation strategically focusing on municipalities that are within RW's area of supply to ensure that business customers benefit through RWF's developmental programmes and projects, ensuring that communities are empowered, and households are able to pay for their water bills to ensure sustainable water supply. The vision of RWF goes beyond provision of services, to creating sustainable systems ensuring ongoing access to safe and clean drinking water within communities and households.

6.1.3 Business Profile

The Rand Water Foundation's developmental activities carry both elements of social and economic transformation, building capacity of communities, and through enterprise development, drawing in service providers (emerging entrepreneurs) from previously disadvantaged communities through preferential procurement processes, helping them participate in economic activities within the country. Projects are less ad hoc and philanthropic in approach, but pursuing a performance driven approach, to ensure that living standards of people are raised with higher social and economic benefits. Interventions are more developmental in that they are based on a 'Hands Up' than a 'Hands Out' approach seeking to sustain livelihoods and avoid encouraging a dependency syndrome. Through this developmental business in society, and as a plough back to communities, Rand Water through the Foundation ensures that activities are not just handouts, but linked with economic activities creating jobs, transferring skills, building businesses, and ensuring protection of the environment for sustainable livelihoods. The RWF has as a result seen a developmental paradigm shift from being an ordinary CSI component to being a Socio-Economic Development (SED) business in society.

On 06 November 2010 the Rand Water Board took a decision to integrate Corporate Social Investment (CSI) activities in Rand Water, to ensure better CSI coordination, maximum programme impact and efficient programme funding. On 11 August 2011, the Board approved the Rand Water's Integrated CSI model with CSI activities integrating into the Foundation. This move has seen the business of RWF expanding from four key focus areas to six key focus areas then. The strategy of the RWF was since reviewed during 2014/2015 evolving into seven key focus areas namely, Water and Sanitation, Environment, Enterprise Development, Health, including HIV and AIDS, Education and Training, Women, Youth and Children, and Non-Government Organisations (NGOs) Support Programmes. The Integrated CSI Value Chain constitutes, Strategic and Business Planning, and Management, Programmes Operations Management, Finance Management, Public Relations Management, and Governance. The current strategic review is seeing the RWF strategy evolving into 2024 impact driven strategy. The Strategy will in the future going forward be driven by 80% concentration of all programmes developmental interventions focusing on one district municipality at once in a financial year, and

20% spread in other municipalities where a developmental need has been identified. Review of the strategy is in progress.

6.2 Rand Water Services (Pty) Ltd

Rand Water is a water board that was established and is governed in terms of Chapter 6 of the Water Services Act (Act No. 108 of 1997). Rand Water is listed as a National Government Business Enterprise in Schedule 3b of the Public Finance Management Act (Act No.1 of 1999).

Rand Water's mandate is to provide bulk potable water to more than 16 million people in Gauteng, parts of Mpumalanga, the Free State and North - West provinces. Therefore, Rand Water is a significant catalyst for economic growth, socio-economic development, job creation, and service delivery, as intended by the National Development Plan.

Rand Water Services (RWS) is a subsidiary company of Rand Water which is aimed at practicing as a private entity which executes special projects and water services business opportunities as authorised under Section 30 of Water Services Act. The establishment of RWS is encouraged by the following:

a. Exponential deterioration of water services provision by various Water Services Providers (WSP) and Water Services Authorities (WSA) thus posing risk to water security, sustainability of water services provision and economic growth
b. Poor financial status of most municipalities resulting to their inability to service their debts (including bulk water purchases) and invest on water services operations.
c. Increasing competition of private water services providers as authorized by WSA's in accordance with section 22 (1) of Water Services Act.
d. Public-private partnerships (PPP) in water sector which may have adverse effects on water services affordability, economic viability and long-term system sustainability and efficiency.

6.2.1 Background

On 6th November 2010, the Board of Rand Water as the shareholder of Rand Water Services (Pty) Ltd passed a resolution to divisionalise the South African operations of Rand Water Services into Rand Water. Rand Water Services was facing viability challenges and was increasingly reliant on Rand Water for its survival.

All assets and liabilities were acquired by Rand Water at their fair values at the effective date of the divisional station. On 7th July 2015, Rand Water Services sold its 49% shareholding in Vitens

Rand Water Services B.V. which represented the final leg of Rand Water Services' continental operations. As a result, Rand Water Services was no longer trading, hence a dormant entity. Following this, by December 2015 the entity was deregistered from all forms of taxes, and the bank account held at First National Bank was reflected as that of a non-trading entity.

Given the latest developments around Utilities of the Future (as touted in DWS), where it is envisaged that a water utility will run end-to-end water services in a municipality in partnership with the municipality and/or other industry role players (PPP), the Board of Rand Water saw it fit to strategically position the organization for such opportunities. Rand Water's solid performance in terms of compliance with Water Services Act section 29 as a traditional bulk water supplier with extensive operations and a vast distribution network, has seen it important to house the activities in a separate activity to avoid being negatively impacted by the involvement in the often-volatile municipal retail space.

One of the major activities of RWS is implementation of Section 63 in the Emfuleni Local Municipality (ELM). The Minister of Water and Sanitation issued a directive on 21 April 2022 appointing Rand Water to rehabilitate the Vaal River Integrated System and to simultaneously capacitate Emfuleni Local Municipality (ELM) to manage their Water Services Authority operations. The directive was in accordance with section 63 of Water Services Act (Act no. 108 of 1997).

6.2.2 RWS Board Resolutions 17 October 2019

1. Resolution of shareholder of the Rand Water Services (PTY) LTD (Registration Number: 2000/003733/07). Written resolution passed by the shareholder of the Rand Water Services (PTY) LTD on Thursday, 17 October 2019 at the Royal Elephant Hotel, Centurion. The first three resolutions were:

a. Rand Water is a state-owned entity, established as a water board in terms of section 28 of the Water Services Act No. 108 of 1997 (the Act) and is governed in terms of section 35 of the Act by a board of non-executive members. Rand Water is listed in Schedule 3B of the Public Finance Management Act No. 1 of 1999.

b. Rand Water is the sole shareholder of the Rand Water Services (Pty) Ltd, a private company duly registered with Company Registration No. 2000/003700/07 and a subsidiary company within the Rand Water.

6.2.3 Corporate Governance

The Board members of the subsidiaries are appointed by the Board of Rand Water. Current Board members of the of RWS include the Chief Executive, the Chief Financial Officer, and the Chief Operating Officer of Rand Water. The Board of a subsidiary reports to the board of Rand Water through their Chairperson, and a shareholder compact is entered into between the two Boards. The Boards of the subsidiaries are expected to adopt a comprehensive Delegation of Authority (DoA) which clarifies the various levels of c and assists with the limits of authorisation throughout the organisation. The Rand Water Group Secretariat is responsible for both the governance oversight and operational budgets of all the Boards of the Group. A subsidiary is expected to align to stakeholder management principles of the Group, and a subsidiary cannot bind Rand Water without consent from the Board of Rand Water, beyond the materiality and significance framework.

Rand Water submits the corporate business plan and Shareholder Compact to the Executive Authority and National Treasury this covers the business of the group over the five-year horizon.

6.2.4 Objectives

The Board of Rand Water approved the reactivation of RWS on 24th April 2023 with the following objectives:

1. To take advantage of water sector challenges by providing sustainable water and sanitations solutions and increasing revenue base for the institution
2. o become a strategic partner to attract water infrastructure investments and PPP opportunities by leveraging on institutional capacity
3. To enhance economic growth by providing responsive water solution and unlock investments.
4. To mitigate against the risk of relying on a single revenue source
5. To capture the requisite nimble footedness in decision making and execution of the private sector

6.2.5 RWS Operating Principles and Guidelines

Section 29 in terms of the Water Services Act, 1997

RWS is the vehicle to execute on vast opportunities for intervention based on the poor state of water and sanitation services delivery in the local governance space. The adverse effects of the situation are a contravention of section 24 and 27 (b) of South African Constitution.

The following is an extract from the Water Services Act, 1997.

Primary activity of water boards

29.The primary activity of a water board is to provide water services to other water services institutions within its service area.

Section 30 in terms of the Water Services Act, 1997
Other activities of water boards:
(1)A water board may perform an activity other than its primary activity only if
(a)it is not likely to limit the water board's capacity to perform its primary activity;
(b)it is not likely to be to the financial prejudice of itself, any water services institution, existing consumers and other users serviced by it within its service area;
(c)it is in accordance with the Board's policy statement; and
(d)it is provided for in a business plan.

(2)Other activities of a water board may include, but are not limited to –
(a)providing management services, training and other support services to water services institutions, in order to promote co-operation in the provision of water services;
(b)supplying untreated or non-potable water to end users who do not use the water for household purposes;
(c)providing catchment management services to or on behalf of the responsible authorities;
(d)with the approval of the water services authority having jurisdiction in the area –
(i)supplying water directly for industrial use:
(ii)accepting industrial effluent; and
(iii)acting as a water services provider to consumers
(e)providing water services in a joint venture with water services authorities; and
(f)performing water conservation functions

In terms of section 30
(1) of the Water Services Act, a water board may perform an activity other than its primary activity only if:
a)it is likely not to limit the water board's capacity to perform its primary activity,
b)It is not likely to be to the financial prejudice of itself, any water institutions, existing consumers and other users serviced by it within its service area,
c)It is in accordance with the board's policy statement, and

d)It is provided for in the water board's business plan.

Therefore, this sections of the WSA of 1997 provides enough room for the Business Case Activation and Implementation Plan of RWS premised on the utility's model of business opportunities as well as implementation of the Minister's directives. RWS is a subsidiary company owned by Rand Water and is responsible for implementing Minister's directive by addressing existing challenges and capacitating the institutional shortcomings of effectively providing water and sanitation services such that they comply with section 2(a), (c), (g), (i), and (j) of Water Services Act (Act no. 108 of 1997).

a. Rand Water Definition of the Role for RWS

Following from the primary activity expected from a water board, it is anticipated that a water board will undertake other additional activities beyond what is defined as primary activity.

Given Rand Water's experience and historical evolution, Rand Water has had to redefine, within allowed practical boundaries, its understanding of Sections 29 and 30. Section 29 in Rand Water's understanding refers to its current operations.

- From a boundary point of view, this covers Rand Water's current business of provision of bulk potable water in Gauteng, parts of Free State, parts of Mpumalanga and parts of North West.
- The key differentiation is that Rand Water refers to bulk potable water whereas the Section 29 only refers to potable water.
- Therefore, all other activities are defined under Section 30 for Rand Water's purposes.

It is important to ensure that the current Rand Water business with its extensive network of pipelines and customer base is to some extent protected from the initial challenges that will be faced by extending into these areas. Therefore, from a definition point of view, Rand Water calls its current business Section 29 or loosely its current operations. From a strategic point of view, it is anticipated that the ringfencing mechanism will allow for Rand Water to source additional funds from the shareholder as represented by the Department of Water and Sanitation; National Treasury; local municipal partners; and other private sector players. This will also allow for advisory, technical and financial contributions by important stakeholders. This will protect the current balance sheet while, at the same time ensuring that Rand Water's partnerships with other sources is enhanced.

This entails the creation of a separate entity, RWS, thus the raison d'être.

b. Critical Parameters

The term ringfencing needs to be fully understood as it has different meanings and implications. The key rationale for ringfencing begins with compliance with Sections 29 and 30. This also is in line with Rand Water's experience and natural progression where current business is defined under Section 29.

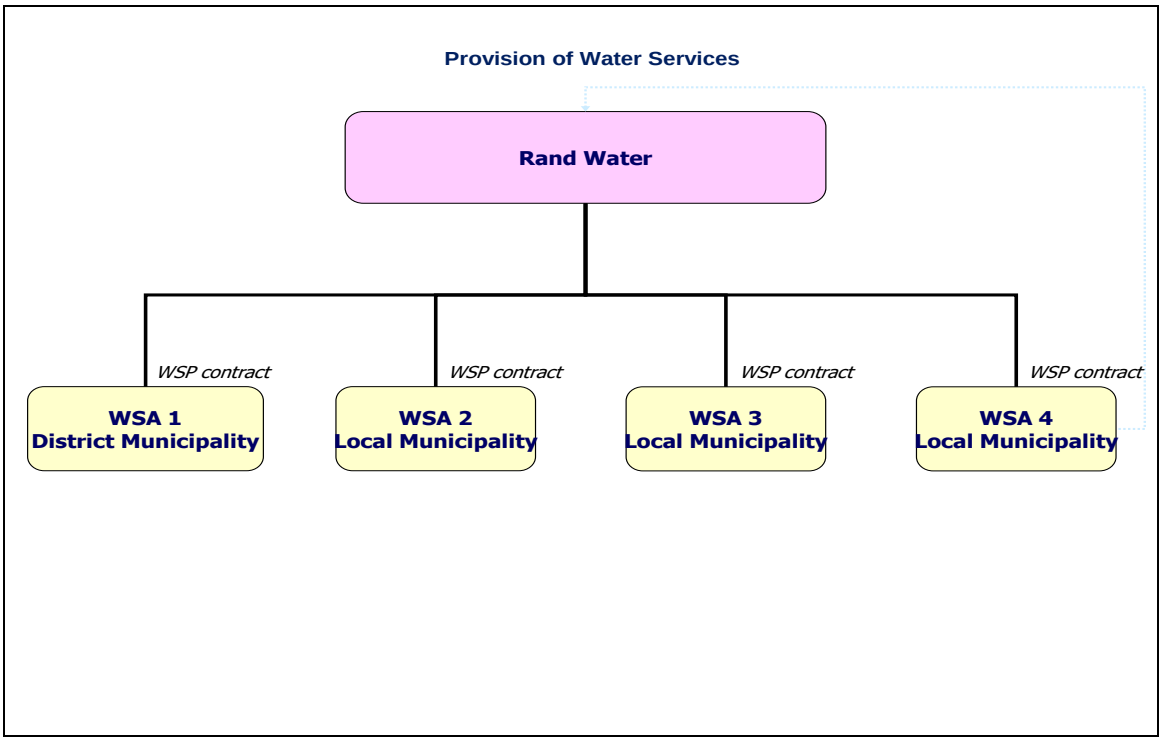
From a positive impact point of view, RWS is ringfenced due to positive financial considerations. Ringfencing allows for direct sourcing of funding, direct transfer of assets and technical assistance by investors, National Treasury, and Provincial and Local Governments.

From a different point of view, ringfencing from a financial perspective, reduces the negative impact on Rand Water business. It provides comfort to Rand Water customers that the current business is not directly affected. These financial issues form the foundation for ringfencing. The legal, operational and strategic imperatives are then provided to enhance and support this financial foundation for ringfencing.

c. Provision of Water Services

The mainstay of water boards outside the large metros has been the provision of Section 30 activities. RWS will play a significant role in its relationship with WSAs through Right of Use contracts. These are contracts that RWS will enter where the asset remains owned by the local municipality. However, RWS will have complete access and right of use (concession) over the long term, for example, 20 years.

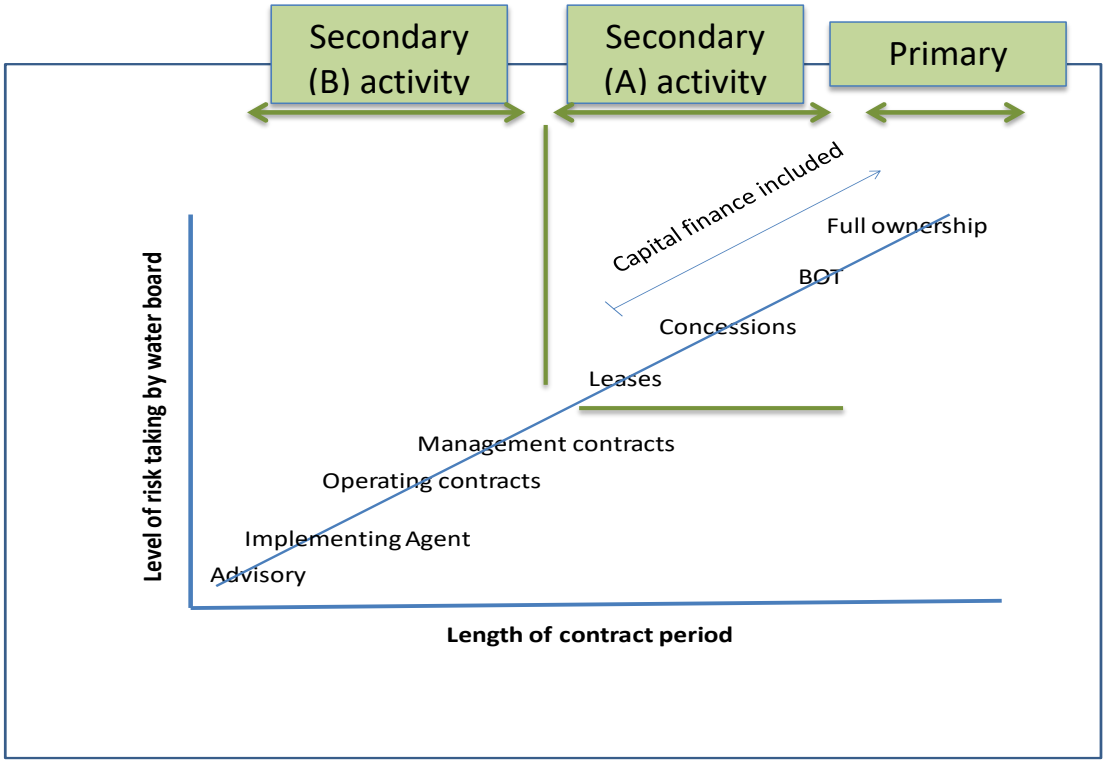
Diagram 3. Provision of Water Services



d. Contracts and contracting with WSAs.

Research carried out as part of the IRR process highlighted the inadequacy of contracts entered into between water boards and municipalities. It is important for this to be addressed as part of the process of reform and an improved understanding of contracting arrangements is important. In this regard the diagram below illustrates the typical spectrum of contracts which can be applied by water boards. At the one extreme is the primary activity of water boards where water boards own the infrastructure and sell water to retailers or direct to end users. At the other is secondary (B) activity which includes are low risk short term contracts where water boards act as advisors, implementing agents (building infrastructure), management contractors or operators. In the middle of the contracting spectrum is secondary (A) activity where the water board has a long-term contract with a WSA to act as a water service provider.

Diagram 4. Spectrum of Contracting Arrangements



e. Symbiotic Relationship Within the Rand Water Group

RWS recognizes the importance of at least breaking even as it undertakes work in the local municipal space. This is best attained by targeting the equity share retrieve by local municipalities from National Treasury. Therefore, the first course of business is to ensure that the comprehensive study of indigent household is undertaken. This will aid in determining the requisite operating cost.

After breaking even RWS will actively search for opportunities that produce a surplus or profit. This is where the Rand Water Institute is expected to play a leading role. Innovative product and services developed by the Rand Water institute will increase sufficiency and cost of business.

The Rand Water Foundation will have the responsibility of gathering information about households in the local municipality that RWS will be operating. The reason for non-payment by household. RWF offers such an opportunity to gather intelligence as they work closely with communities.

6.2.6 RWS Workstreams

RWS workstreams shall have the following objectives:

1. To maintain the growth trajectory on the national platform
2. To offer professional water and sanitation security services to South Africa
3. To maintain growth trajectory on the national platform to augment other water sources.

a. Workstream One – Growth Trajectory

RWS growth trajectory workstream shall comprise of services, such as:

1. Bulk sanitation schemes design and construction
2. Operations and maintenance of bulk infrastructure
3. Financial modelling and structuring
4. Joint venture with financiers
5. Automated and on-line management of waste-water treatment works.

The workstream shall capitalize on bringing formidable solutions on existing water sector sanitation challenges by bringing responsive solutions which shall seek to protect the environment, provide effective provision of sanitation services, unlock developments, unlock economic opportunities, and alleviate poverty. It shall seek to optimize utilization of the scarce resource for possible reuse and recycling to augment supply to various water users. It shall enhance research, development and innovation initiatives to provide adaptive solutions and sustainable sanitation services.

The proposed strategic approach shall be to implement the following:

- Develop unique Rand Water financial model that only Rand Water can market.
- Rand Water will treat and sell purified water and by-products.
- This becomes the source of funding without burdening financially stressed municipalities.
- Rand Water will have right of access to the infrastructure, products and by-products.
- Municipalities will own or share ownership with Rand Water

The profile of potential customers shall be as follows:

1. District and local municipalities
2. Rural local municipalities
3. Department of water and sanitation
4. National treasury
5. Department of Education

b. Workstream Two – Professional Water and Sanitation Services

RWS professional water and sanitation services shall comprise of:

1. Provide world class laboratory and related services for water and wastewater.
2. Provide water services development plans.
3. Catchment management agency services
4. Automated and on-line monitoring of catchments
5. Chemical cleaning/ purification and testing service of return flows by companies.
6. Local weather stations

Professional services shall comprise of research and development, planning services, scientific services, water resources management, and automated water quality monitoring. The advantages of these services shall be to provide responsive solutions, proactive planning and provision of services, effective catchment management and monitoring. The water sector has high demand for such services as approximately 25% of the water catchments are reported to be highly endangered, there is ineffective water services development plans on various regions which results to reactive responses to address challenges, and there is ineffective use of forth industrial resolution (4IR) opportunities such as: artificial intelligence, internet of things, drones, etc. This shall assist various potential clients to create on-time data for proactive responses.

The proposed strategic approach shall be to implement the following:

- Develop unique Rand Water products that only Rand Water can market.
- Impose on SANS Rand Water measurements, techniques, and methodologies on water and sanitation standards.
- Identify local councils with significant challenges.

The profile of potential customers shall be as follows:

1. District and local municipalities
2. Rural local municipalities
3. Department of water and sanitation
4. National treasury
5. Department of Education

c. WORKSTREAM THREE – AUGMENT WATER SOURCES

RWS augmentation of water sources services shall comprise of:

1. Water treatment works schemes design and construction.
2. Wastewater treatment works schemes design and construction.
3. Acid mine drainage treatment
4. Operations and maintenance of bulk infrastructure
5. Financial modelling and structuring

6. Catchment management agency services

The purpose of providing these services shall be to improve water security on various regions by optimizing the use of available scarce resource and identify sources of augmentation. The services shall entail research, development and innovation, planning, design and implement solutions, provide operation and maintenance services, and provide customized financial solutions. The outcome of these services shall be to improve resilience against effects of climate change, sustainable water supply, improved water security, unlock economic opportunities and alleviate poverty.

The proposed strategic approach shall be to implement the following:

- Develop unique Rand Water financial model that only Rand Water can market.
- Rand Water will treat and sell purified water and by-products.
- To become source of funding without burdening financially stressed municipalities

The profile of potential customers shall be as follows:

1. District and local municipalities
2. Rural local municipalities
3. Department of water and sanitation
4. National treasury
5. Department of Education

6.2.7 RWS Organogram

Avoidance of quick political decisions requires a less senior Rand Water person to play the agency role of setting up the meeting structure and engagements. The MD to report to both COO and CFO to ensure that all business governance processes are finalized. The COO to continue with the project implementation of WSA s63 directive in ELM and only once the RWS structures are finalized, will the s63 projected be lifted and shifted to RWS.

Diagram 5. RWS Corporate Structure and Alignment to Rand Water – Phase 1

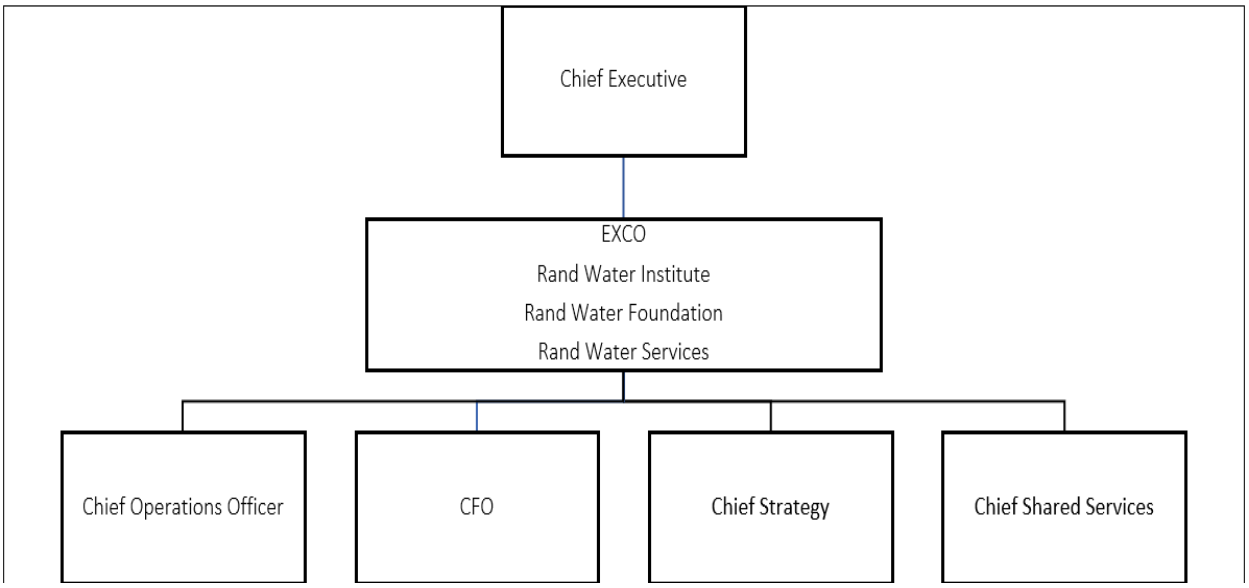
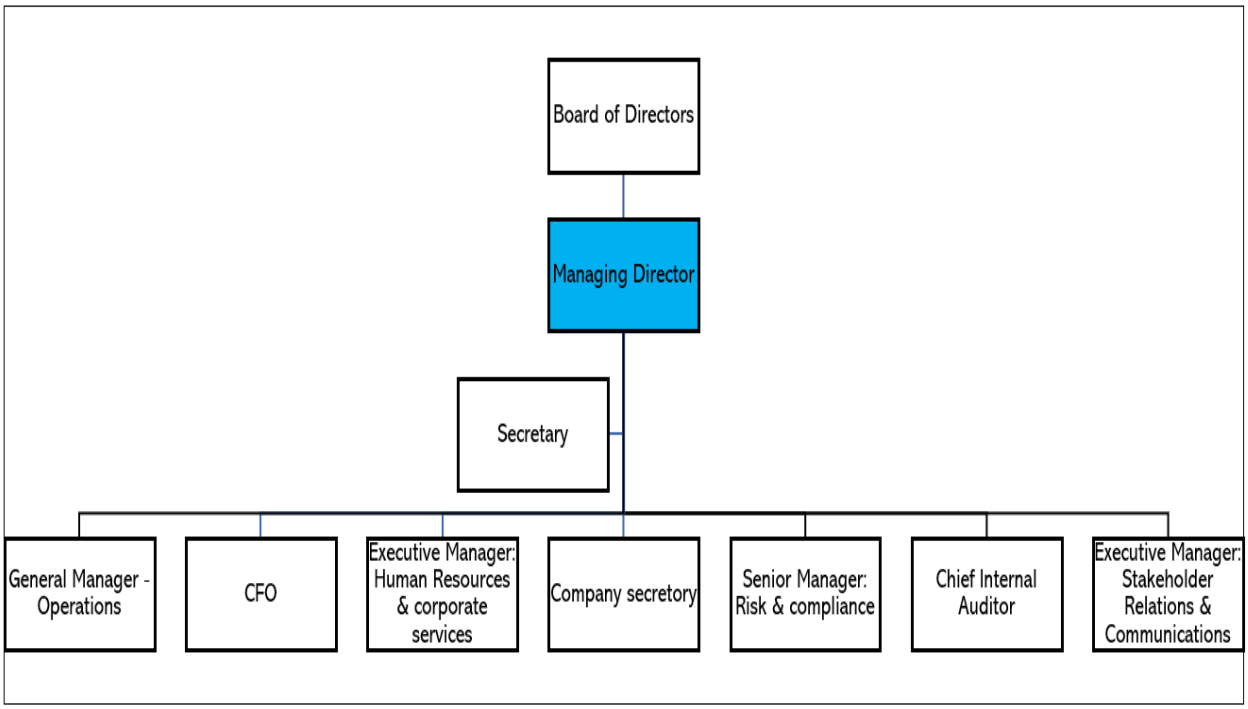


Diagram 6. RWS Board and Management Structure - Phase 1



6.2.8 RWS Current Scope of Work

a. Section 63 (Phase 1)

The Department of Water and Sanitation through the directive has availed R7.6 billion for operation and maintenance, refurbishments and upgrading projects. Thes activities will be done under the Rand Water Services as an implementing agent. It is anticipated that during the 2023/24 financial year, RWS through the intervention will generate Revenue of R334 million.

The scope of Rand Water Services workstreams shall be:

- To maintain the growth trajectory on the national platform
- To offer professional water and sanitation security services to South Africa
- To maintain growth trajectory on the national platform to augment other water sources.

Over and above the ELM Section 63 Intervention, RWS will engage in other business ventures to diversify revenue and grow into other water related environments. Some of the identified opportunities that will require individual financial viability assessments include the following:

Vaal River Integrated System & Section 63 Intervention

On 21 April 2021, the Minister of Water and Sanitation issued a Directive appointing Rand Water at Emfuleni Local Municipality (ELM) to rehabilitate the Vaal River Integrated System, and simultaneously capacitate the municipality to manage the operations. Rand Water required specialist support to strengthen the capacity within DWS to implement the intervention. It was the expectation that Rand Water would implement Operations and Maintenance for R600 million per annum (R341 million for sanitation and R259 million for water reticulation) funded by the Department. The operations and maintenance include the capacitation of Metsi-a-Lekoa which is a water services department under Emfuleni Local Municipality. The major refurbishments and upgrades were to be implemented by DWS. However, on 6 July 2021, the Minister issued a new directive wherein Rand Water was appointed as the implementing agent of the whole intervention program estimated at R8 billion. Rand Water is effectively the implementing agent for Emfuleni Section 63 Intervention as per the directive minister from the Minister of Water and Sanitation.

Further, analysis of the situation in the municipality revealed a need for the corporatization of water services in ELM to ensure the sustainability of water services in the municipality. Given the extent of the scope, Rand Water management resolved to house the Section 63 intervention in a separate business vehicle that would adequately ringfence the Emfuleni water services activities

from the primary business, and Rand Water Services is considered the most ideal vehicle. Consequently, Rand Water deployed Senior Managers from different business units in Rand Water at ELM to conduct a due diligence exercise to establish the feasibility of using the Emfuleni Section 63 intervention as a launch pad for the corporatization of water services in ELM and compile a solid business case to that effect. Among other relevant activities critical to the mandate of this management contingent, is to set up governance structures, and obtain relevant regulatory and legislative approvals necessary to give effect to the envisaged business plan – fully operationalize RWS. Successful implementation of this model in ELM would yield a blueprint that Rand Water can roll out to other struggling municipalities as the Utilities of the Future concept gains momentum.

Viability of the Water Services Function in ELM

Based on recent trends Water Services (water reticulation and sanitation activities) in Emfuleni Local Municipality (ELM) account for 16% (2021) to 21% (2022) of the total revenue from all services and government grants received. The table below summarizes revenue per annum:

- An analysis of the 2022 financial year revealed that the municipality incurred total expenditure of R9.3 billion as follows:
- Operating expenditure accounted for 97% and capital expenditure (CAPEX) amounted to 3%. This indicates that investment in water infrastructure, the second biggest revenue contributor after electricity, is neglected.
- The operating expenditure is dominated by bulk purchases and employee remuneration – at 39.4% and 13.2%, respectively.
- Debt impairment amounted to 15% of operating expenditure.

Evidently a significant deficit of about R1.9 billion was realized in 2022. This comes with the water supply's dismal gross surplus margin contribution of 0.8% which may be an indication of major underlying problems in the water services business unit such as nonrevenue water (estimated at 64%), metering and billing systems, and revenue collection. The water services at 16% of total revenue, is the second largest revenue contributor in ELM after electricity which is at around 50% of total revenue.

The average age of assets in the municipality is around 65 years. An extensive upgrade and refurbishment programme as articulated in the directive will need to be embarked on. The following items of infrastructure owned by the municipality were confirmed:

Water Reticulation Assets:

- 2,677km pressurized water pipeline
- 5 high level reservoirs

- 10 low level reservoirs
- 110.5Mℓ/day potable water treatment plant
- 14,528 network valves

Wastewater assets:

- 2,600 km of gravity sewer pipelines
- 33,328 sewerage manholes
- 44 sewerage pumpstations
- 98 sewer pumps

Funds required for refurbishments and upgrades of the water reticulation assets are yet to be confirmed following detailed condition assessments, while for the sanitation services about R600 million is estimated.

Rand Water conducted a Financial and Management Information Systems assessment, and an initial investment of about R5 million in this regard is anticipated. The directive makes provision for operations and management at least for the duration of the intervention. The municipality budget for O&M will need to be augmented from the RBIG allocation. This will take care of the human resource requirements too. To improve on the dire situation presented above, a corporatized entity to run the water services in ELM is ideal. This envisaged RWS will run end-to-end water services in ELM. With robust systems in place to account for all the revenue that is due to the ELM and optimized operational expenditure, the RWS will have better chances to sustain itself. The Department is expected to continue funding any major infrastructure requirements (upgrades and refurbishments) and making available all allocations related to indigents to the RWS until the entity is self-reliant like Rand Water.

The ELM potable water debt in RW will need to be fully serviced before any dividends to ELM can be considered. Different avenues are being pursued to try and recover this debt. If the debt remains outstanding until the implementation of the new model it can be expected that this debt will be adopted by the RWS. To improve the revenue streams of the RWS, the initiatives identified under the RW Strategic Growth Pillars will be explored and implemented in partnership with the municipality and/or the RWS.

It is also anticipated that the financial management systems that would include billing and revenue collection for all municipal services can be housed in another entity that would be free from municipality control. A standalone revenue collection entity would ensure that there is no deliberate cross subsidization of the different services in the municipality.

Investment by RWS

There is a recognition that the capacity of Metsi-a-Lekoa must be enhanced. Issues of non-revenue water and revenue enhancement strategy are critical. As part of an investment by RWS, a special purpose vehicle with Metsi-a-Lekoa will be utilised. In addition, alternative water sources will be required to increase the viability and sustainability of this venture.

b. Other potential business development activities

Over the past few years, Rand Water has had a number of engagements with institutions in the SADC region which provide fertile ground for future business opportunities, namely:

- Orange Senqu River Commission (ORASECOM) is the institution responsible for managing the Orange Senqu transboundary resource shared by Botswana, Namibia, Lesotho and South Africa. These include the NamWater from Namibia and the Botswana Water Utilities Corporation.
- Lesotho Ministry of Water. Assistance with an establishment of a bulk water supplier in the kingdom of Lesotho, with possible funding from the World Bank.
- Lilongwe Water Board, Benchmarking of water utility management.
- Lusaka Water and Sanitation Supply Company. Benchmarking of water utility management, with a specific focus on non-revenue water.
- African Water and Sanitation Association (AfWASA). This is one of the vehicles that is anticipated to open investment opportunities in Africa. AfWASA, was formerly called AfWA. With the incorporation of sanitation programmes in its objectives and activities, the name had to reflect the correct mandate. AfWASA comprises professional association of institutions operating in the water sector, sanitation, and environment in Africa. Its main mandate, amongst others, is to coordinate the search for knowledge and latest developments in technology, legal, administrative and economic fields in the water, sanitation and environment sectors. Though AfWASA is sponsored by the United States Agency for International Development by way of grant funding, with several implementing partners in Africa including African Ministers' Council on Water. Rand Water is the mentor of mentees selected on AfWASA programme. Rand Water's recognition in the programme will springboard RWS' recognition in the continent.
- Effective Utility Management in partnership with SALGA. Capacitation of local government in technical, financial, and general management areas.
- The Re-establishment of the Association of Water Utilities in South Africa will enable full participation at AfWASA and enhanced Research, Development, and Innovation (RDI) partnerships and collaboration with utilities across the African continent. Rand Water will also be able to showcase its capabilities and share knowledge with the water and sanitation utilities.

Sierra Leone

The Ministry of Water Resources of the Republic of Sierra Leone, through the Consulate of the Republic of Sierra Leone, requested the Minister, Hon. Mr. S. Mchunu to assist with the capacitation of the Sierra Leone Ministry of Water Resources. Rand Water on the request from. Subsequently, DWS approached Rand Water to assist.

Sierra Leone Ministry of Water Resources needs a Technical Advisor to advise and assist the Minister and his team with the overall technical capacitation encompassing the following:

- Propose the most appropriate water sector architecture to include a suitable institutional arrangement and an effective water delivery service.
- Create, enhance, and develop skills and competencies of technical staff of the Ministry.
- create a system to ensure long term sustainability of the water sector programmes and projects; and
- Ensure better planning of sustainable water resource development in the context of the country's national development plan.

The project will be funded by the Sierra Leone Ministry of Water Resources. The full scale of funding requirement is not yet determined, though an undertaking is made by the Ministry of Water Resources. This is another project that will enhance the activities of RWS.
Other activities: Technology and Innovation

Through the Innovation and New Technologies endeavors, the following commercial activities are envisaged:

Table 6. Innovation and New Technologies

Innovation and New Technologies endeavours		
1.Activity	Description	Potential revenue
Leverage partnerships	Through proper due diligence and alignment with Rand Water strategy, partnership such as (UK KTN, SALGA, Donor Organizations) will be leveraged to generate revenue for Rand Water.	TBD
Technology and Innovation licensing	Through the licensing of technology and innovative solutions, the market will be targeted to generate revenue	>R20m per annum

	(e.g., leak detection, NRW solutions, ground water and mine water, etc.)	
Technology and Innovation JV's	Through the use of technology and innovative joint ventures, the market will be targeted to generate revenue (e.g., pipe manufacture)	>R20m per annum

6.2.9 Financial Implications

Income

The anticipated income in relation to RWS projects can be presented as per the Table below.

Table 7. Projected Income

PROJECTS	2023/24 FY INCOME
ELM WSA Section 63 intervention – O&M	R 118 million
ELM WSA Section 63 intervention – Refurb.	R 216 million
Orange Senqu River Commission	R10.2 million
Lesotho Ministry of Water Assistance	R6.0 million
Lilongwe Water Board - Benchmarking	R1.8 million
Lusaka Water and Sanitation Supply Company	R1.8 million
Effective Utility Management	R1.8 million
Re-establishment of AfWASA	R2.4 million
TOTAL	**R358 million**

It is anticipated that during the 2023/24 financial year Rand Water Services may have an anticipated income of R358 million.

Budget

Table 8. RWS Staff Remuneration

The anticipated breakdown of remuneration can be presented as per the Table below.

RWS Staff Remuneration

No.	Position	Annual Salary	Monthly	No.	Monthly expenditure
1	Managing Director	R2 200 000	R183 333	1	R 183 333
2	Secretory	R300 000	R25 000	1	R25 000
3	General Manager - Operations	R1 800 000	R150 000	1	R 150 000
4	CFO	R1 800 000	R150 000	1	R 150 000
5	Manager HR	R1 600 000	R133 333	1	R 133 333
6	Company Secretory	R1 600 000	R133 333	1	R 133 333
7	Manager Risk and Assurance	R1 600 000	R133 333	1	R 133 333
8	Chief Internal Auditor	R1 600 000	R133 333	1	R133 333
9	Manager Stakeholder Relations & Comms	R1 600 000	R133 333	1	R133 333
10	Line Managers	R1 400 000	R116 667	5	R 583 333
11	Project Managers	R1 200 000	R100 000	5	R500 000
12	Engineers	R1 000 000	R83 333	6	R500 000
13	Technologists / Scientists	R800 000	R66 667	12	R 800 000
TOTAL EXTERNAL STAFF			**R1 541 667**		**R3 558 333**

The above staff remuneration figures represent a fully-fledged workforce of RWS with sufficient projects to carry the overhead structure. Resources will be brought on board based on requirements for the projects that are being undertaken at a particular point in time.

Table 9. 5-year Projections of Rand Water Services Income and Expenditure

	Bal @ Dec-2022	2023/24 FY	2024/25 FY	2025/26 FY	2026/27 FY	2027/28 FY	TOTAL
Revenue (Cash Inflows)		357 631 007	715 262 014	1 072 893 021	1 609 339 531	2 414 009 296	6 169 134 868
Cost of Sales		- 339 749 456	- 679 498 913	- 1 019 248 369	- 1 528 872 554	- 2 293 308 831	- 5 860 678 125
							-
Gross Income		17 881 550	35 763 101	53 644 651	80 466 977	120 700 465	308 456 743
							-
Opex							-
Salaries (Projects Staff)		- 19 147 541	- 28 721 311	- 35 901 639	- 44 877 049	- 56 096 311	- 184 743 850
Other Costs		- 5 229 810	- 7 844 715	- 11 767 072	- 17 650 608	- 26 475 912	- 68 968 117
							-
Net Income(+)/Loss(-)	8 240 113	- 6 495 800	- 802 925	5 975 940	17 939 320	38 128 242	54 744 777
Cummulative Closing Balance	8 240 113	1 744 313	941 388	6 917 328	24 856 648	62 984 890	

The total investment for the ELM s63 intervention programme is estimated at R7.6 billion, and it is anticipated that more initiatives would be implemented to diversify the revenue streams of RWS. For illustrative purposes the total revenue of the first five years will be curbed at the R6.1 billion above to provide for uncertainties that come with project execution dynamics. The Rand Water Group is expected to provide some seed funding for the first three years as mitigation against any operational shortfalls and ensuring that expenditure on the RBIG funds is not used to bankroll a new entity of the Rand Water Group which might result in a breach of the conditions of the RBIG grant.

6.2.10 Funding

Rand Water Services will explore funding its requirements cost-effectively with a combination of the approved funding sources.

a. Impact Funding for impact investments

Impact investments are investments made to yield social, economic and/or environmental effects whilst having returns on the investment.

b. Conventional Bank Funding

Rand Water Services will consider raising conventional commercial debt by raising a loan or acquiring a debt facility. Included here are structured financing/loans encompassing all private and public financial arrangements that can fund on-balance sheet projects to lower the cost of capital and provide benefits that can be structured and tailor-made to match the project.

Funding instruments available:

- Equity from Rand Water, including debt funding, mezzanine financing and shareholder loans
- Term loans and/or syndicated loans
- General banking facilities
- Bridging finance
- Finance/operational leases
- Asset-backed finance
- Other structured loans

c. Grant Funding

Rand Water Services will be working on the growth project for Rand Water and will cover extended areas of operation. It will also explore funding through grant funding sourced from the Department of Water and Sanitation and local and international third parties. When and if DWS has appointed RWS as a Water Service Provider, it is possible to extend water service support through various grant funds. These include the Regional Bulk Infrastructure Grant (RBIG), the Municipal Water Infrastructure Grant (MWIG), and Water Services Infrastructure Grant (WSIG). Development Financial Institutions with mandates to assist the water sector can also provide grant funding.

d. Project And Structured Finance

Most projects that Rand Water Services will consider will be good candidates for Project and Structured Finance. The project and structure finance can be done within or outside the balance sheet, and it is typically a break away from your normal vanilla funding. This kind of funding aims to achieve better rates than the average bond (benchmark) funding. All the Growth Projects/investments of Rand Water will now be housed under the Rand Water Services.

e. Export Credit Agencies (ECA)

For those projects that have export elements, we will consider ECA funding. Export Credit Agencies are private or quasi-governmental institution that acts as an intermediary between importers and exporters to issue export financing. The financing can take the form of credits (financial support) or credit insurance and guarantees (pure cover) or both (depending on the mandate the ECAs have been given by its host government) to an overseas borrower to finance the supply of goods and services.

