Johannesburg Water

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Johannesburg Water

Turnaround Strategy

2024

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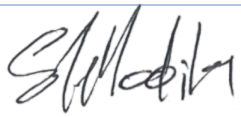
Tebogo Modiba	Acting Executive Director: Environment and Infrastructure Services		15/07/2024
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1 Creating a reliable water service to support growth.

The water and sanitation service in the City of Johannesburg (CoJ) is experiencing serious challenges and is not sustainable. Long-term under-investment, weakening financial performance and declining services have put Johannesburg's water and sanitation services into a dangerous position. In the absence of any significant changes, the reliability of water and sanitation services provided to the residents and business will be increasingly compromised, negatively affecting health, as well as new investments in the CoJ to support job creation and economic growth.

1.1 Water and sanitation services are in decline and are financially unsustainable.

Long-term decline in service performance

The data reported in Johannesburg Water's Business Plans and Annual Reports for the period between 2012 to 2023 show a long-term and ongoing decline in service performance, including the following:

- A 30% increase in the frequency of water mains bursts, from 301 to 391 per 100 km per year between 2012 and 2022;
- An 21% increase in non-revenue water from 38% to 46.1% between 2015 and 2023;
- A 28% reduction in water storage capacity for the distribution system from 39 to 28 hours of average consumption between 2012 and 2022, compared to a benchmark of 48 hours, increasing the vulnerability of the CoJ's water supply to cuts in electricity supply, and resulting in more frequent and longer water supply interruptions;
- An 35% increase in the number of sewer overflows from 384 to 517 per 100 km per year between 2012 and 2022;
- A 19% decline in wastewater treatment performance from 86 to 70 between 2013 and 2022, as measured by the Green Drop audits; and,
- Increasing wastewater treatment city

There has been long-term and systematic under-investment in both asset renewal and asset expansion to cater for new growth. Investment today is lower than it was 15 years ago. Consequently, there is a large backlog in investment needs.

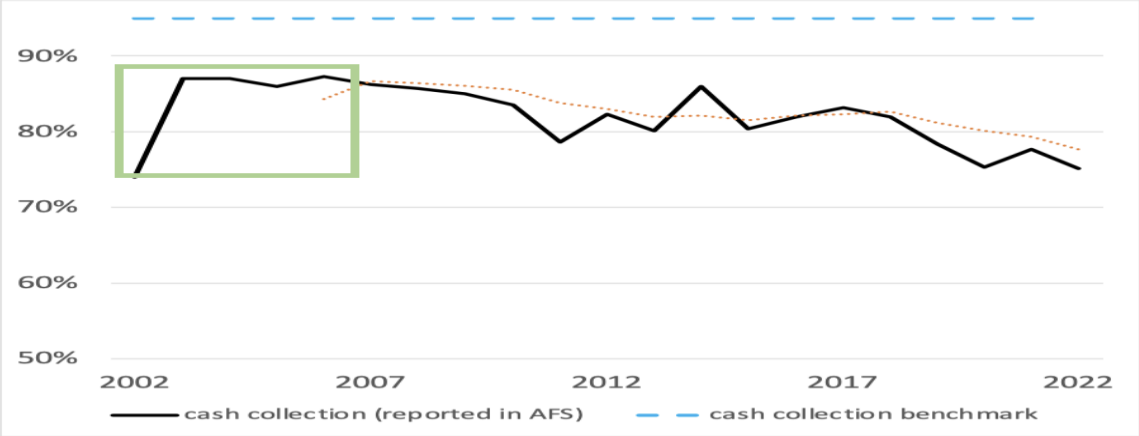
Low investments over a long period of time have had an impact on the reliability and quality of services, and on the ability of CoJ to meet the increasing demands for water and sanitation services as a result an increasing population and new development. For example, local water storage capacity has declined from 39 to 28 hours of supply between 2002 and 2022. This has made the water supply much more vulnerable to cuts in electricity supply, with more frequent and longer supply interruptions.

Lack of sufficient capacity limits new investments and economic growth. For example, Lanseria has been identified as a key economic zone in the northwestern catchment of the CoJ, but urban development is being constrained due to the lack of wastewater treatment infrastructure.

Declining cash collection

There has been a long-term and serious decline in the cash collected from customers to support the services from 2007 onwards (Figure 1). Cash collection performance was reduced from 86% in 2012 to 75% in 2022.

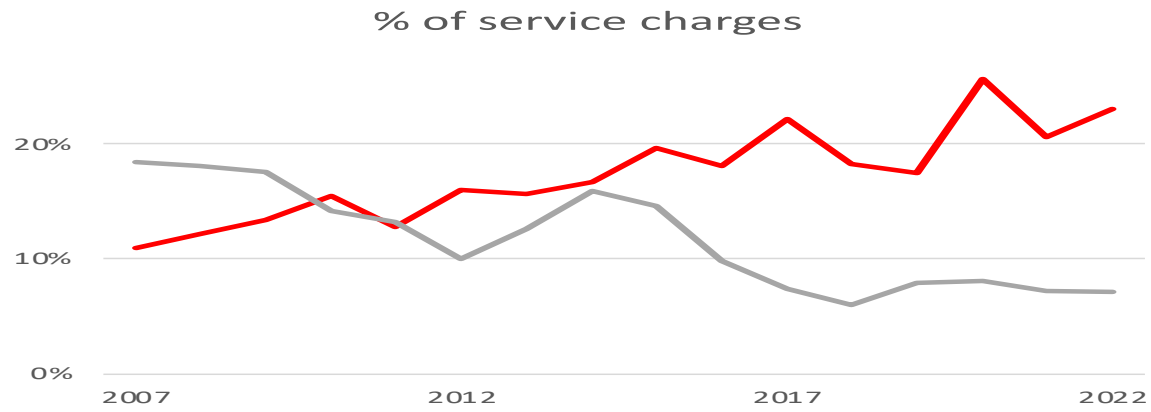
Figure 1: A long-term and accelerating decline in cash collection (% of billed revenue)



Notes: The blue dashed line shows the benchmark of 95%; the dotted line is the five-year moving average; and the green box shows the period of the management contract from 2002 to 2006.

The low cash collection rate of 75% is not sustainable therefore fewer resources are available to operate and maintain assets and to support new investments. The increase in the provision for bad debt, to account for money that is owed to the CoJ but not collected, is crowding out resources for capital investment as shown in Figure 2. Provision for bad debt increased from 11% to 23% of service charges in the period 2008 to 2022, whereas capital investment decreased from 18% to 7% of service charges between the same period.

Figure 2: Increasing provision for bad debt is crowding out capital expenditure.



Note: Bad debt provision (red line) and capital expenditure (grey line) are shown as a percentage of service charges

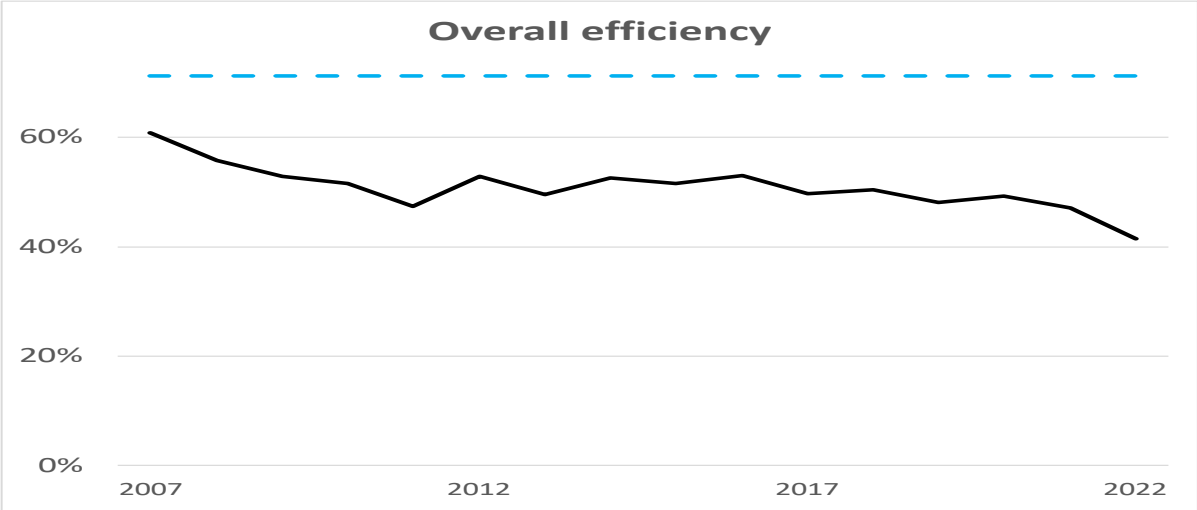
Cash collections are primarily a function of the effectiveness of management and the integrity of systems and procedures across the entire customer and revenue management value chain,

including dealing with customer preferences and payment habits, addressing the culture of non-payment, and mitigating the impact of difficult economic circumstances. Difficult economic circumstances make the task harder. There need to be substantial improvement in the management of effectiveness.