Most assets that are likely procured by Rand Water Services operations, i.e., the pipelines, switches, and pump parts, are imported. Therefore, the utilization of ECA-backed finance becomes beneficial. ECA's are committed to promoting the exports of their countries and thus giving lenders more security. ECA funding is an attractive mechanism to pay suppliers without needing to set up letters of credit. The tenure is between 7-12 years, which will match the portfolio of some assets. This type of financing would be suitable, especially for expansion projects and piping with an import component.

ECA's typically cover 85% of the contract price, and the 15% upfront deposit will require commercial bank financing. The loans provide for capital repayment holidays during construction. ECA funding is structured through the balance sheet.

f. Development Funds

Development Funding Institutions (DFI's) can be approached in place of bank funding but would more usually involve longer-term loans (15 to 20 years). Their loans also enable for capital repayment holidays during construction. DFI's, including, amongst others, the Development Bank of Southern Africa, are committed to promoting infrastructure development in various countries. The Japanese government has budgeted about $1bn, of which 20% is available at no cost to Middle-Income Countries MIC countries (SA included), available through ADB. Japanese also give untied financing, which could be used to fund the balance sheet.

European Investment Bank (EIB) has expressed interest in funding Rand Water projects. The total allocation to South Africa by EIB is €350 million. The negotiations with EIB are at an advanced stage, and the next level will be due diligence on Rand Water. This will include the full spectrum of projects including assessment of projects undertaken by RWS.

Agence Française de Développement (AFD) has also shown an interest in Rand Water. They intend to increase funding in South Africa to €200 million. Like EIB, their funds are at concessionary rates. Like EIB, they are interested in projects with a social and environmental impact. One of the innovative products from AFD is the issuance of guarantees.

The Government of South Africa (GoSA) and the European Union (EU) jointly developed the Infrastructure Investment Programme for South Africa (IIPSA) for a total amount of €100 million. The primary purpose of IIPSA funding is to enhance sustainable economic growth and deliver critical services affecting development in South Africa and the SADC region.

DFI's also offer grant funding tied to infrastructure. DFI loans are structured through the balance sheet. The intention is to conclude the club deal with the DFi's to meet the diversification objective.

g. Project Financing

Project financing is used mainly to finance capital-intensive projects by mobilizing debt, equity, contingent equity, hedges and various limited guarantees. There are primarily three types of project financing namely:

- Full recourse financing: The sponsor is responsible for the repayment of the project debt, without limitation, throughout the entire loan term.
- Limited recourse financing: Implies a finite commitment on the part of the sponsor beyond the level of committed base equity. The added support is "limited" to contingent equity

and/or performance bonds drawn only to cover specifically identified and negotiated construction and operating risks.

- Non-recourse financing: The sponsor is not required by the lenders to deliver any support to the project apart from the standard commitment to provide base equity. In this financing, the lenders rely entirely on the cash flows generated by the project.

The latter project financing methodology would include Public-Private Partnerships (PPP), which means using private capital and private companies to construct and operate project assets for a specified period which later reverts to the public company. Projects that invariably land into this category are greenfield and new long-term projects. Project finance would ideally be suited for growth and secondary activities as these can be clearly distinguished from primary activities and require specific approval from the National Treasury.

Factors to be considered in Project Finance are as follows:

- Capital intensity needed
- Leverage/Debt
- Non-recourse or limited recourse financing
- Risks Involved

Identification of participants:

- Costs
- Advantages of Project Financing:
- Eliminate or reduce lender’s recourse to the sponsors
- Permit an off-balance sheet treatment of debt financing
- Maximise the leverage of a project
- Allow lenders to appraise the project on a segregated and standalone basis
- Avoid any restrictions or covenants binding the sponsors under their respective financial obligations

Project Financing and Public Private Partnerships (Vendor Funding) would be utilized to ring-fence growth investments as well as a combination of Grant Funding in line with National priorities. The percentage allocation to each option will depend on the nature of the project.

6.2.11 Top Five Risks and Mitigation Plans

Risk Name	Risk Description	Root cause	Mitigation Plans
1. Legislation that may not optimally support water boards and RWUs.	1.1. Municipalities are the WSAs and can choose a WSP. 1.2. DWS is only able to act when crises occur.	1.2.1. The constitution has been used to demarcate the existence of national, provincial and local governments. This interpretation has been used to the detriment of the role of water boards.	1.2.1.1. The revised legislation, in which Rand Water and RWS will actively participate, could cement the role of water boards as licensed WSPs. 1.2.1.2. Revision of NWA and WSA.
2. Failure to pay for Services	2.1. The failure to pay for services on assets that are owned by WSAs has impacted on the financial sustainability of water boards.	2.1.1. Water Boards do not own assets but undertake operations and maintenance on behalf of local councils, who in some instances have refused to recognise or pay for services provided by water boards.	2.1.1.1. There is a need to enter into innovative contracts such as build, own, operate and then transfer to local municipalities, concession or lease agreements. 2.1.1.2. A viable alternative is the acquisition by RWS of rights to operate infrastructure owned by WSAs. RWS will enter into long term contracts for the right to operate specific infrastructure. 2.1.1.3. A transition plan and long term strategy will be agreed with DWS, where the assets is owned by DWS. 2.1.1.4. A funding plan will be presented to SALGA, DWS and National Treasury.

Risk Name	Risk Description	Root cause	Mitigation Plans
3. Poor demand characteristics that may impact on sustainability of RWS	3.1. Low income levels among the majority of the population.	3.1.1. The low income levels reduce the ability to pay for water and sanitation services thus impacting on the financial viability and sustainability of RWS.	3.1.1.1. RWS will determine the requisite operating costs based on the number of indigent households; and Equitable Share. 3.1.1.2. Market research and ring-fencing strategy will determine the cost of infrastructure provision and the levels of affordability. 3.1.1.3. A funding plan will be submitted for approval by DWS and National Treasury for each scheme, region or asset for subsidies and grants.
	3.2. Poor culture of payment that is associated with poor service delivery	3.2.1. Low income levels due to economic activities 3.2.2. Poor service delivery may not justify payment for services	3.2.2.1. Better service delivery by RWS
4. RWS brand image	4.1. With RWS entering into contracts with new partners, this will impact on	4.1.1. RWS will bring a new capital expenditure programme, with far larger amounts. Resident entities may not	4.1.1.1. RWS's procurement policies will be applied to the extended area. 4.1.1.2. In line with National Treasury guidelines, the specified percentage will be awarded to local SMEs.

Risk Name	Risk Description	Root cause	Mitigation Plans
	existing partnerships with WSA in the extended area. The perception will increase that RWS is unfairly awarding its own partners, including collusion between staff and suppliers, procurement (fraud); and recruitment (nepotism).	have capacity to undertake such large projects; which may create a poor impression that RWS is not serving local SME development and economic development.	4.1.1.3. A significant proportion of capital will be sourced from National Treasury, who have proposed the establishment of a Funding Coordination team. 4.1.1.4. RWS's fraud prevention policy and strategy will be actively communicated.
		4.1.2. Unrealistic expectations in the extended area of operations	4.1.2.1. An extensive marketing and communications programme will direct RWS's engagements
		4.1.3. Inadequate capacity for big projects may lead to the perception that RWS is not sourcing local skills.	4.1.3.1. RWS has well stabled recruitment processes. 4.1.3.2. Rand Water Academy will recruit unemployed graduates in each area for training.
5. Critical procurement and regulatory challenges	5.1. Regulatory challenges with regards to the procurement of goods and services	5.1.1. The current legislation imposes restrictions, extended processes and timelines on organs of state and SOEs	5.1.1.1. RWS will develop its own procurement strategy to address risks associated with timelines, emergency and urgent procurement of services, and local content requirements 5.1.1.2. As a private entity, RWS will be able to develop an

Risk Name	Risk Description	Root cause	Mitigation Plans
	that currently hamstring Rand Water		accelerated procurement plan

The activation of RWS is imperative for Rand Water to execute its mandate without impairment of the current functions, financial instability or any other associated strategic and operational challenges.

It can be concluded that Rand Water Services shall be a crucial entity for Rand Water to expand its operations and assist the department to align with the National Development Plan and Sustainable Development Goal number 6 by assisting struggling regions to improve their water services operations and enhance economic growth and poverty eradication. The entity shall require detailed planning to generate a credit business plan and operating models which can also be used to unlock funding.

7 Directives by Minister of Water and Sanitation

Rand Water's ability to undertake Ministerial Directives are guided among others, by the following.

- **National Treasury Note 4 of 2006/07**
  - *Public entities are not allowed to spend in breach of their legal mandate and approved budgets.*
  - *Entities are not allowed to fund departmental programmes (over and above budgetary appropriations).*

- **Section 30 of the Water Services Act:**

"A water board may perform an activity other than its primary activity only if

  - *"It is not likely to limit the water board's capacity to perform its primary activity"*
  - *"It is not likely to be the financial prejudice of itself, any water institutions, existing consumers and other users serviced by it within its service area"*
  - *Self-sustaining.*

- **Section 41 of the WSA - Directives to Water Boards**

41 (1) The Minister may, to the extent that it is reasonable, from time to time issue directives to a water board –

  - *To undertake a specific activity –*
    - at its own cost where the activity is financially viable: or
    - against full or partial payment, as directed by the Minister; or
  - *to desist from a specific activity if that activity –*
    - is not in the best interests of the general population within its service area; or
    - is not in accordance with the parameters laid down in section 34(1)
  - *The water board must comply with any directive given under subsection (1).15.*

- **Public entities effecting payments on behalf of departments.**

  - *Whilst it is incumbent on departments and public entities to spend in accordance with their legal mandate and approved budgets, it has come to light that certain departments are making use of public entities reporting to their executive authority departmental functions (over and above those provided for in budgetary approval and to employ personnel on their behalf, the personnel costs related thereto the public entity.*

  - *By performing departmental functions and employing personnel on their behalf public entities are in essence funding departmental programmes for which money was not*

appropriated and which might have resulted in unauthorized expenditure for the department, which is not permitted in terms of the Public Finance Management Act, 1 of 1999 (PFMA).

.

- Further, by making use of their funds to perform departmental functions, these public entities are also not spending in accordance with their legal mandate and budgets as approved by their respective executive authorities.

- Such expenditure amounts to irregular expenditure for the public entity as defined in section 1 of the PFMA. The PFMA defines irregular expenditure as being expenditure that is incurred in contravention of or that is not in accordance with a requirement of any applicable legislation.

The implementation plan must be agreed between Board and the Shareholder. It must be very clear in terms of:

- Targets per year
- Stages of implementation
- Components of implementation
- Achievement of implementation
- Areas of implementation
- Others.

The implementation plan is only applicable when an agreement is entered into with the Shareholder after the issuing of the Directive. Rand Water finds itself in a situation that a Ministerial Directive must satisfy all these conditions and comply with legislation. Rand Water must therefore write back to the shareholder of its acceptance of the Ministerial Directive in line with conditions and legislation. Therefore, Rand Water's performance against agreed upon targets in the project plan on New Ministerial Directives that are issued by the Minister and accepted by Rand Water during the year.

7.1 Section 63 of the Water Services Act at Emfuleni Local Municipality

On 5th March 2021, and revised on 6th July 2021, Rand Water received a directive to be the implementing agent for the Vaal Intervention in terms of Section 63 of the Water Services Act at Emfuleni Local Municipality.

The execution of this Directive is covered comprehensively under the Rand Water Services part of this document.

8 Water Resources

8.1 Water Availability; Use Rights; and Licenses.

The following confirm the Environmental Requirements for the projects on the Rand Water IDP. The memorandum focuses on Water Use Licenses Applications (WULA), and Environmental Authorisations (EA). Heritage Authorisations have been excluded; however, they are required on all pipeline projects. The IDP has 95 projects, which potentially are identified as requiring Environmental Authorisations. Of the 95 projects, 57 have completed EIA/WULAs. However, 6 projects, do not have enough information to assess. Our current Supply Chain Management procurement plan currently has 23 projects, including 13 WULAs and 15 EIAs, from the IDP list. The text below lists the projects on the procurement plan including outstanding projects from the IDP.

8.1.1 Projects Planned for Environmental Impact Assessment

Rand Water engages on the infrastructure development through the implementation of the Infrastructure Development Plans (IDP). These infrastructure development projects implemented require authorisations as per the National Environmental Management Act 107 of 1998, National Water Act 38 of 1998 and National Heritage Resources Act 25 of 1999.

Table 10. List of Projects planned for Environmental authorisations

P Number	Description	Corporate system	Infrastructure type	Amount
P.04638	Panfontein: Renewal of drying beds	Raw	Dam	R550,000
PPIR.05172	Thickener 3 at Panfontein	Raw	Thickener	R550,000
No P Num	Zuikerbosch System 5B(600 Ml/d)	Zuikerbosch	Purification	R550,000
No P Num	Pipeline Brakfontein to Kwaggaspoort	Palmiet	Pipe	R550,000
No P Num	Pipeline Hartebeesthoek to Rosslyn	Palmiet	Pipe	R550,000
No P Num	Pipeline Rosslyn to Soshanguve	Palmiet	Pipe	R550,000
No P Num	Reservoir 250Ml at Klipfontein	Palmiet	Reservoir	R550,000
No P Num	Pipeline W1 Duplication: Mamelodi to Ekandustria	Mapleton	Pipe	R550,000
No P Num	Pipeline M10 duplicate pipeline from Selcourt to Heidelberg	Mapleton	Pipe	R550,000
No P Num	Reservoir 150 Ml at Ekandustria	Mapleton	Reservoir	R550,000
				R5,500,000
No P Num	Pipe and purification: Hartebeespoort to Rustenburg scheme (100Ml/d)	Eikenhof	Pipe	R600,000

P Number	Description	Corporate system	Infrastructure type	Amount
PPIR.05359	Building: Wellness Center	Eikenhof	Building	R600,000
No P Num	Pipeline Daleside-Ennerdale augmentation (Phase 2 of 2) T3 duplicated	Zwartkopjes	Pipe	R600,000
PPIR.05393	Building: Construction Services Headquarters	Zwartkopjes	Building	
PPIR.05509 Zwartkopjes Building	Building: Innovation Hub	Zwartkopjes	Building	R600,000
PPIR.05549	Central Depot solar energy	Zwartkopjes	Photovoltaic	R600,000
P.05551, P.05550,	Solar energy at 8 sites; central depot, VG, ZB, Rooderpoort depot, Eik	All	Photovoltaic	R600,000
P.02537, P.02815	Hydropower various sites: Control Works, Brakfontein, Klipfontein	Hartebeeshoek	Hydro electricity	R600,000
No P Num	Automated regulation in Municipal Networks (JHB) Phase 2	All	Valves	R600,000
P.04844	Stabilization of Embankment at the Vaal River around the Intake	Raw	Earthworks	R600,000
P.03753	Vereeniging - Chlorine Plant 2 upgrade	Vereeniging	Chlorine	R600,000
P.02957	Overall upgrade Lethabo - Phase 2	Vereeniging	pipe	R600,000
P.03557	Poly dosing plant at WA1	Zuikerbosch	Polyelectrolyte	R600,000
P.03201	Chlorine plant 4A replacement	Zuikerbosch	Chlorine	R600,000
P.03433	Building Construct New Waterwise Complex	Zuikerbosch	Building	R600,000
No P Num	Pipeline B10 replace concrete portion	Palmiet	Pipe	R600,000
P.05098	Pipeline C13 & C15 refurbishment	Palmiet	Pipe	R600,000
No P Num	Pipeline H7 Refurbishment	Mapleton	Pipe	R600,000

P Number	Description	Corporate system	Infrastructure type	Amount
				R10,200,000
P.04045	Pipeline Refurbish L16 Van Dyk Park to Brakpan Res	Mapleton	Pipe	R650,000
No P Num	Pipeline Replace N4, Selcourt - Wildebeestfontein with ~1200mm	Mapleton	Pipe	R650,000
No P Num	Pipeline Replace N6 with 900/1200mm	Mapleton	Pipe	R650,000
No P Num	Mamelodi Pump Station Refurbishment	Mapleton	Engine Room	R650,000
No P Num	Trichard Pumping Station	Mapleton	Engine Room	R650,000
No P Num	Pipeline E11 pipeline refurbishment	Eikenhof	Pipe	R650,000
P.04094	Refurbish F25 Pipeline	Eikenhof	Pipe	R650,000
PPIR.05030	Pipeline B1 Replacement (1300mm x 26km + 1860mm x 19km)	Zwartkopjes	Pipe	R650,000
PPIR.05030	Pipeline B2 replacement (1300mm x 26km)	Zwartkopjes	Pipe	R650,000
PPIR.04766	Building Bws CD offices and recreation facility	Zwartkopjes	Building	R650,000
P.02584	Fabrication Plant renewal	Zwartkopjes	Building	R650,000
No P Num	Refurbishment of existing Ground Water systems	Sector Growth	Ground Water	R650,000
PPIR.5381	J5 Pipeline (priority portion)	Palmiet	Pipe	R650,000
No P Num	Design and construct Roads at various reservoir sites	All	Fencing	R650,000
				R9,100,000
				R24,800,000

8.1.2 Projects Currently with Amendments to EIA Aspects

Environmental Authorizations are issued by the competent authority which is DEFF with a 5years validity period. Every Environmental Authorization comes with a condition that stipulate that *"the authorised activity must commence within a period of five (05) years from the date of issue. If commencement of the activity does not occur within that period., the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken".*

Table 11. List of Environmental Authorisations

REFERENCE NUMBER	PROJECT NAME	REQUEST FOR AN EXTENSION SUBMISSION DATE	EXTENSION RECEIPT DATE	NEW EA EXPIRY DATE
14/12/16/3/3/1/1/1456/AM1	Brakpan reservoir EA extension	14-Nov-19	10-Jan-20	18-Nov-25
14/12/16/3/3/1/1/1230/AM1	A13 Pipeline EA extension	14-Nov-19	27-Nov-19	18-Jun-25
14/12/16/3/3/1/1463/AM1	Vlakfontein reservoir EA extension	14-Nov-19	04-Dec-19	16-Nov-25
14/12/16/3/3/1/1462/AM1	Sludgeline phase 2 EA extension	14-Nov-19	06-Dec-19	24-Nov-25

REFERENCE NUMBER	PROJECT NAME	REQUEST FOR AN EXTENSION SUBMISSION DATE	EXTENSION RECEIPT DATE	NEW EA EXPIRY DATE
14/12/16/3/3/1/1289/AM1	Panfontein sludge pipeline EA extension	14-Nov-19	10-Jan-20	02-Jul-25
14/12/16/3/3/1/1450/AM1	T5 pipeline	26-Nov-20	08-Dec-20	09-Feb-26
14/12/16/3/3/1/1455/AM1	H43 Pipeline	28-Oct-20	01-Dec-20	10-Nov-25
14/12/16/3/3/1/1553/AM1	Panfontein access road	26-Nov-20	08-Dec-20	11-Aug-26
14/12/16/3/3/1/1615/AM1	B16 pipeline from ZKB to Slangfontein	26-Nov-20	05-Jan-21	02-Nov-26
12/9/11/L180823155819/3/N	Leeuwkuil WWTW upgrade	17-Feb-21	Project handed back over to DWS.	Waste License has lapsed.
14/12/16/3/3/1/1942/AM1	K2 pipeline	02-Mar-21	10-Mar-21	14-Mar-24
14/12/16/3/3/1/1167	M11 pipeline	02-Mar-21	29-Mar-21	27-Mar-20
14/12/16/3/3/1/1972	D1 pipeline	02-Mar-21	29-Mar-21	12-Feb-24
14/12/16/3/3/1/1632	Meredale reservoir	02-Mar-21	29-Mar-21	9-Mar-27

REFERENCE NUMBER	PROJECT NAME	REQUEST FOR AN EXTENSION SUBMISSION DATE	EXTENSION RECEIPT DATE	NEW EA EXPIRY DATE
08/C12L/A/12624	Water Use license (WUL) for the Raw Abstraction license	24-Apr-23	Awaiting feedback from DWS	-
14/12/16/3/3/1/191	L21 pipeline	30 May 2021	Not yet submitted	-

All the authorisations needing renewal have been renewed, except for Leeuwkuil WWTW which has been handed over to DWS, as well as WUL Abstraction for Raw Water and L21 pipeline which their renewal process is underway.

8.1.3 Projects Currently with Amendments to WULA Aspects

None.

8.1.4 Projects where Environmental Authorizations are being Queried.

To date, two projects as indicated on the table below from Department of Forestry, Fisheries and Environment (DEFF), were queried in terms of execution and compliance progress. No queries were received thus far from DWS.

Table 12. Table 3: List of projects queried

	QUERIES FROM DWS	STATUS
1	C25 pipeline	Requested information has been sent to DFFE.
2	Meyersdal reservoir	Requested information has been sent to DFFE.

8.2 Vaal River Pollution

The Vaal River catchment area stretches from Ermelo in the northeast to Vryburg in the northwest, to Douglas in the southwest and to Harrismith in the east. The catchment area 2 covers approximately 197 000 km2 and is situated in the geographic centre of the country (Figures 1a and b). The Vaal River is probably the most developed and regulated river in Southern Africa – it has some 90 major man-made impoundments situated on the main stem and its tributaries. A particular characteristic of the Vaal WMAs (Water Management Areas) is the extensive inter-catchment transfer of water within the WMAs as well as interbasin transfers between these and adjoining WMAs. In addition to the direct linkages through these transfers, the impacts of water resource management also indirectly extend to other WMAs within South Africa.

Substantial transfers occur from the Thukela River, the Usutu River and Senqu River (in Lesotho) into the Vaal River System. The Vaal River again serves as conduit to transfer water among the three Vaal WMAs and significant transfers out of the Upper Vaal WMA occur through the distribution system of Rand Water to the Crocodile West/Marico WMA (diagram below).

The boundaries of the Vaal River System, for the purpose of this document, include three WMAs namely the Upper Vaal, Middle Vaal and Lower Vaal. Due to the cascading orientation and the associated inter-dependency of the three WMAs, it is essential that the water resources of the Vaal River System are managed to achieve a balance in meeting specific requirements in each WMA as well as fulfilling the transfer obligations among the WMAs.

8.2.1 Water Quality Overview

The Water Resources of the Vaal River System is an important asset to the country and its people, supporting major economic activities and a population of approximately 13 million people. The water quality varies from poor in the highly developed areas to good in the less developed areas. The water quality is impacted on by point discharges from industries, wastewater treatment works, mine dewatering, irrigation return flows and diffuse sources such as runoff from mining and industrial complexes, agriculture and urban areas. The area is also subject to atmospheric deposition (a cause of increased salinity) due to emissions from coal fired power stations and industry in the Upper Vaal WMA.

In terms of the previous studies reviewed, the major water quality issues that were identified to be widespread throughout the system are salinity, eutrophication, and sewage effluent (adding to nutrient and microbiological contamination). Much of the findings relate this back to source impacts and poor management practices and diffuse pollution, in addition to general non-compliance to prescribed waste discharge standards.

Sewage discharges often far exceed the standards and conditions demanded by licenses. For the purpose of water-quality management, pollutants in municipal wastewater may be classified into the following five categories:

- Organic matter (measured as biochemical oxygen demand or BOD),
- Disease-causing microorganisms (pathogens),
- Nutrients (nitrogen and phosphorus),
- Toxic contaminants (both organic and inorganic), and
- Dissolved minerals.

There is a problem of compliance with regard to Local Authorities and private operators responsible for waste management systems. Diffuse discharges only compound the problem by reducing the assimilative capacity to such an extent that the water becomes unfit for use, very expensive to purify, and a danger to human health.

Industrial wastewater discharge, diffuse agricultural discharges, wastewater treatment works, the location and management of solid waste disposal sites, the siting of new developments, informal settlements and the impacts of sanitation systems, are all elements of great concern. The lack of maintenance of infrastructure, as well as the slow (or lack of) development of new infrastructure to cope with population growth and development, are significant contributors to deteriorating water quality.

The most significant pollution sources in the catchment upstream of Vaal Dam are the Waterval River, which includes gold mining and the largest oil-from-coal petrochemical industry in the world, and the coal mines in the northeastern portion of the catchment. Extremely high point and diffuse pollution loads emanate from the heavily developed Vaal Barrage catchment. Smaller, but still very significant, pollution loads emanate from the Midvaal and Free State Goldfields mining areas between Vaal Barrage and Bloemhof Dam. Irrigation at Vaalharts and in the Sand-Vet Government Water Scheme (GWS) and along the lower Vaal River to Douglas cause further concentration of salts. The Modder and Riet River irrigation schemes consume large amounts of fresh water and raise salinity levels in the depleted river flow to extremely high levels, further adding to the pollution of the lower Vaal River at Douglas.

Blending and dilution schemes have ameliorated salinity in the Rand Water supply. However, it has done little to alleviate salinity and eutrophication problems experienced further downstream, for example at the Midvaal and Sedibeng drinking water plants' raw water intakes, along the rest of the Middle Vaal River, in Bloemhof Dam and escalating along the Lower Vaal River towards Douglas Weir and the confluence with the Orange River (DWAF, 2009).

8.2.2 The impact of floods on water quality

The impacts of floods can be summarized as follows.

1. The 'first flush' of a flood event normally has a negative impact due to the increased surface runoff and riverbed sediment disturbance.

2. Dilution caused by continuous high flows have a positive impact.
3. The disturbance of sediments can cause increases in organic matter, causing colour and oxygen demand problems.
4. High turbidity and high flow conditions are not favourable for algal growth, causing reduced algae in the water.

8.2.3 Impacts of drought on water quality

The impacts of droughts can be summarised as follows.

1. Increased evaporation results in water losses during periods of high demand (summer)
2. Increased salinity in dams as only fresh water evaporates, leaving minerals behind.
3. Turbidity deteriorates as reservoirs reach bottom levels, affecting the intake of raw water to treatment works.
4. High temperatures cause increased algal growth, invasive aquatic plants (hyacinth) which can cause clogging of intakes and filters, as well as produce taste and odours.
5. Low flows create more areas of stagnant water which can be breeding areas for various water borne diseases.

8.2.4 Potential impacts of climate variability on potable water supply

The potential impacts of floods and droughts can be summarized as follows.

1. Salinity cannot be removed via conventional processes and will cause taste (brackish) problems in drinking water. High salinity also has negative commercial / industrial use consequences.
2. Cyanobacteria (Blue-green algae) produce mycrocystin / geosmin causing taste and odours and potential health problems. Mycrosystin can be fatal to animals.
3. Should water quality changes become long-term or permanent, changes in treatment regime may be required, which will be costly. Completely new technologies may have to deployed.
4. Frequent flood events may cause siltation of abstraction works.
5. Increased aquatic vegetation may cause clogging with algae and floating vegetation e.g., hyacinth).
6. High turbidity of raw water will require increased chemical dosing (flocculation), increased filter backwash frequencies and increased operating costs as a result.
7. Colour due to increases in organic matter causes aesthetical non-compliances.
8. Increased temperatures and poor raw water quality may provide ideal breeding conditions for new waterborne diseases such as bilharzia, malaria.
9. Extreme weather conditions will place additional stress on infrastructure with potential failure due to overheating of pumps etc.

8.2.5 Current Status

Due to the importance of the Vaal River system in terms of the South African economy, the system must be protected to ensure future water security and sustainability. An integrated water quality management plan for the Vaal River System needs to be developed. The Vaal River CMA needs to be established and operational as a matter of urgency to ensure water quality does not continue to deteriorate any further.

4) In the absence of the CMA, the Minister of Water and Sanitation, through the regional offices, is responsible for all functions related to water resource management. DWS, and SALGA will work together to enable the use of more stringent controls over municipalities to prevent the occurrence of sewage overflows and spillage.

8.3 Rand Water's Role in the Vaal River System

Supplying drinking water that is safe, palatable and affordable is of priority to Rand Water. Therefore, quality assurance is of the utmost importance to Rand Water as it ensures that its customers receive safe and wholesome water through performance assessments and identification of long-term risks from source to tap. This results in the development of strategies in the mitigation of identified risks that result in public health protection. In keeping with the latest international trends, Water Quality Specialist Services under the Scientific Services Division is structured to address water quality assurance activities across the entire supply chain (catchment to consumer).

The following activities are undertaken:

a) Catchment Monitoring. The monitoring of raw water quality through routine surveillance, flood management, forum management and riparian development control.
b) Quality Assurance for Water Production. Assure the quality of water produced during the purification process through setting water quality standards and defining monitoring programmes, identifying and mitigating water quality risks and compliance reporting to management.
c) Quality Assurance for Water Distribution. Assure the quality of drinking water supplied to customers complies with the national standard through rigorous (on-line) monitoring and independent audit programmes as well as the organics monitoring programme whose aim is to protect public health against any emerging contaminants which are harmful to human health; and
d) Customer Care. The assurance of drinking water quality to the point of consumption (after-sales service) entails regular liaison with customers (Water Services Authorities) to resolve consumer complaints, create public awareness, assist with regulation audits and educate the consumer base on water-wise principles.

Deliberations within the Business Unit Management team aim to achieve a result of which is a periodically changing plan to face the type of challenges mentioned, while continuously aligning to the strategic direction of Rand Water

The total average daily demand for the Rand Water network is projected to increase from the current Ml/d to approximately 6 600 Ml/d in 2035 as depicted in the table below.

The latest forecast indicates a continuation of the trend of gradually decreasing rates of annual demand growth. This is expected. Rand Water now supplies a predominantly urban, domestic consumer base. Population growth is the main driver of demand growth, with the economy having a secondary effect. Worldwide, urbanizing populations exhibit reduced rates of population growth. In South Africa, this effect is magnified by the impact of AIDS on fertility and mortality rates. A recent demographic study, undertaken on behalf of Rand Water, confirms this trend.

The total average daily demand for the Rand Water network is projected to increase from the current 5,220 Ml/d to around 6,600 Ml/d in 2035. This gives an average rate of demand growth of 1.26% per annum over this period. The three metros supplied by Rand Water, Johannesburg, Ekurhuleni and Tshwane – are all projected to grow at this rate. The metros consume 75% of the water supplied from our network.

Through the hydraulic modelling process, forecast demands are added at each significant supply point. This allows the estimation of peak flows in each pipeline, and peak demands on each of the pumping stations. Results for each of the major systems are given in the table below (quoted capacities exclude standby units). Projected peak demands to 2035 are as follows.

8.3.1 Reliability of Supply

In comparison to the previous year, total sales volumes increased by 1.1% for the year ending June 2021. The average demand was 4383Ml/d in comparison to the previous year's 4,331Ml/d.

The budget for the period was 4,480Ml/d. The water demand initiatives and activities imposed on municipalities resulted in the actual average demand being lower than budget.

The Business Unit met all peak daily demands during the year, thus abiding by the Bulk Water Supply Contract. The peak daily demand for the period ending June 2021 was 5036Ml/d in September 2021. The maximum daily demand achieved of 5045mMl/d in October 2019. 5 045 Ml/d is still the highest Peak day demand achieved so far. Supply is based on the Rand Water General Water Supply Conditions and key to this is customer satisfaction requirements. Based on this, the division will continue to ensure that our reputation with regards to reliability of supply is not flawed.

A key responsibility is to maintain a 24hr continuous supply and storage capacity; by monitoring and controlling 59 reservoirs via the telemetry system. In addition, they are tasked with the responsibility to respond to water quality challenges that may arise through the bulk supply lines, dosing plants and reservoirs. Ensuring the reliability for the supply of potable water there are current projects. running, which relates to the upgrading of plant equipment and pipelines in order to maintain our infrastructure. These will be outlined under projects.

A primary input in the production of good quality potable water is treatment chemicals, which is a significant proportion of the overall corporate budget. It is therefore imperative that chemical usage is efficient. Chemical efficacy is measured as the total chemical cost to produce a kilolitre of potable water Operations displayed efficient chemical usage for the period ending July 2021, achieving 0.216 R/kl against a target of 0.243 R/kl as critical spares are important to reliability of supply the OES department within Operations embarked on facilitating development of Critical Spares Management Process and it was successfully completed within 1 year.

8.3.2 Water Quality Supply to Local authorities

The supply of safe potable water is of the highest priority to Rand Water. To this effect, Rand Water provides water that is fit for lifetime consumption. Rand Water places a high premium on public health protection and to this end has adopted the SANS 241 drinking water quality standard to ensure the delivery of safe drinking water to Water Services Authorities. This is achieved by implementing stringent water quality standards, assessments and processes throughout Rand Water's entire supply chain. This provides robust mechanisms to ensure that the water supplied to Water Services Authorities will continuously meet the SANS 241 standard when it reaches the furthest consumers. The quality of drinking water delivered to Rand Water customers during this financial year met all contractual and legislated standards. All physical, chemical and biological health-related parameters were compliant with the SANS 241 drinking water quality standard. To enable improved water quality monitoring, an online instrument upgrade programme is in progress for the Booster sites. Additionally, a project to install online instruments in the bulk distribution network is currently underway. This will enable continuous real-time monitoring of water quality at critical and furthest points within the bulk distribution area resulting in improved decision making.

8.3.3 Integrated Regulatory Information Systems (IRIS)

In accordance with Section 67 of the Water Services Act of 1997 which mandates the Minister of Water and Sanitation to ensure that there is a national information system on water services and that this information is made available to the public, the Department of Water and Sanitation has established the Blue Drop System (BDS) (now replaced with Integrated Regulatory Information System (IRIS)). This system enables the department to monitor the performance of every Water Service Institution and allows limited access to the public with regards the quality of water supplied to them. All Water Services Institutions are required to register and upload information such as

supply systems, laboratory used for analysis, water quality monitoring programmes, process controllers and water quality data, to mention few, on a continuous basis. Rand Water's information is being updated on the system continuously as per the BDS / IRIS requirements.

In order to achieve a Blue Drop award, the organization must score at least 95% when assessed against the Blue Drop requirements set out by the Department of Water and Sanitation.

- This criterion encompasses not only water quality compliance but the entire management of the drinking water system.
- The assessment is done by water professionals designed to look at 5 key areas comprising of: (1) water safety planning, (2) water quality compliance, (3) process management, (4) management accountability and (5) asset management.
- Rand Water continues to maintain excellent performance on the Blue Drop requirements.
- The Gauteng Regional office conducted assessments in January 2017.
- Vereeniging and Zuikerbosch plants were assessed and both plants performed well.
- The two purification sites, Zuikerbosch and Vereeniging are registered as a Class B works by the Department of, Water and Sanitation, and are supposed to be audited on a two-yearly basis. This year a full Blue Drop audit was not conducted and only a Progress Assessment Tool exercise (PAT desktop assessment) was conducted. All the municipalities that are supplied by Rand Water are dependent on Rand Water to get a Blue Drop certification as the scores achieved for water quality compliance, abstraction and treatment practices are also allocated to these municipalities and contribute towards their scores.

8.3.4 Water Services Emergencies

Water abstraction infrastructure situated at the Vaal Dam is not under Rand Water's control. As a result, condition and availability of this infrastructure could impact seriously on our ability to supply water in case of failure. A proposal to establish a quarterly services forum between Vaal Dam and site management to improve communication and co-operation is in place. After major failure of the gate at the intake in the Vaal Dam in 2008, DWS refurbished the mechanical and electronic equipment. This gate failed again in August 2011. There is a dual system in the Vaal Dam, DWS has installed an inline filter system to prevent blocking of the valve in the system thus would guarantee supply of one system if the other is out for service or breakdown.

9 Bulk Water Supply

9.1 Capital Expenditure analysis for bulk water infrastructure.

The Asset Management division play a leading role in the life cycle management of the organisation's infrastructure. With the adoption of ISO 55000 the appropriate processes and controls are in place which enhances the determination of both the augmentation and renewal CAPEX plans. The 5-year plan continues to be dominated by expenditure associated to the 2009 Additional Water supply scheme. Phase 1 of the 2009 scheme is scheduled to deliver an additional 600Ml/day into the network by December 2023.

Table 13. Augmentation and Renewal Projects

System	Augmentation (R'm)	Renewal (R'm)
Eikenhof	1,978	2,914
Mapleton	3,161	2,450
Palmiet	4,377	2,107
Primary	4,309	5,129
Zwartkopjes	1,385	3,102
All Systems	1,746	2,115
Total	**16,956**	**17,818**

The average ratio over the five-year planning horizon between Augmentation and Renewal investments is 46/54.

Diagram 7. CAPEX Bulk Water Infrastructure

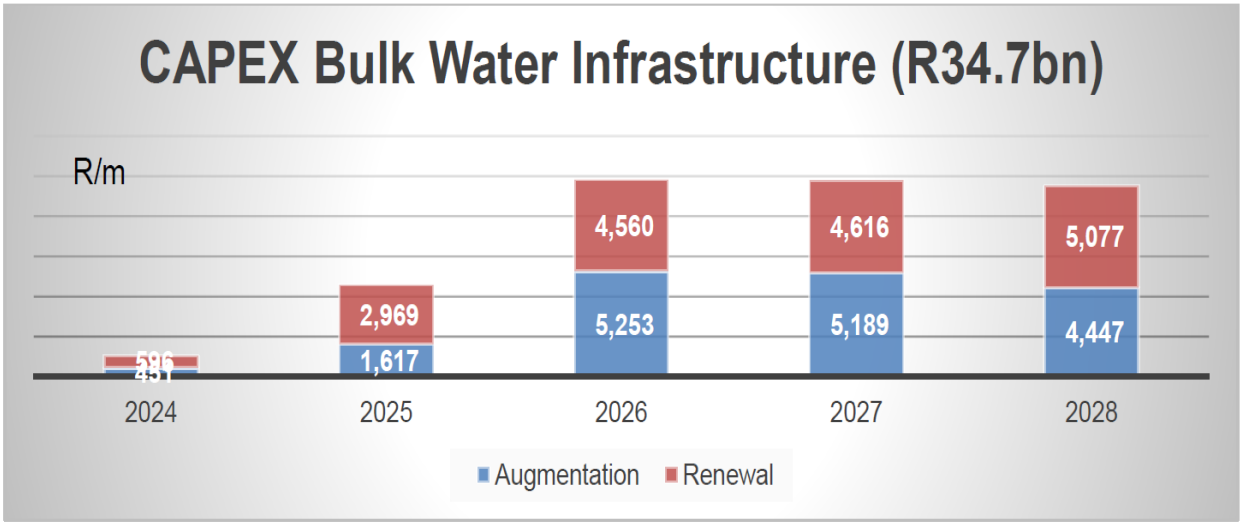
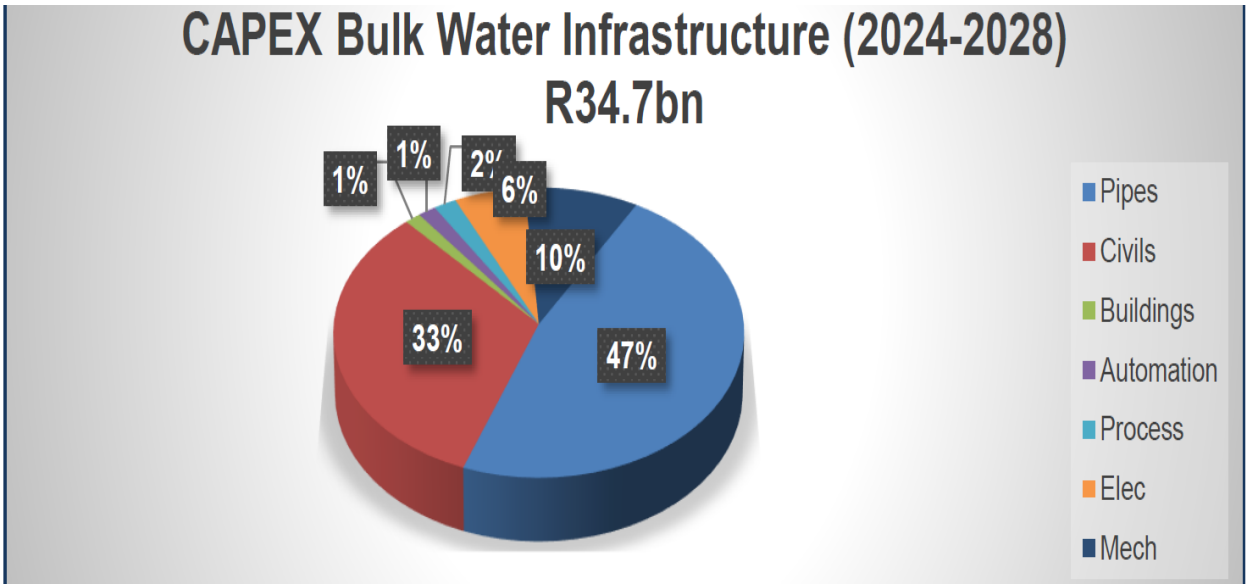


Diagram 8. Total CAPEX



The following projects are major investments within the Capital expenditure program.