High and increasing inefficiencies.

The proportion of water supplied that translates into cash revenue is an important measure of the efficiency of an urban water entity such as Johannesburg Water.[1] This is due to ongoing provision of the service is significantly dependent on customer revenues. Johannesburg Water's overall level of efficiency using this measure has declined from 60% to 40% in the period 2007 to 2022 (Figure 3), i.e., efficiency has declined by a third. The annual cost of this inefficiency, compared to an efficiency benchmark of 71%,[2] was R3.4 billion in 2021/2. **The cost of inefficiency was more than three times the capital budget**, which was limited to R0.85 billion because of low funding availability.

Figure 3: Overall efficiency of Johannesburg Water



Source: Annual reports 2007 to 2022.

Note: JW efficiency (black line) and efficiency benchmark (blue dotted line)

Further performance data for Johannesburg Water is presented in Annexure 1.

1.2 The underlying causes of the fifteen-year decline are structural in nature.

While the recent constrained economic conditions have made it more difficult to manage the water and sanitation business, this is not the fundamental cause of the decline in performance. Performance has been declining for about 15 years or more, depending on the indicator, that is, approximately since the end of the management contract in 2006. The decline in performance has taken place at the same time as the CoJ has experienced economic growth.

[1] Overall efficiency = (1 – NRW%) x cash collection efficiency %.
[2] The benchmark = (1-25%) x 95% = 71%.

The underlying causes of the decline in performance are related to the governance of the entity and the structural relationship between the CoJ and Johannesburg Water. The combination of these has made it almost impossible, if not impossible, to effectively manage the service in a financially sustainable way.

Characteristics of a trading service

The major characteristic of a city trading service is that most of its income depends on sales at approved tariffs to customers, from whom payment must be received. For example, the water service is a trading service that sells water to its customers; and the cash collected from those customers must contribute the lion's share to its operating expenses. The only substantial exception to this involves the supply of water and sanitation services to those who cannot afford to pay the service charges. National government transfers substantial grants to local government, in the form of the Equitable Share as well as other grants, with the intention that this money is used to cover the cost of these services.

Trading services must therefore operate commercially, in a business-like manner, ensuring that the revenue from the sale of water and provision of related services substantially covers the costs of the service (including the costs of maintaining the assets). In this respect, trading services are quite different from rates-funded services such as roads and stormwater, parks and recreation and other services.

In particular, especially in metro municipalities and certainly in Johannesburg, it should be normal for trading services to generate substantial operating surpluses each year; firstly, to finance infrastructure rehabilitation and expansion (since these are infrastructure-intensive services); and secondly to contribute to the operating costs of other services beyond water and sanitation.

The deployment of such operating surpluses, in the first instance to meet the investment needs of the service, is key to the future sustainability of the trading service.

Johannesburg Water is not managed as a trading service.

Despite its formal company structure, Johannesburg Water is not managed as a company which can be held accountable by its shareholder for generating surpluses. Both revenue management and the customer relationship for the water service were centralized by the CoJ in 2010. Johannesburg Water does not have responsibility for the customer interface, the full revenue value chain and what is billed to customers, nor does it have a significant say in credit control actions. Its oversight of what is billed to customers is also insufficient.

Johannesburg Water is therefore not able to manage water and sanitation as a trading service with a single point of accountability for performance for both revenue and expenditure. Instead, these accountabilities are split between the CoJ's revenue and corporate services, on the revenue and budget allocation side, and Johannesburg Water, on the expenditure side. Incentives for performance are not aligned and there is scope for blame shifting. The performance under this arrangement has continuously been unsatisfactory and is declining as is clearly evident in Figures 1, 2 and 3.

The split between the revenue and expenditure functions of the water service also means that spending is not optimized. Improvements in trading performance should allow Johannesburg Water to increase its investment expenditure; and to choose investments appropriate to its

requirements as a trading service (for example, investments to increase revenues and/or reduce operating expenses).

Johannesburg Water does not function as a company.