Table 14. Major Investments within the Capital Expenditure Program

Augmentation			Renewal		
Project	**System**	**R/m**	**Project**	**System**	**R/m**
Station 5B	Station 5	1,502	Replace pipeline A6	Zwatkopjes	813
Hydro &Solar	Various	1,348	Panfontein stock piling	Raw Water	653
Pipeline O6 Germiston to Lombardy	Palmiet	920	Raw water canal 2	Raw Water	631
Panfontein,blending ponds, settling ponds, buildings, canal.	Raw Water	860	Replace pipeline B1	Zwartkopjes	601
Meredal Reservoir 210 ml	Eikenhof	731	Replace pipeline B6	Palmiet	451
Top 5 Total		**5,361**			**3,149**

Table 15. Augmentation Program

Augmentation Program			Sys					
				Jun 24	Jun 25	Jun 26	Jun 27	Jun 28
A	P Number							
14	P.01637	Pipeline B19 Lethabo - Vereeniging	Raw	1				
340	P.05562	Forebay expansion	Raw		1	2	20	80
341	P.05562	Control works upgrade (for Canal 2)	Raw	-	30	88	88	88
401	8, P.04994, PPIR	Panfontein package 2: blending ponds, settling pond, GT3, buildings, canal	Raw	100	180	180	180	220
404	PPIR.05678	Construct New Polyacrylamide Dosing Plant at Panfontein	Raw	0	2	20	18	
7	P.02550	Sedimentation tanks at Zuikerbosch (overflow)	Zuikerbosch	2	14			
257	P.04260	Upgrade PLCs, SCADA, HMI and industrial networks	Zuikerbosch	37	75	10		
88	P.03754	Polyelectrolyte Dosing Plant No. 2 for system 5	Vereeniging	1	25	25		
299	PIR.4615, P.047	Pipeline: A25 Sasolburg to Holly County and pump station	Vereeniging	1	10	100		
402	PPIR.05660	Install equipment for WTR density control at Zb and Vg	Vereeniging	1	20	39		
87	PPIR.04948	Vg Engine Room 2 completion: Install pumps on Eastern side (1 x VVS, 1x Daleside)	Vereeniging	1	20	84	84	
17	P.03550	ST5 New Filter house 5A	ST 5	10				
17	P.03549	ST5 New Engine room - 5A	ST 5	22				
17	P.03553	ST5 Power Supply and Reticulation	ST 5	5				
17	P.03554	ST5 Automation	ST 5	-	5	20		
17	P.02867	ST5 ZB5 600ML/day Plant at Station 5 (roadworks)	ST 5	-	1	115	115	
17	P.04309	ST5 Chlorine Disinfection Plant	ST 5	3	80	50		
17	P.04501	ST5 Online Labs	ST 5	5	10	5		
	P.05438	ST5 - Sludge Pump Engine Room and Pipeline to Panfontein	ST 5	1	4	50	110	240
20	P.03371	Pipeline C25 Zwartkopjes - Glenvista (Phase 1 - 2 contractors)	Palmiet	1				
11	P.03047	Pipeline B17 completion	Palmiet	1	10	180		
41	P.04621	Pipeline O7 Kensington to Yeoville	Palmiet	1	15	140	200	300
107	P.04622	Pump Station Kensington to Yeoville	Palmiet	1	50	155		
21	P.03048	Pipeline G37/H37 Shamrock Road - Airfield	Palmiet	1	19			
48	P.04463	Pipeline H43 Brakfontein to Lyttelton Heights	Palmiet	1	10	234	234	
37	P.04859	Pipeline H14 Heights - Kwaggaspoort	Palmiet	1	10	64		
64	P.04705	Pipeline H44 Pretoriusrand	Palmiet	1	10	85		
65	P.04706	Pipeline H45 Pretoriusrand to Diepsloot	Palmiet	1	10	85		
8	P.03027	Pumps Palmiet Engine Room 3b	Palmiet	1				
112	P.05251	Reservoir 200 Ml at Germiston	Palmiet	1	80	489		
113	P.05519	Reservoir 100Ml Hartebeesthoek	Palmiet	1	130	135		
42	P.04457	Suction and delivery Header improvements at Palmiet p.s.	Palmiet	1	10	32		
3	P.03055	Pipeline O6 augmentation Palmiet to Germiston (Phase 1)	Palmiet	5	37			
61	No P Num	Pipeline O6 Germiston to Lombardy augmentation (Phase 2)	Palmiet	1	4	450	465	
407	P.05679	New inlet structure at Brakfontein	Palmiet	0	5	55		
93	P.04357	Pipeline N7, N8, phase 3B	Mapleton	1	2	20	55	85
16	P.03372	Pipeline S4 Van Dyk Park - Rynfield	Mapleton	2				
38	P.03370	Pipeline B16 Zuikerbosch - Slangfontein pipeline	Mapleton	126	133	133	133	
4	P.04281	Pipeline H46, H47 Rietvallei Nature Reserve - Mamelodi pipelines	Mapleton	1	10	50		
254	P.04338	R5 Phase 3 (last portion: bypass Rietvlei nature reserve)	Mapleton	1	10	90	100	200
101	PPIR.05779	Pipeline R2 to Daveyton	Mapleton	1	5	60	15	
98	P.04742	Reservoir 80Ml at Selcourt	Mapleton	1	5	98	98	
31	P.04206	Reservoir 100 Ml at Bronberg	Mapleton	1	8	125	125	
253	PPIR.05688	Vlakfontein reservoir phase 2: S5 and S6 pipelines (inlet, outlet)	Mapleton	1	5	70	185	
49	P.05731	Pumps Bloemendal Upgrade - ER2	Mapleton	1	5	5	10	10
18	P.03026	Pumps Mapleton station upgrade ER3	Mapleton	1	4	45	50	
	No. P Num	Install Hypo generation plants	Mapleton	1	5	15	80	
89	P.04604	Pipeline G38 Meredale to Nasrec	Eikenhof	1	5	25	50	
30	P.04201	Pipeline F49 Krugersdorp - Randfontein (Portion D)	Eikenhof	1	10			
244	P.05588	Pipeline: F9 Augmentation with F52	Eikenhof	1	5	25	70	
27	P.04203	Reservoir 210 Ml at Meredale (single circular res) and Q6	Eikenhof	1	10	290	430	
54	PPIR.05651	Pipeline from Driefontein Reservoir to Blyvooruitzicht (E16)	Eikenhof	1	5	50	90	110
86	P.04474	Emergency Generators for Booster Sites	Eikenhof	1	28			
55	P.03565	Pumps upgrade of pump sets at Libanon PS (new pumps, valves)	Eikenhof	1	40	15		
240	PPIR.05359	Building: Wellness Center	Eikenhof	0	5	32	50	
45	P.04950	Pumps Roodepoort Booster Pump Station	Eikenhof	1	15	43		
52	P.04340	Pump Townlands Pumping Station	Eikenhof	1	2	45		
36	P.04205	Pipeline from Arcon Park to Langerand (A13 duplication)	Zwartkopjes	1	5	30	165	
57	PPIR.05722	Pipeline Daleside - Ennerdale Aug. (Phase 1 of 2)	Zwartkopjes	0	5	15	100	110
33	P.04204	Pipeline T7 Orange Farm to to Ennerdale	Zwartkopjes	1	5	15	65	
32	P.04336	Reservoir 50Ml at Daleside (augment existing)	Zwartkopjes	1	5	50	45	
91	P.05158	New Engine Room at Amanzimtoti (phase 3: ER3)	Zwartkopjes	1	5	35	150	
241	PPIR.05393	Building: Construction Services Headquarters	Zwartkopjes			0	10	70
242	PPIR.05509	Building: Innovation Hub	Zwartkopjes			0	10	80
343	PPIR.05722	Engine Room Daleside	Zwartkopjes		0	5	20	45
345	829 includes this	In-line check meters to achieve mass balance phase 1 zonal meters	Zwartkopjes	0	30	30		
447	P.02811	BWD Upgrade Amanzimtoti PS	Zwartkopjes		10	70	70	100
, 415, 416,	43, P.05641, P.0	Cogen ~20 MW: Hydro and Solar: (PV@CD, Vg, Zb, Eik, Pal, Map, Zks, roodepoort & hydro @ Zoekfontein, Barrage, C	Several	51	184	200	300	613
410	P.05689	Automated regulation to Municipal Networks (JHB) Phase 1	Several	30	30			
410	P.05689	Automated regulation in Municipal Networks (JHB) Phase 2	Several	1	10	49		
410	P.05689	Automated regulation in Municipal Networks (Other muni areas)	Several	1	10	50	150	
A 2	**P Number**	**Projects yet to start, or in pre-feasibility (> R50 million)**	**Corporate system**	**Jun 24**	**Jun 25**	**Jun 26**	**Jun 27**	**Jun 28**
180	No P Num	Zuikerbosch System 5B (600 Ml/d)	Zuikerbosch	1	1	250	300	950
110	No P Num	Pipeline Remainder of the C25 pipeline (Phase 2) Klipriviersberg-Meyers Hill	Palmiet	10	40			
78	No P Num	Pipeline Brakfontein to Kwaggaspoort	Palmiet				1	20
80	No P Num	Pipeline Hartebeesthoek to Rosslyn	Palmiet				1	1
81	No P Num	Pipeline Rosslyn to Soshanguve	Palmiet				1	1
254	No P Num	Reservoir 250Ml at Klipfontein	Palmiet				0	5
111	No P Num	Palmiet Pumpset 14 and O4 Pipeline Augmentation	Palmiet	0	10	30	15	
114	No P Num	Infrastructure to facilitate safer long term reservoir shutdowns: additional pipework, BP tanks, isolating valves at various	Palmiet	0	5	34	35	35
407	P.05679	New inlet structure at Brakfontein	Palmiet	0	5	55		
344	No P Num	Reservoir: 100 Ml Northridge	Palmiet	0	1	20	148	148
92	No P Num	Pipeline O6 Lombardy to Klipfontein (Phase 3)	Palmiet				2	20
103	No P Num	Pipeline L14/L12/L7 augment Geduld - Strubenvale	Mapleton	0	0	10	50	30
104	No P Num	Pipeline H20 augment Mavilon - Esselen Park - Monument Park 800mm	Mapleton				5	50
100	No P Num	Pipeline W1 Duplication: Mamelodi to Ekandustria	Mapleton		0	50	50	300
102	No P Num	Pipeline M10 duplicate pipeline from Selcourt to Heidelberg	Mapleton		0	2	66	66
99	No P Num	Reservoir 150 Ml at Ekandustria	Mapleton		0	1	90	100
50	No P Num	Reservoir 250Ml at Brakpan	Mapleton			0	0	5
97	No P Num	Pumps Mamelodi Station upgrade ER2 - 4 x 60Ml/d	Mapleton			1	40	45
84	No P Num	Pumps Mapleton engine room upgrade (ER 4) 2 x 200Ml/d	Mapleton					1
53	No P Num	Reservoir Meredale additional 290 Ml (100 + 100 + 45 + 45Ml) storage	Eikenhof	0	0	50	150	150
71	No P Num	Reservoir 100 Ml at Weltevreden	Eikenhof			1	10	150
A 3		**Pillar 2, 3, 4 projects (smaller projects <R50 million)**	**Corporate system**	**to Jun 2Y**	**to Jun 2Y**	**to Jun 2Y**	**to Jun 2Y**	**to Jun 2**
		Raw augmentation	Raw	2	12	10	50	10
		Vereeniging augmentation	Vereeniging	1	16	4	2	-
		Zuikerbosch augmentation	Zuikerbosch	1	1	1	1	1
		Palmiet augmentation	Palmiet	3	2	5	3	2
		Mapleton augmentation	Mapleton	1	5	5	2	3

Table 16. Renewal Program

		Eikenhof augmentation	Eikenhof	1	2	3	3	
		Zwartkopjes augmentation	Zwartkopjes	-	9	14	4	
		Augmentation (PM) augmentation -	Several	2	15	30	20	
		Total for all augmentation projects		**451**	**1,617**	**5,253**	**5,189**	**4**
Renewal Program			**System**	**Jun 24**	**Jun 25**	**Jun 26**	**Jun 27**	**Jun**
25	P.04638	Panfontein package 1: stockpiling, renewal of drying beds	Raw	2	167	167	167	
18	5,P.0536,P.1791	Barrage refurbishment	Raw	1	50	80	100	
23	P.02767	Raw water canal drainage	Raw	1	20			
104	P.04844	Stabilisation of Embankment at the Vaal river around the Intake	Raw	1	35	20		
40	P.05562	Construct Raw Water Canal to Zb (Canal 2)	Raw	1	150	150	150	
105	P.04061	Pipeline replace portions of A18 raw water pipe	Raw	1	26	20		
31	P.01665	Pipeline Vereeniging to Zuikerbosch sludge line (PH2)	Vereeniging	1	80	55	30	
9	P.03661	Vereeniging 225Ml/d sedimentation tank and 250 Ml/d Flocculator	Vereeniging	1	75	107	107	
22	P.03314	Pumps Vereeniging Engine Room 4	Vereeniging	10	1			
26	P.03753	Vereeniging - Chlorine Plant 2 upgrade	Vereeniging	40	11			
185	P.05564	Pipeline Replace concrete A15 Vg to Sasolburg with new steel section	Vereeniging	1	22	48	50	
236	P.02877	Replace portion of A15 under the river	Vereeniging	1	10	20	25	
187	P.01695	Slaker House Number 1 and conveyors	Vereeniging	1	20	20	20	
109	P.03341	Cathedral Header replacement	Vereeniging	1	14	27	27	
21	P.02957	Overall upgrade Lethabo - Phase 2	Vereeniging	1	32	32	32	
445	P.04954	Alternative Power Supply to Vg Pump Station	Vereeniging	1	50	50		
17	P.00727	Zuikerbosch Filter House 1 upgrade	Zuikerbosch	1	25	93	93	
186	P.04531	Refurbishment of flash mixers and sedimentation tanks at WA1	Zuikerbosch	0	1	1		
188	P.04053	Construct EMS change & meeting room @WA1	Zuikerbosch	0	17	22	9	
34	P.03201	Chlorine plant 4A replacement	Zuikerbosch	1	10	35		
116	P.03433	Building Construct New Waterwise Complex	Zuikerbosch		-	1	10	
114	P.04938	Replace Chlorine Plant 4B	Zuikerbosch	1	3	40	50	
330	P.03563	Motors at ER3, 4, 4B, Raw Water ER	Zuikerbosch	1	30	30	30	
331	P.04471	Replace HTH dosing system at Zb and Vg	Zuikerbosch	1	5	70		
261	P.05452	Switchgear Upgrade at ER3	Zuikerbosch	1	10	100		
421	P.05036	Pipeline Replace Kwagga Pipeline	Zuikerbosch	2	10	80	100	
129	P.05013	Pipeline: Replace G25	Palmiet	1	11	58	65	
260	PPIR.05479	Replace B6 (concrete portion)	Palmiet	1	20	30	160	
132	P.05098	Pipeline C13 & C15 refurbishment	Palmiet	1	5	65	105	
228	P.03710	Palmiet Engine Room 2 (electrical automation upgrades)	Palmiet	20				
233	P.05462	Build inlet structure at Klipfontein	Palmiet	0	5	50	35	
223	PPIR.5380	Pipeline H4 Pipeline and H5	Palmiet		1	15	77	
222	P.05379	J10 Pipeline and K5 pipeline slip-lining	Palmiet	1	10	25		
406	P.05381	Pipeline J5 replace 13.5km of lead caulk pipe	Palmiet	2	15	113	113	
32	P.03066	Pipeline Replace M1 and M6 (new M11)	Mapleton	1	5	10	65	
38	P.04605	Pipeline Res - L18 & L19 Springs West to Brakpan (Replace L8 & L1) Brakpan	Mapleton	1	5	35	88	
47	P.04081	Pipeline Replace L10 Geduld - Modder East Reservoir with 710mm	Mapleton	1	20	80	80	
44	P.05032	Pipeline Replace L6 with L20: Leeuwpoort - Brakpan Res with 900/1400mm	Mapleton	1	30	90	90	
50	P.04045	Pipeline Refurbish L16 Van Dyk Park to Brakpan Res	Mapleton	1	1	50	50	
48	P.05271	Pipeline Replace K7/K2 Kleinfontein with K10 - Modder East	Mapleton	1	10	80	80	
134	PPIR. 05488	Pipeline Replace N1, Selcourt - Wildebeestfontein with 1100 mm dia with N12	Mapleton	1	20	20	100	
129	P.05578	Replace and Augment L13 Pipelines with 600mm L22 Pipeline	Mapleton	1	18	58		
27	P.00680	Mapleton - Disinfection plant replacement	Mapleton	4				
135	No P Num	Pipeline Replace N6 with 900/1200mm	Mapleton				10	
33	P.03797	Eikenhof P.S - Disinfection plant replacement	Eikenhof	5				
255	P.05341	Pipelines replace F4, F22, F33 from Moroka to Zuurbekom with the F50	Eikenhof	0	44	128	128	
43	P.03580	Suction and delivery Header improvements at Eikenhof p.s.	Eikenhof	50				
118	PPIR.05302	Pipeline D1 replacement (after Zuurbekom towards Libanon)	Eikenhof	0	10	90	90	
121	P.05304	Pipeline Replace F2, F10, F27	Eikenhof	0	5	50	100	
122	P.05375	Pipeline Replace F11, Refurbish F13	Eikenhof	1	5	20	125	
122	P.05301	Pipeline Replace F6	Eikenhof	0	5	50	100	
127	P.05244	Pipeline Butchers Hill – Nasrec C9, G10, F12 pipe replacement and refurbishment	Eikenhof				0	
127	P.05340	Refurbish/Replace G30 pipe	Eikenhof	0	20	70	70	
32	P.04336	Reservoir 50Ml at Daleside (replace existing)	Zwartkopjes	1	20	70	10	
229	P.05270	Replace K1 pipeline Kleinfontein to Benoni Reservoir	Zwartkopjes	1	20	70	18	
10	PPIR.5014	Pipeline replace A6 Vereeniging - Zwartkopjes	Zwartkopjes	1	110	150	180	
124	PPIR.5014	Pipeline replace A8 Vereeniging - Zwartkopjes	Zwartkopjes				20	
124a	PPIR.5014	Pipeline replace A8 and A8 Daleside - Zwartkopjes	Zwartkopjes				10	
14	PPIR.05030	Pipeline B1 Replacement (1300mm x 26km + 1860mm x 19km)	Zwartkopjes	1	100	100	200	
125	PPIR.05030	Pipeline B2 replacement (1300mm x 26km)	Zwartkopjes				1	
126	P.05663	Pipeline Refurbish and replace C11, G16 Pipes	Zwartkopjes		1	30	70	
128	PPIR.04766	Building Bws CD offices and recreation facility	Zwartkopjes			0	10	
253	P.02584	Fabrication Plant renewal	Zwartkopjes	1	1	22	77	
254	PPIR. 05668	Pipeline replace C8 (lead caulked)	Zwartkopjes	1	4	20	30	
231	P.04863; P.0411	BWD Telemetry Upgrade at all Rand Water Sites	Eikenhof	15	15	50	50	
232	P.04862	CP: Remote monitoring of Cathodic Protection on Pipes	All	20	15			
140	P.01001	A6 Pipeline (priority portion)	Zwartkopjes	1				
145	P.04639	Pipeline B6 (priority portion)	Palmiet	1				
146	P.05099	C16 Pipeline (priority portion)	Eikenhof	20				
147	P.05100	C18 Pipeline (priority portion)	Eikenhof	2				
160	P.05089	H11 Pipeline (priority portion)	Palmiet	1	10			
131	PPIR.05030	Pipeline: B4 replace concrete pipe	Palmiet			1	60	
447	P.02811	BWD Upgrade Amanzimtoti PS	Zwartkopjes		10	70	70	
154	P.05079	F8 Pipeline (priority portion)	Eikenhof	1	10			
176	P.05085	W1 Pipeline (priority portion)	Mapleton	1	7	1		
159	P.05070	G23 Pipeline (priority portion)	Eikenhof	3				
207		J5 Pipeline (priority portion)	Palmiet	5				
249	P.05468	J4 & J6 pipelines replacement	Palmiet	3	10	20	20	
ane's repor	P.05370 and IT	National Keypoint physical improvements (fences, guard houses, security systems)	All	1	60	60	60	
431	P.05055	Chamber repairs in all areas of the Rand Water network	Several	5	15	50	50	
432	05478P.04725P.0	Reservoir repairs at 8 sites and scour repairs at 4 sites	Several	3	54	54	54	
	No Project	GMO Capital componentisation	Several	80	105	100	100	
B. 2	**P Number**	**Projects yet to start, or in pre-feasibility (> R50 million)**	**Corporate system**	**Jun 24**	**Jun 25**	**Jun 26**	**Jun 27**	**Jun**
103	No P Num	Refurbish entire Canal 1 from Control Works to Zuikerbosch	Raw					
107	No P Num	Replace Hopper type sedimentation tanks systems 2,3 & 4	Vereeniging			0	5	
51	No P Num	Pipeline part of H3 Airfield to Lyttleton (only after H43)	Palmiet			0	10	
137	No P Num	Pipeline H7 Refurbishment	Mapleton			0	2	
49	No P Num	Pipeline Replace N4, Selcourt - Wildebeestfontein with ~1200mm	Mapleton			0	50	
251	No P Num	Mamelodi Pump Station Refurbishment	Mapleton	0	0	18	33	
252	No P Num	Trichard Pumping Station	Mapleton	0	0	30	30	
120	No P Num	Pipeline Replace E14 between Blyvooruitzicht and Khutsong	Eikenhof		0	40	40	
435	No P Num	Pipeline E4, E6, replacement (after Zuurbekom)	Eikenhof			1	10	
119	No P Num	Pipeline E2, E5 replacement	Eikenhof	0	5	30	40	
423	No P Num	Pipeline E11 pipeline refurbishment	Eikenhof		0	5	15	

253	P.02584	Fabrication Plant renewal	Zwartkopjes	1	1	22	77	
254	PPIR. 05668	Pipeline replace C8 (lead caulked)	Zwartkopjes	1	4	20	30	
231	P.04863; P.0411	BWD Telemetry Upgrade at all Rand Water Sites	Eikenhof	15	15	50	50	50
232	P.04862	CP: Remote monitoring of Cathodic Protection on Pipes	All	20	15			
140	P.01001	A6 Pipeline (priority portion)	Zwartkopjes	1				
145	P.04639	Pipeline B6 (priority portion)	Palmiet	1				
146	P.05099	C16 Pipeline (priority portion)	Eikenhof	20				
147	P.05100	C18 Pipeline (priority portion)	Eikenhof	2				
160	P.05089	H11 Pipeline (priority portion)	Palmiet	1	10			
131	PPIR.05030	Pipeline: B4 replace concrete pipe	Palmiet			1	60	160
447	P.02811	BWD Upgrade Amanzimtoti PS	Zwartkopjes		10	70	70	100
154	P.05079	F8 Pipeline (priority portion)	Eikenhof	1	10			
176	P.05085	W1 Pipeline (priority portion)	Mapleton	1	7	1		
159	P.05070	G23 Pipeline (priority portion)	Eikenhof	3				
207		J5 Pipeline (priority portion)	Palmiet	5				
249	P.05468	J4 & J6 pipelines replacement	Palmiet	3	10	20	20	20
's repor	P.05370 and IT	National Keypoint physical improvements (fences, guard houses, security systems)	All	1	60	60	60	60
431	P.05055	Chamber repairs in all areas of the Rand Water network	Several	5	15	50	50	20
432	05478P.04725P.0	Reservoir repairs at 8 sites and scour repairs at 4 sites	Several	3	54	54	54	
	No Project	GMO Capital componentisation	Several	80	105	100	100	100
B. 2	**P Number**	**Projects yet to start, or in pre-feasibility (> R50 million)**	**Corporate system**	**Jun 24**	**Jun 25**	**Jun 26**	**Jun 27**	**Jun 28**
103	No P Num	Refurbish entire Canal 1 from Control Works to Zuikerbosch	Raw					10
107	No P Num	Replace Hopper type sedimentation tanks systems 2,3 & 4	Vereeniging			0	5	50
51	No P Num	Pipeline part of H3 Airfield to Lyttleton (only after H43)	Palmiet			0	10	50
137	No P Num	Pipeline H7 Refurbishment	Mapleton			0	2	40
49	No P Num	Pipeline Replace N4, Selcourt - Wildebeestfontein with ~1200mm	Mapleton			0	50	100
251	No P Num	Mamelodi Pump Station Refurbishment	Mapleton	0	0	18	33	
252	No P Num	Trichard Pumping Station	Mapleton	0	0	30	30	
120	No P Num	Pipeline Replace E14 between Blyvooruitzicht and Khutsong	Eikenhof		0	40	40	80
435	No P Num	Pipeline E4, E6, replacement (after Zuurbekom)	Eikenhof			1	10	100
119	No P Num	Pipeline E2, E5 replacement	Eikenhof	0	5	30	40	100
423	No P Num	Pipeline E11 pipeline refurbishment	Eikenhof		0	5	15	15

CAPEX (2024-2028)

256	PPIR.05789	Overhaul electrical equipment at all sites (motors, switchgear, transformers)	Eikenhof	30	60	60		
280	P.04276	Repairs to pumps	All	60	100	120		
250	No P Num	Pipeline Replace F14 pipeline	Eikenhof	1	1	25	25	
262	No P Num	Pipeline Replace F16 pipeline Luipardsvlei to Monument Street	Eikenhof	1	1	45	45	
246	No P Num	Zk Engine Room Re-purposing	Zwartkopjes			0	10	20
254	No P Num	Pipeline Replace C17 (riveted pipe + lead caulk 1921)	Zwartkopjes	1	3	10	10	60
230	No P Num	Refurbishment of existing Ground Water systems	Sector Growth	1	20	20	20	
433	No P Num	Reservoir repairs at Additional reservoir sites	Several				1	50
422	No P Num	Design and construct Roads at various reservoir sites	Several	0	60	60		
430	No P Num	Fencing at various Rand Water sites	Several	1	20	60	60	100
		Pillar 2, 3, 4 projects (smaller projects <R50 million)	**Corporate system**	**Jun 24**	**Jun 25**	**Jun 26**	**Jun 27**	**Jun 28**
		Raw renewals	Raw	5	235	115	60	61
		Vereeniging renewals	Vereeniging	34	70	46	7	4
		Zuikerbosch renewals	Zuikerbosch	22	322	160	80	80
		Palmiet renewals	Palmiet	41	50	55	45	46
		Mapleton renewals	Mapleton	24	103	120	65	65
		Eikenhof renewals	Eikenhof	24	50	50	42	45
		Zwartkopjes renewals	Zwartkopjes	20	72	86	31	3
		Augmentation renewals	Several	10	93	80	60	55
				596	**2,969**	**4,560**	**4,616**	**5,077**
		Total for RW bulk water supply system		**1,046**	**4,586**	**9,812**	**9,805**	**9,524**
						5 year		34,773
SO		Facilities Projects	Other	69	83	72	52	38
)		IT Projects	Other	402	255	160	77	70
		Total for CSSO & CIO		**471**	**338**	**232**	**129**	**108**
						5 year		1,277
	Moveable Assets			479	100	100	100	100
						5 year		879
1		Establishment of Emhlangeni Workshop		2	8	20	70	30
2		Ekhuruleni Reclamation		5	240	240	150	2
3		Emfuleni Reclamation (Sebokeng)			368	612	980	490
4		Northern Treatment Works Reclamation		1	10	115	125	275
5		Mine Fissure Water.			2	200	200	200
6		Pipe and purification: Hartebeespoort to Rustenburg scheme		0	1	10	100	170
7		30 x Boreholes & plant in Ekurhuleni Metro area		1	45	45	45	
8		Lanseria Regional Wastewater Scheme				2	250	500
9		Water Treatment Residue			200	100	100	
		Total for growth projects		**8**	**873**	**1,344**	**2,020**	**1,667**
						5 year		5,912
		Total		**2,004**	**5,897**	**11,488**	**12,054**	**11,399**
						5 year		42,841

10 Bulk Waste- Water Treatment

10.1 Wastewater Resources Programme

To reduce the burden on the Integrated Vaal River System (IVRS), reclamation of effluent from Wastewater Treatment works as an alternative water source was explored. Rand Water signed MOUs with Johannesburg Water to assess the viability of a reclamation plant in the vicinity of Johannesburg Water's Northern Works. The financial viability of this project was concluded in the 2022 fiscal year, and Johannesburg Water is expected to sign the offtake agreement. The necessary regulatory and statutory approvals will be sought in the 2023 fiscal year. Further, ERWAT conducted a pre-feasibility study for two reclamation plants and has secured funding to determine the project's bankability. Co-operative Committees and Project Steering Committees were established for both Johannesburg Water & ERWAT. National Treasury has approved and registered these two programmes.

As part of the Emfuleni Water Services Intervention Business Case, Rand Water conducted a high-level viability assessment for the construction of a reclamation plant in Sebokeng to supply industries in the Vaal with Sasol being the main off-taker. A consultant was engaged and successfully concluded a business case which will be shared with the targeted industries. Critical for the 2023 financial year is to obtain the necessary approvals for regulatory and statutory compliance.

10.2 Wastewater Schemes

The regional wastewater treatment scheme was conceived out of the original Lindley WWTW that was proposed by Mogale City. Rand Water saw the opportunity to regionalize this scheme by positioning it in such a way that it would also cater for the adjacent municipalities of City of Johannesburg, City of Tshwane, Madibeng and parts of Ekurhuleni Metro. Negotiations with the relevant stakeholders are ongoing. The original studies based on the Lindley case estimated R1.2 billion for a 100Ml/d plant. It is anticipated that work might only commence in year 4 of the current planning horizon.

11 Retail Supply

Rand Water has no retail supply section as its core business is a bulk water supplier. Rand Water intends to execute this work through its subsidiary, Rand Water Services. Their work, including retail supply under Section 63, is covered comprehensively under the relevant part of this document.

12 Other Activities

Growth projects are those projects that are aimed at improving operational efficiencies and optimizing costs in the Rand Water value chain. Depending on how the transactions are structured when these projects are implemented, there is a potential for revenue diversification in each of these projects, although production for own use in Rand Water is often prioritised. Further, significant cost savings that would help alleviate pressure off the potable water tariff are expected from these ventures. Thus, creating value through secondary activities. In line with the innovation driven risk-based strategy of Rand Water, these are ground-breaking ventures in Rand Water.

The water requirements in the Rand Water area of service continue to grow, and we are gradually outgrowing the Integrated Vaal River System (IVRS) output. Already, the Rand Water abstraction rights from the Vaal dam are exceeded. The Water Demand Management Initiatives, Reclamation and the Alternative Water Sources projects are aimed at mitigating this environmental risk. The Co-generation projects of Hydropower and Solar power contribute to the reduction in carbon emissions related to the traditional electricity generation. Rand Water's involvement in the construction of Wastewater Treatment Works would go a long way to alleviate the problem of contamination of our water sources. Sludge deposits are regulated for environmental safety, and the Water Treatment Residue Beneficiation project is aimed at reducing these deposits. Evidently, these ventures are good candidates for Green Investments. This is important because investors view Green Bonds favourably as they contribute towards their Environmental Social Governance ("ESG") targets. To further optimize internal efficiencies in primary business, there are programmes aimed at producing chemicals and large diameter pipelines for Rand Water's own use.

The table below gives anticipated spending in each of the projects under the different growth pillars. It is important to note that these figures are not budget allocations for the projects but estimates from feasibility studies. Projects in the upper block of the table above are expected to be implemented in the five-year planning horizon and are included in the Rand Water CAPEX plan, while the bottom projects would still undergo feasibility evaluations. The projects are classified according to six strategic growth pillars, and their relevance to the innovation driven risk-based strategy of Rand Water is outlined below:

12.1 Pillar 1: Integrated Monitoring

This pillar is focused on integrating the national water infrastructure on one platform. This will enable the Department of Water & Sanitation, Water Boards and Local Municipalities to view and manage the integrated infrastructure system on one platform to ensure equitable supply. An integrated monitoring system has been partially established focusing only on Rand Water and City of Johannesburg reservoirs information. MOUs to roll out the system to City of Tshwane and Ekurhuleni metro are in place. A decision was taken by Rand Water Management to pause the development of the system until a formal mandate with budget is obtained from the Department of Water and Sanitation.

12.2 Pillar 2: Non-Revenue Water

The project entails installation of automated control valves or Pressure Reducing/Releasing Valves (PRVs) on the supply to identified internal and/or external points with excessive consumptions. Nine municipalities including Emfuleni Local Municipality and the City of Johannesburg were identified for a Water Cycle and Water Demand Management Initiatives programme. This project would see Rand Water assist municipalities reduce water losses and improve revenue collection through efficient and accurate metering in the municipal network. The MoU entered between Rand Water and Johannesburg Water will be utilized to pilot the initiative as a proof of concept before consideration of a roll-out to other municipalities in Rand Water's area of supply. 23 priority supply points have been identified following a desktop assessment and confirmation with Johannesburg Water. Procurement process for the Phase 1 installations is underway. The Phase 1 installations are estimated at R60 million and will be executed over a twelve-month period.

12.3 Pillar 3: Wastewater Resources Programme

To reduce the burden on the Integrated Vaal River System (IVRS), reclamation of effluent from Wastewater Treatment works as an alternative water source was explored. Rand Water signed MOUs with Johannesburg Water to assess the viability of a reclamation plant in the vicinity of Johannesburg Water's Northern Works. The financial viability of this project was concluded in the 2022 fiscal year, and Johannesburg Water is expected to sign the offtake agreement. The necessary regulatory and statutory approvals are being sought. Further, ERWAT conducted a pre-feasibility study for two reclamation plants and has secured funding to determine the project's bankability. Co-operative Committees and Project Steering Committees were established for both Johannesburg Water & ERWAT.

The business case for the Sebokeng Reclamation plant was concluded in 2022, and the main off takers (Sasol, Arcelo-Mittal, and Eskom Lethabo Power Station) are being engaged, mainly around the tariffs for the scheme.

12.4 Pillar 4: Water Schemes Programme

Decentralizing water sources has become of paramount importance to ensure raw water security to meet future demands; given the over reliance on the Integrated Vaal River System. Rand Water identified municipalities in Gauteng and the North West wherein opportunities for alternative water sources will be explored, and memorandums of understanding were entered into with those municipalities. Assessment of augmenting the supply from the IVRS with ground water and abstraction from local dams will be conducted. Three business cases are being compiled by consultants as follow:

- Sibanye Gold and Harmony Gold for fissure water schemes.
- The development of a potable water treatment plant at the Hartbeespoort Dam

The business case for the Hartbeespoort Dam was concluded by consultants, and it is being further tested internally by Rand Water prior to it being presented for approvals, while the study on Fissure Water Schemes is still in progress.

12.5 Pillar 5: Wastewater Schemes

The regional wastewater treatment scheme was conceived out of the original Lindley WWTW that was proposed by Mogale City. Rand Water saw the opportunity to regionalize this scheme by positioning it in such a way that it would also cater for the adjacent municipalities of City of Johannesburg, City of Tshwane, Madibeng and parts of Ekurhuleni Metro. Negotiations with the relevant stakeholders are ongoing.

12.6 Pillar 6: Vertical Integration

Optimizing production inputs is central to enhancing efficiencies in a business. Through this pillar Rand Water seeks to mitigate the risk of overly relying on external suppliers for energy, chemicals and other important production essentials. A list of investments within this pillar is described below.

a. Hydropower

Energy is the second biggest production cost driver after raw water. Previous studies determined that a combined power output of at least 13 MW can be generated at four sites along the Rand Water pipe-network. The tender for the procurement of services to implement this project closed on 28 February 2022.

b. Solar power

To further augment the energy requirements in Rand Water the installation of Solar Photovoltaic panels at different Rand Water sites was investigated. The tender for the procurement of services to implement this project on all 8 Rand Water sites closed on 28 February 2022.

c. Emhlangeni fabrication workshop

The Fabrication Workshop is a facility that is based at the Emhlangeni site, at Zwartkopjes to cater for maintenance work to be performed by Rand Water on all its assets. The workshop shall include

the manufacturing of pipe and pipe fittings, the repair and maintenance of mechanical and electrical equipment assets, instrumentation related maintenance as well as the testing and quality area. Additionally, the Fabrication Pipe Plant yard will also house a large quantity of assets for construction projects as well as maintenance related inventory, i.e., pipes, valves. This project replaces the Spiral Mill plant which meant to produce large diameter pipeline. This project is provided for under two packages of the Zwartkopjes Integrated Execution Programme which is covered under the CAPEX plan.

d. Water treatment residue

The Water Treatment Residue (WTR) beneficiation project entails the solution of deriving some commercial value out of the “sludge” at Panfontein. Expected benefits from the proposed solution are two-pronged. Rand Water would minimize on the costs of creating more space for the sludge deposits, i.e., building more sludge beds, while energy generation and brick manufacturing would result in some cost saving and some additional revenue stream respectively. The large-scale pilot on this project which yielded positive results in terms of other products that can be commercialised was concluded in the 2023 financial year.

e. On-site production of chemicals

The onsite manufacture of sodium hypochlorite (albeit a smaller portion of the chemicals budget), which is used as a disinfectant at tertiary sites just prior to usage points, is the first step towards mitigating common risks in the chemicals sector such as delayed global supply. A business case to determine the viability of such an initiative was concluded. All necessary approvals are being sought prior to advertising the tender.

Table 17. Growth Projects (Implementation Phase)

Growth projects (Implementation phase)									
P Number	Projects with commitments (projects >R50 millio	Infrastructure Type	Size	2024	2025	2026	2027	2028	Total
No. P Num	Install Hypo generation plants	Hypochlorite		1	5	15	80		101
P.05551, P.05550, P.05640, P.05642, P.05	Cogen ~20 MW: Hydro and Solar: (PV@CD, Vg, Zb	Cogen		51	184	200	300	613	1,348
P.05689	Control Valves	Valves		30	30				60
P.05689	Control Valves	Valves		1	10	49			60
P.05689	Control Valves	Valves		1	10	50	150		211
				84	**239**	**314**	**530**	**613**	**1,780**

Growth projects (Investigation phase)									
Pillar 1: Integrated Monitoring	Establishment of Emhlangeni Workshop			2	8	20	70	30	130
Pillar 3: Wastewater Resources Programme	Ekhuruleni Reclamation			5	240	240	150	2	
Pillar 3: Wastewater Resources Programme	Emfuleni Reclamation (Sebokeng)				368	612	980	490	
Pillar 3: Wastewater Resources Programme	Northern Treatment Works Reclamation			1	10	115	125	275	
Pillar 4: Water Schemes Programme	Mine Fissure Water.				2	200	200	200	
Pillar 4: Water Schemes Programme	Pipe and purification: Hartebeespoort to Rustenburg	Reclamation	50 Ml/d	0	1	10	100	170	281
Pillar 4: Water Schemes Programme	30 x Boreholes & plant in Ekurhuleni Metro area	Reclamation	100 Ml/d	1	45	45	45		135
Pillar 5: Waste Water Schemes	Lanseria Regional Wastewater Scheme	Purification	50 Ml/d			2	250	500	752
Pillar 6: Vertical Integration	Water Treatment Residue	Sanitation	60 Ml/d		200	100	100		400
				8	**873**	**1,344**	**2,020**	**1,667**	**5,912**

13 Human Resource Development Plans

Employees remain our key asset through which the organisation achieves and exceeds its objectives. There is a vested interest to ensure the continuous professional, technical and functional training and development meets the changing requirements of the organisation. Rand Water is mindful of the challenges that emanate from the water sector skills required now and into the future, the demographics and age profile of the current workforce, the demand and supply issues in the labour market, the progression of the business landscape as well as the potential impacts of the “fourth industrial revolution”.

In response to this, the organisation implemented various means of positioning itself as an employer of choice as well as creating a pipeline of skills from which the organisation can sustain itself. Part of these initiatives includes building organisational capabilities to support growth, innovation, and strategy by encouraging life-long learning, recognition, and development of talent in all areas of the business including giving back to the community by offering bursaries and enrolling unemployed youth into learnerships and internships.

One of Rand Water’s strategic objectives is to build a “High-Performance Culture” and the Human Capital Division is tasked with creating an environment within which employees are encouraged to enable the organisation to deliver on its objectives. Strategic Human Capital delivers this through targeted initiatives that enable employee development, recognizes their efforts, rewards them for their service, and fosters an enabling working environment. The Group Human Resources Division supports the business by enabling the organisation to attract, develop and retain engaged employees. All interventions are directed at.

- Supporting the organisation in achieving its strategic objectives,
- Building capability to create a conducive environment.
- Engaging in Human Resources practices that are legislatively compliant.
- Creating a pipeline ofsuitably qualified stafffrom which theorganisation can draw skills.
- Encouraging and supporting holistic employee wellbeing
- Recognizing and rewarding performance
- Giving back to the community

13.1 Breakdown of staff in management and each functional area

To meet business challenges today and tomorrow, organizations must maximize the potential of their workforce – the human capital which is pivotal to their success – while increasing efficiency. This requires transforming traditional HR functions into a comprehensive human capital management (HCM) strategy, that is, employee processes and knowledge must be integrated with business processes and strategies.

In an expanding economy, human resources are scarce, and it is important to attract and retain the best people. In a recessionary economy, human capital is a major expense that needs to be controlled effectively. But no matter what the global economic situation may be, companies need maximum insight and flexibility to manage human capital and to perfect the ability to adapt dynamically to ever-changing circumstances.

With a comprehensive human capital management, Rand Water can define a more strategic HR policy that applies throughout the organisation – one that motivates employees to support business goals, allows firms to respond to change, and improves the organization's bottom line. And one that enables organizations to track, monitor, plan, simulate and execute that strategy precisely. A comprehensive human capital management strategy achieves this by integrating all relevant human resources processes. To achieve the identified vision, there are several goals and objectives which have become central to the way the organisation delivers its responsibilities.

- Effective and efficient attraction, retention, and development of skilled staff.
- Implementation of an effective learning and positive culture.
- Ensure compliance with established regulatory guidelines and procedures.
- Maximize internal and external customer satisfaction; and
- Become a leader in streamlined business processes for efficiency and value delivery.

13.2 Number of Staff Employed by Rand Water

Table 18. Number of Staff Employed by Rand Water

Year ending 30th June	2024	2025	2026	2027	2028	2029
Staff Numbers	3831	3927	4025	4228	4238	4343
Growth%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%

The overleaf is a breakdown of these numbers taking into consideration employment equity; strategic growth of the organisation; and its retention strategy.

13.3 Capacity Building

Rand Water's main focus is to provide development opportunities to internal staff in preparation for them assuming higher roles and enhancing their skills to perform in their current jobs. The organisation adopted an approach that prioritises capacity-building initiatives that are value-adding improving business efficiencies and effectiveness.

13.4 Talent Management

Human resources are scarce, and it is important to attract and retain the best people that contribute to the achievement of organisational objectives. In a recessionary economy, human capital is a major expense that needs to be managed effectively. But no matter what the global economic situation may be, companies need maximum insight and flexibility to manage human capital and to perfect the ability to adapt dynamically to ever-changing circumstances.

Strategic Human Capital Division endeavours to bring talent with expertise that can bolster and drive innovation in support of our strategic objectives. The right talent is an essential building block in building Rand Water as an organisation able to innovate and change and applying this as a source of competitive advantage.

Rand Water implemented a comprehensive talent management strategy that aims to motivate employees to support business goals, allow the organisation to respond to change, and improve the bottom line. This strategy allows the business to track, monitor, plan, simulate and execute human capital initiatives with increased precision.

While many interventions are targeted at internal staff, the organisation also takes a broader view of the economy as well as contributing towards the alleviation of youth unemployment as well as the funding of tertiary education. To this end, Rand Water supports learners with bursaries for undergraduate qualifications in fields critical to the organisation and provides training opportunities through apprenticeships, learnerships, and internships.

Rand Water finds itself in a unique position of having a multigenerational workforce which brings opportunities and challenges. It is therefore important that we identify and focus on our employees that can assist us to drive and attain our strategic imperatives.

13.5 Employee Health Programmes

Rand Water recognizes that employees are its biggest asset and established Employee Wellness Programmes with the intention to assist employees in becoming and remaining healthy, productive and committed to the achievement of High-Performance culture. Employee costs rank amongst the highest cost for many organisations, and these costs can be exacerbated by high absenteeism and related costs such as the loss of productivity.

With work-from-home the new normal for many employees, our focus on wellbeing has to extend a traditional focus on the way in which the office feeds employee wellbeing, to how well our staff are coping at home or anywhere else where they work. By finding new ways to continue taking excellent care of our employees, whilst sustaining high-performing teams that are better able to care for our customers and drive growth for the company.

Chronic non-communicable diseases remain the leading cause of death in the country, and these are as a result of unhealthy lifestyles, poor nutrition, tobacco use, and frequent alcohol consumption to name a few. Employees are encouraged to lead active lifestyles and provide for memberships to sporting codes, participation in sports activities and access to gym and sporting facilities.

13.6 Organization Design and Development (ODD)

In an effort to continue to impress upon the strategic objectives “Achieve a High-Performance Culture” as well as endorse “Achieve Growth”, ODD plays a pivotal role in facilitating the organisation wide structural alignment to the Rand Water strategic objectives, with the ultimate aim of increasing productivity, improving efficiency and effectiveness across all organisational levels within all business units. This includes but not limited to:

- Structural alignment diagnosis that informs the structural change imperatives
- Planning and Implementation of the best practice organisational development interventions that aim to maintain the desired business efficiencies.
- Pre emptive restructuring interventions within the various business units.
- Determination of organisation structural requirements with a view to define a compelling business case.
- Designing the optimised organisational structure models
- Monitoring and evaluating the implementation of the envisaged fit-for purpose organisation structures

In addition to the above, the continued adoption of the Rand Water Innovation Driven Risk Based Strategy, across all business units, has given rise to the implementation of various strategic initiatives, across various business units, which required ODD to facilitate the strategic and integrated change management support initiatives in collaboration with the various business units. This comprises enabling the business in defining targeted people change management frameworks, implementation of the change management intervention that maximise the capacities within the target business areas as well as utilising the business change structures to sustaining the said initiatives.