Johannesburg Waters governance and financial decision-making relationships with Group CoJ are sufficiently compromised that it cannot operate as a company and is now effectively a department of the CoJ. Evidence of this includes the following:

1. **Board Governance**: Johannesburg Water is subject to frequent changes at Board level, resulting in loss of continuity and institutional memory. The Chair is replaced with every change in the ruling coalition, undermining Board independence and creating the perception that the Board cannot objectively and effectively discharge its roles and responsibilities. Board composition has also sometimes been lacking, such as during periods when there was not a single professional engineer on the Board. Without the requisite balance of independence, diversity, experience, skills, and knowledge, the Board's ability to carry out its fiduciary responsibilities is compromised.

2. The **shareholder compact** is based on the IDP and the Corporate Scorecard. The CoJ signs a Service Delivery Agreement (SDA) with Johannesburg Water, however, signatures may be delayed. As at June 2023, the Johannesburg Water SDA had expired in 2021. The shareholder compact between the CoJ and Johannesburg Water is treated as a Performance-based contract – see Paragraph B, page 4 of 2018 SLA "with a view to derive maximum benefit from the principles of performance-based contract.

3. **The CoJ's management of Johannesburg Water within a corporate group structure, imposes significant financial and operational limitations on Johannesburg Water**, including the following:
    a. Group not providing the required cashflow as per the business plan - limiting Johannesburg Water's ability to pay its creditors when its cash balances were sufficient for such payments;
    b. Group imposes policies and practices on Johannesburg Water, for example, instructing Johannesburg Water to pay staff a gratuity that is counter to the Johannesburg Water employment conditions and is not good practice;
    c. The Shareholder's Revenue Shared Service Centre (RSSC) was set up as a service provider to Johannesburg Water, but the role of the RSSC is more ambiguous, making it impossible for Johannesburg Water to hold the RSSC accountability for performance, and hence also making it, in turn, impossible for the shareholder to hold Johannesburg Water accountable for its performance.
    d. The mismatch between the Johannesburg Water capital expenditure requirement (as per the Business Plan) and its capital budget (allocated by the CoJ) is primarily not related to Johannesburg Water's capacity or performance but rather more directly related to city-level funding constraints as well as competing priorities for capital budget at a city level.

Johannesburg Water is not set up to succeed.

The performance of the water and sanitation service under these arrangements has been declining over a period of 15 years. Performance has been declining more rapidly since 2017.

A turnaround in the performance of Johannesburg Water will require the CoJ to address core structural issues related to the governance of Johannesburg Water and the relationship between Johannesburg Water and the CoJ. A strategy to turn-around the business is presented in Section 3.

1.3 The water service is vulnerable to drought and climate change.

The CoJ is almost entirely dependent on Rand Water for the management of its bulk water supply and the Department of Water and Sanitation for the management of the upstream water resource.

The water system supplying the CoJ is currently in deficit. This means that the CoJ is vulnerable to low rainfall years (drought) in the short-term. The CoJ is also vulnerable to weaknesses in how this system is managed, including the reliability of power supplies[3], and to changes in climate because Johannesburg's is almost entirely dependent on rainfall for its source of water.

The CoJ needs to better understand its rainfall-, climate- and infrastructure- and institutional-related vulnerabilities in the context of climate change and develop a strategy to mitigate these.

A strategy to build resilience in the context of climate change is set out in Section 4. The success of this strategy will depend on the turnaround in the water business, ensuring that the necessary financial and technical resources are available to implement the strategy.