13.6.1 Initiatives

Therefore, the following different classes of initiatives were being undertaken.

Pre-emptive Restructuring

- FTE Model Development for CPO, SAM, Cleaners In-sourcing, and CFO business units

Productivity

- Continuation of the Rand Water Sustainability Plan.
- Implementation of selected Productivity Toolkits (5S and Problem-Solving toolkits) to drive continual improvement on selected MBUs.
- Standardisation/Benchmarking - American Productivity & Quality Center (APQC) databases utilised as a basis for Productivity benchmarking.
- SCM Dashboard Screens for Productivity which saw monthly Purchased Orders from 23 to 153 per month.
- Online MBU for HR
- ODD has embarked on an initiative to conduct digital MBU reviews in line with the COVID 19 environment.
- Automation of Business Processes

Change Management Support

- Rand Water Management Systems Changes Implementation
- Roadmap to Clean Audit (RMCA) Project
- SAP Budgeting Planning Consolidation (BPC) & Activity Based Costing (ABC) Project
- Emfuleni Local Municipality (ELM) Section 63 Initiative
- Finance Programme Management Office (FPMO)

Restructuring (including the related change management)

- Emfuleni Local Municipality (ELM) Section 63 Initiative
- Supply Chain Management (SCM) Decentralization
- Bulk Water Services Business Unit Restructuring

14 Environmental Management Programmes and Plans

14.1 Authorizations and auditing for compliance

Environmental Authorization & Compliance (EAC) within Rand Water reports to Strategic Asset Management (SAM) Division in the Bulk Water Services Portfolio. EAC is responsible for managing several areas within Rand Water. These areas of responsibility being.

- the process of ensuring that all environmental authorizations / licenses are addressed timeously and correctly,
- the monitoring of all environmentally related authorizations / licenses and Environmental Management Plans for compliance,
- Ensure legal compliance for the organization, in particular environmental legal compliance.
- the monitoring of rehabilitation of all Rand Water's construction related projects,
- monitoring of all erosion related incidents that may impact on the organization's infrastructure,

This work is done for all areas of Rand Water operations mostly in the Gauteng province.

The legislation changes in recent years has provided more efficiency particular in terms of the National Water Act 1998 (ACT NO. 36 OF 1998) that saw the introduction of the General Authorisation (GA) for section 21(c) & (i) water use applications, for activities with low-Risk scores as per the prescribed Risk matrices. Secondly, with in the ambit of the recent National Environmental Management Act, 1998 (Act No. 107 of 1998) Amendment of the Environmental Impact Assessment Regulations Listing Notice 1, 2 and 3 of 2014, many small projects were grouped in the maintenance activities on pipelines and were able to obtain Section 19 Environmental Management Plan (EMP) approvals.

Rand Water undertakes its own environmental monitoring in house, and this monitoring is verified by external audits on all projects if required by the permits or authorisations. The value of this monitoring has realised co-ordinated holistic results and understanding across all projects. However, with the advent of changing legislative requirements where approved EMPs and GA are awarded more emphasis and responsibility is placed on Rand Water to have registered scientist within the teams. As the academic requirements for monitoring authorisations increase, staff within the section is also striving to improve qualifications to meet these new expectations of the authorities. This is a strategic initiative for maintaining the good relations and trust with the authorities thinking and the alignment of the section accordingly to future demands on the section.

14.2 Authorizations and Auditing for Compliance

The authorizing/licencing process involves establishing which projects are being undertaken throughout the organization and determining those which require authorizations under legislation.

Then through determined procedures undertaking studies for, basic assessment (BA) or environmental impact assessments (EIA), heritage impact assessments (HIA), waste license and water use license (WUL).

In order to achieve this, Rand Water engages with government departments such as Department of Forestry, Fisheries and the Environmental, Department of Water and Sanitation, South African Heritage Resources agency and Provincial Departments (examples being PRAG, GDARD, IUCMA, DARDLEA and DAFF) who address environmental related matters to obtain approvals for listed activities to be undertaken while providing mitigation mechanisms. Once approval is obtained to undertake the required construction activities, Rand Water undertakes a search and rescue of required fauna and flora. It then ensures that all projects are monitored on a regular basis to ensure compliance with authorizations and or licenses received and the Environmental Management Plan. Reports for these audits are also submitted to the relevant government departments for compliance monitoring. Once the construction phase is completed, Rand Water is responsible to ensure that the sites are adequately rehabilitated. Rehabilitation consists of mitigating any possible erosion, by planting trees, shrubs and grasses, other erosion techniques as well as replanting selected plants that were removed from site prior to commencement of construction. Rand Water then hands work over to the end user or property owner for their own maintenance.

In the past year 2020-2021, EAC worked on 8 amendment applications to Environmental Authorisations (EAs), in the current year 2021-2022 EAC is working on 4 EA amendments and three have been approved, with one still underway. EAC is planning to apply for 39 authorisations in the year 2022-2023. Rand Water self regulates Environmental Authorisations by way of appointing its own Environmental control officers. Quality assurance is conducted by external providers (where required). During the auditing of environmental authorisation in the 2020 /2021, an average compliance of 96% internally was obtained. While the external audits on the same projects average 98%. The authorities had sent RW request for submission of audit information for 11 projects with no directives or noncompliance letters were received from the competent authorities.

14.3 Water Conservation and Research

The Water Wise and research section addresses both adult water conservation education and associated research, including aspects with the EMS department that necessitate additional environmental research.

In accordance with CARA (Conservation of Agricultural Resources Act 1983 (Act 43 of 1983)) and NEMBA (Natural Environmental Management: Biodiversity Act 2004 (Act 10 of 2004), Rand Water has initiated a program to identify and prioritize all listed alien invasive plants on Rand Water properties. To identify alien plants, research has been completed. Eradication programs are being implemented, and plant removal registers are being kept. External audits of removal and replacement plans are underway in accordance with budgetary constraints. Identified plants

are prioritized for removal based on available site budgets and are scheduled to be removed over several years. Another program that was implemented was revisiting of selected sites to ensure compliance with additional species added to the NEMBA regulations. Rand Water EMS has engaged DEA officials in the education, identification, and permitting of listed alien species discovered on sites. These interactions are ongoing.

Rand Water is keen to continue working with local councils. This is undertaken through the Horticultural forum, which is part of the monthly Rand Water, Water Services forum. These forums are aimed at addressing issues of relevance to Rand Water's stakeholders. More than two forums a year focus specifically on water conservation and environmental matters. Arbor week programs are conducted annually in different municipal areas. Work continues with regards training and supporting communities, schools, and prison groups to grow and produce their own vegetables using less water. This program supports food security inclusive of the presidential outcomes. Some of these programs have been assisted by the Agricultural Research Council. Water Wise has also completed a new educational booklet focusing specifically on small scale vegetable production with the emphasis on sustainability, water conservation and environmental protection.

Due to results from market research information, it was decided to change the focus and number of advertorials placed and rather focus more on educational programs.

In 2021/2022 Water Wise completed 15 technical water conservation educational advertorials, 7 environmental days posters, 9 Water Wise Watch newsletters, 13 exhibitions (internal and external) and 83 educational programs (schools, prisons, community groups). Water conservation awareness has also continued through Water Wise horticultural gardens based at the Pretoria National Botanical Gardens and the Walter Sisulu National Botanical Gardens through an MoU. The reach for 2022/2023 may be increased through anticipated replacement of lost staff and possible additional staff as well as increased stakeholder partnerships. For 2022/2023 the following water conservation activities are planned, public engagement via advertorials, exhibitions, research projects, internal displays, educational program, Industrial theatre, targeted industry engagement, and conference presentations. All activities events and research are conducted under the Water Wise banner.

Research projects are on-going. There are currently 7 on-going in-house research projects undertaken by graduates and 7 with a tertiary institution (UNISA) as per a MoU, including some in-house research trials. Some research projects that were active in 2021/2022 will continue to 2022/2023 and beyond. Some examples being "Phytoremediation of sludge dams", "Landscape water use model-testing", "Dassie control at Rietvlei", "Implementation of AMRs on various sites to monitor water use" and "Rainwater harvesting" and "Grey water use".

Water Wise has evolved with the times, in 2021/2022 by becoming more visible on social media and electronic media, and consistently engaging with stakeholders through various posts on water conservation and environmental issues.

14.4 Horticultural site maintenance

96.5 ha of developed landscapes are maintained by the Corporate Environmental Management Services department; this includes the removal of listed Alien Invasive plants as per legislation, improvement of landscapes, indoor gardens, revamping and upgrading older less productive landscapes on different. A further 179 ha natural veld is maintained yearly through project management to adhere to an EMP (Environmental Management Program) developed by UNISA to protect the current fauna and flora at Rietvlei Nature Area. These activities are aimed at improving site maintenance standards and increasing aesthetical values while adhering to water wise principles. Rand Water strives to be environmentally responsible where possible in all areas. In contribution to continual water saving methods, recycled water is used for irrigation purposes instead of using potable water within the EMS-Nursery

As part of Environmental Management, Corporate EMS appointed a contractor to relocate bees. Ten staff members from all the Rand Water EMS departments were also trained on the handling and catch and release of snakes. Professional snake handling gear has been obtained to assist staff with the successful relocation of snakes found on sites.

Horticultural site maintenance contracts decreased in the 2020/21 and EMS staff had to assist with the horticultural site maintenance of 304 ha on an overtime schedule at Panfontein, Analytical services, Process Technology, Water Wise training centre at Vereeniging pumping station as well as Eikenhof, Palmiet, and Mapleton pumping stations including Emhlangeni fabrication and pipe plant storage yards.

14.5 Rehabilitation and erosion control activities

EMS rehabilitation section proactively monitors the Rand Water infrastructure and servitudes for erosion and potential erosion as well as sink holes on Rand Water pipelines and access routes. Many pipelines and associated Rand Water infrastructure have been exposed or have the potential to become exposed due to soil erosion or other environmental factors which causes the pipe to become under stress or have the potential to be vandalised. GIS is also used for desktop analysis. It is essential that this work be undertaken annually to ensure the continued safety of Rand Water pipeline infrastructure as well as the access roads to inspect this infrastructure. As more municipal areas are being developed, there is the added risk of water runoff in our variable climate, which increases soil erosion. The work undertaken to reduce this risk entails detailed investigation, planning, environmental applications if needed, budgeting and the rehabilitation implementation.

Sites of concern along pipelines and on or adjacent to Rand water properties are noted during the following processes: Rand Water experts inspect pipeline and access routes to investigate causes and severity. Rand Water's District Inspectors report any areas of concern on their pipelines which require erosion repairs and remote sensing is used to highlight possible areas where erosion or sinkholes might occur, and these potentially sensitive areas are investigated

and addressed proactively. The use of drones will in future also be implemented to assist with the monitoring and determining the extent of erosion and rehabilitation needs.

All erosion implemented is captured on the Rehabilitation data base to assist with monitoring and control. The data on the spreadsheet is also populated in the GIS data base.

For the 2020/21 period the rehabilitation section implemented a total of 18 projects. Whilst for 2021/22 at total of 34 projects is planned to be undertaken. For the 2022/23 financial year a total of 52 rehabilitation and erosion projects are planned for execution.

14.6 Green Buildings

In a continued effort to reduce the organizations carbon footprint and subsequent impacts on climate change more attention is being placed on “Green Buildings”. As this aspect is very broad, it addresses aspects that include but not limited to water use, energy efficiency, volatile organic compounds (VOCs), waste management, transport and other environmental considerations. To achieve this the organization has been and for 2022-23 will continue to engage with the Green Buildings Council of South Africa to achieve continued improvements and reductions with regards activities and work that negatively impact the environment. To achieve this requires the continued support from a range of different departments across the organization.

15 Water Conservation and Water Demand Management

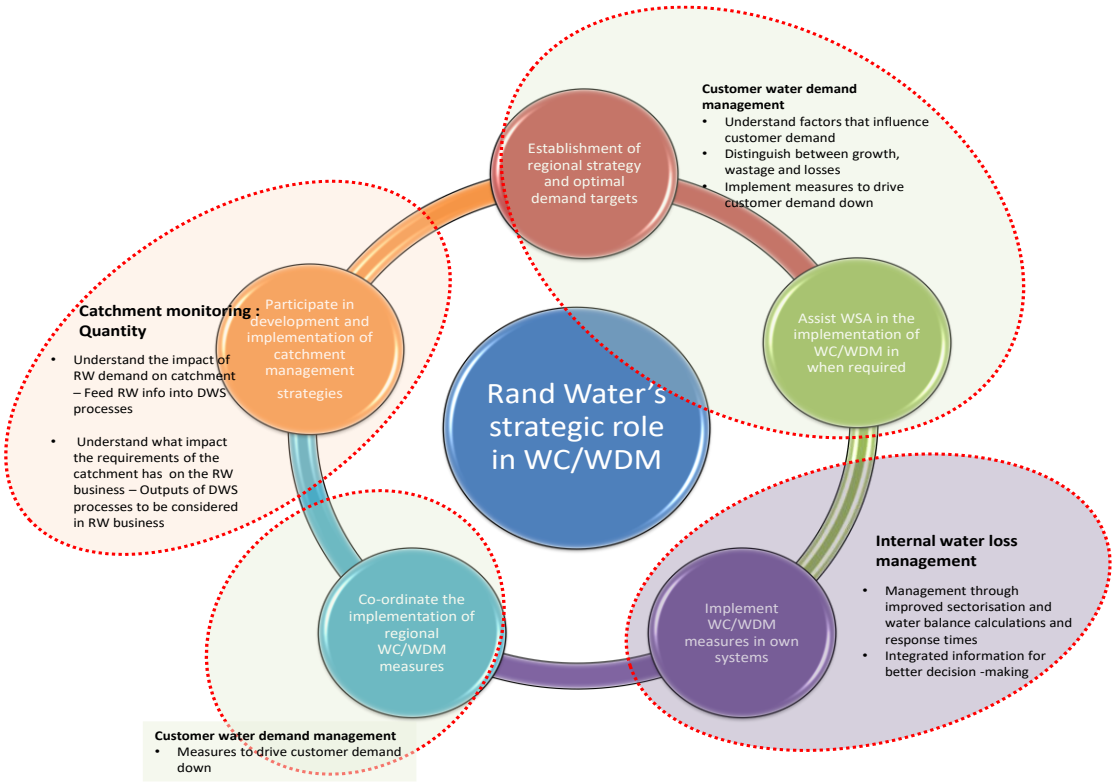
Rand Water has continued to identify areas requiring significant improvement in water conservation and demand management. The work detailed below indicates that if a vehicle was available, the research, monitoring and improvement plans, have the potential to put the water sector in a paradigm shift. Rand Water has identified such a vehicle, that is, Rand Water Services.

Rand Water is continuing with its holistic and integrated approach to be effective in its strategic role regarding water conservation and demand management. This entails a focus on the entire urban water cycle (i.e., from water resource, abstraction, purification, bulk distribution, reticulation, end-user consumption and return flow to the resource) to ensure continued impact in managing the demand for water and curtailing the water losses.

Implementation of its revised strategy for Water Conservation and Water Demand Management (WC/WDM) in accordance with the strategic role it has to fulfil, as defined by the Department of Water and Sanitation (DWS) remains a key priority.

15.1 Rand Water's Strategic Role in WC/WDM

Diagram 9. Rand Water's Strategic Role in WC/WDM



In essence the national strategy requires Rand Water to perform the following functions, as depicted in the diagram above:

- Participate in the development and implementation of catchment management strategies.
- Establish a regional WC/WDM strategy and optimal demand targets.
- Implement WC/WDM measures in own systems.
- Assist Water Services Authorities (WSAs) in the implementation of WC/WDM, when required.
- Co-ordinate the implementation of regional WC/WDM measures.

Rand Water's strategy outlines the following pillars to achieve this:

- Monitor the availability of the resources in the catchment – Understanding the impact of Rand Water and its customers demand on the availability of the resource and the impact that the status of the resource has on Rand Water and its operations.
- Internal water loss management – Improved management through sectorization and water balance calculations to expedite response times.
- Customer water demand management – Utilizing Rand Water information to develop tools to understand the factors that influence customer demand in order to distinguish between real growth in demand, wastage and water losses. This will enable Rand Water to implement appropriate measures on a regional level to drive down customer demand.

The water cycle management department in Rand Water was restructured in accordance with the revised strategy.

Monthly reports detailing the progress and status for each of the 3 pillars of the WC/WDM programme in Rand Water have been considered by the Operations Committee since March 2018.

15.2 Customer Water Demand Management

a. Demand Analysis

Analysis of the growth in customer demand is done utilizing the bulk supply monthly meter readings. The growth margin for each customer is then compared with the planned requirements determined by Rand Water over a 20-year period. Growth in demand that exceed 2% is communicated to the relevant customers and a further assessment is done to distinguish between real growth, water wastage and water losses in order to focus on the reduction of the wastages and losses. According to available records, over the past twenty years, Rand Water has seen a growth in demand of just under 2%. However, this has been declining over the last seven years with an average growth margin of about 0.76% for the medium term.

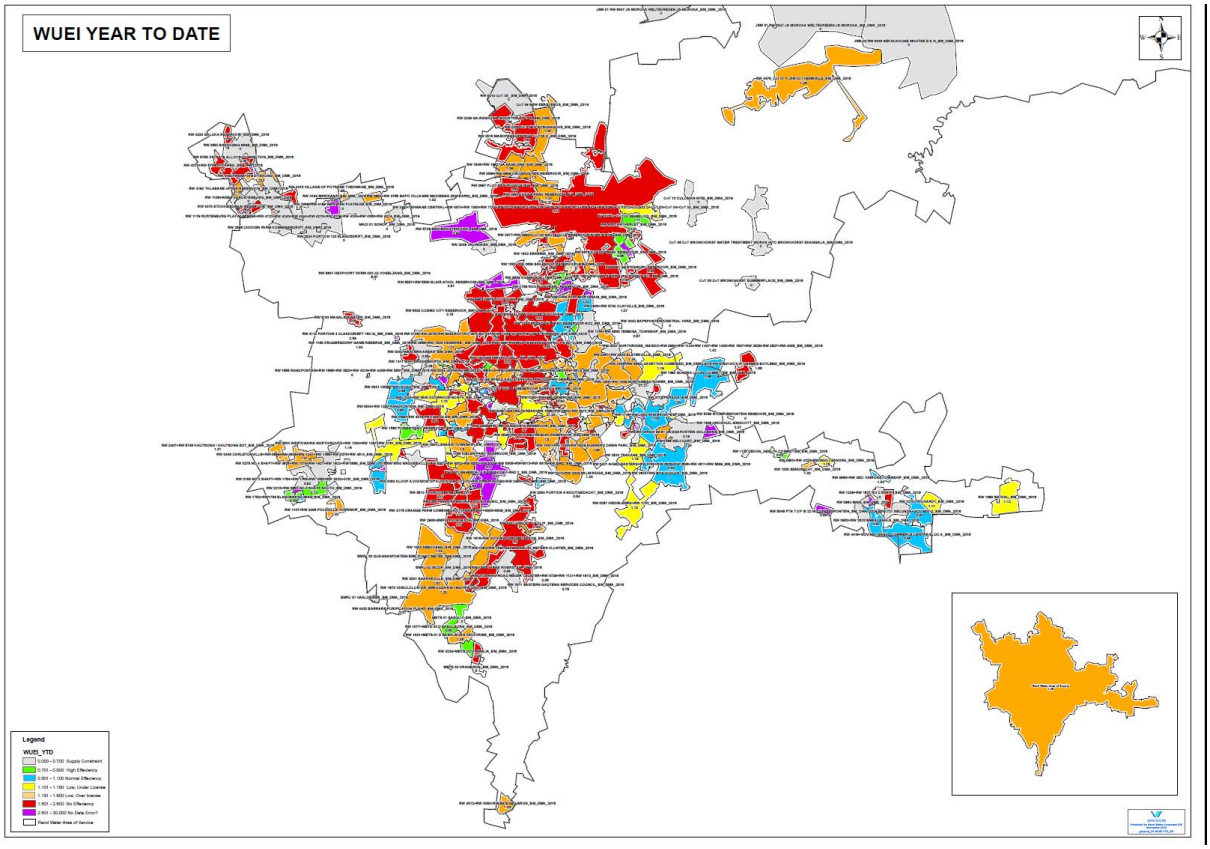
In 2017, the year the restrictions were imposed, the Average Daily Demand (ADD) dropped by approximately 6%, to reach the 2013 ADD level of 4084ML/day. Since the restrictions were uplifted, the demand has gradually increased to the current level of 4393ML/day.

b. Water Use Efficiency Assessment

Water use efficiency (WUE) has become a critical indicator for Rand Water to understand its customers demand and to determine levels of wastage or unnecessary demand. A statistical model was developed in-house to assess the efficiency of water use and it incorporates factors such as population, levels of water and sanitation service, development type, income levels, erf sizes and land use categories to determine 'normal' usage for a wide range of categories of domestic end user properties, which is then compared to the actual usage. In 2014, the year the model was developed, the WUEI for Rand Water's total area of supply was 1.3 and was considered as the baseline for Rand Water. This means that the average actual usage is approximately 30% more than 'normal' usage and therefore indicative of low efficiency. In 2016 the WUEI for the area increased to 1.38. This represents an increase in inefficiencies by 8% in two years. The current year's assessment, however, shows some improvement and indicates efficiency levels similar to the baseline established in 2014 at 1.30There are however priority areas where the actual usage exceeds normal by more than 90%.

The Water Use Efficiency (WUE) model has been updated to show the depots to which the DMAs fall as per municipalities' request. Discussions to confirm the initial draft with individual municipalities are already underway. This will however remain an ongoing process as the model will be updated as and when there are major developments or changes within the customer's systems.

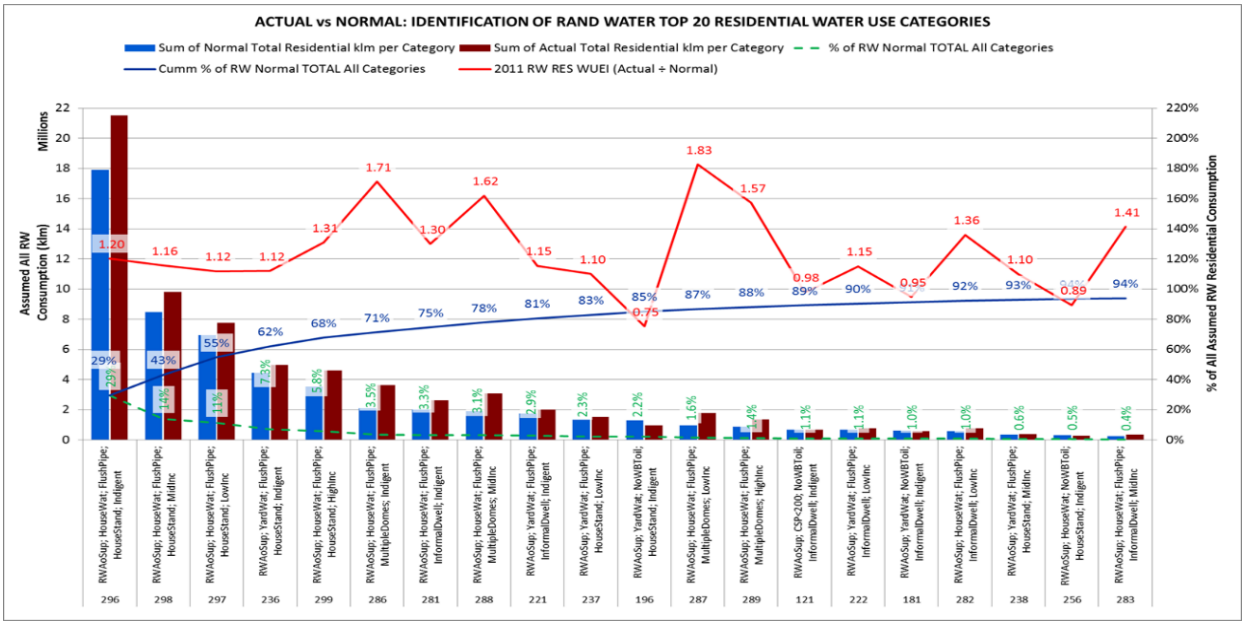
Diagram 10. Water Use Efficiency Assessment for Rand Water Area of Supply



c. Main water uses categories in Rand Water's Area of Supply

An additional output of the water use efficiency model was the determination of the top water use categories in Rand Water's Area of Supply. The top 5 categories comprise of indigents with a house connection at 30%, mid-income users with a house connection at 14%, low-income users with a house connection 11%, indigents with a yard connection 7% and high-income users with a house connection at 5%. The actual usage is in the same order and size of the water use categories.

Diagram 11. Water Use Categories in Rand Water's Area of Supply



The indication is that the majority of the water that is supplied by Rand Water, at more than 60%, is used by indigents, mid and low-income users. These are also the categories where the payment levels for water services are not at a desirable level. Further analysis conducted using minimum night flow analysis (as provided in the following section) confirms the wastage levels, which are typical for these categories. Interventions aimed at curtailing the water losses in these categories should be prioritised and would typically entail a combination of either pressure management or retrofitting of households. The impact of the full implementation of the war-on-leak type project should therefore not be underestimated.

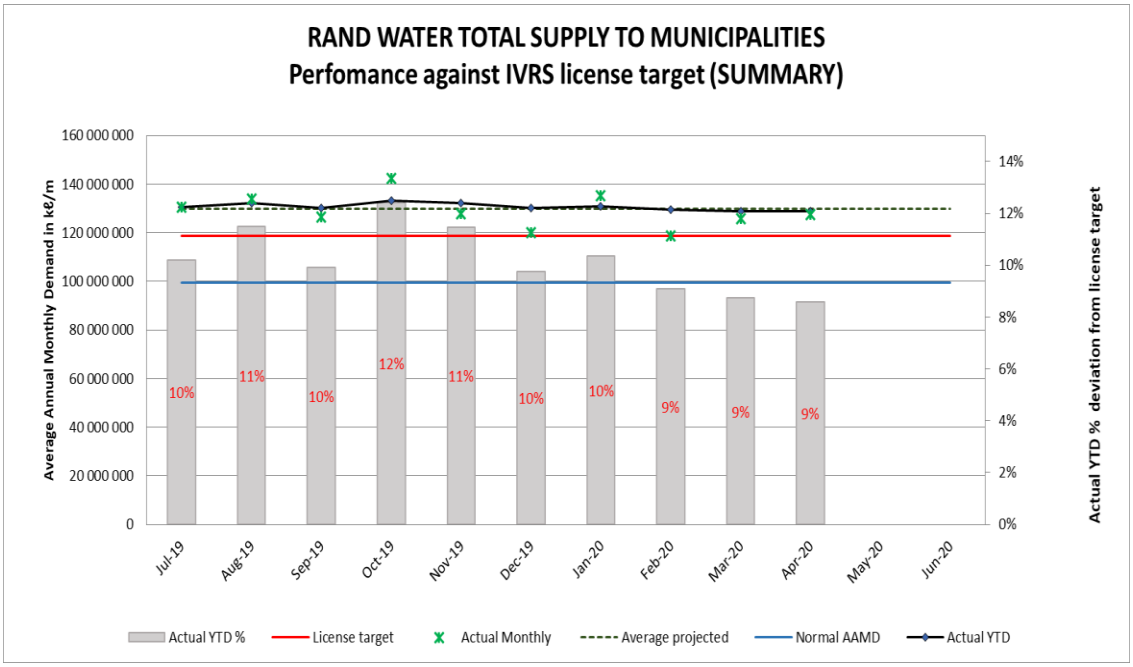
d. Setting of Optimal Demand Targets with Customers

Optimal targets have been set and communicated with municipalities in a letter signed by Rand Water's Chief Executive during the first week of September 2017. The overall reduction required by the municipal sector for the 2019/2020 year was projected at 5%.

e. Monitor Customer's Performance against Demand Targets

On a monthly basis individual municipal performance is monitored against these set targets. The overall year-to-date performance for all municipalities is 9% above the license target. This indicates a slight upward trend in the inefficient use of water when compared with same period last year. March 2019 figure was 8% above the target. The consumption by our top customers continues to increase. The year-to-date consumption in City of Tshwane has stabilized at around 18% above the license target, even though some months did peak at around 25% above the license target. In comparison to the previous year, Emfuleni's consumption has increased significantly. City of Johannesburg has made no progress in achieving their reduction targets. The graph below shows the overall supply to municipalities for the current financial year.

Diagram 12. Performance of Municipalities against IVRS License Targets



f. Regional Water Demand Management Forum

The Project 1600 Water Demand Management forum was established with DWS, municipalities, COGTA and SALGA for the Region and convenes quarterly. The forum was established to provide support, guidance and oversight of the progress made by the municipal sector to reduce their water demand in order for Rand Water to comply with the abstraction limit of 1600 Mm³/annum from the IVRS, which was set by DWS, until the next phase of the Lesotho Highlands Scheme comes in operation.

The next meeting is scheduled for 13 June 2020. Rand Water Municipalities as well continue to derive value from the forum as it is an ideal platform to share in the experiences regarding water demand management issues and initiatives. There has however been a noted gradual reduction in attendance over time, where one meeting had to be cancelled due to fewer confirmations to attend from the municipalities.

g. Future Regional WDM Initiatives

Rand Water has to continuously explore ways to reduce customer's excessive demand. Other future initiatives that are at various stages of development comprises of the following:

- A feasibility is underway to automate certain supply points through the installation of pressure reducing valves (PRVs), ideally after the first receiving reservoir of municipalities

to achieve a number of objectives for Rand Water, including water demand management, control during drought, implementation of the emergency operations protocols and credit control. A project team was established, supply points were identified, and technical, legal and financial assessments were done by the respective portfolios. Successful meetings to discuss the initiative were held with seven municipalities out of the ten identified. MoU's have also been entered into with a few municipalities which cover, amongst other initiatives, WD/WDM.

- The review of application process for new connections to include water use efficiency assessment as an additional criterion has been finalized. Water Cycle Management has provided input to planning department on applications for new connections from both the City of Johannesburg and City of Ekurhuleni, the review of bulk service level agreement to replace the demand driven approach with a 'resource limited' approach, allowing Rand Water to limit supply based on water use efficiency. This would form part of the negotiation processes for the bulk supply agreements with customers.
- The development of a Regional Management Information System.

h. Provision of Support to the Region

As per the National Strategy developed by the DWS, one of the key roles for Rand Water is to assist Water Services Authorities in the implementation of WC/WDM measures, as and when required.

15.3 Conclusion

The implementation of a holistic and integrated water conservation and water demand management plan, and close co-operation of the relevant water sector institutions in accordance with their mandates, will contribute significantly towards achieving the objectives for the region to ensure water for an equitable and sustainable future and to serve the affected communities better. Rand Water Services will utilise this work to work together with municipalities.

16 Marketing and Stakeholder Engagement Strategy

Water and sanitation service delivery is facing a critical challenge. Available data shows that water losses have climbed from 37.5% in 2012 to over 42.5% in 2022. In addition, the number of wastewater treatment works failing to meet the blue drop standards remains above 80%. DWS has recognized that water boards can play a more engaged role in alleviating these challenges. The very nature of water boards should change course to include wastewater treatment works and the provision of services beyond bulk water provision. There are opportunities for water boards to be engaged in retail, reticulation and household revenue collection.

In addition, Rand Water can play a greater role with the revival of the South African Association of Water Utilities. This will incorporate Water Service Authorities (WSA), Water Service Providers (WSP), local municipalities and water boards. The proximity of Rand Water to these water service authorities provides an opportunity to increase Rand Water's footprint.

Rand Water Services is the identified tool for implementing an engaged marketing role. There exists an opportunity for better water and sanitation service delivery downstream of the bulk potable water business.

The business activation plan provided earlier in the document aims to provide these services in a coherent, organized and deliberate manner.

17 Communication Strategy

The success of a new strategy heavily depends on Rand Water playing a leading role in the water sector. With this in mind Rand Water will proactively communicate more effectively. The following steps will be undertaken:

- Profiling of Internal and External Stakeholders
- Identify opportunities for Stakeholder engagements.
- Activate engagements through key sector agendas.
- Benefit realization

This is an ongoing exercise. Therefore all activities will commence almost at the same time. The envisaged activities are:

- Dialogue across all business units (Performance template)
- Water Sector Colloquia (Focused theme each year) (1 meeting for the year)
- Rand Water stakeholder annual awards (1 award ceremony)
- International conference hosted by Rand Water (Focused theme every 2 years) (0 conference this year)

17.1 Digital Technology Investment

The communication strategy, both internally and externally will be catalysed by an intensive investment in technology. The Digital Technology 5-year capital plan represents the increase in demand for Technology solutions which include both traditional Information Technology (IT) and Operational Technologies, including the exploitation of opportunities and innovation, the refresh of technology and Rand Water's response to risk. It is a balanced investment plan that addresses both opportunity and risk. It is also aligned to the strategic objectives of Rand Water and the latest technology plans. The estimates for the latter years are rough order of magnitude estimates that will be refined over time.

The emphasis for 2023-24 to 2024-25 will be on the technology refresh, especially the Technology infrastructure including rebuilding of the plants network connectivity for digital transformation technology. It ensures that digital transformation technologies (Cloud Computing, RPA and Blockchain) can be adopted, up to date technology with no security vulnerabilities and a technology platform with the required agility, reliability, and performance for the next 5 years. Provision is also made for further upgrades of Enterprise Resource Planning (ERP) system, including the periodic upgrade of IT systems. It further caters for the rationalization of ICT applications systems, and the adoption of smart technology innovation over the 5-year period. The capital plan also encapsulates the need and plan for the digital transformation of the organisation via process automation across the various business units, including the core business and supporting functions, such as finance, human resources, and supply chain management.

The improvement of the information management sphere over the next 5 years is catered for via content management, data analytics and decision support related solutions that improves the safeguarding of information assets, the utilization of information assets and the monitoring, assessment, and evaluation capabilities of Rand Water.

The control environment is catered for, including security, governance, risk and compliance. It includes the improvement of capabilities such cyber security and process controls, as well as integrated governance, risk, and compliance. Within the building management portfolio, the investment in buildings security is set at approximately R210m for the 5-year period and focused on the physical security technology of existing Rand Water buildings and sites. Lastly our information resource management will be improved for archiving solutions for knowledge management. Lastly, Rand Water will move to Cloud Computing in the next 5 years and funds will be required under OPEX which will bring improved and new forms of automation and more meaningful and responsive data intelligence.

Table 19. Digital Technology 5-year Capital Plan

Project Description/ Category	Estimated Cost	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Technology Refresh and Rationalisation	**344**	**277**	**35**	**15**	**9**	**8**
Data Centre and Server Refresh, Automation and Orchestration	**63**	53	5	5	-	-
Local Area Network Refresh and Wireless Communications	**30**	30	-	-	-	-
Integrated Physical Security System	**201**	164	10	10	9	8
IT / OT CONVERGENCE	**50**	30	20	-	-	-
Modernisation of Communications	**23**	**18**	**3**	**3**	**-**	**-**
Unified Communjcation and Collaboration Solution	**15**	15	-	-	-	-
Externally Facing Systems (Websites, Apps, Portals, Online)	**8**	3	3	3	-	-
Digital Transformation and Process Automation	**489**	**51**	**184**	**132**	**63**	**59**
Talent Management	**35**	14	7	7	5	2
e-Procurement	**50**	20	10	10	5	5
Billing System Upgrade	**29**	10	10	9	-	-
ED and SED Administration System	**20**	5	5	5	3	2
Wayleave Management	**-**	-	-	-	-	-
Service Desk Solutions	**5**	2	2	1	-	-
ERP Upgrade	**350**	-	150	100	50	50
EIM, BI, Data Analytics and ECM	**78**	**46**	**27**	**3**	**2**	**1**
Annual Reporting System	**10**	5	5	-	-	-
Forecasting and Modelling - Hydraulic Modelling	**10**	5	5	-	-	-
Asset Condition system	**2**	1	1	-	-	-
Testing Tools	**8**	5	3	-	-	-
Upgrade Statistical Analytics System	**8**	5	3	-		-
Records and Content Management Solutions	**20**	10	5	3	2	1
Update BI Environment - SAP BI/ BO deployment	**20**	15	5	-	-	-
Governance, risk and compliance	**10**	**5**	**3**	**3**	**-**	**-**
Contract Management	**10**	-	5	3	3	-
Other Smaller Projects	**20**	**5**	**5**	**5**	**3**	**2**
Total	**963**	**402**	**255**	**160**	**77**	**70**

18 Financial Plan (5-year projections)

18.1 Economic Assumptions

There is a high level of variability with regards to economic and financial data. SARB, analysts and BER have provided different projections.

18.1.1 Guiding Principles

- Raw Water (figures were given by DWS / TCTA)
- Chemicals (Rand Water will enter into a negotiation for CPI increase or less with suppliers)
- Labour (Negotiated process)

Table 20. Economic Assumptions

Financial Year Ending 30 June	2023	2024	2025	2026	2027	2028
GDP (31 Dec)	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%
CPI	5.90%	5.30%	4.34%	4.46%	4.58%	4.70%
PPI	4.45%	4.25%	3.99%	3.98%	3.96%	3.94%
DWS Increment (Ex 1 April)	0.80%	0.80%	0.80%	0.80%	3.60%	0.80%
TCTA Increment (Ex 1 April)	5.18%	5.18%	5.18%	5.18%	7.20%	5.18%
Total Raw Water (Ex 1 April)	4.27%	4.27%	4.27%	4.27%	4.40%	4.27%
Volume growth	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%
Labour (Wage Rate)	5.90%	7.05%	6.09%	6.21%	6.33%	6.45%
Total Unemployment (incl informal)	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%
Energy (Eskom) 70% volumes and 55% Rand value	9.61%	18.65%	12.74%	15.06%	15.06%	15.06%
Energy (Municipality) 30% volume 45% Rand Value	10.61%	19.65%	13.74%	16.06%	16.06%	16.06%
Chemicals	4.51%	11.00%	12.00%	12.50%	10.00%	9.00%
Depreciation	22.48%	18.20%	20.80%	30.00%	30.00%	30.00%

(Source: Bureau for Economic Research Data, Group Strategy)

Table 21. Raw Water Tariff

Financial Year Ending 30 June	2024	2025	2026	2027	2028
DWS Increment (Ex 1 April)	0.80%	0.80%	0.80%	3.60%	0.80%
TCTA Increment (Ex 1 April)	5.18%	5.18%	5.18%	7.20%	5.18%
Total Raw Water (Ex 1 April)	4.27%	4.27%	4.27%	4.40%	4.27%

(Source: DWS and TCTA, Chief Strategy)

Table 22. Profitability (2024 - 2028)

	FCST 2023	Budget 2024	Plan 2025	Plan 2026	Plan 2027	Plan 2028
Sales - water sales	19,259,124	20,993,656	22,620,918	25,397,729	28,494,710	30,804,501
Cost of Sales	13,279,933	14,743,838	16,070,396	17,858,955	19,876,157	21,471,557
Water purchases	7,077,757	7,443,450	7,818,585	8,310,762	8,882,015	9,575,392
Energy	3,785,096	4,498,825	5,164,201	6,047,796	7,082,574	7,586,145
Chemicals	623,988	717,587	815,178	930,119	1,038,012	1,149,080
Labour	982,143	1,114,569	1,182,446	1,255,876	1,335,373	1,403,958
Depreciation	458,271	506,494	606,980	809,856	1,010,527	1,205,161
Water inventory	4,423	-				
Other - Net	348,254	462,914	483,005	504,547	527,655	551,822
Gross Profit	**5,979,191**	**6,249,818**	**6,550,522**	**7,538,774**	**8,618,553**	**9,332,944**
Other Revenue	19,819	32,199	33,596	35,095	36,702	38,383
Marginal Profit	**5,999,010**	**6,282,017**	**6,584,119**	**7,573,869**	**8,655,255**	**9,371,327**
Fixed Costs	2,883,463	2,970,266	3,132,168	3,321,696	3,523,360	3,709,813
Labour	1,550,564	1,802,170	1,911,922	2,030,653	2,159,193	2,270,089
	2,721,204	3,097,797	3,286,453	3,490,542	3,711,493	3,902,115
	(1,170,639)	(1,295,627)	(1,374,531)	(1,459,889)	(1,552,300)	(1,632,026)
Depreciation	79,333	91,333	111,333	131,333	151,333	171,333
Amortisation (Rehabilitaion fund/bond discount/(premium))	11,105	15,000	(205)	(205)	(205)	(205)
Other Expenditure	1,242,461	1,061,763	1,109,118	1,159,915	1,213,039	1,268,597
Total Operating Costs	16,163,396	17,714,104	19,202,563	21,180,650	23,399,517	25,181,370
Income from Operations	3,115,547	3,311,751	3,451,951	4,252,173	5,131,895	5,661,514
Post Retirement Benefit	6,716	7,220				
Income Before Net Interest	3,108,831	3,304,531	3,451,951	4,252,173	5,131,895	5,661,514
Net Interest : received/(paid)	723,096	876,344	940,336	703,321	431,708	343,816
Net income/(loss) from Primary Activities	**3,831,928**	**4,180,875**	**4,392,287**	**4,955,494**	**5,563,604**	**6,005,330**
Secondary Activities - Profit/(Loss)						
Sales	48,759	55,533	152,474	154,489	156,649	158,909
Cos	33,073	36,068	32,351	33,369	34,462	35,604
GP	15,686	19,465	120,123	121,119	122,188	123,305
Operating costs	-	-	-	-	-	-
Secondary Activities - Profit/(Loss)	15,686	19,465	120,123	121,119	122,188	123,305
Total Net income/(loss)	3,847,614	4,200,340	4,512,410	5,076,613	5,685,791	6,128,635

Table 23. Financial Position (2024 - 2028)

BALANCE SHEET	Budget 2023	Plan 2024	Plan 2025	Plan 2026	Plan 2027	Plan 2028
ASSETS						
Non-current assets	**32,098,124**	**34,019,161**	**38,682,044**	**48,290,068**	**57,974,203**	**66,916,051**
Property, plant and equipment and Intangibles	29,905,599	31,658,613	36,261,222	45,760,455	54,894,042	63,620,496
	-	-	-	-	-	-
Investments	2,192,148	2,185,169	2,246,601	2,356,333	2,907,608	3,123,727
Term Deposit investments						
Post retirement investment - Asset	-	-	-	-	-	-
Investment in subsidiary						
Trade & other receivables						
Loans receivable	377	175,378	174,221	173,280	172,552	171,827
Current assets	**11,572,359**	**13,172,245**	**14,350,890**	**11,603,231**	**7,783,016**	**6,632,961**
Inventory	169,860	178,863	186,625	194,949	203,877	213,215
Trade and other receivables	3,184,120	3,531,265	3,908,888	4,454,659	4,773,856	4,950,593
Contract Assets	222,888	247,189	273,622	311,826	334,170	346,542
Current portion of loans receivable	1,052	1,042	1,031	1,021	1,011	1,001
Cash & Cash equivalents	4,743,992	5,418,211	5,867,465	3,891,995	2,470,102	1,121,610
Term deposit investments	3,250,446	3,795,676	4,113,258	2,748,782		
Assets of disposal groups						
TOTAL ASSETS	**43,670,482**	**47,191,406**	**53,032,934**	**59,893,299**	**65,757,219**	**73,549,012**
	-	-	-	-	-	-
RESERVES AND LIABILITIES						
Accumulated Reserves	**36,071,177**	**40,271,517**	**44,783,927**	**49,860,540**	**55,546,332**	**61,674,966**
Non-current Liabilities	**3,425,954**	**3,329,935**	**2,749,833**	**2,756,171**	**2,183,986**	**2,890,460**
Interest bearing borrowings	3,152,953	3,152,748	2,566,543	2,566,338	1,987,133	2,686,266
Finance lease liabilities						
Deferred income	133,539	140,617	146,719	153,263	160,282	167,623
Panfontein Rehabilitation Fund	110,112			-	-	-
Retirement benefit obligations	29,350	36,570	36,570	36,570	36,570	36,570
Current liabilities	**4,173,352**	**3,589,954**	**5,499,175**	**7,276,588**	**8,026,902**	**8,983,585**
Trade and other payables	2,728,204	3,249,521	4,675,259	7,022,300	7,176,095	7,254,033
Contract liability	204,295	218,596	233,897	250,270	267,789	286,534
Deferred income						
Bank overdraft	-	-	-	-	-	-
Finance lease liability	172					
Provisions (Legal proceedings)	5,663					
Investment on behalf of Subsidiary	4,018	4,018	4,018	4,018	4,018	4,018
Current Portion of Panfontein Rehabiltation Fund		117,819				
Current portion of interest bearing borrowings	1,231,000	-	586,000	-	579,000	1,439,000
Liabilities disposal group						
TOTAL RESERVES AND LIABILITIES	**43,670,482**	**47,191,406**	**53,032,934**	**59,893,299**	**65,757,219**	**73,549,012**

Table 24. Cash Flow Statement (2024 - 2028)

CASH FLOW	Fcst 2023	Budget 2024	Plan 2025	Plan 2026	Plan 2027	Plan 2028
Cash flows from operating activities						
Cash receipts from customers	19,069,745	20,717,020	22,409,035	25,009,881	28,353,540	30,820,025
Cash paid to suppliers and employees	(16,463,661)	(16,616,393)	(17,083,530)	(17,917,947)	(22,109,938)	(23,753,340)
Cash generated from operations	**2,606,084**	**4,100,627**	**5,325,505**	**7,091,935**	**6,243,601**	**7,066,686**
Interest received	723,096	876,344	940,336	703,321	431,708	343,816
Interest paid	(413,690)	(355,156)	(296,622)	(296,622)	(261,872)	(371,248)
Tax paid						
Cash flow form discontinued operations						
Acquisition of post retirement plan						
Net cash from operating activities	**2,915,491**	**4,621,815**	**5,969,219**	**7,498,634**	**6,413,438**	**7,039,254**
Cash flows from investing activities						
Acquisitions of property plant and equipment	(1,404,303)	(2,003,182)	(5,024,300)	(10,143,800)	(10,033,575)	(9,731,700)
	-	-	-	-	-	-
Panfontein rehabilitation	-	-	(117,819)	-	-	-
Acquisitions of intangible assets						
Proceeds from disposal of assets	156	-	-	-	-	-
Term Deposit						
(Acquisition)/maturity of investment	(1,669,741)	(538,252)	(379,014)	1,254,744	2,197,506	(216,119)
Loans repaid/(advanced)	30	(174,991)	1,168	951	738	735
Net cash used in investing activities	**(3,073,857)**	**(2,716,424)**	**(5,519,965)**	**(8,888,104)**	**(7,835,331)**	**(9,947,084)**
Cash flows from financing activities						
Long term loans Advanced	-	-	-	-	-	2,138,338
Long term/short term loans Redeemed	-	(1,231,000)	-	(586,000)	-	(579,000)
Finance lease payments		(172)				
Grant funding received for Mogale WWTW	-	-	-	-	-	-
Increase in redemption funds						
Investment in Post retirement Asset						
Cash Investment paid to RWF						
Net cash used in financing activities	**-**	**(1,231,172)**	**-**	**(586,000)**	**-**	**1,559,338**
Net (decrease)/increase in cash and cash equivalents	**(158,367)**	**674,219**	**449,254**	**(1,975,471)**	**(1,421,893)**	**(1,348,492)**
Cash and cash equivalents at beginning of year	4,902,359	4,743,992	5,418,211	5,867,465	3,891,995	2,470,102
Cash and cash equivalents at end of year	**4,743,992**	**5,418,211**	**5,867,465**	**3,891,995**	**2,470,102**	**1,121,610**

18.2 Tariff Consultation

The following was the submission to SALGA and stakeholders on the proposed tariff increment that Rand Water will implement on 1st July 2023.

18.2.1 Process of Consultation

Rand Water must, at least 40 (forty) days before making final submission to the Board, request SALGA and National Treasury to provide comments on the proposed tariff increase. Thereafter the Department of Water and Sanitation (DWS) must table proposed tariff increases by all water boards to National Parliament on or before 15th March 2023, for implementation on 1st July 2023.

DWS / TCTA raw water pricing	30th September 2022
Board Approval of Proposed Tariff	7th October 2022
Preliminary Consultation with DWS and National Treasury	10th October 2022
Customer Consultation	12th October 2022
Consultation with SALGA	14th October 2022
Submission to National Treasury and SALGA for input	18th October 2022
Customer notification	9th December 2022
Board Approval of Submission to DWS	23rd January 2023
Submission to DWS for Parliamentary approval	23rd January 2023
Parliamentary approval	15th March 2023
Implementation of tariff increase	1st July 2023

a. Rand Water's Corporate Business Plan

Added to this challenge of high non-revenue water, Rand Water's infrastructure requires to be urgently refurbished. These demand levels are not abating. The added pressure relates to the continuous postponement of completing Phase 2 of the Lesotho Highlands Water Project. Water supply challenges will continue to be experienced before October 2027 when it is anticipated to be completed.

An analysis shows that these circumstances have over-burdened infrastructure. Rand Water, therefore, finds itself in a situation that time must be allocated to urgently implement this programme. Therefore, Rand Water is urgently re-organising itself, with a capital expenditure programme of R1.459 billion for the financial year ending 30th June 2023; and moderate credit and demand control measures that curb the annual average daily demand at 4262 Ml/day in 2023.

As more planned maintenance becomes available, Rand Water's programme will increase significantly per annum. Over the next 5 years, Rand Water will exceed R28 billion.

This will ensure that the planned return on investment for the relevant infrastructure is not compromised. Certain Growth investments are aimed to assist the cause of securing alternate water sources and ensure the better utilisation of our existing sources.

b. Overall Internal Inflation

The Bureau for Economic Research (BER) provides 5 year financial and economic projections in April and October every year. Therefore, Rand Water's proposed tariff is impacted by the release of these projections.

The economic data indicates that GDP will remain subdued below 2 per cent per annum, impacted by global economic downturn and sharp increase in global inflation. CPI projections are close to the upper limit of the 3% - 6%. This is likely to be followed by sharp increases in interest rates. These factors are likely to lead to even higher tariffs in the water sector, in line with other prices for goods and services in South Africa.

c. Capital Expenditure Programme

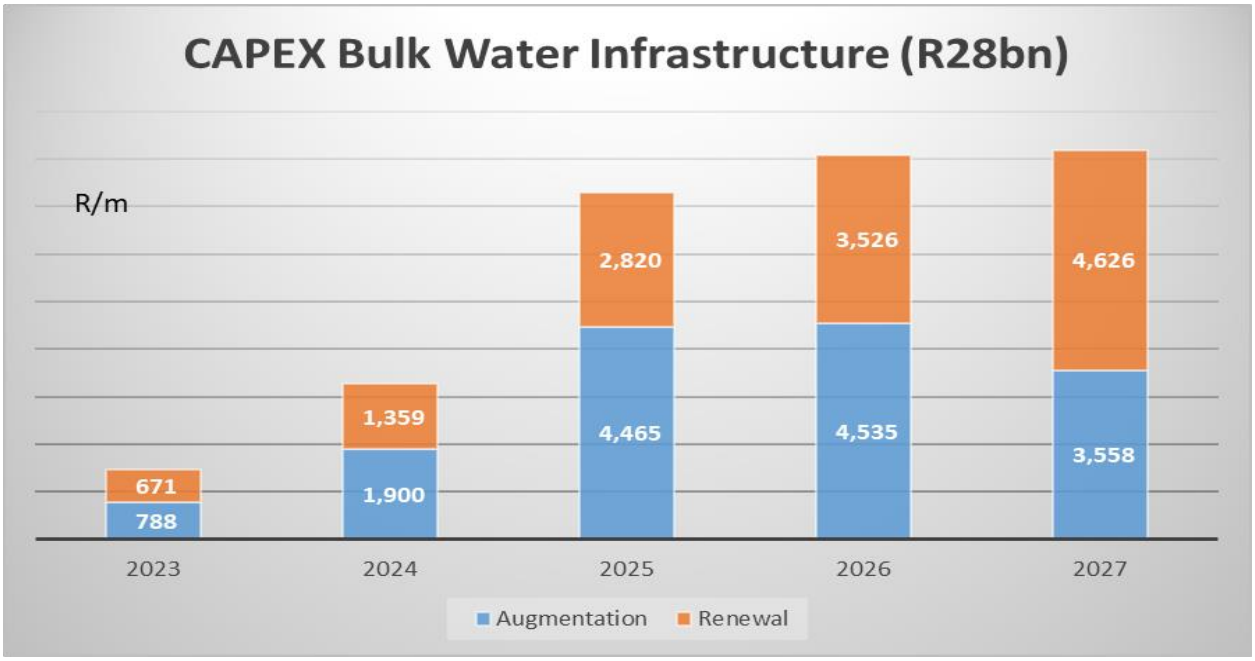
With the adoption of ISO 55000, appropriate processes and controls are in place. These enhance the determination of both the augmentation and renewal CAPEX plans. The 5-year plan continues to be dominated by expenditure associated to the 2009 Additional Water supply scheme. Phase 1 of the 2009 scheme is scheduled to deliver an additional 600Ml/day. Mitigating actions have been put in place to ensure that customer demand and operational integrity is maintained.

Table 25. Capital Expenditure Programme

System	Augmentation (R'm)	Renewal (R'm)
Eikenhof	1,856	2,589
Mapleton	3,917	1,763
Palmiet	4,214	1,717
Primary	2,653	3,008
Zwartkopjes	1,165	1,950
All Systems	1,440	3,234
Total	**15,246**	**14,262**

The average ratio over the five-year planning horizon between Augmentation and Renewal investments is 54/46 respectively.

Diagram 13. Capex Bulk Water Infrastructure



The following projects are major investments within the Capital expenditure program.

Table 26. Major Investments within the Capex Program

Augmentation			Renewal		
Project	**System**	**R/m**	**Project**	**System**	**R/m**
Pipeline W1 Duplication	Mapelton	950	B1 Pipeline replacement	Zwartkopjes	841
Panfontein Renewal of dryin beds	Raw Water	929	Raw water canal at ZB	Raw	600
Pipeline O6 Germiston to Lombardy	Palmiet	921	Replace pipeline A6	Zwatkopjes	537
Pipeline B16 ZB – Slangfontein	Mapleton	871	Refurbishment of flash mixers and sedimentation tanks	Zuikerbosch	475
Station 5B	Station 5	711	Replace pipeline N1 Selcourt	Mapleton	421
Top 5 Total		**4,382**			**2,874**

d. Differences With Corporate Business Plan

The major difference between these tariff projections and the corporate business plan relates to the raw water projection. Water boards and DWS / TCTA have different financial years. The former ends on 30th June, while the latter ends on 31st March. Therefore, the raw water tariff covers only 9 months of Rand Water's financial year.

Rand Water applies the same model in submitting its corporate business plan and in its tariff determination. The corporate business plan is submitted to DWS on 31st May. The tariff negotiation exercise commences in October. Therefore, some economic and financial assumptions do not remain the same. For example, labour, CPI and PPI assumptions provided by BER are not the same.

e. Capital Markets

Capital markets are an important source for Rand Water's operations and capital expenditure. A fine balance must be found between over-burdening current customers with a higher tariff or over-burdening current customers with high interest payments on debt. Capital markets have become more challenging given the Rand's falling strength against major currencies, which among others, increases volatility of capital markets.

This is particularly more challenging because several state-owned entities and the sovereign are major players in capital markets.

These factors raise the cost of borrowing for Rand Water. Considering the increasing capital expenditure requirement, Rand Water's ability to raise funds in capital markets becomes very critical. It is important for Rand Water to demonstrate to credit rating agencies and capital funds that the organisation can apply a sustainable tariff. Aligned with this, Rand Water must demonstrate an ability to manage its debt – equity ratio that is associated with raising debt.

Rand Water is also aware of the increasing interest between its financial position and its customers. This requires a fine balance to ensure that Rand Water does not impose an unsustainable tariff on its customers, given the tough financial position that local municipalities are facing. At the same time, such a fine balance requires that Rand Water's tariff maintains a healthy relationship with its ability to raise a prudent and efficient debt-equity ratio.

18.2.2 Raw Water Tariff Consultation

Rand Water anticipates receiving formal notification of the proposed raw water tariff for the DWS / TCTA financial year commencing 1st April 2023.

The raw water tariff consultation process is supposed to be concluded by 30th September each year. This then affords water boards an opportunity to seek approval from their respective Boards on their proposed tariffs. Municipalities and other stakeholders are afforded an opportunity to engage with water boards over a 40-day period.

The changes in the raw water tariff are implemented from the 1st of April each year to 31st March the following year. The financial years for water boards commence from 1st July to 30th June the following year. Given these mismatches, a raw water tariff affects not one, but two years.

The raw water tariff includes an AMD charge. This is anticipated to continue. DWS, TCTA and National Treasury have agreed that one third of the AMD charge will be borne by Vaal River users and included in this raw water charge. The remaining two thirds will be covered by National Treasury and, eventually as an environmental levy charged to mines.

Table 27. Raw Water Tariff Consultation

VRS	2022/23 Actual	2023/24 Proposed	Weighted Average Increase %
i) State Schemes			
Existing Vaal O&M	R 0,8872	R 0,8950	0,88%
AMD O&M	R 0,0860	R0,0860	0%
	R 0,9732	**R0,981**	**0,80%**
ii) Augmentation Schemes			
CUC	R 3,094	R 3,094	0 %
BO&RC: incl under-recoveries	R 0,616	R 0,808	31 %
	R 3,710	**R 3,902**	**6,4 %**
Total State and Augmentation Schemes	**R4,6832**	**R 4,883**	**4,27%**

18.2.3 Tariff Methodology

Rand Water has consistently applied the same methodology to determine its tariff. This approach has worked well when adjustments have been required due to a change in a cost component of the tariff. This has happened on several previous occasions.

- On Friday, 9th February 2012, Eskom announced that they had revised the proposed energy tariff increment from 25.9 per cent to an average of 16 per cent. The revised energy increment for Rand Water, classified under key industrial and other urban customers, was 16.7 per cent. Rand Water adjusted its bulk potable water tariff from 13.5 per cent to 11.3 per cent in line with this adjustment.

- On 28th February 2013, NERSA announced that it had approved an 8 per cent increment

for Eskom from 15 per cent. For Rand Water and other key industrial customers, the actual energy tariff increment was revised from 15 per cent to 10.05 per cent. Rand Water, in consultation with SALGA, revised its potable water tariff increment from 8.1 per cent to 7.1 per cent. The tariff increment was therefore revised to 8.1 per cent with a savings to establish a Water Demand Management Fund to manage non-revenue water. Given the high non-revenue water by local municipalities that exceeds 37 per cent, Rand Water believes that this special fund will assist to alleviate this challenge.

- On 11th December 2017, DWS revised the Catchment Management Agency (CMA) charge, a component of the raw water tariff. The original CMA charge increased by 50.4% from 2.5 cents per kl to 3.76 cents per kl. This was revised to a 14.6% increase from 2.5 cents per kl to 2.87 cents per kl. Thus, the DWS raw water reduced from 89.04 cents per kl to 88.149 cents per kl. This is a revised increase of 18.38% instead of the original 19.58%.

Table 28. DWS Raw Water Charge

DWS Raw Water Charge (cents / m3)		
	2018/2019	% Change
Beginning of the year tariff		
ROA (PPI - April)	26.08	4.600%
Depreciation	15.34	4.600%
Non-pumping O&M (incl. functional support) (Last year's figure)		
Non-pumping O&M (incl. functional support)	13.57	5.300%
Pumping	21.98	90.000%
Pumping (Last year's figure)		
Functional Support		
Total DWS unit cost (Excl AMD and CMA)	**76.98**	**20.17%**
AMD (New Tariff)	**8.30**	**5.100%**
Total DWS unit cost (Excl CMA)	**85.28**	**18.51%**
CMA Charge	**2.87**	**14.60%**
Total DWS unit cost	**88.149**	**18.38%**

The total raw water charge is revised from 394.76 cents per kl to 393.87 cents per kl or a revised increase of 13.87% from an original increase of 14.13%.

Table 29. Total Raw Water Charge

Total Raw Water Charge (cents / m^3)		
	2018/2019	% Change
Total DWS unit cost (Excl AMD and CMA)	88.15	18.38%
Total TCTA unit cost	305.72	12.63%
Total Raw Water Charge	**393.87**	**13.87%**

In line with Rand Water's methodology, Rand Water revised its tariff increment from 958 cents per kl to 957 cents per kl - a 14.8% tariff increment from the previous proposal of 14.9%.

- On Friday, 15th December 2017, NERSA granted Eskom an average percentage increase of 5.23% for the 2018/19 financial year.

  Rand Water faced the risk of adjusting to these new energy rates without full knowledge of this increase, thus negatively impacting on Rand Water's financial viability. However, delay in demonstrating the impact of these changes on the proposed Rand Water tariff may be negatively perceived.

  In line with Rand Water's methodology, Rand Water revised its tariff increment from 957 cents per kl to 935 cents per kl - a 12.2% tariff increment from the previous proposal of 14.8%.

a. Energy Costs

Energy consists over 20 per cent of Rand Water's cost structure, second only to raw water. Therefore, it has a significant impact on Rand Water's proposed tariff.

- Over the years, Eskom submits its application to NERSA for its energy tariff increments. The concern with these applications is the significant difference between Eskom's application and NERSA's eventual approved energy tariff increment. This makes the business planning process more difficult. In some years, Rand Water has had to revise its proposed tariff due to the revision of the energy tariff increment.

- The other difficulty for Rand Water is that the Eskom tariff application is not aligned to the water sector tariff consultation cycle. In some years Eskom has applied for its tariff increment in November or December. As demonstrated above, Rand Water has had to adjust its tariff accordingly.

  As part of the NERSA consultation process, Rand Water raised the concern that such an approval process has an impact on Rand Water's tariff to municipalities. These approvals outside the normal tariff consultation cycle require the Ministers of Water and Sanitation, and Finance to agree without necessarily engaging with municipalities on the matter. Rand Water also advised that local municipalities would have had already approved their tariffs to households and businesses. Such revisions of the energy tariff impact the whole value chain.

- The additional concern is that even though Eskom's tariff is significantly changed by NERSA, the regulator still gives Eskom an opportunity to resubmit during the financial

year. This has a knock-on effect on the tariff in the water sector. For example, in the 2015/16 financial year, NERSA declined Eskom's application but gave them an opportunity to reapply any time during the year.

- Rand Water also sources its energy from Emfuleni, Johannesburg and Ekurhuleni. The energy component is a major cost component in their provision of energy to Rand Water. Therefore, their energy tariff increment takes into consideration additional cost elements associated with their capital expenditure, and operations and maintenance in their supply of energy to Rand Water. Therefore, their tariff increment tends to be higher than the Eskom tariff increment.

For the year under review, Rand Water will rely on the communication sent to Eskom by NERSA. It confirms that the tariff increment is 9.61 per cent. This increment is significantly outside the 3% - 6% inflation range.

NERSA will commence public hearings to deliberate on Eskom's tariff application for the 2024 and 2025 financial years. The tariff application forms part of Eskom's fifth Multiyear Price Determination that was originally submitted in June last year. If awarded this would result in annual standard tariff increases of about 32% in 2023 and 9% in 2024.

b. Chemical Costs

The erratic rainfall pattern has proved to be a challenge in terms of planning. Heavy downporurs over long periods of drought increases the turbidity of the raw water, thus increasing required chemicals. This has been witnessed in the past and is expected to continue into the future, in particular during this drought period. Global factors have also increased the cost of procurring imported chemicals.

c. Labour Costs

Economic projections show that very difficult salary and wage negotiations will not abate. The water sector including local councils and Rand Water are anticipated to face the same challenge. It is also important to note that these tough negotiations pervade the whole water sector, as the major unions represent workers at water board and municipal level. This is due to centralised bargaining between unions and SAAWU, the South African Association of Water Utilities. This becomes an uncontrollable wage increase, outside the direct control of Rand Water. Therefore, above inflation labour costs are expected to continue.

Rand Water has applied a moving average of the premium above CPI from previous years, increase in staff numbers to cater for the increased capital expenditure and organisational labour requirements to determine the labour wage rate.

Table 30. Labour Wage Rate Projections

Financial Year Ending 30 June	2020	2021	2022	2023	2024
Labour (Wage Rate)	5.35%	5.92%	6.10%	5.90%	7.1%
Total Unemployment (incl informal)	-0.50%	0.40%	0.60%	0.70%	0.70%

(Source: BER, Group Strategy)

Currently, the global and local economic environment is operating in a high inflation environment. This has a knock-on effect on projected wage increases which are anticipated to remain outside the 3% - 6% inflation range.

d. Other Expenses

Over the years other expenses have always increased by CPI. This trend is expected to continue. All Other expenses are pegged to increase by the projected CPI.

18.2.4 Cost Saving Measures and Increasing Efficiency

The Rand Water Integrated Annual Report and Corporate Business Plan demonstrate some of the efficiencies that Rand Water continually searches for to the benefit of the organization and its customers.

Growth projects are those projects that are aimed at improving operational efficiencies and optimizing costs in the Rand Water value chain. Significant cost savings that would help alleviate pressure off the potable water tariff are expected from these ventures; thus, creating value through secondary activities. In line with the innovation driven risk-based strategy of Rand Water, these are ground-breaking ventures in Rand Water.

The water requirements in the Rand Water area of service continue to grow, and gradually outgrowing the Integrated Vaal River System (IVRS) output. Already, the Rand Water abstraction rights from the Vaal dam are exceeded. The Water Demand Management Initiatives, Reclamation and the Alternative Water Sources projects are aimed at mitigating this environmental risk. The Co-generation projects of Hydropower and Solar power contribute to the reduction in carbon emissions related to the traditional electricity generation. Rand Water's involvement in the construction of Wastewater Treatment Works would go a long way to alleviate the problem of contamination of our water sources. Sludge deposits are regulated for environmental safety, and the Water Treatment Residue Beneficiation project is aimed at reducing these deposits. Evidently, these ventures are good candidates for Green Investments. This is important because investors view Green Bonds favourably as they contribute towards their Environmental Social Governance ("ESG") targets. To further optimize internal efficiencies in primary business, there are

programmes aimed at producing chemicals and large diameter pipelines for Rand Water's own use.

f. Pillar 1: Integrated Monitoring

This pillar is focused on integrating the national water infrastructure on one platform. This will enable the Department of Water & Sanitation, Water Boards and Local Municipalities to view and manage the integrated infrastructure system on one platform to ensure equitable supply. An integrated monitoring system has been partially established focusing only on Rand Water and City of Johannesburg reservoirs information. MOUs to roll out the system to City of Tshwane and Ekurhuleni metro are in place.

g. Pillar 2: Non-Revenue Water

The project entails installation of automated control valves or Pressure Reducing/Releasing Valves (PRVs) on the supply to identified internal and/or external points with excessive consumptions. Nine municipalities including Emfuleni Local Municipality and the City of Johannesburg were identified for a Water Cycle and Water Demand Management Initiatives programme. This project will see Rand Water assist municipalities reduce water losses and improve revenue collection through efficient and accurate metering in the municipal network. The MoU entered into between Rand Water and Johannesburg Water will be utilized to pilot the initiative as a proof of concept before consideration of a roll-out to other municipalities in Rand Water's area of supply.

h. Pillar 3: Wastewater Resources Programme

To reduce the burden on the Integrated Vaal River System (IVRS), reclamation of effluent from Wastewater Treatment works as an alternative water source was explored. Rand Water signed MOUs with Johannesburg Water to assess the viability of a reclamation plant in the vicinity of Johannesburg Water's Northern Works.

As part of the Emfuleni Water Services Intervention Business Case, Rand Water conducted a high-level viability assessment for the construction of a reclamation plant in Sebokeng to supply industries in the Vaal with Sasol being the main off-taker. Critical for the 2023 financial year is to obtain the necessary approvals for regulatory and statutory compliance.

i. Pillar 4: Water Schemes Programme

Decentralizing water sources has become of paramount importance to ensure raw water security to meet future demands; given the over reliance on the Integrated Vaal River System. Rand Water

identified municipalities in Gauteng and the North West wherein opportunities for alternative water sources will be explored, and memorandums of understanding were entered into with those municipalities.

j. Pillar 5: Wastewater Schemes

Rand Water saw the opportunity to regionalize schemes by positioning itself in such a way that it will also cater for the adjacent municipalities of City of Johannesburg, City of Tshwane, Madibeng and parts of Ekurhuleni Metro.

k. Pillar 6: Vertical Integration

Optimizing production inputs is central to enhancing efficiencies in a business. Through this pillar Rand Water seeks to mitigate the risk of overly relying on external suppliers for energy, chemicals and other important production essentials.

l. Hydropower

Energy is the second biggest production cost driver after raw water. Previous studies determined that a combined power output of at least 13 MW can be generated at four sites along the Rand Water pipe-network.

Rand Water is consistently searching for other ways to save on energy. Therefore, Rand Water attempts to minimize pumping at Vereeniging and optimize pumping at Zuikerbosch. This is due to the fact that Rand Water pays an Eskom tariff which is significantly lower at Zuikerbosch compared to the higher municipal tariff at Vereeniging. In terms of hours of pumping during the day, Rand Water continually strives to pump during off-peak time when the rates are lower. These are some of the measures that Rand Water has put in place in an attempt to pass on benefits to customers.

m. Solar Power

To further augment the energy requirements in Rand Water the installation of Solar Photovoltaic panels at different Rand Water sites was investigated.

n. Spiral Mill

The pipeline network is Rand Water's biggest infrastructure item and constitutes a significant part of the Rand Water budget for both augmentation and renewal. Rand Water has conducted

detailed feasibility studies on the possibility of re-opening a spiral mill plant to produce large diameter spirally welded steel pipes for Rand Water's own use for a start; with the aim of growing the facility to produce for the external market in future. The studies suggest that such an operation is feasible and viable. It is anticipated that the plant shall take about two years to construct.

o. Water Treatment Residue

The Water Treatment Residue (WTR) beneficiation project entails the solution of deriving some commercial value out of the "sludge" at Panfontein. Expected benefits from the proposed solution are two-pronged. Rand Water will minimize on the costs of creating more space for the sludge deposits i.e., building more sludge beds, while energy generation and brick manufacturing would result in some cost saving and some additional revenue stream respectively.

p. On-Site Production of Chemicals

The onsite manufacture of chemicals is the first step towards mitigating common risks in the chemicals sector such as delayed global supply. A business case to determine the viability of such an initiative was concluded.

q. Production of Carbon-Dioxide (CO_2) for Own Use

The objective of this project is to find innovative methods and technologies for the production of CO2 on site to mitigate the supply risk. Catalogues of suitable methods, innovative technologies, and suppliers/source were compiled, and the next steps are envisaged to commence in the coming financial year.

r. Sustainable Development Goals

South Africa is an active participant in the attainment of Sustainable Development Goals (SDGs). Rand Water has taken up the mantle and this is demonstrated through its active participation in community-based projects and capacity-building. This is undertaken by the Rand Water Foundation, a corporate social responsibility arm of the organization. In addition, Rand Water's ZAR 1.709 billion Sustainability-linked Bond completed in June 2021, was selected as the winner of this year's Bonds, Loans & Sukuk Africa Awards for Local Currency Sovereign, Supra & Agency Bond Deal of the Year. This Award makes Rand Water the first State-Owned Entity to issue a Sustainability Link Bond in Africa. Since 2014, the Awards recognised the most innovative and ground-breaking deals from Sovereign, Corporate and Financial Institution issuers and borrowers.

This recognition indicates that Rand Water is an agent of change, ultimately contributing to the social and economic imperative of doing business in South Africa. The bond yield demonstrated

an improvement in Rand Water credit spread against the Sovereign benchmark. There was a considerable reduction in the weighted cost of debt, that benefits our customers and flows down to the end-user, ultimately contributing to the social and economic imperative of doing business in South Africa.

s. Debt Relief

On 15th June 2020, Rand Water had a meeting with the Gauteng MEC of COGTA, and all the Gauteng municipal mayors wherein the revenue collections constraints and liquidity challenges of municipalities resulting from the adverse impact of Covid-19 were discussed. After the meeting, Rand Water granted its customers debt relief packages as follows:

- Extension of credit terms from 30 days to 45 days to allow municipalities an opportunity to collect the billed revenues from the consumers in line with their agreed payment terms with regards to bulk services, and
- Interest Payment holiday and interest write off to minimize the growth of debt.

18.2.5 Original Proposed Tariff

In line with Rand Water's methodology, Rand Water therefore proposed the following tariff.

Table 31. Original Proposed Tariff

Rand Water Tariff = Rand Water Internal Inflation for Financial Year Ending 30th June 2024				
	%	Forecast	Percent	Weighted
Year-End ~ 30 June	Increase	2024	of total	
	%	R m	%	%
DWS	0.8%	1359	8.8%	0.1%
TCTA	5.1%	5659	35.0%	1.8%
Raw Water	**4.3%**	**7018**	**43.7%**	**1.9%**
Energy - Eskom	11.2%	2214	12.9%	1.4%
Energy - Municipalities	12.2%	1827	10.6%	1.3%
Chemicals	11.0%	577	3.4%	0.4%
Multi-Partnered Uncontrollable Costs		**11636**	**70.6%**	**5.0%**
Labour	7.1%	2950	17.9%	1.3%
Depreciation	18.2%	600	3.3%	0.6%
Other	5.3%	1333	8.2%	0.4%
Total		**16520**	**100.0%**	**7.3%**
				7.3%

Rand Water's previous gazetted tariff is 1162 cents per kilolitre. Therefore, Rand Water's original proposed gazetted tariff was 1246 cents per kl - a 7.3 per cent tariff increment.

Table 32. Original Proposed Gazetted Tariff

Municipalities	***Current Tariff (1 July 2022 – 30 June 2023)***	***New Tariff (1 July 2023 – 30 June 2024)***
Tariff Increment		***7.3%***
	C/kl	***C/kl***
Tariff	***1161.536662 Excluding VAT at 15 per cent***	***1246.032177 Excluding VAT at 15 per cent***

18.2.6 Revised Proposed Tariff

On 12th January 2023, NERSA approved a significantly different energy tariff increment of 18.65% applicable from 1st April 2023 and 12.74% applicable from 1st April 2024. It is important to note that these are applicable to municipalities. Rand Water's energy tariff, as a Large and Industrial Customer, is higher. In previous years, this has exceeded 1% above the increase for local municipalities. In addition, Rand Water sources a portion of its energy from 3 municipalities; Johannesburg, Ekurhuleni and Emfuleni. They also implement a higher tariff than the NERSA approved tariff increment. In previous years, this has also exceeded 1% above the increase for local municipalities.

If the Budget Speech by the Minister of Finance announces a different energy tariff, Rand Water will revise its proposed tariff.

Table 33. Revised Proposed Tariff

Rand Water Tariff = Rand Water Internal Inflation	for Financial Year Ending 30th June		2024		
		%	Forecast	Percent	Weighted
Year-End ~ 30 June	2023	Increase	2024	of total	
		%	R m	%	%
DWS	1349	0.8%	1359	8.6%	0.1%
TCTA	5382	5.1%	5659	34.4%	1.8%
Raw Water	**6731**	**4.3%**	**7018**	**43.1%**	**1.8%**
Energy - Eskom	2115	18.8%	2512	13.5%	2.5%
Energy - Municipalities	1730	19.8%	2073	11.1%	2.2%
Chemicals	520	11.0%	577	3.3%	0.4%
Multi-Partnered Uncontrollable Costs	**11096**		**12180**	**71.0%**	**6.9%**
Labour	2756	7.1%	2950	17.6%	1.2%
Depreciation	508	18.2%	600	3.3%	0.6%
Other	1266	5.3%	1333	8.1%	0.4%
Total	**15626**		**17063**	**100.0%**	**9.2%**
					9.2%

Rand Water's previous gazetted tariff is 1162 cents per kilolitre. Rand Water's revised gazetted tariff is 1268 cents per kl - a 9.2 per cent tariff increment.

Table 34. Revised Gazetted Tariff

Municipalities	*Current Tariff (1 July 2022 – 30 June 2023)*	*New Tariff (1 July 2023 – 30 June 2024)*
Tariff Increment		***9.2%***
	C/kl	***C/kl***
Tariff	***1161.536662***	***1268.398034***
	Excluding VAT at 15 per cent	***Excluding VAT at 15 per cent***

19 Surplus Policy

Rand Water is guided by the Water Services Act, and the DWS Pricing Strategy. As a State-Owned Entity, listed as National Government Business Enterprise in the Public Finance Management Act (No. 1 of 1999), Rand Water is keenly aware of the importance reserving its surplus to fund its capital expenditure programme. The mandate of the organization is very clear and guides the entity.

The DWS Pricing Strategy continues to guide the Surplus Policy, and as previously advised by DWS, this remains the applicable tool that Rand Water continues to adhere to.

Rand Water is aware of the revision of the Pricing Strategy by DWS. On the advice of DWS, Rand Water will in future develop a Surplus policy when the new DWS Pricing Strategy is gazetted.

20 Fraud Prevention Plan

Rand Water's Fraud Prevention Plan guides the organization. The Fraud Prevention Plan was approved by National Treasury and covers the following.

- Fraud Policy Statement
- Staff Sensitization and Participation in fraud prevention
- Group Forensic (Now known as Integrity and Probity Assurance) and Rand Water hotline.
- Circulating of the message via Road Shows
- Internal and External Publications

A comprehensive Fraud Prevention Plan is available and can be sent as a separately. The Plan will be submitted to National Treasury for approval as and when it is updated. It will also be submitted to DWS for information.

21 Contingencies and Legal Action in Progress

During the current financial period, there were no material litigation matters that were raised against or for the entity. The amounts being claimed from/for the Group total approximately R99 million (contingent liabilities R258.5 million (2022: R347.1 million) and contingent assets R357.5 million (2021: R357.5 million)). The Group's legal advisors believe that the Group has reasonable defences against/for the claims and that the probability of loss will be minimal. Accordingly, no additional provision has been made in the consolidated annual financial statements.

21.1 Contingent Assets

Legal claims amounting to R357.5 million (2021: R357.5 million)
The Group has a potential contingent asset of R69.6 million (2022: R69.6 million) which arose as a result of a net under billing against certain customers. The net under billing arose due to incorrect meter readings undertaken. Collection thereof is still uncertain as of the end of the reporting period. The Group's R21.7 million (2022 21.7 million) contingent asset resulting from a claim from a service provider where the Group was an implementing agent. The court has ruled to set aside the original judgement which had resulted in the Group incurring R21.7 million (one-third of the settlement agreement) as settlement. Based on the court ruling to set aside the default judgement, the Group on 27 February 2020 instituted a counter claim to recover the monies already expensed. Refer to note 2.2 of contingent liabilities below for further details.

Included in the balance of contingent assets are amounts of R266.2 million (2022: R266.2 million) owed to Rand Water by various customers wherein there is no continued services that are rendered, in which the entity is following the Credit Management Policy to recover the amounts owed amounting to R283.7 million.

21.2 Contingent Liabilities

Legal claims amounting to R258.5 million (2021: R347.1 million)
Details of the claims are as follows:
Rand Water has been sued for damages in the amount of R184 million (2022: R184 million) in the High Court of South Africa. The damages emanate from a contractual relationship which was awarded to a Consortium by Rand Water for transactional advisory services for a mega sanitation project. One of the consortium partners brought forward damages claim against both Rand Water and its partner. The said Consortium partner, as the Plaintiff is claiming loss of opportunity to realise a profit and thus suffered damages. The damages claim is currently in abeyance as a result of the liquidation proceedings that have been brought against the Plaintiff by its Consortium Partner and which was provisionally granted. The probability has been assessed as low as the prospects of success (a favorable court ruling) in this matter is high.

The Service Provider instituted legal proceedings against Rand Water for damages originally amounting to R96.2 million in the High Court of South Africa, wherein a settlement of R65 million was reached against a default judgement issued by the said court. In this regard, Rand Water was appointed as the Implementing Agent on behalf of the Department of Water and Sanitation. The claim is founded on the loss of income alleged to have been suffered by the Service Provider due to the Force Majeure (circumstances beyond the control of any the parties to the contract). In compliance with the initially issued default judgment, a settlement agreement was reached between Rand Water as the implementing agent, the principal and the service provider, wherein; Rand Water was to settle one-third (1/3) of the settlement agreement, with the principal honouring the remaining two-thirds (2/3) of the settlement agreement. It is on the back foot of the principal's failure to expend based on the settlement agreement that the service provider applied to reinstate the original default judgement of R96 million. The Default Judgment which was the basis of this Claim had subsequently been set aside in the High Court in February 2020 and the claim no

longer exists in its current format. Rand Water instituted a counter claim as reflected in Note 1.2 above under contingent assets.

Therefore, current claim by the service provider is R74.5 million (2022: R74.5 million), being the outstanding portion of the original default judgment total of R96 million. The matter has been classified as of low impact on Rand Water as prospect of success (i.e., a favourable court ruling) is very high in this regard.

On 4 November 2016, a notice in the Government Gazette to inform all interested and affected parties that a Claim of restitution of land rights has been lodged. The claim affects certain Rand Water's properties as they are situated within the area specified in the Notice. Rand Water is in the process of appointing an attorney to make an application to exclude Rand Water properties from the notice.

21.3 Guarantees

The Group has contingent liabilities in respect of guarantees given to third parties that amount to R654 million (2022: R653 million).

22 Five Year Borrowing Programme

22.1 Objective

In accordance with the Public Finance Management Act and the Shareholder Compact, Rand Water is required to submit an Annual Borrowing Plan to the Minister of Water and Sanitation and to the Minister of Finance.

22.2 Background

The Borrowing Plan 2021 - 2024 obtained formal approval from our Shareholder, the Department of Water and Sanitation and the Minister of Finance, as per Government Gazette 44866 published on 16th July 2021, authorising the borrowing limits to Rand Water for the period 1st July 2021 to 30th June 2024. This Borrowing Plan 2024 - 2028, would require borrowing limit approval for the period 1 July 2025 to 30 June 2028.

22.3 Annexure 1

The Borrowing Plan is attached as annexure 1.

22.4 Financial Ratio Projections

Table 35. Financial Ratio Projections

FINANCIAL RATIOS	Fcst 2023	Plan 2024	Plan 2025	Plan 2026	Plan 2027	Plan 2028
Annual revenue growth	9.3%	9.0%	7.8%	12.3%	12.2%	8.1%
Gross income rate	31.0%	29.8%	29.0%	29.7%	30.2%	30.3%
Net profit %	20.0%	20.0%	19.9%	20.0%	20.0%	19.9%
Operating cost %	83.9%	84.4%	84.9%	83.4%	82.1%	81.7%
As a percentage of total operating costs						
- Chemicals	3.9%	4.1%	4.2%	4.4%	4.4%	4.6%
- Energy	23.4%	25.4%	26.9%	28.6%	30.3%	30.1%
- Labour	15.7%	16.5%	16.1%	15.5%	14.9%	14.6%
- Depreciation	3.4%	3.5%	3.7%	4.4%	5.0%	5.5%
- Other	9.8%	8.6%	8.3%	7.9%	7.4%	7.2%
Water purchases	43.8%	42.0%	40.7%	39.2%	38.0%	38.0%
Funds from Operations (FFO)	4,403,039	4,820,387	5,230,518	6,017,597	6,847,446	7,504,924
FFO Interest coverage (x)	(14)	(9)	(8)	(15)	(40)	274
Funds from operations/ Debt (%)	100%	151%	164%	231%	263%	180%
Free Cash flow (FCF)	1,201,781	2,097,445	301,205	(3,051,865)	(3,789,974)	(2,665,014)
Current ratio	3.30	4.28	3.02	1.92	1.33	1.09
Debt equity ratio	0.13	0.08	0.07	0.06	0.05	0.07
Asset turnover	60.0%	61.7%	58.5%	52.6%	49.2%	46.0%
Return on assets	8.8%	8.9%	8.5%	8.5%	8.6%	8.3%
Return on equity	10.7%	10.4%	10.1%	10.2%	10.2%	9.9%
Debt service cover ratio	7.55	2.10	12.04	4.95	20.06	6.09
Gearing	10.8%	7.3%	6.6%	4.9%	4.4%	6.3%
AS COMPARED TO GSP 5 YEAR PLAN						
Funds from Operations / Total Debt	0.95	1.45	1.57	2.18	2.48	1.73
Total Debt / EBITDA	1.27	0.85	0.78	0.52	0.43	0.60
Total Debt / Capital	0.13	0.08	0.07	0.06	0.05	0.07
EBITDA Margin	19.1%	18.7%	18.9%	20.9%	22.5%	23.2%
PBIT	3,124,517	3,323,996	3,572,074	4,373,292	5,254,083	5,784,819
Interest incl borrowing costs	-309,407	-521,188	-643,714	-406,699	-169,836	27,432
Interest Cover Ratio	7.55	9.36	12.04	14.74	20.06	15.58
EBITDA	3,673,226	3,936,823	4,290,182	5,314,276	6,415,738	7,161,108
CFO/TOTAL DEBT	0.63	1.39	1.79	2.72	2.32	1.63
FOCF/Debt	0.27	0.67	0.10	-1.19	-1.48	-0.65
Interest/ Total Debt	9%	11%	9%	12%	10%	9%
Interest/ Revenue	2%	2%	1%	1%	1%	1%
CFROI	7%	9%	11%	13%	11%	11%

22.5 Financial Ratio Analysis

There are several ratios which have been considered to ensure the sustainability of the organisation over the current and extended planning period. Rand Water will elaborate on a few of the key ratios.

a. Debt Equity

- The debt leverage ratio shows the percentage debt that Rand Water has compared to its equity and is used as a measure of financial leverage.
- It can be assumed that the higher the debt-to-equity ratio, the more Rand Water is utilizing external funds for its investing activities.
- In times of rising interest rates and tight credit market conditions, an increasing debt to equity ratio could make raising future debt difficult; and
- The Rand Water's debt leverage ratio should not exceed 50% and is expected to be comfortably within this ratio over the planning period.

b. Cost to income ratio.

- This ratio measures the relationship of operating cost to operating income.
- A ratio below 100% is required for Rand Water to be sustainable. Rand Water drives efficiencies in order to create sufficient headroom which is required to fund renewal programs.
- The average projected ratio over the 5-year period is projected at an average of 79%.

c. Current ratio

- This ratio measures the liquidity of Rand Water; and
- The ratio is set to achieve levels above 1, while maintaining tariff increases below 10% over the period.

d. Debt service coverage ratio

- This ratio measures the ability of Rand Water to service its finance charges; and

- This ratio does not drop to lower than levels of 6 over the 5-year period.

e. Debt to EBITDA

- This ratio shows the number of years it would take for Rand Water to redeem its loans.
- At the set levels it affirms Rand Water's plan of minimizing the probability of defaulting on issued debt, which also helps in maintaining or improving Rand Water's credit rating status.

f. Return on Assets

- The ratio demonstrates how efficient management is at utilizing its asset base to generate revenue.
- The target is set to achieve levels of 7% and greater whilst embarking on our infrastructure augmentation program; and is expected to improve once the associated revenues of these investments begin to be realized.