1.4 Success factors for effective Entity management inform the strategy.

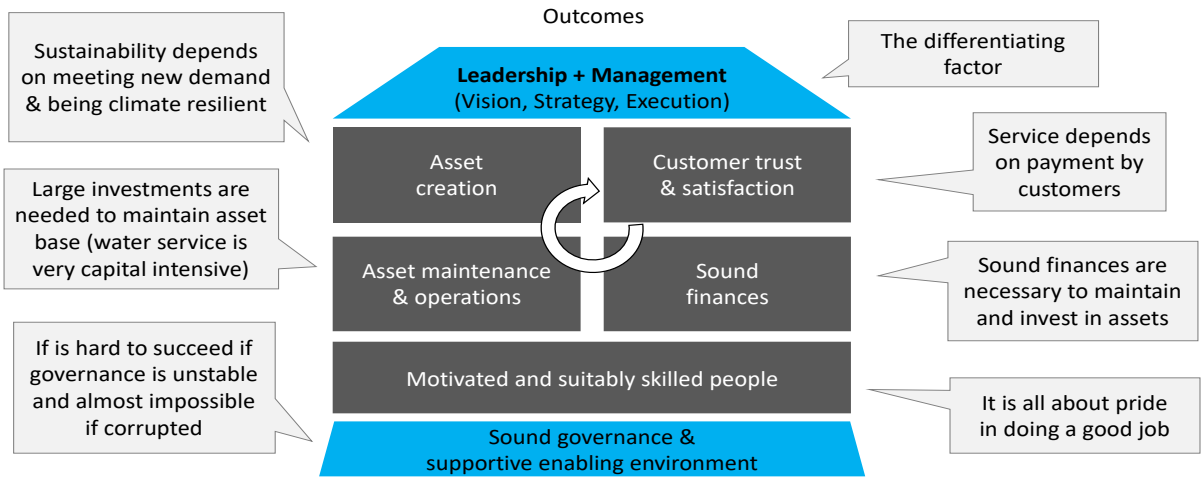
Water is an infrastructure intensive business that requires large ongoing investments in both asset renewal and new asset creation. At the same time, the business is heavily dependent on customers for revenues to pay for the costs of operating and maintaining these assets as well as contributing to the investment costs. In the case of Johannesburg Water, 96% of its revenues come from customer charges.[4] Therefore, customer management and sound finances are key to the success of the business. Good performance also depends on capable and motivated staff, operating within a conducive organizational culture and environment with appropriate systems and processes to support their work.

These five management areas (shown as dark grey blocks in Figure 4) are mutually reinforcing and need to be managed as an integrated whole by a leadership and management team that creates and sustains the strategic direction for the service and effective management. The management team needs to have autonomy to get the job done whilst being held accountable for performance, and to operate within a stable and supportive governance environment, protecting the management team and staff from interference.

[3] All water supplied to Gauteng from its main source of supply, the Vaal River system, must be pumped.
[4] The very high percentage is due to Johannesburg Water not receiving its portion of the equitable share until recently. However, even with an appropriate five immediate strategic shifts allocation, customer revenues will still make up a very large portion of total revenues.

Together, these are the seven success factors that differentiate a well-performing and sustainable water service from those that are not.

Figure 4: A successful water Entity must perform well in seven areas.

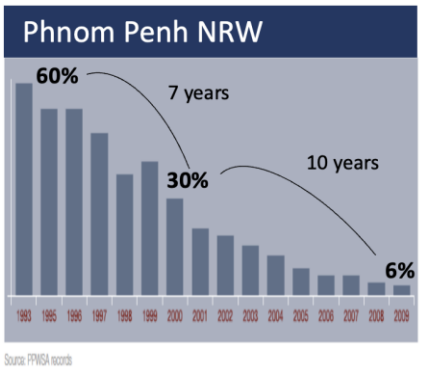


To turn around the decline of the water and sanitation service in Johannesburg, significant changes are needed in all seven of these areas.

In addition, the management characteristics associated with successful utilities are shown in Figure 5. These should also inform management's approach to the proposed strategic shifts set out in the following section.

Figure 5: Characteristics of effective Entity management

1. Puts the customer first
2. Is open to learning
3. Benchmarks itself with the 'best in the class'
4. Sets strategic goals and measures progress
5. Establishes effective management in core areas
6. Makes progress through continuous improvement
7. Communicates effectively and builds trust



Source: Effective Entity Management, A Primer for Water and Wastewater Utilities (AWWA, 2008)

2 Five strategic shifts to turn around the decline.

A turnaround of the decline in performance is required for CoJ to obtain reliable and sustainable water and sanitation services. The turnaround strategy identifies five necessary strategic shifts that should be ambitiously pursued to turnaround the business.

2.1 Realign the customer and revenue value chain and increase cash collections.

The decline in cash revenue is the most serious issue facing Johannesburg Water, and the CoJ as a whole. Therefore, turning around billing and revenue collection performance is essential.

The splitting of responsibility for the customer revenue value chain undermines accountability for performance. Johannesburg Water has shown the capability in the past to manage effective customer relationships and the full revenue value chain for a portion of its customers. Therefore, the surest way to improve revenue, billing and cash collection performance is to give Johannesburg Water more responsibility for this full value chain. In addition, issues related to the split accountability between Johannesburg Water and the CoJ must be addressed for the remaining customers in order to improve revenue performance and customer payments.

Johannesburg Water will be given full accountability for revenue billing for all of its customers and will manage the full customer and revenue value chain for a portion of its customers.

Goal #1A: Johannesburg Water has full accountability for revenue billing for all its customers by 31 December 2024.

Goal #1B: Johannesburg Water has full responsibility for the customer and revenue value chain for 30% of its customers accounting for 50% of its revenue by 31 December 2024, including all industrial and commercial customers; with further tranches as performance targets are achieved.

Goal #1C: Johannesburg Water achieves 95% cash collection for the customers for which it has full management responsibility by 30 June 2025. This must be coupled with the systematic communications drive to strengthen the trust and confidence.

Goal #1D: Increase cash collection to 80% in FY 2023/24, 85% in 2024/25, 90% in 2025/26 and to 95% by 2028/29 for all Johannesburg Water customers.

2.2 Restructure the financial relationship with the CoJ for mutual success.

A successful city requires a financially viable and sustainable water service. Poor financial performance in the CoJ is dragging down Johannesburg Water. But the CoJ is dependent in the medium and longer term on a financially viable and sustainable water and sanitation service. Short-term interests are placing the medium and longer-term interests of the CoJ in jeopardy. Johannesburg Water needs to be allowed to succeed because its success will support a thriving CoJ.

Johannesburg Water can only succeed if the financial relationship with the CoJ is restructured as follows:

- Johannesburg Water receive a fair share of the equitable share to support the free basic water and sanitation mandate given to it by the CoJ. This mandate should be restricted to poor people only, based on clear qualifying criteria. Johannesburg Water should also receive a fair share of capital grants received by the CoJ from the National Treasury to support the provision of water and sanitation services to poor people.

- Johannesburg Water should be allowed to operate with a surplus that can be used to fund its capital budget and to provide a return on assets to the CoJ. The investment programme should be determined based on the financial performance of the Entity, together with a fair allocation of grants, and not be allocated a budget based on City-wide capital constraints and priorities.
- There needs to be an explicit and transparent financial relationship between Johannesburg Water and the CoJ, in which the above principles are established, with clear targets set and financial flows quantified.

Goal #2A: A **fair and quantified allocation of the equitable share** that is directly related to the CoJ's mandate and requirement to provide free basic water and sanitation services to qualifying households, including households living in informal settlements**,** is agreed between Johannesburg Water and CoJ for 2023/24 and beyond. (Progress on this goal has already been made.)

Goal #2B: A **multi-year financial agreement** is reached by 30 September 2024 that governs the financial relationship between the CoJ and Johannesburg Water and that includes quantified financial flows and performance targets as follows:

- the operating and capital grant transfers in Goal #2A;
- a capital investment programme and sources of funding to support Goal #5 (including the ability of Johannesburg Water to borrow a per Goal #2C;
- cash collection targets stated in Goal #1;
- other financial performance targets; and,
- an appropriate financial contribution to the CoJ in the form of dividends based on financial performance.

Goal #2C: **Johannesburg Water is able to increase its investment programme in accordance with its financial capacity and cash flows, while borrowing through CoJ Treasury using structured and project-related borrowing**, based on its cash flows, in support of its capital investment programme as established in the multi-year financial agreement.

2.3 Restore self-sufficient corporate governance to enhance operational efficiency

Unstable and poor governance fundamentally undermines good entity performance. Johannesburg Water needs to operate in the way it was intended when established, as a company with skilled, experienced and independent directors fulfilling their legal and fiduciary responsibilities, and a management team fully accountable for performance. Within this framework, the management of Johannesburg Water needs to be given the autonomy to manage the water and sanitation service as a business within the policy frameworks of the CoJ and in accordance with a strategy approved by the Board, and within a clear set of finance parameters agreed by the shareholder (Strategic shift #2).

Goal #3: **The governance of Johannesburg Water is reset through a new shareholder compact**, signed between the CoJ and Johannesburg Water, with a no-objection from

National Treasury (as a principal financier), that protects and promotes sound governance in the following ways:

- includes corporate governance protocols that will ensure the appointment of a suitably skilled, experience and independent board;
- ensures stable governance through staggered rotation of board members of no more than a third of board members every three years;
- adheres to the King IV principles and code for good governance;
- ensures management autonomy with accountability; and,
- includes other governance protection mechanisms necessary for Johannesburg Water to attain and retain creditworthiness, to the satisfaction of National Treasury and other financiers.

2.4 Ramp up investment in both asset renewal and expansion.

Substantially increasing the level of investment in asset renewal and additional capacity is essential to sustain the water and sanitation business in Johannesburg.