23 Materiality and Significance Levels

23.1 Salient Facts

Section 30.1.3(e) of the Treasury Regulations requires public entities to incorporate within its strategic plan a Materiality and Significance Framework. It further refers to Section 28.3.1 which requires the Accounting Authority to develop and agree on a framework of acceptable levels of materiality and significance with the relevant Executive Authority. The Treasury Regulations also indicates that for the purposes of materiality and significance the sections within the PFMA that are applicable are Section 55(2) and Section 54(2) respectively.

The National Treasury's Practice Note 4 of 2009/10 on Application under Section 54 of the PFMA by Public Entities, provides guidance on the parameters to be used in determining the Rand value of acceptable "significance" levels. It further stipulates that the entities annual financial statements be utilised in deriving the significance thresholds.

The parameters set out within the practice note are as follows:

- 1% - 2% of the value of total assets
- 0,5% - 1% of total revenue; or

- 2% - 5% of profit after tax.

The practice note also recommends that apart from the quantitative guidelines as per above, the entity must also consider qualitative factors in determining the materiality and significance thresholds.

The International Accounting Standards (IAS 1) defines material as:
Information is material if omitting, misstating, or obscuring it could reasonably be expected to influence decisions that the primary users of general-purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity.

Materiality depends on the nature or magnitude of information, or both. An entity assesses whether information, either individually or in combination with other information, is material in the context of its financial statements taken as a whole.

Information is obscured if it is communicated in a way that would have a similar effect for primary users of financial statements to omitting or misstating that information.

The following are examples of circumstances that may result in material information being obscured:

a. information regarding a material item, transaction or other event is disclosed in the financial statements but the language used is vague or unclear.
b. information regarding a material item, transaction or other event is scattered throughout the financial statements.
c. dissimilar items, transactions or other events are inappropriately aggregated.
d. similar items, transactions or other events are inappropriately disaggregated; and
e. the understandability of the financial statements is reduced as a result of material information being hidden by immaterial information to the extent that a primary user is unable to determine what information is material.

Assessing whether information could reasonably be expected to influence decisions made by the primary users of a specific reporting entity's general purpose financial statements requires an entity to consider the characteristics of those users while also considering the entity's own circumstances. Materiality depends on the size of the item or nature judged in the particular circumstances of its omission, misstatement, or obscurement. Materiality relates to both positive and negative events that can affect the organisation.

23.2 Materiality Level

Materiality can be determined by either adopting a quantitative or qualitative approach. Rand Water has adopted to apply a combination of the two approaches for a broader application.

A. Quantitative Materiality

In assessing quantitative materiality Rand Water has considered both the guideline issued by National Treasury as well as other benchmarks and guidelines utilised in the accounting and auditing industries. The National Treasury guidelines indicate that the audited annual financial statements should be used (30 June 2022).

The minimum and maximum rates determined by National Treasury have been applied to Total Assets, Revenue and Net income (Profit After Tax). The following has been determined:

Table 36. Benchmarks

Benchmark	Rule	Min Single Rule (R'm)	Max Single Rule (R'm)
Total assets	1% - 2%	406	812
Net income (Profit After Tax)	2% - 5%	69	173
Revenue	0,5% - 1%	88	177

Interpretation of the above benchmarks and ruling indicate the following:

- the Total Assets level are deemed to be too high at either R406m or R812m.
- Minimum levels for both net income and revenue, sitting at R69m and R88m respectively, as deemed too low as they approximate moderate to low deemed levels indicated in FY 2022-2023.
- Maximum levels for net income and revenue sit at R173m and R177 m respectively which appears as a more reasonable threshold. An average of these 2 reasonable benchmarks amount to R175m.

This is further compared to the rates determined by other benchmarks and guidelines which have been applied to Total Assets, Equity, Net income, Revenue, Cash flow from operations and EBITDA. The average of these has approximated to around R178m. In addition, FY 2022-23 budget maximum levels for net income and revenue were considered. An average of these 2 reasonable benchmarks

amount to R179m. The above further support a conservative estimated materiality limit, which is set as ‘high’ significance levels at R180m, which is a R10m increase from FY 2022-23, that is in line with increase noted in average benchmarks.

The Risk Tolerance levels for the organisation are then derived from the escalated materiality and significance levels. The rating scales used during the risk assessment process are based on the Rand Water ‘s Enterprise-Wide Risk Management Framework. A hundred basis points impact scale is used to measure the impact of the risks. This is consistent with the measures used in the 2022/23 financial year. The impact measures are recorded in a matrix showing the different criteria to guide the assessment of the impact.

The financial impact scales are aligned with the quantitative materiality levels as determined. These values are averaged to determine the relevant hurdle rates. The hurdle rate is usually established and set as the “high” impact level and is used as a significance level. “Major” and “Extreme” are determined by doubling this value from the prior level. The “Moderate”, “Minor” and “Insignificant” values are similarly determined through halving the values. The basis points follow this scale.

The proposed levels for the current year are depicted below, in Table 8, Quantitative Risk Tolerance levels.

Table 37. Quantitative Risk Tolerance Levels

No.	Level	Financial Loss/Gain (Rm) Prior year 2022/23	Financial Loss/Gain (Rm) Recommended 2023/24
1.	Extreme	680	720
2.	Major	340	360
3.	High	170	180
4.	Moderate	85	90
5.	Minor/Low	43	45
6.	Insignificant	21	23

The quantitative materiality limit of R180 million will be applicable as a yardstick for all items except for those included in the table below: Qualitative Risk Tolerance Levels.

B. Qualitative Materiality

Materiality is not only linked to the size of the entity, so special consideration should be given to certain matters or transactions that are deemed to be qualitatively material due to the nature and type of transaction being incurred. Should a transaction individually or in combination with other information affect the users' judgement or assessment of the organisation or obscure its financial results in spite of its quantitative value, it would be deemed to be qualitatively material.

Section 54(2) of the PFMA provides a guideline towards those types of transactions that are deemed to be significant in nature, which requires informing in writing, to the relevant treasury of the transaction and submit relevant particulars of the transaction to its executive authority for approval.

Other matters are also deemed to be qualitatively significant and/or material and therefore been considered in determining the materiality level to be used. An omission, obscurement, misstatement or non-compliance of the following types of transactions would be deemed to be materially significant at the levels detailed below:

Consideration is given to the International Standard on Auditing 320 that assists assurance providers in setting materiality levels. The general principal applied is that the higher the risk, the lower the materiality is set. Utilising this approach, Rand Water has decided to retain the qualitative risk tolerance at "high" impact level to ensure appropriate transparency, control, assessment, and reporting is performed. This threshold remains conservative aligned to key benchmarks and relatively low compared to materiality levels set by external assurance providers.

Table 38. Qualitative Factors

Omission/ obscurement/ misstatement/ non-compliance	Qualitative factors	Non-financial Materiality	Financial Materiality
	• Compliance with regulatory requirements	No quantitative level - All matters must be declared	
	• Compliance with loan covenants and contractual agreements		At minor level >= R45m
	• Fruitless and Wasteful expenditure	No quantitative level - All matters must be declared	
	• Irregular expenditure	No quantitative level - All matters must be declared	
	• Losses through criminal conduct		At insignificant level >= R23m
	• Changes from a loss into profit or vice versa, or resulting in a change in trend		At high level >= R180m
	• Breaches to internal control and lack of fiduciary duty that has resulted in material misstatement to prior presented financial information* **to be assessed for qualitative breach disclosure, where no monetary value threshold is required*		At high level >= R180m
	• Litigation claims, contingencies and provisions		At high level >= R180m
	• Significant judgements or estimations used in determining policies, procedures, values etc.		At high level >= R180m
	• An operating segment/ division that has been identified as playing a strategic/significant role in the operations of the business		At high level >= R180m
	• Establishment or participation in the establishment of a company, significant partnership, trust, unincorporated joint venture or similar arrangement that entails incorporation or any interest (equity or loans) to be taken (S54(2)(a) and (b))	No quantitative level - All matters must be declared	
	• Participation in a significant partnership, trust, unincorporated joint venture or similar arrangement within South Africa ((no incorporation or interest		

23.3 Rand Water Risk Matrix

The impact of the adjustments to the materiality and significance values above would have the following impact to the Rand Water Risk Matrix as detailed in the Rand Water Enterprise-Wide Risk Management Policy and Framework. In terms of the table depicted below, anything above the threshold of "High" within the relevant categories noted, shall be reported irrespective of the quantitative materiality threshold.

Table 39. Risk Matrix

Basis points	Level	Financial loss/gain R (mill)	Outcome description (Business Risk)	Safety	Health	Environment	Reputational	Legal and Regulatory	Social and Community
100	Extreme	720	Disaster with potential to lead to collapse of business and is fundamental to the achievement of objectives.	Multiple Fatalities, Very serious irreversible injury from 10 people and above	May cause multiple deaths	Extreme environmental effect with impairment of ecosystem function. Long-term, widespread effects on significant area	Extreme international public/ media outcry. Damaging NGO campaign. Social/ legal licence to operate severely threatened	Significant fine/ imprisonment. Breach of mandate	Extreme, widespread social impact. Irreparable damage to highly valued cultural heritage
50	Major	360	Major event which can be endured but which may have a prolonged negative impact and extensive consequences.	Fatality, Multiple Major injuries or disability, Significant irreversible injuries to up to 10 people	Life threatening affects	Serious environmental effect with some impairment of ecosystem function. Relatively widespread, medium-long term impact	Serious adverse national media/ public/ NGO attention. Social/ legal licence to operate questioned	Major breach of regulation/major litigation	Persistent social issues. Serious damage to/ infringement to valued cultural heritage
25	High	180	Severe events which can be managed but requires additional resources and	Single major injury or disabling reportable	Irreversible significant health effects	Event that leads to environmental contamination (failure to manage appropriately, but	Concerted attention from media and/ or heightened community concern	Serious breach of regulation with report to authority	On-going social issues. High damage to valued cultural heritage.

Basis points	Level	Financial loss/gain R (mill)	Outcome description (Business Risk)	Safety	Health	Environment	Reputational	Legal and Regulatory	Social and Community
			management effort.			contained within Rand Water boundaries)			
13	Moderate	90	Event which can be managed under normal operating conditions.	Minor injuries, lost time,	Reversible significant health effects	Moderate effect on biological or physical environment. Moderate, short-medium term damage to minimal, low significance area	Moderate, adverse local public media attention/complaints	Minor legal issue/noncompliance/ breach of regulation	Moderate medium term social impact on local population. Moderate damage to heritage
6	Minor	45	Not worth worrying about because the effect is minimal	Minor injuries, no lost time	Reversible minor health effects/ Medical treatment case	No lasting effect/ low-level impact on biological or physical environment. Minor damage to small, low significance area	Public concern restricted to local complaints.	No legal issues but breach of company guidelines	Low-level social or cultural impact. Minor repairable damage to commonplace structures
3	Insignificant	23	Negligible	No health effects	Negligible	Negligible	Negligible	Minor negative impact, no corrective action necessary. Must be monitored.	Negligible

Table 40. Implications

Qualitative Factors	Non-financial Materiality	Financial Materiality	Application	Reporting Requirements	Frequency
Compliance with regulatory requirements	No quantitative level - All matters must be declared		Any breaches in compliance with regulatory requirements will have no threshold in determining reporting.	- Group Regulatory Compliance Services - Accounting Authority* - Shareholder	- Quarterly
Compliance with loan covenants and contractual agreements		At minor level >= R45m	Breaches to loan covenants and contractual agreements that are equal to or greater than R45 million, must be reported.	- Relevant Business Unit, including Group Legal Services, Group Finance & Group Regulatory and Compliance Services - Accounting Authority* - Shareholder	- Quarterly
Fruitless and Wasteful expenditure	No quantitative level - All matters must be declared		No monetary threshold is attached to Fruitless and Wasteful expenditure incurred and all matters noted must be reported	- Group Regulatory Compliance Services / Loss Control Function - Accounting Authority* - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Monthly - Quarterly - Annually
Irregular expenditure	No quantitative level - All matters must be declared		No monetary threshold is attached to Irregular expenditure incurred and all matters noted must be reported	- Group Regulatory Compliance Services / Loss Control Function - Accounting Authority* - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Monthly - Quarterly - Annually
Losses through criminal conduct		At insignificant level >= R23m	Losses incurred through criminal conduct that are equal to or above R21 million must be reported.	- Integrity & Probity Assurance / Group Regulatory Compliance Services/ Loss Control Function - Accounting Authority* - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Monthly - Quarterly - Annually

Qualitative Factors	Non-financial Materiality	Financial Materiality	Application	Reporting Requirements	Frequency
Changes from a loss into profit or vice versa, or resulting in a change in trend		At high level >= R180m	Where results have indicated a change from a loss to a profit or a profit to a loss (from a segmental/total perspective), or a significant change in trend that is equal to and greater than R180 million, this must be reported.	- Group Finance - Accounting Authority* - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Quarterly - Annually
Breaches to internal control and lack of fiduciary duty that has resulted in material misstatement to prior presented financial information *to be assessed for qualitative breach disclosure, where no monetary value threshold is required		At high level >= R180m	Any breaches noted on internal controls that was due to a breach of fiduciary duties (lack of reasonable and due care), that results in a misstatement/ misrepresentation of financial information that is equal to and greater than R180 million must be reported on and disclosed.	- Group Finance - Integrity & Probity Assurance / Group Regulatory Compliance Services/ Loss Control Function - Accounting Authority* - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Quarterly - Annually
Litigation claims, contingencies and provisions		At high level >= R180m	Litigation cases, contingent liabilities and assets, and provisions that are determined to be equal to and above R180 million must be reported and disclosed. (Disclosure must also be made in line with the relevant accounting standards and prescripts)	- Group Finance - Group Legal Services - Accounting Authority* - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Quarterly - Annually
Significant judgements or estimations used in determining policies, procedures, values etc.		At high level >= R180m	Where Rand Water has applied significant judgement and estimation that has an impact of greater and equal to R180 million, reporting and disclosure is required.	- Group Finance - Policy Development Unit - Bulk Water Services - Accounting Authority* - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Quarterly - Annually

Qualitative Factors	Non-financial Materiality	Financial Materiality	Application	Reporting Requirements	Frequency
An operating segment/ division that has been identified as playing a strategic/significant role in the operations of the business		At high level >= R180m	Where an operating division or segment is considered key in terms of strategy or in relation to the operations of Rand Water, and makes contributions equaling and greater than R180 million, reporting and disclosure shall reflect as such.	- Group Finance - Accounting Authority* - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Quarterly - Annually
Establishment or participation in the establishment of a company, significant partnership, trust, unincorporated joint venture or similar arrangement that entails incorporation or any interest (equity or loans) to be taken (S54(2)(a) and (b))	No quantitative level - All matters must be declared		Where Rand Water establishes or participates in the establishment of the structures noted, these must be reported and disclosed, as no monetary threshold applies.	- Group Legal Services - Accounting Authority* - Relevant Treasury and Executive Authority - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Quarterly - Annually
Participation in a significant partnership, trust, unincorporated joint venture or similar arrangement within South Africa ((no incorporation or interest (equity or loans) required)).		At high level >= R180m	Where Rand Water participates in a significant structure as noted, these must be reported and disclosed, where the value of this participation equals to and is greater than R180 million.	- Group Legal Services - Accounting Authority* - Relevant Treasury and Executive Authority - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Quarterly - Annually
Acquisition or disposal of a significant asset		At high level >= R180m	Where Rand Water acquires or disposes of a significant asset, these must be reported and disclosed, where the value of this equals to and is greater than R180 million.	- Group Legal Services - Accounting Authority* - Relevant Treasury and Executive Authority - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Quarterly - Annually
Commencement or cessation of a significant business activity		At high level >= R180m	Where Rand Water commences or ceases to participate in significant business activities, these must be reported and disclosed, where the value of this equals to and is greater than R180 million.	- Group Legal Services - Accounting Authority* - Relevant Treasury and Executive Authority - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Quarterly - Annually

Qualitative Factors	Non-financial Materiality	Financial Materiality	Application	Reporting Requirements	Frequency
Acquisition or disposal of a significant shareholding in a company (S54(2)(c))	>=20% change in shareholding	At high level >= R180m	Where Rand Water acquires or disposes a significant shareholding in a company, these must be reported and disclosed, where the value of this equals to and is greater than R180 million and/or where the change in shareholding is equal to and greater than 20%	- Group Legal Services - Accounting Authority* - Relevant Treasury and Executive Authority - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Quarterly - Annually
A significant change in the nature or extent of interest of a significant partnership, trust, unincorporated joint venture or similar arrangement (S54(2)(f))	>=20% cumulative interest or >=10% subsequent change in cumulative interest	At high level >= R180m	Where Rand Water has a significant change in the interest of the structures noted, these must be reported and disclosed, where the value of this equals to and is greater than R180 million and/or where the change is greater and equal to 20% of the cumulative interest or greater and equal to 10% of the subsequent cumulative interest.	- Group Legal Services - Accounting Authority* - Relevant Treasury and Executive Authority - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Quarterly - Annually
Participation in any company, partnership, trust, unincorporated joint venture that is located outside the Republic of South Africa (S54(2)(a) and (b))	No quantitative level - All matters must be declared		No threshold is required for reporting and disclosing participation in any structures noted that is outside of the Republic of South Africa.	- Group Legal Services - Accounting Authority* - Relevant Treasury and Executive Authority - Disclosure in Annual Report & Annual Financial Statements - Shareholder	- Quarterly - Annually

- **Accounting Authority: Rand Water Board or its sub-committees, as per terms of reference and/or Delegation of Authority.*

23.4 Conclusion

- Adjustment of the R170 million to R180 million and qualitative materiality and significance limits increase as set out above, for the financial year ending 30 June 2024.
- The adjustment in the risk tolerance level from R170 million to R180 million for the financial year ending 30 June 2024.

24 Self - Evaluation on Financial Viability

Rand Water adopts prudent financial planning to ensure its long-term financial health and sustainability. The capital expenditure program is developed to address the replacement of ageing infrastructure and the water demand growth of its customers, whilst the funding program is closely

aligned ensuring sufficient cash is made available at the appropriate intervals. Innovation has become a key focus area, which is purpose-driven to source new means and methods of improving operational performance; much is expected from this business function over the medium to long term.

Rand Water's extensive capital expenditure program will take annual expenditure levels to new heights over the next five years. Management will be monitoring this area with great interest to ensure the program's successful outcome.

Previous audited Financial Statements demonstrate Rand Waters *going concern* stability. Its current financial position continues to depict the same strength and ability to meet its future debt obligations.

25 Bank Accounts

Below are all the Rand Water Bank Accounts as required in terms of section 31.2.1 of the Treasury regulation which states, "accounting authority must, by 31 May of each year, submit to the National Treasury, a list of all such banking accounts of the public entity".

Table 41. Bank Accounts

Rand Water - Bank Accounts				
Institution	**Name of account**	**Account number**	**Purpose of account**	**Currency**
Standard Bank South Africa				
Standard Bank South Africa	Treasury Account	203351924	Business Current Account	ZAR
First National Bank (FNB)				
First National Bank^	Debtors Account 1	62693838199	Business Current Account	ZAR
First National Bank^	Debtors Account 2	62693842190	Business Current Account	ZAR
First National Bank^	Debtors Account 3	62852122002	Business Current Account	ZAR
First National Bank^	Creditors Account	62693836135	Business Current Account	ZAR
First National Bank^	Vereeniging	62693867370	Business Current Account	ZAR
First National Bank^	Scientific Services	62693854616	Business Current Account	ZAR
First National Bank^	Suikerbosch	62693852222	Business Current Account	ZAR
First National Bank^	Treasury Account	62693832399	Business Current Account	ZAR
First National Bank^	Bulk Water	62693844948	Business Current Account	ZAR
First National Bank^	Swartkopjies	62693849493	Business Current Account	ZAR
First National Bank^	Mpumalanga	62693864475	Business Current Account	ZAR
First National Bank^	Salaries	62693821194	Business Current Account	ZAR
Nedbank				
Nedbank	Rand Water Treasury Account	1249694426	Business Current Account	ZAR
Nedbank	Rand Water Payroll Account	1249694663	Business Current Account	ZAR
Nedbank	Rand Water Debtor One Account	1249694930	Business Current Account	ZAR
Nedbank	Rand Water Transport Account	1249696070	Business Current Account	ZAR
Nedbank	Rand Water Bulk Water Account	1249695619	Business Current Account	ZAR
Nedbank	Rand Water Zwartkopjes Account	1249695627	Business Current Account	ZAR
Nedbank	Rand Water Zuikerbosch Account	1249695651	Business Current Account	ZAR
Nedbank	Rand Water Vereeniging Account	1249695856	Business Current Account	ZAR
Nedbank	Rand Water Scientific Service Account	1249695937	Business Current Account	ZAR
Nedbank	Rand Water Debtor Three Account	1249695570	Business Current Account	ZAR
Nedbank	Rand Water Rietvlei Account	1249696232	Business Current Account	ZAR
Nedbank	Rand Water Creditors Account	1249720036	Business Current Account	ZAR
Nedbank	Rand Water Debtor Two Account	1249720583	Business Current Account	ZAR

Rand Water Subsidiary Account				
Standard Bank South Africa				
Standard Bank South Africa	RW Foundation Account	203369777	Business Current Account	ZAR
Standard Bank South Africa	RW Foundation Account	202761061	Business Current Account	ZAR
First National Bank (FNB)				
First National Bank	RW Foundation Account	62815873361	Business Current Account	ZAR
First National Bank	RW Services (Pty) Ltd	62090204480	Business Current Account	ZAR

Rand Water Related Trust Accounts				
First National Bank (FNB)				
First National Bank	RW Mnweni Trust	62013240677	Business Current Account	ZAR
First National Bank	RW Mnweni Trust	62170314232	Investment Account	ZAR

^ Bank accounts with First National Bank (previous transactional banker) will be closed before the 31 August 2023 in accordance with the approval from National Treasury to open bank accounts with Nedbank.

26 Analysis of Risks

Table 42. Analysis of Risk

On 23rd May 2023, in principle, the Board of Rand Water identified and approved 16 risks. The top 5 risks are shown below.

1	Deteriorating availability, reliability, and quality of electricity
2	Deterioration of the financial health of Rand Water's customers
3	The unsustainability of the supply of potable water
4	Liquidity and Funding Risk
5	Threat to critical Rand Water assets

A report will be submitted to the Board for formal approval.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
1.	Availability, reliability, and quality of electrical supply	Achieve Operational Integrity and Best Fit Technology	Power supply interruptions due to: • Ageing electricity suppliers' infrastructure • Cable, oil theft	• Failure to supply potable water and meet customers' demands, resulting in reputational damage.	• All plants have N-1 contingency, which is sometimes not available. • Meetings held with electricity suppliers as and when required.	AGEING INFRASTRUCTURE • Obtain plant condition assessment reports from all electricity suppliers to obtain obsolescence

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			• Lack of flexibility of electricity supply (ring feed) • Veld fires underneath the power lines • Thunderstorms • Lack of maintenance • Electricity supply failures are not investigated. • No agreements with municipalities providing guidance and accountability. • Not managing and monitoring the electricity suppliers closely; resulting in	• Unable to pump to capacity and fill up reservoirs. • Increase in electricity costs due to red time starting of pumps. • Frequent start-ups causing equipment failures, reducing availability, and causing increase in maintenance costs. • Excessive water discharges to the river • Overflowing of reservoirs • Non-compliance to water quality standards due to treatment process disturbances	• Emergency contact numbers with escalation process • WhatsApp groups with suppliers' representatives • Use of back-up generators at distribution tertiary plants (Townlands, Mamelodi, Cullinan, Trichardt, Sasol, Amanzimtoti) • Raise concerns during Energy Intensive User Group engagements with Key Industrial Customers and Eskom • A project for Engine Room 3 upgrade is underway. • Bloemendal station upgrade project is underway. Eskom has completed their plant upgrade; only Rand Water needs to complete their part. • Cameras were installed at the substation supplying	status of their infrastructure. • P.03164 – Rand Water to complete the Bloemendal upgrade project THEFT PROBLEMS • Propose that Eskom secures its Mapleton station by putting cameras due to high theft rate. RING FEED • Proposal to upgrade alternative supply from Rigi for ZB • Follow-up on repairs for the ring feed line that was damaged by the thunderstorm for the Mapleton station.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			them doing as they please • Not having back up electricity supply Power interruption due to load shedding: • Pumping stations (Roodepoort and Amanzimtoti) on the network with other municipality customers • Pumping Station not having a firm and dedicated supply - SAM has a PPIR for this work.	• Costs incurred to transport mobile generators. • Costs incorrect to connect and operate (diesel) generators. • Electricity supply interruptions	Bloemendal pumping station. • Palmiet and Zwartkopjes do not have ring feed; but are having additional feeder lines from Eiger Substation. Eskom has provided assurance that they have disaster management plans in place in case Eiger is not operational. • Lethabo and Zuikerbosch Stations have ring feed supplies. • Servitude maintenance schedules to prevent trips caused by fire are presented by energy suppliers during scheduled meetings. • Electricity suppliers are presenting their maintenance plans as well as plant availability and reliability reports during meetings.	• Apply for additional feeder line for Bloemendal Station • Commence with implementation of ring feed project for Vereeniging ring feed – P.04954 LACK OF MAINTENANCE • Proposal of submission of maintenance KPIs (availability & Reliability) by City Power • Proposal to do Ops and Maintenance of Emfuleni infrastructure. FAILURE INVESTIGATIONS NOT DONE • Insist on failure investigation reports every time after failures and raise non-conformances where they are not submitted.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					• Application for Lethabo & Bloemendal were submitted to Eskom. Lethabo has been classified as a key account. Bloemendal will be considered as soon as upgrade work is completed. • Rand Water has pre-scheduled meetings with electricity suppliers. • Electricity suppliers are required to submit their condition assessment reports annually. • Eskom installed cameras in the substation supplying Bloemendal Station to monitor any theft related incidents. • An additional feeder line for Bloemendal Station was applied for. • Load curtailment forms submitted to Eskom every 2 years (essential load)	NO AGREEMENTS FOR MUNICIPALITIES • Conclude Service Level Agreements with municipalities. CLOSE MONITORING AND MANAGEMENT • Appoint a person to be responsible for electricity suppliers. LOAD SHEDDING • Negotiate with Emfuleni to put Amanzimtoti and Roodepoort on the critical load list - NRS 048:9 • Prioritise installation of dedicated supply for Amanzimtoti - separate from the other proposals. SAM has a PPIR. 5119 registered for this work

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					• Load curtailment is done for Eskom key account station. • NRS 048:9 document is honoured by all Eskom supplied stations and other municipalities except for Roodepoort and Amanzimtoti pumping stations. • Protection relays protect the plant by tripping if there is an undervoltage, over current and other parameters that are out of normal. • Generators are installed for Trichardt, Cullinan, Mamelodi, Townlands, Amanzimtoti and Roodepoort	• Negotiate with municipalities to obtain power supply from Eskom instead of municipalities

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			Power interruption due to poor power quality supplied: • Auto tap-changers not working • Low and high voltage regulations • Other customer failures • Eskom's financial situation	• Electricity supply interruptions • Increase in cost of sales.	• Time of Use meters effective • Emergency contact and WhatsApp numbers • The Electricity Supply Agreements from Eskom specify how to handle supply quality complaints. • There is a project P.04663 that is delayed for installation of power quality meters to all operational sites. • Power quality issues are sent to the electricity suppliers as and when they happen. • Non-conformances are raised as and when they happen. • Identify NERSA and EIUG tariff increase hearings.	LOW & HIGH VOLTAGE REGULATION • Follow-up on investigation by Eskom regarding voltage regulation investigation for Zuikerbosch OTHER CUSTOMER FAILURES • Accelerate project for installation of power quality meters for all operational sites. • Three tertiary sites (Bloemendal, Amanzimtoti and Daleside) to be executed under IEP. • Independent Power Producers (IPP) solutions for larger sites to allow Rand Water to continue

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
						operations at affected areas are being explored. - Hydro projects Solar projects • Monitoring of power suppliers' infrastructure maintenance upgrade programmes from December 2021 • Expediting of current upgrade projects that are currently underway. • Participate on engagements with NERSA and EIUG during tariff increase hearings
2.	Infrastructure project implementation, completion, and	Achieve Operational Integrity and Best Fit Technology	i. Socio Economic factors (Project execution interruption)	• Water supply disruption	• Project programmes are being monitored to assess performance on critical milestones.	There is a weekly Capex progress meeting with the office of COO where the challenges are resolved. The key

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
	integrity of new installation		ii. Disruption of existing projects due to social economic development challenges iii. Inefficiencies in the value chain with regards to: iv. needs identification, v. poor scope definition vi. design vii. Lack of key stakeholders from initiation to the handover key process of projects viii. Inadequate staff capacity and capability to execute projects as per the IDP (integrated	• Unavailability of shutdowns due to lack of redundancy	• Change control procedure on scope variations and management of variation orders have been implemented. • Completion of key projects have been identified as part of the Corporate KPI set. • Projects are resourced with consultants that provide quality management services (3rd party inspectors)	milestones are monitored in this meeting and actively managed

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			development plan) ix. Inadequate contractor supervision x. Contractor poor performance			
				• Projects are not completed on time, cost, quality, and scope.	• Project Team is trained on suite of FIDIC Contract Management periodically. • Contract Change Management Procedure has been revised recently. • On-going change management procedure. Peer to peer discussions is taking place to improve the understanding of the procedure.	• Training and Development of Staff to achieve South African Council for Project and Construction management profession. Targeting to have all the Project Managers registered by December 2023
			• Integrity and capability of existing and newly installed infrastructure	• Unable to supply water because of infrastructure breakdowns and	• Quality requirements specified upfront, Quality Control Plan (QCP)/ Inspection and Test Plan	• Intensify the inspection and testing of work during construction to

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			• Delays in the implementation of the R&R Capex projects	infrastructure not commissioned. • Lack of integrity and capability of existing and newly installed infrastructure	(ITP) review and approval prior to work, Regular monitoring. Quality involved at the beginning of the project. • Conduct periodic inspections and Test. • Quality Control Supervisors allocated per System and not per Project to monitor quality onsite. • A Department was established in Operations Division in 2018/19 FY to deal with the Repairs and Refurbishments (R&R) projects that were part of Capital Projects. This has allowed focus on the R&R projects which were small projects compared to bigger Capex projects. • The spending of the annual R&R budget enhances the standby capacity and	ensure compliance to specification. • Each project will have a resident Quality Control Personnel during Manufacturing and Construction to ensure that the work is inspected and tested at all stages. • Intensify the number of Installation /Project Audits • Re-designing of Operations Engineering Services department in progress to move the R&R function to Strategic Asset Management Division

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					efficiency of the plant and equipment. • The R&R and componentization budget has been made available for all operations sites and is managed under Operations Engineering Service for every Financial Year. The budget is readily available for replacement and refurbishments of critical plant installations, and it has become quicker to conduct refurbishments and replacements as there is no need to raise a Pre Project-Investigation Report (PPIR) for minor refurbishments and present to various committees for approval. Instead, the R&R budget is pre-approving every year for use. • The R&R procedure was developed and being used	

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					to manage all maintenance R&R projects.	
			• Incomplete projects due to contract termination • Poor selection of contractors	• Inferior quality of work completed. • Increase in AUC	• Utilisation of Project execution partners for under resourced projects • Management of contract within Fidic guidelines • Implementation of contract change management procedure	• Appoint Quality Control Inspectors for all disciplines and the Non-Destructive Testing (NDT) • Therefore, Rand Water is in the process of having MOUs with various banks and financial institutions to assist the service providers. The plan is to have these MOUs by 30 June 2022
			• Disruption of existing projects due to social economic development challenges	• Delays in project execution	• Currently, all the infrastructure tenders have the SED component and currently there are implementing agents which are assisting with the	• Strategy documents were handed over to Stakeholder Engagements for implementation.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					implementation and monitoring of the SED. • Monthly progress meetings are held with the SED agents to evaluate SED matters. • SED Agents is going out to the community for awareness sessions to educate the community especially about 30% local to SA as opposed to local sites. On-going	
			• External Factors (litigations, regulations, community expectations) • Fines and penalties due to non-compliance by the contractor	• Projects not completed on time.	• Business aligned Contracting Strategies • Contract Negotiating Teams • Approved GLS New Legal Strategy to support business. • Project contractual remedies in place (in FIDIC contracts) to ensure	• Procurement strategies for various projects are reviewed to alleviate any litigation.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					contractual compliance / apply penalties.	
			• Limited resources across certain disciplines	• Projects not completed on time.	• Project execution partner's appointments to enhance monitoring of project performance and safety on project sites. • Project execution partners have been appointed to enhance quality assurance on project sites.	• Recruit additional graduates on the next phase of the Graduate Recruitment Programme
			• Delays in supply chain management processes	• Projects not completed on time.	• Supply Chain Management Policy	• Implementation of the turnaround strategy
3.	Encroachment over pipeline, servitudes, and properties	Positively Engage Stakeholder Base	• Inadequate resources to frequently monitor the RW servitudes. • Inadequate internal coordination of processes	• Restricted access to maintain servitudes. • Poor response times • Loss of water resulting from inability to repair	• Security patrols, weekly pipeline patrols are conducted. • Group Legal Services (GLS) department has prepared a booklet, Land and Rights Manual	• Rand Water to revive the Collaborative Structure among ESKOM, SASOL, PRASA, TRANSNET, SALGA before end of December 2023 etc., on joint monitoring and legislative influence.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				pipes in the event of a burst. • Having to procure and determine new servitudes around areas where mass encroachment of informal settlements have occurred.	that outlines the processes to be followed in all Land and Right matters. • Formal encroachments are litigated against.	Rand Water is part of the task team of the Critical Infrastructure Protection Regulations to ensure prosecution.
				• Encroachers will continue to construct or build their homes on RW's servitudes leading to the damage of its infrastructure (i.e., pipelines, valves). The illegally built homes might have been built in a manner that hinders RW from	• Implementation of the Media Relations Strategy (The Strategy was presented at the Encroachment Committee and was approved at the TMC of 17 September 2020). The GM for CSM to review the Strategy and update accordingly before end of August 2023 • Massive Media public awareness campaigns to	• The strategic partnership with the SABC (TV and radio stations) and media in particular remains in place. The current broadcast format comprised of the identified radio stations broadcasting public service announcements in 9 SA languages on encroachment on the awareness of the dangers of encroachment.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				easy access to the pipelines for repairs or replacement.	start end of September 2023 • Partnering with the South African Broadcasting Corporation (SABC) and other media outlets to educate the public about the dangers of building homes or any other structures on RW servitude starting from 1 January 2024 • Continuation of partnership with the SABC, commercial TV stations, print media to educate the public on the dangers of encroachment starting 1 January 2024	• The procurement process has been finalised with a service provider to supply billboards where encroachment messages will be published at key locations in Gauteng. • RW is undertaking a study of encroached areas with the view of placing encroachment awareness signage boards specific to those areas.
		• Inadequate by-law enforcement	• Possible loss of life • Asset vandalism, damage, and theft assets	• Approved Procedure for managing encroachments.	Portfolio Evaluation and Monitoring Manager	• Portfolio Evaluation and Monitoring Manager

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
		by local authorities • Social & economic factors resulting in informal settlements. • Lack of political intervention/ will evict encroachers.	• Increase in contamination of potable water. • Increased Legal action and associated cost. • Inability to install new infrastructure and supply water. Inability to use existing servitudes for required pipe upgrades and replacements	• By-law Reviews		
4.	Credit & Debt Management	Maintain Financial Health and Sustainability	• Change in administration within the municipalities. • Rendering services to municipalities that cannot abide by and honour commitments to their obligations. • Unfavourable economic conditions	• Increase in debtor's book and debtor's days. Thus, affecting the overall cash flows • Increase in Expected Credit Loss (ECL) amount recognised in the financial statements due to	• Credit Management Policies and Procedures • Rand Water has a Credit Management Committee, a sub-committee of TMC. The aim is to provide oversight and guidance on implementing the Credit Management Policy • On a monthly basis, a report of all arrears owed by	• On-going Lobbying with National Treasury & DWS to recover the outstanding debt from municipalities. • Municipalities that are in default for over 60 days. They are handed over for collection and considered for litigation. On-going Inter-Ministerial Committee (Minister of

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			(e.g., Covid-19) impact municipalities' financial health • Inadequate debt recovery measures implemented and applied. • Delays/ bottlenecks in the implementation of the credit management policy • Payment terms not honoured, non-payment/ delayed payment by debtors. • Debt concentration •	non-performing customers. Increase in revenue not recognised in compliance with IFRS 15 for customers who do not meet the ability and intention to pay assessments	each municipality, together with the debtor's aging is submitted to the National Treasury and the Department of Water and Sanitation as per Section 41(2) (b) of the MFMA. National Treasury and CoGTA always assist in monitoring payment arrangements from the defaulting Municipalities. • The process of limiting or discontinuing water when customers default is being used rigorously as a means of debt collection. • Where customers are in default for over 60 days without a payment arrangement in place (water supply), RW follows the prescripts of the Bulk Water Service Contract,	Water and Sanitation, Minister of Finance, and Minister of Cooperative governance together with the Provincial MEC's) setup to address outstanding debts to public entities owed by mainly public institutions. • Rand Water had granted customers an interest holiday during this period of COVID-19 to minimise the growth of the debt. A case-by-case approach has been adopted. This relief option has been extended to include the ring-fencing of the post-June 2020 debt, provided it can be repaid within 36 months as approved by Board.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					i.e., limit the pressure and ultimately cut the water supply. • The water pressure is reduced to 60% until half of the outstanding account is paid. If municipalities default on the payment arrangement their accounts are handed over after issuing letters of demand in accordance with the Bulk Water Supply Contract • RW issues notice to customers regarding its intention of applying the conditions of limitation and disconnection for Water Supply Services if the customer has failed to execute payment within 30 days from the date of invoice as per the agreed payment terms or if the	• Another temporary relief in the form of Payment terms extension from 30 to 45 was approved by the Board and is being offered to the customers. The extension is for a maximum of six months per customer (between 3 to 6 months) with the following conditions: ○Applications will be individually based/considered. ○Arrangements will be in writing. ○Partial payments of 60% are to be paid on time as per normal payment terms (30 days) ○40% of payments are to be paid from 31 up to 45 days. ○Payment of invoiced bill in full 45 days

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					customer has been unable to honour the payment arrangements	○No interest on the 15 days (31 to 45 days) ○Payments received post day 45 - Interest reinstated from day 31. • Rand Water issued summons to Municipalities with long outstanding debt, and to pursue the litigation process, while ensuring that the IGR processes, IFRA, and National Treasury mediation has been exhausted. • Rand Water started to collect from our customers' "VIP customers" directly and through "set-off" in bilateral customer contracts.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
						All debt settlement agreements now include an acceleration clause
			• Quality and adequate financial security in the form of deposits and guarantees from customers.	• Reduce the capacity to raise the debt. • Unfavourable future awards by the courts • Possible Credit downgrade	• Deposit and guarantees. • Rand Water is now strengthening payment arrangement clauses to enforce increasing deposits, bank guarantees and invoking Section 216 of the Constitution upon default on the agreements. This section allows Rand Water to access the customer's equitable share directly	• Extend security requirements of deposits/guarantees to municipalities. Currently, deposits are paid mainly by other potable water customers (i.e., Industries, mines, and retail customers). Bulk Water Supply Contracts to include a compulsory deposit clause for customers. The Credit Management Committee has concluded that Bulk Water Supply Contracts should have a compulsory deposit clause
5.			1.non-revenue water (NRW) and Water Loss in the RW and municipal systems	• Leaking pipelines and subsequent water losses • Potential premature failure	• Leaking pipelines are identified on a continuous basis through Risk Based Inspections, and Condition Assessments on pipelines,	• Repair identified pipelines.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			a) RAND WATER SYSTEM • Ageing infrastructure • Inadequate metering throughout the distribution network for water balancing • Theft and vandalism	of pipelines (pipe bursts) • NRW in Rand Water's own not only represents a financial loss to Rand Water, but also has an impact to service delivery in the leakage levels associated with NRW as it prevents water from reaching the intended users results in below optimal use of a scarce resource, exceedance on raw water abstraction limits and results in less people gaining	and remedied either through repairs or replacement of pipeline sections. • The Approved IDP lists pipelines that are high risk and high priority. • Renewal programme forms part of a five-year Capex programme. • Monthly reporting of construction progress of the 37 priorities	

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			• Inadequate meter reading accuracy due to manual errors and lack of AMR	access to the limited resource. • Other associated impacts of leakages are infrastructure damage (to buildings, roads, etc. because of pipe bursts for example) and /or damage to soil structure and formation of sinkholes. • Under or over billing. Loss of confidence and trust from customers	• Rand Water has an approved WC/WDM strategy which defines its approach to managing internal losses and customer water demand with the objective to reduce the high NRW levels in the urban water cycle (from abstraction, treatment, distribution, end consumer demand and return flows to resource) Internal loss management: • Metering calibration and replacement programme • Reservoir management programme (drop test and report) • Pipeline upgrade and replacement programme	• Sectoring of network into discrete zones • Design and recommendation for a zonal metering system • Sectored water balance calculations • Development of KPIs for monitoring of performance

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					• Pipeline burst and leak frequency reporting on Maximo. • Infrastructure condition assessments • Infrastructure expansion plan • Monthly monitoring of 32 zones for the 2021/2022 financial year • Monthly Water Cycle /Water Demand • Management report to (OPSCO) and (TMC) • Customized Water balance developed and updated monthly. • Be The Hero • Water Wise • AMR contract terminated. Parts/spares are being	• Customisation of Rand Water's water balance in accordance with the standard International Water Association methodology • Sole source tenders (to complete the outstanding replacement of 435 mechanical meters with electromagnetic flow meters) to be adjudicated before end of March 2021. Suppliers to be appointed by end of March 2021. This work is set to be completed by end of April 2024. This tender includes the automation of the entire system i.e., remote monitoring system, to be implemented by end of

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					purchased via SC to correct the new 177 magnetic flow meters which were installed before the contract was terminated. Correction/repairs of these meters to be completed end of June 2021 if SC responds on time. • New sole source Tenders were awarded and the two service providers have started in August 2021(RW10384178/20) and December 2021 (RW10384177/20)	June 2021. Remote monitoring system has been installed in December 2021 and magnetic flow meters are added as and when mechanical meters are replaced. Completion of the project is set to be end of June 2024
			b) MUNICIPAL SYSTEM Inadequate proactive network management Inadequate metering as some areas is still billed	• The excessive demand by customers places an unnecessary strain on Rand Water's systems, resulting in additional capacity	Customer water demand management: • Developed a scientific model to assess how efficiently water is being used by its customers. • Assessment of customer demand with the aim to distinguish between real	• Customers were provided consumption targets in a letter signed by the Chief Executive in September 2017 • Established the Integrated Vaal River System project 1600 WDM committee with municipal customers,

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			on assumed consumption. Municipal staff does not have the relevant WC/WDM experience. Funding for WC/WDM initiatives not always prioritised.	being required prematurely. • High levels of NRW in municipal systems also results in lower billing and collection rates and in the long term would affect the municipalities' ability to pay Rand Water for the water supplied to them.	growth, wastage, and losses. • Minimum Night Flow Analysis of available customer meter logging data • Provision of assistance to customers through formal agreements for the implementation of WC/WDM projects as and when required. • Municipal customers are provided their respective performance against the license target on a monthly basis. • A consolidated action plan with municipalities is being developed and progress will be monitored by the Project 1600 committee on a quarterly basis.	DWS and other stakeholders in May 2017, which continues to meet quarterly. • Monitoring the monthly performance of customers against demand targets • Monitoring and evaluation of the effectiveness of WDM programmes implemented by Rand Water customers. • Set up forums with municipalities to deal specifically with planning and water use issues. • Explore ways to reduce customer's excessive demand.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					• Application process for new connections now includes water use efficiency assessment as an additional criterion has been in effect since 2019	
			2 Failure of Infrastructure (Pump stations: laboratories; reservoirs; Pipelines and critical spares) a) Critical Spares • Sole source suppliers • Obsolete spares for ageing infrastructure • Integrity of new infrastructure	• Poor service delivery • Objectives not met resulting in loss of revenue and reputational risk.	• Critical Stock Levels Register defined. • Critical spares are kept as stock items and in satellite stores. • Reviewing of critical spares list conducted bi-annually.	• Sole Source Memos are approved for every OEM procurement. • Operations Division is working on having a bulk approval and contracts with pumps OEMs; where

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					• Monitoring of stock levels at sites • Projects are initiated where a major part of the installation is deemed obsolete. • Monitoring the processing of orders • The critical spares and rotable spares management process has been mapped and documented. The process assists in the identification and location of all spares that are needed when plant installations fail as well as maintaining stock levels for these spares. • Condition assessments have been conducted on	they are identifying spares that will be required for supply and delivery in the next coming five years.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					various equipment. Sites are conducting maintenance routines on equipment that are not obsolete, those that are obsolete are being replaced	
			b) Reservoirs Inability to perform critical maintenance due to a) Inability to shutdown reservoirs for requisite maintenance and critical inspections b) Lack of operational flexibility **c)** Ageing infrastructure	• Non-compliance to legislation (e.g., Dam Safety Reg., Construction Reg.) • Negative impact on water supply (reduced storage capacity) i.e., water supply cannot be guaranteed. • Damage to pipe assets (RW and/or municipal) where reservoirs are used to brake pressure. • Loss of life • Damage to adjacent properties • Loss of assets	• In-house Periodic condition assessment programmes performed subsequently, once every five years • All dam safety inspections by the department of Water and Sanitation inspectors, are conducted once every five years. • Reservoir refurbishment projects are initiated through PPIRs where access to the reservoir is possible	• A Task Team will be established to discuss and finalise the way forward with the reservoir inspections. • Inspections are the responsibility of the Civil Structures Asset Manager and are being conducted as per approved list and schedule. • Reservoir augmentations are planned to increase storage capacity and introduce operational

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
						flexibility (e.g., Construction of: Bronberg, Meredale and Daleside reservoirs)
			c) Laboratories Inability to provide water quality data: I. Inability to access building or infrastructure due to catastrophic events (e.g., fire, earthquake, riots, strikes, etc.) II. Unavailability of accredited laboratories with the capacity to sub-contract for outsourcing full capacity of required analyses (type of analyses and number of samples) III. Inability to proactively source	Failure to produce water quality data with one or more of the following consequences: • Failure to produce water quality reports due to unavailability of data. • Non-compliance to customer supply contract requirements • Reputational damage • Unreliable 3rd party data • Legal and regulatory impacts in respect of non-compliance	• In the event of catastrophic damage to the laboratory, outsourcing can be implemented to obtain water quality data, although turnaround times may be compromised. Outsourcing will be employed when required. • Contingency plans are in place should the laboratory face industrial action. • Business continuity plan is in place and updated regularly to address risks pertaining to total facility failure. • Critical analytical methods are set up with back up	External continuity planning: • Investigate the appropriate sourcing process to put in place proactive outsource agreements with potential accredited laboratories. 30 June 2023 (dependent on Supply Chain Management (SCM)) Internal continuity planning: • Investigation into alternative testing facility capacity within RW (e.g., Vereeniging, Process Technology, Rand Water Academy) 30 June 2023

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			standby capacity from appropriate accredited laboratory / laboratories to perform water analyses.	• Potential detrimental impact on consumer health • Negative impact on public confidence in tap water quality	methods in place, should the primary method be incapacitated. • Reduced monitoring programme that still enables Rand Water to assure water quality. • Forecast planning and scheduling are done. • Asset replacement plan in place and reviewed annually. • Timely completion of planned periodic maintenance schedule (internal and external performed)	• Establishing of certain analyses capability at site labs and Process Technology (MAS and MPT) 31 December 2022
			IV. Unavailability of instruments and	Failure to produce water quality data with	• Critical analytical methods are set up with back up	• Multi-year tenders

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			laboratory consumables/reagents to conduct analyses.	one or more of the following consequences: • Failure to produce water quality reports due to unavailability of data. • Non-compliance to customer supply contract requirements • Customer turnaround times not met. • Reputational damage • Unreliable data • Potential non-delivery of critical chemicals • Legal and regulatory impacts in respect of non-compliance	methods in place, should the primary method be incapacitated. • Business continuity plan is in place and updated regularly to address risks of critical resource unavailability. • Performance measurement to track turnaround time for compliance and analyses output. • In the event of instrument unavailability, outsourcing may be implemented to obtain water quality data, although turnaround times may be compromised. Outsourcing is thus implemented as and when required.	

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				• Potential detrimental impact on consumer health • Negative impact on public confidence in tap water quality	• Asset replacement plan in place and reviewed annually. • Analytical reagents reordered when stock levels decrease. • Stock audits done bi-annually. • Timeous response to customer complaints and communications queries	
			V. Ageing Infrastructure and capacity to increase output limited by space constraints.	Failure to produce water quality data with one or more of the following consequences: • Failure to produce water quality reports due to unavailability of data.	• Back up methods in place • Business continuity plan is in place. • Outsourcing employed when required.	• Online water quality monitoring of drinking water in the supply network

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				• Non-compliance to customer supply contract requirements • Customer turnaround times not met. • Reputational damage • Unreliable data • Legal and regulatory impacts in respect of non-compliance • Potential detrimental impact on consumer health • Negative impact on public confidence in tap water quality • Inability to provide customers with comparative assurance	• Reduced critical monitoring programme	

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				regarding the reliability of results.		
			VI. Reliance on sole source suppliers	• Failure to produce water quality data with one or more of the following consequences: • Failure to produce water quality reports due to unavailability of data. • Non-compliance to customer supply contract requirements • Customer turnaround times not met. • Reputational damage • Potential non-delivery of critical chemicals	• Critical analytical methods are set up with back up methods in place, using different / multiple suppliers. • Performance evaluation of suppliers is performed. • Asset replacement plan in place and reviewed annually. • Analytical reagents reordered when stock levels decrease. • Stock audits done bi-annually. • Adherence to policies regarding sole suppliers	• Alternative methods to reduce reliance on sole source suppliers. • Multi-year tenders

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				• Legal and regulatory impacts in respect of non-compliance	• Timeous response to customer complaints and communications queries	
			VII. Inability to demonstrate and in still confidence in the integrity, accuracy, and overall quality & availability of the data in the event of losing ISO 17025 accreditation (overall or in certain methods)	Failure to produce water quality data with one or more of the following consequences: • Failure to produce water quality reports due to unavailability of data. • Non-compliance to customer supply contract requirements • Customer turnaround times not met. • Reputational damage • Unreliable data	• Critical analytical methods are set up with back up methods in place, should the primary method be incapacitated. • Analysis of Certified Reference Material – (CRMs) • Re-testing of retained Proficiency Testing Schemes (PTS) samples. • Inter-analyst exercises • Inter-lab exercises • Quality controls • Use of reference cultures and tests • Continual competency assessments of analysts • PTS participation • “Confidence samples” analysed and compared	• Alternative methods / consumables to reduce reliance on sole source suppliers with the introduction of multi-year tenders.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				• Potential non-delivery of critical chemicals • Legal and regulatory impacts in respect of non-compliance • Potential detrimental impact on consumer health • Negative impact on public confidence in tap water quality • Inability to provide customers with comparative assurance regarding the reliability of results.	with results from external laboratories. • In the event, losing accreditation outsourcing may be implemented to obtain water quality data, for analyses of critical analytes. Outsourcing employed when required. • Timeous response to customer complaints and communications' queries	
			d) Pipelines • Ageing Infrastructure • Lack of CP due to vandalism, theft, and	• Bursts and leaking pipelines • Pipelines are not being protected	• A Condition Assessment is set to identify pipelines due for refurbishment/replacement.	• Speed up the replacement/ refurbishment programme!

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			power supply outages • Unsecured pipelines are lying in the stations' entrances and open fields unattended to	cathodically which might in turn lead to corrosion and leaks. • Unaccounted for water because of leaks (Revenue collection) • Theft, vandalism, and veld fires might occur on those pipelines.	• Outsourcing vandal proof units to deal with cathodic protection. • Finding an alternative for power supply • Rand Water is in the process of allocating the pipelines to the different contractors who have been awarded contracts to safe keep in their secured yards. • Excess pipes are being auctioned periodically. • Project Managers to ensure that EMS cuts overgrown grass around pipe sections stored in open fields, and that proper fire breaks are in place.	• Installation of vandal proof units for cathodic protection • Alternative methods of protecting steel pipelines • Installation of solar panels to address the power issues. • Excess pipelines to be taken to Rand Water yard. (Emhlangeni Pipe Plant) (On-going-due to construction work underway)
			3. Water Security			

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			• (Availability/Security and Sustainability of raw water supply) • Delays in the implementation of the augmentation scheme (Lesotho Highlands Scheme) by the Department of Water and Sanitation (DWS) from 2019 to 2026)	• Decreased confidence levels in the security of a sustainable supply from the IVRS Committee	• Monitoring the storage levels in IVRS, the status and progress of the implementation of the augmentation schemes • Investigations into additional sources to augment supply are currently being undertaken. • Active participation in the catchment management processes of DWS for the IVRS, e.g., attendance and participation in the Annual Operating Analysis Forums, determination and gazetting of the Reserve and reporting on the progress made by Rand Water and its customers at the Strategic Steering Committee of DWS. Activities and progress are reported on in the monthly water conservation and demand management	• Business is currently looking at alternative sources of raw water. • Looking at water demand management strategies

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					report for consideration by OPSCO.	
			4. QUANTITY Excessive water demand by urban users supplied by Rand Water outstrips the yield of the Integrated Vaal River System (IVRS)	• Non-compliance by Rand Water to the abstraction limit of 1600 million cubic meters per annum (Mm^3/a) or 4 384 Mℓ/day, set by DWS until the next phase of LHS comes into operation. • Excessive consumption by urban users supplied by Rand Water will result in a greater shortfall compared to the yield of the system and cause the restriction levels to	• Long-term planning and demand forecasting • Monthly monitoring of actual demand by Rand Water versus the yield of the IVRS • Establishment of the IVRS Project 1600 Water Demand Management Steering Committee to provide support, guidance and oversight of the progress made by the municipal sector to reduce their water demand. • Investigations into additional sources to augment supply are currently being undertaken. • Rand Water's programme set to reduce demand is on-going and progress is	• Participation in the existing resource planning processes of DWS (e.g., Annual Operating Analysis Scenario Planning and System • Operating Forums – during May of each year for the IVRS~~)~~ • Reporting at the Systems Strategic Committees and or CMA when operational

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				be triggered more than often.	reported on in monthly. WC/WDM Reports to OPSCO and TMC	
			5. ABILITY: • Sub-optimal performance of ageing infrastructure deterioration, failure and not fit for purpose. • Limited maintenance opportunities of infrastructure due to high demand • Natural disasters i.e., flooding (affecting access to certain sites-Suikerbosrand river, intakes 1 & 2 controlled by VG: river flooding and not allowing access to site) drought.	• Inability to meet supply demand resulting in loss of revenue and reputational risk. • Failure to supply water to customers and direct consumers due to purification and	• Annual Asset Review Committee (AARC) Meeting takes place annually, at the end of each calendar year before the capex budgeting cycle commences. • Root cause analysis is performed on failures as per procedure and recommendations implemented. • Proactive identification of ageing infrastructure through Pre Project-Investigation Report (PPIRs) • Maintenance procedures and schedules are in place as per Reliability Centred	• Prioritisation of Pre Project-Investigation Report (PPIRs) and converting them into projects. On-going

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			• Failure to timeously execute critical projects. • Inadequate quality and integrity of new infrastructure • Inability to procure goods and services to maintain daily operations and future infrastructure.	pumping plants inaccessibility. • Failure to supply. • Non-compliance with SANS0241 to produce potable water. • Running plant to fail, which is opposing Operations and Maintenance philosophies. No standby capacity	Maintenance process and Original Equipment Manufacturers recommendation. • Efficiency of maintenance monitored through KPIs. • Preventative maintenance programme is in place. • Alternate temporary private access is arranged. • Sites closely monitoring and maintaining available plants. • On-line monitoring of critical water parameters. The Production Standard is set at 50% higher standard than the required SANS0241 standard at the	

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				which may result in failure to supply.	tap to allow quick reaction to comply with SANS0241 at distribution. • Emergency declarations for breakdowns to fix plant that affects supply	
			6. QUALITY Raw water quality deteriorates to a quality that cannot be treated with the existing treatment system	• Non-compliance to customer supply contract requirements • Inability to purify raw water to legislated SANS 241 standard. • Detrimental impact on consumer health • Negative impact on public confidence in tap water quality	• Source water monitoring programme in place - Identified sampling points are sampled, analysed, and reported on monthly. • A protocol developed to conduct Hazard Analysis Critical Control Point (HACCP) for water reuse initiatives. • Completion of (HACCP) exercises for water reuse sources identified and agreed with Rand Water	• Appropriate treatment technologies to supplement or completely replace the Barrage water treatment process. • Application of natural zeolite (clinoptilolite) method to supplement the existing infrastructure for ammonia removal at Vaal Barrage water treatment plant. • The effectiveness of membrane technology (Reverse Osmosis) to

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				• Product quality liability cases against Rand Water by end consumers (Consumer protection act) • Reputational damage	• Use of a water quality model for the Vaal Dam catchment & the contributing tributaries • Dedicated Source Water section within RW that monitors raw water quality, identify risks and lobby for action - directly to Department of Water and Sanitation (DWS) and through catchment Forums. • Raw water quality is analysed and risks to RW Operations are flagged at the Potable Water Quality Working committee. • Monthly Potable Water Quality Working Committee (PWQWC) meeting and included in quarterly Top Management (TMC)) report	improve final water quality at Vaal Barrage water treatment plant. This milestone is subject to the interdependency between SS and SCM in relation to the procurement of the Reverse Osmosis unit. • Products and projects developed by the Innovation Hub in collaboration with Scientific Services • Complete a business plan by June 2023 for the services to be provided to support the Orange/Vaal Catchment

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					with appropriate action plans. • Working Committee (PWQWC) meeting and included in monthly Top Management (TMC)) report with appropriate action plans. • Vaal River Structure Plan in place to regulate development on the Vaal Dam and Vaal Barrage • A reference document which benchmarks Rand Water's treatment technology capability against source water quality and potential changes in source water quality has been compiled. • Alternate process options to address changes in	Management Agency as accepted by DWS. • Completion and implementation of the Process Technology ISO 17025 laboratory accreditation initiative for this financial year

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					source water quality have been identified to ensure Rand Water remains technologically prepared to adapt to such changes. • Annual Process Technology projects scheduled for treatment process optimization, proactive identification of appropriate treatment technology. • Process Capability assessment is conducted on a biennial basis as per requirements of the Water Quality Management System (WQMS)	

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					• Annual WQ external audit performance report • Annual organics monitoring report. • Compliance to engagement opportunities through the various existing catchment fora where water quality information will be shared and discussed to create impetus for the establishment of a CMA. • Water treatment strategy document	
			7. Failure in Treatment and bulk distribution system	• Non-compliance to customer supply contract requirements • Inability to purify raw water to legislated SANS 241 standard.	• Treatment and distribution monitoring programme in place - Identified sampling points are sampled, analysed, and reported on monthly. • Independent Audit samples are taken monthly external audit	• Implementation of agreed 2022/2023 milestones for the water treatment options for the recommissioning of the Barrage water treatment plan.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				• Detrimental impact on consumer health • Negative impact on public confidence in tap water quality • Product quality liability cases against Rand Water by end consumers (Consumer protection act) • Reputational damage • Limit's ability to undertake water quality control and assurance activities.	plan by an ISO 17025 accredited laboratory. • Annual WQ external audit performance report • Annual organics monitoring report. • Ensure that water quality reports for Local Authorities are checked and published on the 15th of each month for SCP to issue to Local Authorities (LAs) • Standing Water Quality Management System (WQMS). Task Group established to monitor and manage compliance. The organisation participates in the DWS Blue Drop audits with a high level of	• Completion of agreed 2022/2023 project milestones attributed to Scientific Services for the online testing and real-time information management system in Rand Water by 31 December 2023

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				• Failure to produce water quality reports due to unavailability of data.	compliance on an on-going basis. • Projects are undertaken as and when required to investigate specific water quality and treatment issues in more detail and to formulate design specifications for alternate process options. • Process Technology Department evaluates water treatment chemicals as per the Chemical Evaluations schedule. • Water quality risks for the treatment and distribution systems are identified and mitigation measures are in place to manage/mitigate them.	• Finalise implementation of plan for the accreditation of online laboratories for 2023/2024 FY milestones • Finalise implementation of plan for the accreditation of sampling activities at Analytical Services for 2023/2024 FY milestones • Ensure successful operationalisation of the virology laboratory. 31 December 2023

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					• A protocol developed to conduct Hazard Analysis Critical Control Point (HACCP) for water reuse initiatives. • Completion of Hazard Analysis Critical Control Point (HACCP) for potential new sources of water to be integrated into RW systems. • Water Quality performance is analysed, and risks reported to RW Operations and are flagged at the monthly Potable Water Quality Working Committee (PWQWC) meeting and included in quarterly Top Management Committee (TMC) report with appropriate action plans.	• Development of the technical specification of the water treatment chemicals employed during water treatment.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					• A reference document which benchmarks Rand Water's treatment technology capability against source water quality and potential changes in source water quality has been compiled. • Water Treatment Philosophy document completed and updated regularly. • Water Quality Management system in place and operational. Reviewed annually. • Alternate process options to address changes in source water quality have been identified to ensure Rand Water remains technologically prepared to adapt to such changes.	

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					• Analyses completed within the standard turnaround times. • OT system disaster recovery simulations conducted. • LIMS Turnaround Support – Compliance to agreed turnaround times for various call requests. • AS Database backup success rate measured and monitored during working hours • Ensure backup methods for South Africa National Standards (SANS 241) determinants. • Timely management and provision of PTS reports per	

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					Rand Water PTS requirements • Participation in PT schemes with demonstrated performance and timely addressing of no corrective actions. • Availability of analytical instrumentation measured and monitored. • Quarterly Calcium Carbonate Precipitation Potential (CCPP) performance report on chemical stabilisation • Annual Process Technology projects scheduled for treatment process optimization, proactive identification of appropriate treatment technology.	

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					• Process Capability assessment is conducted on a biennial basis as per requirements of the Water Quality Management System (WQMS) • Water treatment strategy document • Water treatment process Capability assessment is conducted on a biennial basis as per requirements of the Water Quality Management System (WQMS) • Water treatment philosophy document	
			8. Failure to manage productive relationship	• Non-compliance to customer supply	• Identified sampling points are sampled, analysed, and reported on monthly.	• Further actions to implement the defined water quality

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
			with customer municipalities	contract requirement • Inability to purify raw water to legislated South Africa National Standards (SANS) 241 standard. • Product quality liability cases against Local Authorities and eventually Rand Water from the end consumers (Consumer protection act) • Reputational damage • Limit's ability to undertake water quality control and	• Attendance of agreed planned technical quarterly meetings with customers (Zoom /face-to-face) • Tap water quality reports issued to participants issued before/on the 15th of each month. • Analyses completed within the standard turnaround times. • Specific water quality Water Services Forum (WSF) discussion session • Water quality risks are identified throughout the water supply chain and mitigation measures are in place to manage/mitigate them.	monitoring programmes.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				assurance activities. • Failure to produce water quality reports due to unavailability of data. • Inability of Local Authority to supply compliant water to end consumers. a) Detrimental impact on consumer health b) Negative impact on public confidence in tap water quality • Local Authorities not prepared for Blue Drop audits	• Water Quality performance is analysed, and risks reported to RW Operations and are flagged at the monthly Potable Water Quality Working Committee (PWQWC) meeting and included in quarterly Top Management Committee (TMC) report with appropriate action plans. • Improve Water Quality public confidence through resolving water quality complaints satisfactorily - % Water quality consumer complaints resolution satisfaction	

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				because of inadequate sharing of RW information.		
			9. Failure to manage productive relationship with consumers	• Inability to purify raw water to legislated SANS 241 standard. • Product quality liability cases directed at Rand Water from the end consumers (Consumer protection act) • Reputational damage • Inability of Local Authority to supply compliant water to end consumers.	• Environmental Awareness educational programmes developed to educate communities on water conservation practices. • Number of Online Educational Resources/ Programmes produced. • Customer Satisfaction with Water Wise Education Programmes (online and fieldwork) measured and monitored. • Improve Water Quality public confidence through resolving water quality complaints satisfactorily - Water quality consumer complaints resolution	• Development of Online Water Wise Education software

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				c) Detrimental impact on consumer health d) Negative impact on public confidence in tap water quality e) Inability by Local Authorities to achieve BLUE DROP status will result in poor consumer confidence in tap water.	satisfaction measured and monitored. • Improve Water Quality public confidence - Compliance to ad hoc media enquiries relating to water quality within 5 working days (provided by Communications Department and/or RW Call Centre)	
			10. Critical Spares • Single/ sole source suppliers • Obsolete spares for ageing infrastructure	• Poor service delivery • Objectives not met resulting in loss of	• Critical Spares Management process has been standardized throughout the organization.	• There were gaps that were identified during the Inventory As-Is process development, and these were addressed in the To-Be process guide that has

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				revenue and reputational risk.	• Critical Stock Levels Register defined. • Critical spares are kept as stock items and in satellite stores. • Review of critical spares listed bi-annually. • Projects are initiated where a major part of the installation is deemed obsolete. • Monitor processing of orders	been approved and implementation guide to be classified.
			11. Chemicals a) Single source suppliers	• Potential non delivery of chemicals	• Chemical supply contracts in place for all bulk suppliers • Alternate water treatment regime in place	• Contracts signed at award stage.
			c)Industrial action and social unrest (on the supplier's side)	• Potential non delivery of chemicals	• Contingency Plans	• Sites communicate with Suppliers during strikes with drivers to arrange

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				•		sufficient delivery before a strike or alternative delivery method
			d)Prolonged use of polymer as preferred treatment regime	a) Supply of unsafe water to consumers - Presence of identified undesirable trace organic and inorganic compounds in the polymer	• Polymeric coagulants under consideration for use at Rand Water are subjected to a screening assessment for known organic and inorganic contaminants at the tender stage. • Acute toxicity screening is done on final treated water (Daphnia, Vibrio) on routine basis. • Suppliers are contractually required to supply products that do not pose human health risk (refer to RW01251/15 section S4- description, characteristics, and quality of the polymeric coagulant)	• Application of the online biomonitoring system for acute water toxicity screen testing • The Chair in Organic Chemistry will be tasked to develop suitable methods for the rapid detection of known and unknown contaminants in polymeric coagulants. • Develop operational procedure for quality control of treatment chemicals on receipt, during storage and dosage.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					• Polymeric coagulants (SUDFLOC 3835 and ZETAFLOC 650) supplied are NSF certified. SUDFLOC 3835 is currently in use. • Chemical composition disclosure schedule included in tender documents. • Operational procedure for quality control of treatment chemicals on receipt, during storage and dosage in place	• Engage suppliers and relevant experts to develop and implement rapid QC testing methods for operations to use on routine basis. • Inform DWS, DOH and DTI to establish regulation for use of water treatment chemicals.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				b) Supply of unsafe water to consumers - Presence of unknown undesirable trace organic and inorganic compounds present in the polymer	Acute toxicity screening is done on final treated water (Daphnia, Vibrio) on routine basis	• Establish online biomonitoring system for acute water toxicity screening tests. • The Chair in Organic Chemistry will be tasked to develop suitable methods for the rapid detection of known and unknown contaminants in polymeric coagulants

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				d) Damage to infrastructure and equipment Limited stabilisation of water e) Supply of unsafe water to consumers - Inability to remove heavy metals	• Low lime dosing process used. Operations could switch to the alternate lime/silica process should enhanced stabilisation be required. • Operations monitors CCPP daily, and Scientific Services conducts quarterly performance assessments.	• Source global market for alternate water treatment options that are not dependent on CO2. • Investigate how conventional water treatment process could for enhanced removal of heavy metals. • Investigate alternative technologies for metal removal.

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				f) Supply of unsafe water to consumers - Ineffective removal of suspended matter	• Operations monitor restabilisation effect and implement alternate treatment strategy on need basis. • Jar test conducted weekly to optimise dosing. • If the chemical is ineffective, provision has been made in the contract to source an alternative suitable polymeric coagulant	• Investigate conditions and dosages that support re-stabilisation of polymer.
				g) Supply of unsafe water to consumers Potential -reduced removal / deactivation of: a. Bacteria b. Cryptosporidium and Giardia c. Algae and related	• Coagulation - flocculation - sedimentation, sand filtration and disinfection treatment processes in place • Benthic algae are physically removed from the sedimentation tank	• Investigate impact of polymer on removal / deactivation efficiency of virus bacteria, protozoa, algae, and invertebrates at the treatment plant

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
				compounds (and increased algal growth) d. Invertebrates e. Viruses	launders and loaded on the polystyrene float. • Process capability assessments include removal efficiencies of relevant determinants per unit process	
				h) Supply of unsafe water to consumers - Unavailable treatment chemicals and/or inadequate quality of treatment chemicals due to national/international disaster e.g., pandemic, supplier failure	• Process Technology Department has the capacity to evaluate and recommend alternate coagulants for use at Rand Water • Supply contract provides for "the supplier offering an alternate organic coagulant that is similar to the contracted product at Rand Water." • Clause added to tender documents allowing for	• Conduct proactive assessment of polymeric coagulants available in the market to determine suitable options for use at Rand Water • Assess alternative methods to quantify residual polymers in water. • Ensure that both treatment regimens (lime/silica/carbon dioxide and organic coagulant) are always available

RISK NO.	RISK NAME	STRATEGIC OBJECTIVE (that is impacted the most by the risk)	ROOT CAUSE	CONSEQUENCE	EXISTING CONTROLS (This refers to EXISTING controls that are currently in place and auditable)	FURTHER MITIGATING ACTIONS- (ALL further mitigating actions/ plans to have timeframe / dates)
					product change under force majeure	

27 Other Key Performance Indicators

27.1 Shareholder Compact

The Shareholder Compact contains Rand Water's targets that will support Ministerial Outcomes and the DWS strategic plan. A significant number of the targets are influenced by financial KPIs.

The Department for Water and Sanitation (DWS) introduced a Shareholder Compact template. This template was presented to the Board of Rand Water at the Board Breakaway and meeting held on 14th – 16th May 2015.

The template aims to align performance indicators and targets of water boards with relevant Ministerial Outcomes and the strategic plan of the Department. Some of the important observations about this template are.

- The template aims to align annual and quarterly performance by utilizing the same performance indicators.
- The template requires previous year and current year targets, and targets for the next financial year. It does not require five-year projections.
- The template is password protected to prevent unauthorized changes.
- The template appears to utilize Rand Water's performance mechanism as a foundation.

In addition, the Auditor General of South Africa has highlighted areas of inconsistency. They provided recommendations which Rand Water has incorporated. These must be highlighted to the shareholder, and other relevant stakeholders.

27.1.1 DWS Template Revision of 2023

On 11th and again on 23rd April 2023, DWS revised certain KPIs with the intention of uniform measurement and reporting by all water boards. The following KPIs were impacted.

a. Bulk Potable water quality compliance – the target should be reported based on the SANS 241, whereby the norm is 95% and 97%. The following five (5) compliance categories should be reported.

- Acute health microbiological compliance
- Acute health chemical compliance
- Chronic health chemical compliance
- Operational compliance
- Aesthetic compliance

b. Manage avoidable water losses – the avoidable water loss as a percentage (%) of water produced at the treatment and distribution systems should be reported as a combined percentage and not separately.

c. Reliability of Supply – The target should be reported as a number of days of unplanned interruptions and not as a percentage.

d. Increased access to services – the actual Capex spend on expansion related projects (Ministerial initiatives) should be reported in Rand value and as a percentage of the total CAPEX budget. In addition, it was agreed that Performance Objective No. 12 of the Shareholder Compact relating to the implementation of Ministerial directives should report on the progress against implementation plan. Also, a list of projects should be attached as an Annexure to the Shareholder Compact.

Table 43. Shareholder Compact – KPI Targets – 1 Year Projection

Performance Perspective	Performance Objective		Alignment			Outcome / Impact	Indicators/ Calculation	Measure	Annual Performance Targets			Comments
			Ministerial Outcomes	DWS Strategic Goals	WB Strategic Objectives				Actual - Prior year	Estimated Actual - Current Year	Projected Target	
Organisational Effeciency and Effectiveness	1	Bulk potable water quality compliance	MO A, OP1	SO 2.1, 3.2	Achieve Operational Integrity and Use Best Fit Technology	Water quality standards met	Test results, SANS 241	% compliance	99.33%	98.86%	N / A	
							1. Acute health microbiological compliance				≥ 97%	
							2. Acute health chemical compliance				≥ 97%	
							3. Chronic health chemical compliance				≥ 95%	
							4. Operational				≥ 93%	

							compliance					
							5. Aesthetic compliance				≥ 93%	
	2	Manage avoidable water losses	MO A, OP1	SO 1.4 and 2.4	Achieve Operational Integrity and Use Best Fit Technology	Reduced avoidable water losses in treatment and distribution systems	Avoidable water lost as a percentage of water produced at the treatment and distribution systems	%	4.72%	4.90%	5%	
	3	Reliability of supply	MO A > G, OP1	SO 1.6 & 2.2	Achieve Operational Integrity and Use Best Fit Technology	No unplanned interruptions to bulk supply exceeding 24 hours	Number of days of unplanned supply interrupted	number of days	0	0	0	
	4	Increased access to Services	MO A,B, D and E	SO 1.6 and 2.2	Achieve Operational Integrity and Use Best Fit Technology	Contribution to national objectives of extending services	Actual CAPEX spend on expansion related projects (initiatives by the	Rand value (% of total CAPEX budget)	N/A	N/A	15%	

							Minister) as % of budget					
Financial Performance	5	Financial reporting compliance	MO A > G	SO 3.2 and 1.6	Maintain Financial Health & Sustainability	Unqualified audit report	Annual external audit	Unqualified report with no matters of emphasis (Clean Audit)	100%	N/A	100%	
	6	Improve key financial ratios	MO A > G	SO 3.2 and 1.6	Maintain Financial Health & Sustainability	Improved viability and sustainability	Current Ratio	Ratio	3.51	3.33	2 - 3.33	
							Gross profit margin % (primary activity)	%	30.10%	32.30%	29.00%	
							Gross profit margin (secondary activity)	%	6.40%	5.30%	5.00%	
							Net profit margin (primary activity)	%	21.60%	24.20%	20.00%	
							Net profit margin (secondary activity)	%	12.10%	10.50%	1.00%	
							Debt equity	Ratio	0.14	0.12	0.05 – 0.36	
							Return on Assets	%	8.40%	9.40%	8.90%	

							Debtors days	Number	77	76	70	
							Repairs and maintenance as % of PPE and Investment Property (Carrying Value)	%	115.80 %	76.45%	95.00%	
							Staff remuneration as % of total operating expenditure	%	18.30%	17.30%	15% - 24%	
	7	Increase BBBEE expenditure relative to operational projects	MO E	SO 1.3 and 1.4	Positively engage stakeholder base	Spend increased and increased new entrants awarded contracts in the financial year	Spend	% achieved	117.90 %	103%	85.00%	
	8	Manage costs within the approved budget	MO A, B and D	SO 1.6 and 2.3	Maintain Financial Health & Sustainability	Actual expenditure compared with budgeted epxenditu	Financial reports	% increase	-0.5%	-3%	+/-15%	

						re for the quarter						
	9	Capital expenditure programme	MO A, B, D and E	SO 1.6 and 2.3	Achieve Operational Integrity and Use Best Fit Technology	Infrastructure available to meet demands	Overall project expenditure within R target	% variance	78.2%	80%	95%	
							Overall project completion dates within targets	% variance	127%	100%	95%	
	10	Engagement in secondary activities	MO A, B, D and E	SO 1.6 and 2.3	Achieve Growth	Growth in turnover from secondary (other activities)	% of total turnover	%	-62.3%	N/A	N/A	
Customer/ Stakeholder Interaction	11	Bulk supply agreements concluded with municipalities/other customers	MO A, B and D	SO 2.1 and 2.2	Positively engage stakeholder base	Statutory and Service Level Agreements in place	Municipalities/Other Customers with bulk supply agreements	%	100%	100%	100%	
	12	Implementation of Ministerial directives	MO C, D and E	SO 2.3	Positively engage stakeholder base	New Ministerial directives issued are implemented on time	Progress against implementation plan	% (List of Projects attached as an Annexure)	100%	N / A	95%	

	13	Support Rural Development	MO A, B and D	SO 3.1 and 3.2	Positively engage stakeholder base	Total Number of identified Municipalities supported	Signed contracts, MOUs etc	Number	3	N / A	2	
	14	Achieve statutory reporting compliance	MO A, B and D	SO 3.1 and 3.2	Positively engage stakeholder base	All tatutory reports submitted on time	Submission dates met	%	100%	100%	100%	
Organisational Capacity	15	Staff levels	MO E	SO 1.1 and 1.3	Achieve a High Performance Culture	Optimal staff retention	Staff turnover	%	1.41%	0.52%	5%	
	16	Training and Skills Development	MO E	SO 1.1	Achieve a High Performance Culture	Skills and capacity building	Learnerships	Number	92	89	60	
							Bursaries employees	Number	22	22	20	
							Graduate Programmes	Number	132	130	105	
	17	Jobs Created	MO A, D, E and G	SO 1.1	Achieve a High Performance Culture	Permanent and contract (direct)	Total number	Number	278	118	145	
						Temporary (indirect)	Total number	Number	3271	717	2000	
General Performance	18	Board Effectiveness	MO A > G	SO 1.1	Achieve a High	Improved performance of	Board Member attendance	%	91.42%	96.15%	80%	

					Performance Culture	fiduciary duties/governance	of all Board/committee meetings					
							Decision making: % number resolutions taken by the board vs number of resolutions required	%	100%	100%	95%	
	19	Effective Internal Controls and Risk Management	MO B	SO 1.6 and 3.2	Positively engage stakeholder base	Internal audit findings dealt with	Internal audit reports	Number of repeat findings	0	0	0	
								Number of unresolved findings	0	0	0	
	20	Good Governance	MO E, F and G	SO 3.2 and 1.6	Positively engage stakeholder base	Improved controls and risk mitigation	Breaches of materiality and significance framework	Number	0	0	0	
	21	Corporate Social Responsibility Initiatives	MO E	SO 2.1	Positively engage stakeholder base	Good corporate citizenship	Number of initiatives undertaken	Number	100%	78%	25	

Section 52 of the Public Finance Management Act (1999) requires that Schedule 3 entities must submit “a corporate plan in the prescribed format covering the affairs of that public entity or business enterprise for the following three financial years…..”

Section 40 of the Water Services Act (1998) also states that “a water board must, not later than one month before the commencement of each financial year, prepare and adopt a business plan relating to the following five financial years.”

However, the template provided by DWS does not cover the three- or five-year horizon. In order to prevent any potential audit issues with regards to failure to provide long term projections in line with PFMA or WSA, an additional Shareholder Compact is provided. However, this is presented for approval as the DWS template (and thus communication with the Shareholder) does not cover the three- or five-year horizon.

In line with the reasons mentioned above, the following table provides a five-year horizon.

Table 44. Shareholder Compact – KPI Targets – 5 Year Projections

Performance Perspective		Performance Objective	Alignment			Outcome/ Impact	Indicators/ Calculation	Measure	Annual Performance Targets			2025	2026	2027	2028	Comments
			Ministerial Outcomes	DWS Strategic Goals	WB Strategic Objectives				Actual - Prior year	Estimated Actual - Current Year	Projected Target					
Organisational Effeciency and Effectiveness	1	Bulk potable water quality compliance	MO A, OP1	SO 2.1, 3.2	Achieve Operational Integrity and Use Best Fit Technology	Water quality standards met	Test results, SANS 241	% compliance	99.33%	98.86%	N/A	N/A	N/A	N/A	N/A	
							1. Acute health microbiological compliance				≥ 97%	≥ 97%	≥ 97%	≥ 97%	≥ 97%	
							2. Acute health chemical compliance				≥ 97%	≥ 97%	≥ 97%	≥ 97%	≥ 97%	
							3. Chronic health chemical compliance				≥ 95%	≥ 95%	≥ 95%	≥ 95%	≥ 95%	
							4. Operational compliance				≥ 93%	≥ 93%	≥ 93%	≥ 93%	≥ 93%	
							5. Aesthetic compliance				≥ 93%	≥ 93%	≥ 93%	≥ 93%	≥ 93%	
	2	Manage avoidable water losses	MO A, OP1	SO 1.4 and 2.4	Achieve Operational Integrity and Use Best Fit Technology	Reduced avoidable water losses in treatment and distribution systems	Avoidable water lost as a percentage of water produced at the treatment and distribution systems	%	4.72%	4.90%	5%	5%	5%	5%	5%	
	3	Reliability of supply	MO A > G, OP1	SO 1.6 & 2.2	Achieve Operational Integrity and Use Best Fit Technology	No unplanned interruptions to bulk supply exceeding 24 hours	Number of days of unplanned supply interrupted	number of days	0	0	0	0	0	0	0	
	4	Increased access to Services	MO A,B, D and E	SO 1.6 and 2.2	Achieve Operational Integrity and Use Best Fit Technology	Contribution to national objectives of extending services	Actual CAPEX spend on expansion related projects (initiatives by the Minister) as % of budget	Rand value (% of total CAPEX budget)	N/A	N/A	15%	15%	15%	15%	15%	

Financial Performance	5	Financial reporting compliance	MO A > G	SO 3.2 and 1.6	Maintain Financial Health & Sustainability	Unqualified audit report	Annual external audit	Unqualified report with no matters of emphasis (Clean Audit)	100%	N/A	100%	100%	100%	100%	100%	
	6	Improve key financial ratios	MO A > G	SO 3.2 and 1.6	Maintain Financial Health & Sustainability	Improved viability and sustainability	Current Ratio	Ratio	3.51	3.33	2 - 3.33	2 - 3.0	2 - 3.0	2 - 3.0	2 - 3.0	
							Gross profit margin % (primary activity)	%	30.10%	32.30%	29.00%	29.00%	29.00%	29.00%	29.00%	
							Gross profit margin (secondary activity)	%	6.40%	5.30%	5.00%	5.00%	5.00%	5.00%	5.00%	
							Net profit margin (primary activity)	%	21.60%	24.20%	20.00%	19.00%	19.00%	19.00%	19.00%	
							Net profit margin (secondary activity)	%	12.10%	10.50%	1.00%	1.00%	1.00%	1.00%	1.00%	
							Debt equity	Ratio	0.14	0.12	0.05 – 0.36	0.08 – 0.35	0.08 – 0.35	0.06 – 0.35	0.08 – 0.35	
							Return on Assets	%	8.40%	9.40%	8.90%	8.00%	8.00%	8.00%	8.00%	
							Debtors days	Number	77	76	70	70	60	60	50	
							Repairs and maintenance as % of PPE and Investment Property (Carrying Value)	%	115.80%	76.45%	95.00%	95.00%	95.00%	95.00%	95.00%	
							Staff remuneration as % of total operating expenditure	%	18.30%	17.30%	15% - 24%	15% - 24%	15% - 24%	15% - 24%	15% - 24%	
	7	Increase BBBEE expenditure relative to operational projects	MO E	SO 1.3 and 1.4	Positively engage stakeholder base	Spend increased and increased new entrants awarded contracts in the financial year	Spend	% achieved	117.90%	103%	85.00%	85.00%	85.00%	85.00%	85.00%	
	8	Manage costs within the approved budget	MO A, B and D	SO 1.6 and 2.3	Maintain Financial Health & Sustainability	Actual expenditure compared with budgeted epxenditure for the quarter	Financial reports	% increase	-0.5%	-3%	+/-15%	+/-15%	+/-15%	+/-15%	+/-15%	
	9	Capital expenditure programme	MO A, B, D and E	SO 1.6 and 2.3	Achieve Operational Integrity and Use Best Fit Technology	Infrastructure available to meet demands	Overall project expenditure within R target	% variance	78.2%	80%	95%	95%	95%	95%	95%	
							Overall project completion dates within targets	% variance	127%	100%	95%	95%	95%	95%	95%	
	10	Engagement in secondary activities	MO A, B, D and E	SO 1.6 and 2.3	Achieve Growth	Growth in turnover from secondary (other activities)	% of total turnover	%	-62.3%	N/A	N/A	N/A	N/A	N/A	N/A	

Customer/ Stakeholder Interaction	11	Bulk supply agreements concluded with municipalities/other customers	MO A, B and D	SO 2.1 and 2.2	Positively engage stakeholder base	Statutory and Service Level Agreements in place	Municipalities/Other Customers with bulk supply agreements	%	100%	100%	100%	100%	100%	100%	100%	
	12	Implementation of Ministerial directives	MO C, D and E	SO 2.3	Positively engage stakeholder base	New Ministerial directives issued are implemented on time	Progress against implementation plan	% (List of Projects attached as an Annexure)	100%	N / A	95%	95%	95%	95%	95%	
	13	Support Rural Development	MO A, B and D	SO 3.1 and 3.2	Positively engage stakeholder base	Total Number of identified Municipalities supported	Signed contracts, MOUs etc	Number	3	N / A	2	2	4	4	4	
	14	Achieve statutory reporting compliance	MO A, B and D	SO 3.1 and 3.2	Positively engage stakeholder base	All tatutory reports submitted on time	Submission dates met	%	100%	100%	100%	100%	100%	100%	100%	
Organisational Capacity	15	Staff levels	MO E	SO 1.1 and 1.3	Achieve a High Performance Culture	Optimal staff retention	Staff turnover	%	1.41%	0.52%	5%	5%	5%	5%	5%	
	16	Training and Skills Development	MO E	SO 1.1	Achieve a High Performance Culture	Skills and capacity building	Learnerships	Number	92	89	60	65	65	65	65	
							Bursaries employees	Number	22	22	20	20	20	20	20	
							Graduate Programmes	Number	132	130	105	105	105	105	105	
	17	Jobs Created	MO A, D, E and G	SO 1.1	Achieve a High Performance Culture	Permanent and contract (direct)	Total number	Number	278	118	145	154	164	174	185	
						Temporary (indirect)	Total number	Number	3271	717	2000	2150	2200	2250	2500	
General Performance	18	Board Effectiveness	MO A > G	SO 1.1	Achieve a High Performance Culture	Improved performance of fiduciary duties/governance	Board Member attendance of all Board/committee meetings	%	91.42%	96.15%	80%	80%	80%	80%	80%	
							Decision making: % number resolutions taken by the board vs number of resolutions required	%	100%	100%	95%	95%	95%	95%	95%	
	19	Effective Internal Controls and Risk Management	MO B	SO 1.6 and 3.2	Positively engage stakeholder base	Internal audit findings dealt with	Internal audit reports	Number of repeat findings	0	0	0	0	0	0	0	
								Number of unresolved findings	0	0	0	0	0	0	0	
	20	Good Governance	MO E, F and G	SO 3.2 and 1.6	Positively engage stakeholder base	Improved controls and risk mitigation	Breaches of materiality and significance framework	Number	0	0	0	0	0	0	0	
	21	Corporate Social Responsibility Initiatives	MO E	SO 2.1	Positively engage stakeholder base	Good corporate citizenship	Number of initiatives undertaken	Number	100%	78%	25	95.00%	95.00%	95.00%	95.00%	

27.2 Corporate KPI Set

On 4th April 2014, the Department for Water and Sanitation (DWS) sent all water boards its annual strategic plan. DWS sent a new template in March 2015 of the Shareholder's Compact with the aim of aligning performance indicators and targets of water boards with the relevant Ministerial Outcomes and the strategic plan of the Department. Some of the important observations about this new template are;

- The template also aims to align annual and quarterly performance by utilizing the same performance indicators.
- The template requires previous year and current year performance, and targets for the next financial year. It does not require five-year projections.
- The template appears to utilize Rand Water's performance mechanism as a foundation.