A combination of improved financial performance, underpinned by increased cash collections, and a restructured financial relationship with the CoJ, achieved through Strategic Shifts #1 and #2, will enable Johannesburg Water to significantly increase capital expenditure on infrastructure, and ensure that this spend is effective and efficient (Strategic Shift #3).

This Strategy sets a three-year goal for Johannesburg Water to increase annual capital investments from less than R1 billion to over R3 billion per year.

Alternative funding

There is a need to look beyond the existing funding models in order to realistically reduce the infrastructure backlog. The entity is exploring the following funding mechanisms:

- Investment fund (with Group Treasury) The company is driving a process together with Group Treasury to create and contribute toward an infrastructure fund to fund capital programs in the future. The fund will ensure that additional revenue collections above target and revenue generated from other income is ring-fenced for future infrastructure development.
- Performance based contracts.

Johannesburg Water is currently investigating the possibility of utilising Performance Based Contracts to implement some of the projects (especially the Non-Revenue Water programme).

Public Private Partnerships (PPP's)
The organisation is working closely with the PPP office within the CoJ to identify and motivate for viable projects that can be subjected to potential PPP deals. Some of the key projects that are currently under discussion and evaluation together with the CoJ are:

- Effluent re-use Project
- Hydro Power Project
- Biogas Project
- Sludge Commercialisation / Beneficiation Project

Johannesburg water is actively engaging with development institution to establish strategic partnership that will assist in securing infrastructure funding.

Goal #4: Increase annual capital investment from R1 billion in 2023/24 to R2 billion in 2024/25 and R3 billion in 2025/26, with further increases after that.

2.5 Establish capability for effective implementation.

The first four strategic shifts address structural constraints to effective performance, and once implemented, will provide a solid foundation for effective performance. However, a successful turnaround will also depend on effective implementation.

An effective turnaround will require Johannesburg Water to do the following:

- Manage the full customer and revenue value chain for a substantial portion of its customers. Currently it does not have the full capability to undertake this function.
- Significantly improve cash collection efficiency by meeting industry benchmarks that it achieved in the past. Increasing cash collections has the potential to bring in an additional cash revenue of R2.9 billion per year based on FY2022 data. To achieve this, all of its processes will need to be optimized.
- Reduce non-revenue water. This will require changes in approach and more effective implementation, with increased spending and capabilities.
- Implement an expanded capital investment programme effectively and efficiently. A trebling of the capital spend means attention will need to be paid to project preparation and project management capabilities.
- Operate and maintain its infrastructure to the required standards. The long decline in standards means that new capabilities will need to be developed and existing operating protocols improved.

All of the above means that Johannesburg Water will need to improve its staff capabilities and productivity across all of its services and functions.

The weak economy and challenging external environment, with increased levels of theft and vandalism, make this a daunting task.

Johannesburg Water, together with the CoJ, will therefore need to ensure that it has the management and technical capability necessary for effective implementation.

Goal #5: **Ensure the necessary management and technical capability to effectively implement the turnaround and establish good performance across all areas of its operations**, including the following:

- Achieve the cash collection efficiency target of 95% in five years;
- Reduce non-revenue water in terms of a 5-year target to be established;
- Implement a significantly expanded capital investment programme for infrastructure renewal and expansion;
- Turn around wastewater treatment performance and achieve Green Drop status;
- Improving storage capacity and network management, and increase the resilience of network to power cuts, significantly reducing the frequency and extent of water interruptions; and,
- Build climate resilience (see Section 4).

3 Implementing the turnaround

3.1 Decisions to establish a solid foundation for the turnaround.

The strategy requires three key decisions at the CoJ level:

- An agreement to give full customer value chain responsibility to Johannesburg Water for 30% of its customers (50% of its revenues), to achieve full alignment on the rest and to give full accountability for the billing of customer revenue to Johannesburg Water. (**Strategic Shift #1**)
- An agreement to restructure the financial relationship between the CoJ and Johannesburg Water. (**Strategic Shift #2**)
- An agreement to reset governance to reestablish sound independent governance with management self-sufficiency and accountability. (**Strategic Shift #3**)

The strategy assumes that the CoJ and Johannesburg Water have the joint capability to effectively implement the above decisions.

3.2 Building management and technical capability

For effective implementation, Johannesburg Water will need to have the necessary management and technical capability. The challenges are significant and existing capability are insufficient in relation to the need.