The Shareholder's Compact forms the basis for the Corporate Key Performance Indicator Set for the Financial Year Ending 30th June 2024. These Corporate KPIs form the basis for business units, divisional, departmental and individual performance. Each corporate KPI is the direct responsibility of respective business units.

1. DWS Template Revision of 2023

On 11th and again on 23rd April 2023, DWS revised certain KPIs with the intention of uniform measurement and reporting by all water boards. The following KPIs were impacted.

1. Bulk Potable water quality compliance – the target should be reported based on the SANS 241, whereby the norm is 95% and 97%. The following five (5) compliance categories should be reported.

    a. Acute health microbiological compliance
    b. Acute health chemical compliance
    c. Chronic health chemical compliance
    d. Operational compliance
    e. Aesthetic compliance

2. Manage avoidable water losses – the avoidable water loss as a percentage (%) of water produced at the treatment and distribution systems should be reported as a combined percentage and not separately.
3. Reliability of Supply – The target should be reported as a number of days of unplanned interruptions and not as a percentage.

4. Increased access to services – the actual Capex spend on expansion related projects (Ministerial initiatives) should be reported in Rand value and as a percentage of the total CAPEX budget. In addition, it was agreed that Performance Objective No. 12 of the Shareholder Compact relating to the implementation of Ministerial directives should report on the progress against implementation plan. Also a list of projects should be attached as an Annexure to the Shareholder Compact.

The attached Shareholder's Compact contains Rand Water's targets that will support the Ministerial Outcomes and the DWS strategic plan. A significant number of the targets are influenced by financial KPIs. However, these financial indicators will not have final targets until the budget is approved.

2. Corporate KPI Set

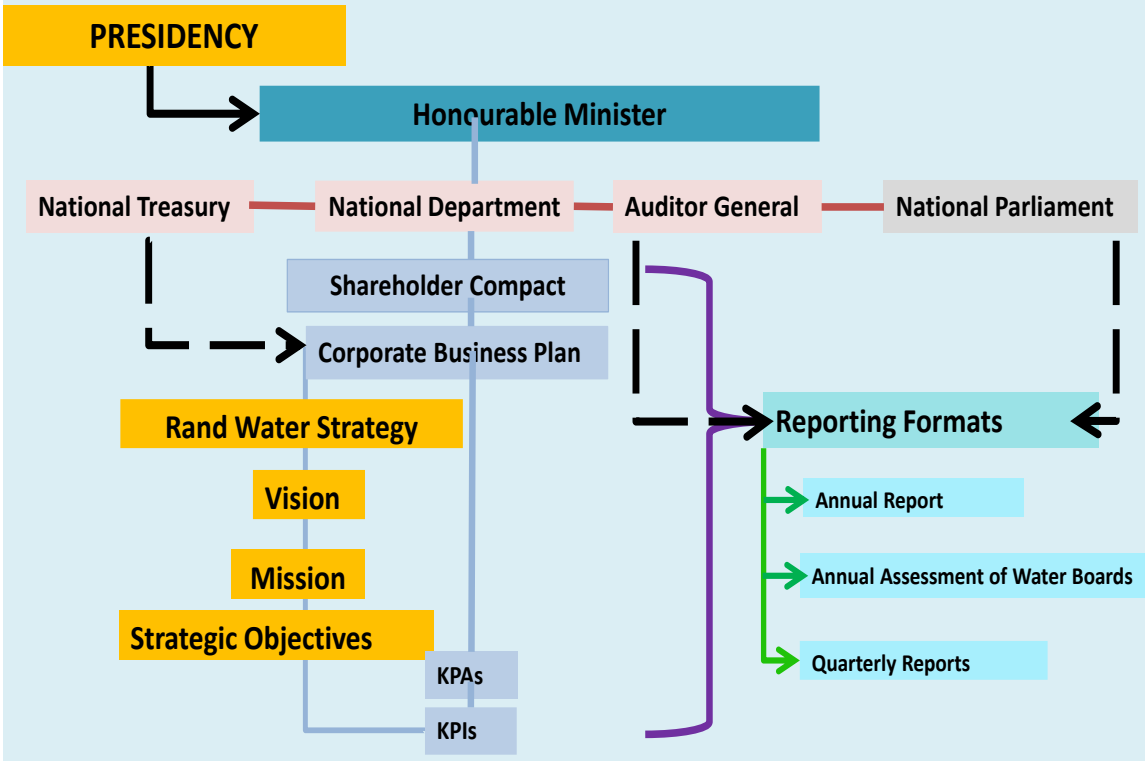
a. Rand Water Strategy

Rand Water has embarked on an exercise to determine the Rand Water of the Future (Rand Water – 2030). It is therefore important that Rand Water measures its progress towards that Rand Water of the future.

Rand Water has set itself a vision of the path that the organisation intends to attain. These Corporate KPIs are a dashboard of the progress along this path. On a broad scale, this path is informed by the following:

i. Rand Water aligns with the objectives of National Government as envisaged in the Shareholder's Compact,
ii. Rand Water attains the goals that it has set out to attain in terms of the Rand Water of the Future.

Diagram 14. Alignment to Presidential Outcomes



In terms of measuring performance for the new financial year, these issues are taken into consideration to ensure that Rand Water continues to measure itself in the attainment of the organisation's vision. It is with this in mind that this conglomeration of targets is established.

b. Broad Rules of Measuring Indicators

i. Each indicator is expected to perform between the base and the target.

- Any performance indicator poorer than the base leads to zero per cent.
- Attainment of the target is 100 per cent.
- The stretch is mathematically calculated as the 150 per cent of the distance between the base and the target.

ii. For consistency, the base, target and stretch are cascaded into the organisation.

c. Methodology and Approach

These KPIs must be standardized in their methodology, approach, and measurement. Targets are determined by at least two factors;

- Stage of development / implementation within Rand Water
- Consistency of base, target and stretch
- Local and international standards (where applicable)
- Local and international comparisons (where applicable)

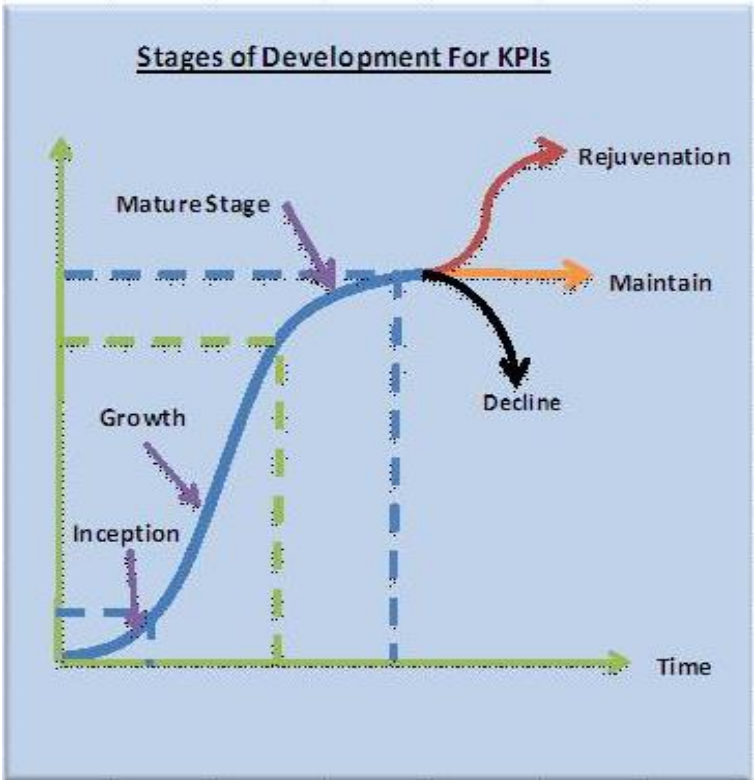
d. Stage of Development

This base is determined by a number of factors. The stages of development are:

- Inception – Target setting is likely to be less robust to allow the organisation to properly allocate resources, restructure and learn from implementation
- Growth – Target setting is more robust to allow the organisation to attain its goals and objectives
- Maturity – An international or local standard is attained. For example, repeat audit finding is reduced to zero, or water quality complies with SABS, World Health Organisation and internal Rand Water standards. Therefore that international standard then becomes the benchmark against which a KPI is measured
- After Maturity – A decision has to be made whether to
    - Rejuvenate – For example, after the attainment of Employment Equity (EE), the KPIs were refined to EE in managerial and technical positions (M-Q Bands)
    - Maintain – The business of Rand Water is provision of clean water. Therefore, attainment of international standards will remain a necessity.
    - Decline / Discard – This final decision is made after all forms of rejuvenation are not possible. The KPI may remain at lower levels within the organisation.

The diagram below illustrates this stage of development of the KPI which then determines the base and target of that particular KPI.

Diagram 15. Stages of KPI Development



In order to maintain performance towards the Rand Water of the Future, last year's performance is taken into consideration. In instances where the KPI has yet to reach maturity, the performance of the previous year is used as the base. This allows the KPI to motivate organisational performance.

However, there are instances where prior year performance is not used. For example, where a KPI performed poorly in the previous year, such poor performance cannot be used as a base. A higher base is then used rather than the poor performance of the previous year.

The following KPIs have been set for the financial year ending 30th June 2024.

Table 45. Corporate KPI Set

CORPORATE KEY PERFORMANCE INDICATORS SET FOR THE FINANCIAL YEAR ENDING 30TH JUNE 2024						
		Weight				
No.	Key Performance Indicator	Original Weight	Reallocated Weight	Unit	2024 Base	2024 Target
1	Bulk potable water quality compliance	3.0%	3.1%	%		
1a	1. Acute health microbiological compliance				97%	97%
1b	2. Acute health chemical compliance				97%	97%
1c	3. Chronic health chemical compliance				95%	95%
1d	4. Operational compliance				93%	93%
1e	5. Aesthetic compliance				93%	93%
2	Manage avoidable water losses	3.0%	3.1%	%	5.2%	5.0%
3	Number of days supply disrupted divided by total number of possible supply days	3.0%	3.1%	Days	0	0
4	Actual CAPEX on expansion related projects as % of budget (Ministerial initiatives)	5.0%	5.1%	%	10.0%	15.0%
5	Unqualified audit report	4.0%	4.1%	%	100%	100%
6	Current Ratio	2.0%	2.0%	Ratio	2.00	3.33
7	Gross profit margin (Primary Activity)	3.0%	3.1%	%	28.0%	29.0%
8	Gross profit margin (Secondary activity)	2.0%	2.0%	%	2.5%	5.0%
9	Net profit margin (Primary Activity)	4.0%	4.1%	%	18.0%	20.0%
10	Net profit margin (Secondary activity)	2.0%	2.0%	%	0.0%	1.0%
11	Debt equity	3.0%	3.1%	Ratio	0.05	0.36
12	Return on assets	2.0%	2.0%	%	7.5%	8.9%
13	Debtor Days	4.0%	4.1%	Days	80	70
14	Repairs and maintenance expenditure as a % of budget	3.0%	3.1%	%	92.5%	95.0%
15	Staff remuneration as % of total operating expenditure	3.0%	3.1%	%	15%	24%
16	BBBEE Spend as a % of Total Expenditure	2.0%	2.0%	%	80.0%	85.0%
17	Award of work to BBBEE Compliant Entities through Tender Systems	2.0%	2.0%	%	80.0%	85.0%
18	% Variance from Budgeted Expenditure	3.0%	3.1%	%	30.0%	15.0%
19	Capital Expenditure (as a % of budget)	5.0%	5.1%	%	92.5%	95.0%
20	% Completion of Projects (Achievement of Milestones)	5.0%	5.1%	%	92.5%	95.0%
21	Year on year growth in secondary (other) activities	3.0%	3.1%	%	N/A	N/A
22	Municipalities contracted to Rand Water (Bulk contracts)	2.0%	2.0%	%	100%	100%
23	Progress Made on New Ministerial initiatives (as a % of Implementation Plan)	2.0%	2.0%	%	85.0%	95.0%
24	Total Number of Identified Municipalities Supported by Rand Water	2.0%	2.0%	Number	1	2
25	Timeous submission of Shareholder's Compact and Corporate Business Plan	2.0%	2.0%	%	100%	100%
26	% of staff leaving	2.0%	2.0%	%	6%	5%
27	Number Trained by Rand Water (Learnerships)	2.0%	2.0%	Number	56	60
28	Number trained by Rand Water (Bursaries)	1.0%	1.0%	Number	11	20
29	Number trained by Rand Water (Graduate Programmes)	2.0%	2.0%	Number	88	105
30	Permanent and Contract (direct) Jobs Created	2.0%	2.0%	Number	102	145
31	Temporary (Indirect) Jobs Created - from RWF and RW Contractors	2.0%	2.0%	Number	1785	2000
32	Board Member Attendance of all Board / Committee Meetings	1.0%	1.0%	%	75.0%	80.0%
33	Resolutions Taken by the Board as a Percentage of Resolutions Required	2.0%	2.0%	%	85.0%	95.0%
34	Number of All Repeat and Unresolved Audit Findings (Internal, ISO, SANS, SABS)	2.0%	2.0%	Number	0	0
35	Number of Breaches of Materiality and Significance Framework	2.0%	2.0%	Number	0	0
36	Number of Corporate Social Responsibility Investment Initiatives	2.0%	2.0%	Number	20	25
37	Females Recruited in Management and Technical Positions (External and Internal (M-Q))	2.0%	2.0%	%	48.0%	51.0%
38	Employee Engagement Survey	2.0%		%	68.0%	72.0%
39	Customer Satisfaction Survey	2.0%	2.0%	%	80.0%	82.5%
	Organisational Performance	100.0%	100.0%			

Table 46. Definition of KPIs

<table>
<tr><th>No.</th><th>Indicator</th><th>Definition</th></tr>
<tr><td>1.</td><td>Bulk potable water quality compliance</td><td>This KPI has been revisited by DWS. It is now a composite of water quality indicators, instead of Class 1 and Class 2 that many water boards were utilizing. DWS adds that Bulk Potable water quality compliance – the target should be reported based on the SANS 241, whereby the norm is 95% and 97%.

The following five (5) compliance categories should be reported with their set of targets.

Test results, SANS 241

<table>
<tr><th>KPI</th><th>Good (100%)</th><th>Excellent (150%)</th></tr>
<tr><td>Acute health microbiological compliance</td><td>97%</td><td>≥ 99%</td></tr>
<tr><td>Acute health chemical compliance</td><td>97%</td><td>≥ 97%</td></tr>
<tr><td>Chronic health chemical compliance</td><td>95%</td><td>≥ 97%</td></tr>
<tr><td>Operational compliance</td><td>93%</td><td>≥ 95%</td></tr>
<tr><td>Aesthetic compliance</td><td>93%</td><td>≥ 95%</td></tr>
</table>

For Rand Water, if all 5 components attain their targets, then the standard has been complied with good at 100%; and excellent at 150%.</td></tr>
<tr><td>2.</td><td>Manage avoidable water losses</td><td>The DWS revision of April 2023 states this as follows.
Manage avoidable water losses – the avoidable water loss as a percentage (%) of water produced at the treatment and distribution systems should be reported as a combined percentage and not separately.

This measures the amount of real or physical water losses in the production and distribution process as a percentage of System Input Volumes (SIV). SIV is a total of raw water abstracted for potable water production plus water imported from Vaalkop system (i.e. total water purchased).

Rand Water has adopted and recommended the internationally accepted standard methodology of the International Water Association (IWA) for the determination of non-revenue water and the breakdown into its three components, which include the unbilled authorized consumption or own use, the apparent and the real or physical water losses. However, the corporate key performance indicator will focus on the largest component of the three, with an aim to reduce the real or physical leakages in the treatment and distribution systems.</td></tr>
</table>

		The real or physical losses is a calculated figure; which is a difference from the total Non-Water Revenue deducting water lost during potable water production and distribution, apparent losses as well as unavoidable annual real losses. For the corporate KPI the real or physical losses will be expressed as a percentage of the system input volume. The real or physical leakages in the treatment and distributions systems include water losses from infrastructure leakages and failures such as discharges from the treatment works into the surrounding environment, reservoir leaks/overflows, pipe bursts and leaks and are considered avoidable. However, there is a portion, which is unavoidable or outside of Rand Water's control, as any water network is not entirely leakage free and would have some intrinsic or background leakages in the system. Although this is a minor portion, an annual determination will be made to accommodate expansion and additional infrastructure in the supply network and will be referred to as the Unavoidable Annual Real Losses (UARL). UARL, takes into account the background leakages in pipelines, reservoirs, evaporation in open surfaces and tanks, gland seal leaking in pumps, etc. The other two smaller components of non-revenue water that is not included in the corporate KPI, for which internal measures are put in place to manage and optimize, includes the water used by Rand Water in the production of water (i.e. filter backwashing, pipe and tank scouring during maintenance, sampling water for online monitors, water used by staff on sites and staff accommodation and the water treatment residue disposal) and the apparent losses caused by meter inaccuracies, volume accruals and billing adjustments, water theft and data handling errors.
3.	**Reliability of Supply**	The DWS revision of April 2023 states this as follows. Reliability of Supply – The target should be reported as a number of days of unplanned interruptions and not as a percentage. This measures the number of days during which any bulk customer fails to receive water as a result of an unintended disruption within the control of operations. This is intended to exclude failure to supply due to external factors that are beyond the control of Rand Water. This refers to bulk customers not receiving water for a full day, as indicated by the reference to days (not hours) in the KPI. The definition by DWS calculates failure to supply exceeding 1 day (or 24 hours). This is in line with the Rand Water definition.
4.	**Actual Capex spend on expansions related projects (Ministerial initiatives)**	The DWS revision of April 2023 states this as follows. Increased access to services – the actual Capex spend on expansion related projects (Ministerial initiatives) should be reported in Rand value and as a percentage of the total CAPEX budget. Also a list of projects should be attached as an Annexure to the Shareholder Compact.

5.	**Unqualified report**	This determines whether Rand Water has received a qualified audit finding by an external auditor. Attaining an unqualified audit finding will result in 100 per cent. A qualified audit finding is 0 per cent.
6.	**Current ratio**	This in with the business requirements which are utilized in the budget that is presented and approved by the Board. This measures the levels of liquidity within the organisation. The bulk potable water tariff may be affected by a number of factors, for example water restrictions and energy. These factors may require a revision of the budget and resubmission to Board for approval. In addition, the increasing levels of debt owed by municipalities have skewed the current ratio. At the same time, the occasional payments made by a defaulting municipal customer has in turn changed drastically the current ratio. In order to address this uncertainty, this KPI is measured as a range between 2 and 3.33 at stretch and cascade downwards to 1 and 4.33 respectively at 0%.
7.	**Gross profit margin (Primary Activity)**	This in with the business requirements which are utilized in the budget that is presented and approved by the Board. The bulk potable water tariff may be affected by a number of factors, for example water restrictions, Acid mine drainage and energy. These factors may require a revision of the budget and resubmission to Board for approval.
8.	**Gross profit margin (Secondary Activity)**	This in with the business requirements which are utilized in the budget that is presented and approved by the Board. Rand Water is also careful to take into consideration Ministerial Directives. Their margins have been arrived taking into consideration the urgency of the issues, and engagement with the Shareholder. They have a direct impact on the gross and net profit margins.
9.	**Net profit margin (Primary Activity)**	This in with the business requirements which are utilized in the budget that is presented and approved by the Board. The bulk potable water tariff may be affected by a number of factors, for example water restrictions, acid mine drainage and energy. These factors may require a revision of the budget and resubmission to Board for approval.
10.	**Net profit margin (Secondary activity)**	This in with the business requirements which are utilized in the budget that is presented and approved by the Board. Rand Water is also careful to take into consideration Ministerial Directives. Their margins have been arrived taking into consideration the urgency of the issues, and engagement with the Shareholder. They have a direct impact on the gross and net profit margins.
11.	**Debt equity**	This in with the business requirements which are utilized in the budget that is presented and approved by the Board.

		This measures the percentage change to the ratio of total debt to equity. Rand Water intends to raise debt in the capital markets in line with its capital expenditure program. This ratio is used as a standard for judging an entity's financial standing and the entity's ability to repay its obligations. Rand Water is faced with two possible scenarios. A low debt equity ratio indicates a healthier financial position. It also indicates that Rand Water is over-burdening the current generation with a higher tariff. On the other hand, it indicates the so-called lazy balance sheet and poor intergenerational mix. A prudent environment is that the current generation should pay for Rand Water's current infrastructure investment, and future generations should pay for future investments. A higher debt equity ratio indicates a better intergenerational mix but, at the same time, puts Rand Water's financial position at greater risk. Therefore, the best way to alleviate this dichotomy is to concentrate on the management of debt, that is, Rand Water's ability to manage its debt equity ratio. With this in mind, the debt equity ratio is determined by performance within set parameters rather than attainment or non-attainment of a particular target. For the year under review, the proposed range of the management of debt equity at stretch is between 0.36 to 0.05. This will cascade downwards, indicating poor management to 0.39 and 0.02 respectively.
12.	**Return on assets**	This in with the business requirements which are utilized in the budget that is presented and approved by the Board. This indicates the level of efficiency in utilizing assets. It measures the ability of assets to generate a sustainable surplus. The bulk potable water tariff may be affected by a number of factors, for example water restrictions, Acid mine drainage and energy. These factors may require a revision of the budget and resubmission to Board for approval.
13.	**Debtors days**	This in with the business requirements which are utilized in the budget that is presented and approved by the Board. This calculates the average number of days it takes Rand Water to get paid by its customers. An overwhelming majority of water boards have suffered viability and sustainability issues due to poor revenue collection and poor payment by their customers. This KPI is intended to track performance and deal with the problem before it overwhelms a water board. A number of factors have affected this KPI. Local municipalities are facing an increasing challenge with regards to paying Rand Water on time. In the past Rand Water has relied on following due process which entails informing all stakeholders, including the Shareholder. However, there have been instances when Rand Water has been curtailed from

		implementing corrective action such as limiting water supply by the Shareholder. This has a direct impact on timeous payments by local municipalities and honouring payment arrangements that could have been agreed on with Rand Water. In addition, Rand Water and its local municipal customers have the same financial year end. An increasing number of local municipalities are delaying payment to Rand Water at the end of the financial year so that their annual financial statements present a better financial position. However, this has a negative impact on Rand Water's debtor days KPI. In order to alleviate these challenges, Rand Water has entered into payment arrangements with local municipalities. Therefore, this KPI will take into consideration any of the following events: • The Shareholder has instructed Rand Water not to implement water limiting mechanisms. • Rand Water has entered into repayment arrangements with municipalities. • Any other circumstance that may be deemed necessary to present to Board for consideration and approval.
14.	**Repairs and maintenance expenditure as a % of budget**	Rand Water has developed a comprehensive capital expenditure programme for the next 20 years. This identifies the infrastructure requirements to meet increasing demand. At the same time it also identifies ageing infrastructure that will require refurbishment. This programme is presented and approved by Board. This determines the infrastructure that requires repairs and maintenance and replacement. It is against this programme that an annual budget is developed. Therefore, this KPI measures repairs and maintenance as a percentage of budget. 1.The Accounting Standard IAS 16 stipulates that an amount of expenditure should be capitalised as an asset only if a)Its cost can be measured reliably b)It is probable that future economic benefits will flow to the entity and c)The expenditure is directly related to an asset under construction and is not related to either production activities or maintenance activities Repairs and maintenance is composed of the following; 1.Preventative and Corrective Maintenance a.Preventative Maintenance This relates to maintenance that is routine and planned in advance. Preventative maintenance involves Periodic Maintenance, as well as Preventative Maintenance Schedules. Maintenance activities for each asset group will be combined in an activity maintenance plan; which assists in planning and scheduling frequency of each activity. On an annual basis Periodic Maintenance budget is developed by Operations Division; in the Bulk Water Services business unit. This is submitted to Finance for budgeting, thereafter EXCO for approval. From scheduling

		and budgeting; Procurement Plans get submitted to SCM for procurement purposes. Scheduling is determined by: • Operating and Maintenance Manuals of the asset, • A schedule of maintenance as determined during the Reliability Centered Maintenance analysis of each asset, • Compliance with ISO Standards, b.Corrective Maintenance This is reactive maintenance, where maintenance is executed as a response to failure. Assets in operation are bound to experience wear and tear, these failures are expected to happen at a certain cycle of the assets, hence their repairs get budgeted for and repaired as and when they happen. Other equipment adopts the strategy of run-to-failure based on the Reliability Centered Maintenance analysis that is done on assets. The activities undertaken under Preventative and Corrective Maintenance are expensed rather than capitalized as per the Rand Water guideline. 2.Repairs and Refurbishment Maintenance This relates to any refurbishments that are outside Periodic Maintenance. This type of maintenance is routine and planned in advance. Planning for repairs and refurbishment maintenance activities for each asset group will be done on an annual basis by Operations Division; in the Bulk Water Services business unit. The budget is developed, submitted to Finance and thereafter to EXCO for approvals. From scheduling and budgeting; Procurement Plans get submitted to SCM for procurement purposes. Scheduling is determined by: • Operating and Maintenance Manuals of the asset, A schedule of maintenance as determined during the Reliability Centered Maintenance analysis of each asset, • Rand Water Maintenance Philosophy • Compliance with ISO Standards, The activities undertaken under Repairs and Maintenance will be expensed rather than capitalized as per the Rand Water guideline. In line with individual project variations, performance exceeding 96.25% of budget is uncapped with a fixed rating of 150%.
15.	**Staff remuneration as a % of total operating expenditure**	This in with the business requirements which are utilized in the budget that is presented and approved by the Board. This measures staff remuneration as a % of total operating expenditure. This KPI will be affected by the settlement with organised labour. Currently the budget is applying certain assumptions. Any deviations as presented and approved by the Board will lead to proportionate adjustment of the ratio. For confidentiality and salary negotiation purposes, these amounts will be presented to the Board only.

		This KPI is particularly useful in benchmarking water boards and State Owned Entities. However, there are limitations with regards to its importance as a performance indicator. On the one hand, Rand Water is always hunting for efficiencies which are demonstrated by a reduction in operating expenditure. However, the side effect of a reduction in operating expenditure is that this increases the overall percentage of this KPI. The situation is exacerbated by the fact that staff costs are typically determined at a particular point during tariff negotiations. Thus a major portion of staff costs are relatively fixed. A fixed numerator (staff costs) against a decreasing denominator (operating costs) gives the impression that such a KPI is not being adequately managed. In order to alleviate this challenge, and in line with a standard methodology that Rand Water is utilizing in such circumstances, this KPI will measure the management of staff costs within set parameters. For the year under review, the proposed range of the management of staff remuneration as a % of total operating expenditure is between 15% and 24%. This will cascade downwards, indicating poor management to 12% and 27% respectively.
16.	**BBBEE Spend as a % of Total Expenditure**	This measures the performance of Rand Water in engaging entities that comply with Rand Water's BBBEE policy. The target was set at 85%.
17.	**Award of work to BBBEE Compliant Entities through tender systems**	Rand Water award of work to BBBEE compliant entities through the tender process. This KPI measures the actual number of BBBEE compliant entities that are contracted by Rand Water through the tender process as a percentage of the total number.
18.	**Actual expenditure compared with budgeted expenditure**	This calculates the variance between the budgeted and actual operational expenditure. According to previous DWS guidelines, water boards are expected to maintain this variance within 30 per cent - 15 per cent (over / under expenditure). The bulk potable water tariff may be affected by a number of factors, for example water restrictions, Acid mine drainage and energy. These factors may require a revision of the budget and resubmission to Board for approval.
19.	**Capital expenditure (as a % of budget)**	This measure the actual amount spent on capital projects as a percentage of budgeted expenditure. The Shareholder is directly interested in Rand Water's ability to supply water. Therefore, this KPI excludes supplementary budget and project expenditure that is not related to the provision of water. In short, this KPI will measure capital expenditure under the Bulk Water Services Business unit only. Given the large amounts exceeding R1 billion per annum, it is not possible to match exactly the target amount. In line with individual project variations, performance exceeding 96.25% of budget is uncapped with a fixed rating of 150%.

		It is Rand Water's experience that some projects are postponed or delayed because of factors outside Rand Water's control. For example, some projects require prior approval of Environmental Impact Assessments. Some projects require the issuing of Water Use Licenses. These are issued by the Department for Environment Affairs and DWS respectively. Rand Water has experienced delays by these Departments which require postponement of these projects. The KPI will be measured after submission and approval to exclude these types of delayed projects by the Capital Investment Committee. The bulk potable water tariff may be affected by a number of factors, for example water restrictions, Acid mine drainage and energy. These factors may require a revision of the budget and resubmission to Board for approval.
20.	**% Completion of projects**	The Shareholder is directly interested in Rand Water's ability to supply water. Therefore, this KPI has put in place a measurement to monitor the progress of critical projects within the Bulk Water Services Business unit, by measuring the achievement of various projects that are targeted for brining into use for the year. This KPI is a reflection of the activities within the project environment and therefore measures actual project completion. The prioritized list of projects is aligned with the budget. With this in mind, the term Priority 1 and 2 is removed and does not apply but the term is kept to align with the DWS template. It is important that Rand Water's capital expenditure programme is streamlined to ensure that it meets, not just the amount spent, but the actual intended purpose of projects, hence practical completion measure.
21.	**Year on year growth in secondary (other) activities**	This refers to the revenue that will be generated from other ventures. At a corporate level, this is aggregated into one target. Rand Water is also careful to take into consideration Ministerial Directives. Their margins have been arrived taking into consideration the urgency of the issues, and engagement with the Shareholder. They have a direct impact on the gross and net profit margins. For the coming financial year, Rand Water Services will be reactivated; thus becoming the engine for growth in secondary business.
22.	**Municipalities with bulk supply agreements**	This measures the number of customers that do not have a signed contract with Rand Water. The shareholder is aware that many water boards do not operate with valid contracts with local municipalities. It is therefore important to monitor progress towards the signing of these contracts with all municipalities. This KPI is intended to measure this performance.
23.	**Progress made on Ministerial Initiatives**	The DWS revision of April 2023 states this as follows. Increased access to services –Performance Objective No. 12 of the Shareholder Compact relating to the implementation of Ministerial

	(Progress against implementation plan)	initiatives should report on the progress against implementation plan. Also a list of projects should be attached as an Annexure to the Shareholder Compact.
24.	**Total Number of Identified Municipalities supported by Rand Water**	In line with the Honourable Minister's key thrust to assist 23 (now 27) municipalities, Rand Water has identified rural development as a critical cog. This will help unlock the vast potential of rural communities. Water boards have been requested to identify municipalities they will assist. This KPI will be measured by the number of signed contracts, MOUs and / or formal engagements for Rand Water to provide assistance. The extended area of operations for water boards, including Rand Water, incorporates several rural municipalities. Therefore, DWS agreed with Rand Water to remove the rural element to this KPI as water boards are now operating in these rural areas as well. This KPI may require re-submission to the Board during the year, in the event that additional or different requests are made to Rand Water by other stakeholders, including the Shareholder.
25.	**Timeous submission of shareholder's compact and corporate business plan** *(Submission dates met/ (missed))*	This determines timeous submission to the shareholder. In this instance, if these documents are submitted before 31st May, then the target has been attained (100 per cent). If they are submitted after 31st May, then the target has been missed (0 per cent).
26.	**% of Staff leaving**	This measures Rand Water's efforts to retain employees and is also of special interest to DWS. This refers to voluntary resignations only. Industry average puts the target at 5%.
27.	**Number trained by Rand Water (Learnerships)**	This KPI recognizes Rand Water's training efforts. This measures the number trained by Rand Water through learnerships programmes. This KPI may require re-submission to the Board during the year, in the event that additional or different requests are made to Rand Water by other stakeholders, including the Shareholder.
28.	**Number trained by Rand Water (Bursaries)**	This KPI recognizes Rand Water's training efforts. This measures the number trained by Rand Water through bursaries. This KPI may require re-submission to the Board during the year, in the event that additional or different requests are made to Rand Water by other stakeholders, including the Shareholder.
29.	**Number trained by Rand Water (Graduate Programmes)**	This KPI recognizes Rand Water's training efforts. This measures the number trained by Rand Water through graduate programmes. This KPI may require re-submission to the Board during the year, in the event that additional or different requests are made to Rand Water by other stakeholders, including the Shareholder.

30.	**Permanent and contract (direct) jobs created**	This refers to the number of new permanent employees that are employed by Rand Water. This is combined with contract employees working for Rand Water. Rand Water's quarterly reports to the Youth Accord will show the number of youth and women employed as an additional DWS requirement, although it will not be measured.
31.	**Jobs created - temporary (indirect) from RWF and Rand Water Contractors**	This refers to the number of temporary employees that are employed on Rand Water Foundation projects. This is combined with employees working for contractors working in Rand Water's capital expenditure projects. Rand Water's quarterly reports to the Youth Accord will show the number of youth and women employed as an additional DWS requirement, although it will not be measured.
32.	**Board members' attendance of Board / committee meetings**	This measures board member attendance of Board / committee meetings. For the moment, this measurement will remain until the Shareholder determines new methods to determine Board effectiveness.
33.	**Resolutions taken by the Board as a percentage of resolutions required**	This measures the number of resolutions that are passed / taken by Board as a percentage of the total number of resolutions. As this is the first time, a set number statutory / legislative resolutions are listed below; • Timeous approval of the Shareholder's Compact • Timeous approval of the Budget for the coming financial year • Timeous approval of the Annual Report for submission to the Shareholder • Timeous approval of the 4 Quarterly reports • Approval of the tariff for the coming financial year As this KPI is becomes fully manageable or if DWS informs the Board of the resolutions required, then the number of KPIs will be increased. An additional requirement to measure Board resolutions is highlighted above. For the moment, this measurement will remain until the Shareholder determines new methods to determine Board effectiveness.
34.	**Number of all repeat and unresolved audit findings (internal, ISO, SANS, SABS)**	This has been combined into a single KPI. DWS lists the two KPIs as follows: (a) Number of repeat findings by either internal audit or external audit. (b) Number of unresolved findings by either internal audit or external audit. This measures the number of repeat and internal audit findings within the organisation. The target is zero. Rand Water's aggregation of the two KPIs will be taken into consideration by DWS when consolidating KPIs of all water boards.

35.	**Number of breaches of materiality and significance framework)**	This measures the number of times the materiality level is breached. On an annual basis, Rand Water revises this level and presents to the Board. The Board approved level will be utilized.
36.	**Number of Corporate Social Responsibility Investment Initiatives**	This now measures the number of corporate social responsibility investment initiatives (Rand Water Foundation) that are undertaken and completed during the year, Previously, Rand Water measured the spent on CSI as a percentage of budget.
37.	**Female recruited in technical and management positions**	This measures Rand Water's performance on employment equity. As this KPI is almost reaching maturity, there is a need to rejuvenate and identify niches within the organisation failing to meet organisational targets. This KPI is rolled out in the organisation with different emphasis and weighting. This is intended to improve poor performance in identified areas. This KPI may only be measured for business units that have not yet attained the 51% threshold.
38.	**Employment Engagement Survey**	This measures the general employee climate, engagement and morale. This is measured every two years. In the year that it is not measured, the weighting is reduced to 0 per cent, and allocated proportionately among the remaining KPIs.
39.	**Customer Satisfaction Survey**	This measures the general customer climate and morale. According to South African Marketing Research Association, the Industry Average for Customer Satisfaction Surveys is 80% - 82.5%. It will be difficult for Rand Water to achieve maturity or to stop undertaking these surveys because Rand Water's environment is constantly changing, and it is important to monitor customer perceptions. Rand Water's strategy changes over time and it is important to monitor perceptions.

In conclusion the performance of the organisation will be the summation of the weighted results of each key performance indicator.

27.3 Strategic Goals and KPIs

The setting of Strategic Goals serves to guide the organization for the next 5 years. These Strategic Goals become a clear unambiguous beacon for an entity with over 3600 employees.

Table 47. Strategic Goals and KPIs

	1.	**Increased Self-Reliance with Regards to Energy Supply**
1.	1.1.	IPPs - Number of energy plants established
	2.	**Alternative Sources of Water**
2.	2.1.	Increase SIV from alternative water sources.
	3.	**Financial Sustainability**
3.	3.1.	Headroom maintained from financial reserves to remain liquid
	4.	**Sustainable and viable Rand Water Services invested locally and in Africa**
4.	4.1.	Competitive return on investment

These KPIs are disaggregated to allow for specific components to be measured.

- It is important to align as closely as possible with Rand Water's other performance monitoring (management) mechanisms.
- The base, target and stretch are aligned with Rand Water's other performance monitoring mechanisms.
- Each KPI is broken down into stages, components, and phases with allocated percentage, which aggregate to 100%.

27.3.1 Increased Self-Reliance with Regards to Energy Supply

In line with the new strategy, Innovation driven risk-based strategy, Rand Water must curtail areas of greatest risk. Efforts to manage risk by finding alternatives to Eskom will help to reduce the risk facing Rand Water. Supply of energy to Rand Water has been uncertain with power outages that have affected Rand Water's ability to supply water. This KPI is Rand Water's attempt at mitigating against this risk.

Key Performance Indicator		
	2024	Comprehensive study on energy plants
	2025	Approvals by relevant authorities
	2026	Number of energy plants established (2)
	2027	Number of energy plants established (3)
	2028	Number of energy plants established (4)

27.3.2 Alternative Sources of Water

In line with the new strategy, Innovation driven risk-based strategy, Rand Water must curtail areas of greatest risk. Raw water constitutes over 45% of Rand Water's cost structure, which points to the areas of greatest risk to the organization. The availability of raw water is recognized as one of Rand Water's critical risks, given that:

- South Africa is a water scarce country, and
- LHWP Phase 2 will only be completed in 2028.

Rand Water will augment current sources of water by assessing viable opportunities for raw water.

Key Performance Indicator	2024	Conclude the tender process to procure service provider for at least one alternative source (reclamation plant).
	2025	Conclude the preliminary designs for the reclamation plant.
	2026	Conclude the detailed designs and conclude the contractor tender process.
	2027	Number of alternative sources of water plants established (2)
	2028	Number of alternative sources of water plants established (3)

27.3.3 Financial Sustainability

The long viability and sustainability of Rand Water is of critical importance to the shareholder representative, DWS. Given current economic and financial challenges facing the country, this importance of this issue has increased significantly.

It is also important to consider that these Strategic Goals KPIs are separate from DWS performance indicators to prevent double-counting. At worst, it is possible for conflicting results of KPIs in the two spaces, that is, the Board monitored Strategic Goals and the Shareholder Compact KPIs. The following KPIs are in the Shareholder Compact;

- Gross profit margin (Primary Activity)
- Net profit margin (Primary Activity)
- Current Ratio
- Debt equity
- Return on assets
- Debtor Days
- % Variance from Budgeted Expenditure

- Avoidable water lost as a percentage of water produced at the treatment and distribution systems

Each of these Shareholder Compact KPIs will develop strategies and implementation plans to improve performance. For example, strategies to improve performance of non – revenue water and debtor days will be developed and / or continue to be updated so that their performance. The results be delivered through improvement in performance.

The mandate of Rand Water is to provide bulk water and sanitation services in its area of service. Beyond the Shareholder Compact KPIs, this is best guaranteed by an entity that remains liquid.

Key Performance Indicator	2024	Headroom maintained from financial reserves to remain liquid
	2025	Headroom maintained from financial reserves to remain liquid
	2026	Headroom maintained from financial reserves to remain liquid
	2027	Headroom maintained from financial reserves to remain liquid
	2028	Headroom maintained from financial reserves to remain liquid

27.3.4 Sustainable and viable Rand Water Services invested locally and in Africa

There is a recognition that the purpose in nature of Rand Water requires urgent change. There are significant opportunities upstream and downstream of the Rand Water business. The Rand Water of the future must be modelled to take advantage of identified opportunities. Weak service delivery at municipal level presents such an opportunity. The Rand Water of the future requires agility to out-compete both public and private sector players, otherwise Rand Water itself may fail to survive into the future.

The revival of Rand Water services allows for Rand Water to execute on this business currently defined as secondary. It is also important to consider that these Strategic Goals KPIs are separate from DWS performance indicators to prevent double-counting. At worst, it is possible for conflicting results of KPIs in the two spaces, that is, the Board monitored Strategic Goals and the Shareholder Compact KPIs. The following KPIs are in the Shareholder Compact;

- Actual CAPEX on expansion related projects as % of budget (Ministerial initiatives)
- Progress Made on New Ministerial initiatives (as a % of Implementation Plan)
- Gross profit margin (Secondary activity)
- Net profit margin (Secondary activity)

- Actual CAPEX on expansion related projects as % of budget (Ministerial initiatives)
- Year on year growth in secondary (other) activities

Rand Water Services (RWS) is a subsidiary company of Rand Water which is aimed at practicing as a private entity which executes special projects and water services business opportunities as authorised under Section 30 of Water Services Act. The establishment of RWS is encouraged by the following:

- Exponential deterioration of water services provision by various Water Services Providers (WSP) and Water Services Authorities (WSA) thus posing risk to water security, sustainability of water services provision and economic growth
- Poor financial status of most municipalities resulting to their inability to service their debts (including bulk water purchases) and invest on water services operations.
- Increasing competition of private water services providers as authorised by WSA's in accordance with section 22 (1) of Water Services Act.
- Public-private partnerships (PPP) in water sector which may have adverse effects on water services affordability, economic viability and long-term system sustainability and efficiency.

Section 30 states that a water board may perform an activity other than its primary activity only if it is not likely to be to the financial prejudice of itself, any water services institution, existing consumers and other users serviced by it within its service area;

There the important parameter is to ensure that RWS offers a competitive rate of return in the long run according to its Business Plan. This will be of special importance to all Rand Water stakeholders, that is, DWS, National Treasury and SALGA. They will be concerned that Rand Water is utilizing revenue from households in enterprises that are financially prejudicial.

Key Performance Indicator	2024	Establishment of Rand Water Services as a functional and viable entity
	2025	Competitive return on investment (5% of Rand Water ROA)
	2026	Competitive return on investment (20% of Rand Water ROA)
	2027	Competitive return on investment (50% of Rand Water ROA)
	2028	Competitive return on investment (100% of Rand Water ROA)

28 Declaration

All the information contained in this Corporate Business Plan is correctly disclosed to the best of Rand Water's knowledge.

Dated at Johannesburg on this the 31st day of May 2023.

……
(Chairperson: Rand Water)

AS WITNESSES:

1……

2……

29 Annexure 1: Rand Water's Projected Financial Statements

This is a copy and paste of a MS Excel document. More refined analysis is best performed on the soft copy.