Given the seriousness of the situation, and the imperative for rapid improvements in revenue, the CoJ and Johannesburg Water will consider external capability if necessarily. Area-based service contracts for revenue enhancement and non-revenue water reduction.

3.3 The turnaround of Johannesburg Water in the broader CoJ context

The CoJ as-a-whole is facing serious financial challenges. A turnaround in the finances of the CoJ will require:

- A turnaround in the performance of all of Johannesburg's utilities
- A change in the CoJ's financial model because it can no longer depend on significant cash surpluses from electricity and water.
- Priority allocation of limited capital budgets to core infrastructure services.

A turnaround in the performance of Johannesburg Water supports this overall CoJ turnaround. Johannesburg Water must be allowed to succeed, that is, it must be enabled to become effective and efficient and increase the capital spend on essential infrastructure to support the service.

The CoJ's financial crisis requires a decisive break from current financial and operational trends – from declining capex to increasing capex, and from declining billing & collections to rising billing & collections. Over the medium-term, this will require the following:

- a step-by-step establishment of Entity functioning, governance and decision-making;
- improved administrative capacity, strengthened delivery and administrative systems and better knowledge and interaction with customers;
- commitment and responsibility by Councilors to resist lawlessness and re-enforce appropriate community behaviour; and,
- Council, administration and entities to be committed to change, and responsible and accountable at all levels.

3.4 A strategy implementation action plan

A Strategy Implementation Action Plan will be needed to guide the practical implementation of the turnaround strategy, with clear, sequenced and time-defined steps and actions, and with defined responsibilities and an allocation of resources where necessary. A set of goals and related actions are included in Annexure 2 and this can be used as the basis for the further development of this plan.

Some of the specific goals and targets in the Strategic Shifts (Section 2), as well as in the draft action plan (Annexure 2), may need to be revised to better contribute to the overall CoJ financial recovery strategy. Nevertheless, the proposed goals set the direction and offer an appropriate level of ambition. The achievement of the strategic shifts will require collaboration between Johannesburg Water and the CoJ and should not be abandoned. The five strategic shifts are the essential minimum changes necessary to turnaround the decline in the service.

4 Becoming resilient in the context of climate change

4.1 Mitigating vulnerability to climate change

The City of Johannesburg is vulnerable to climate change but cannot become resilient without a financially sustainable water services provider. Therefore, **implementing the turnaround is an essential pre-condition for building resilience**.

The City of Johannesburg is located on a watershed, far away from its primary water sources. The CoJ, like its neighbors (City of Tshwane, Ekurhuleni and other municipalities in Gauteng) is almost entirely reliant on a regional system owned and managed by the Department of

Water and Sanitation and the bulk water provided, Rand Water. Major augmentations, such as the upcoming Phase 2 of the Lesotho Highlands Water Project, are arranged by the Department of Water and Sanitation through its agency the Trans-Caledon Tunnel Authority (TCTA).

Because of delays in this project, the water system supplying the City of Johannesburg (and other clients of Rand Water) is in deficit. According to Johannesburg Water Annual Report for 2021/22, the project is anticipated to be completed in 2027.

Within this context, the CoJ can and should mitigate its risks in the following way:

- Conserve and reduce water to be within the restricted allocation from Rand Water (while the system is in deficit);
- Water reclamation;
- Ensure that it is 'drought ready' in case of a significant reduction in available supply;
- Build greater resilience for the long-term by investigating and implementing projects to reuse water and make use of alternative sources of water (where available) where this is prudent to do so and is justifiable from a cost-benefit perspective.

Goal #6: Build climate resilience by:

- Implementing an effective turnaround of Johannesburg Water's technical and financial performance;
- Reducing total water use d to 1300 million liters per day (on average), that is, 475 million m^3 per year;
- Implementing a more ambitious, detailed and funded water conversation and demand management action plan that achieves the target, with reporting against the plan;
- Reviewing the drought management plan by an suitably experienced independent expert with both local and international experience; and,
- Developing a strategy to inform decisions related to introduction of alternative water sources that explicitly addresses the costs-risk trade-off.

Each of these three areas for mitigating risks are elaborated below.

4.2 Water conservation and demand management

The priority for the CoJ is to ensure that its water use is within the restricted allocation from Rand Water of 1 355 Ml/day. Average use during 2022/3 was 1 726 Ml/day (629 million kl), therefore demand must be reduced by 371 Ml/day, that is, 27%. This is a significant reduction.

Johannesburg Water has developed a Water Conservation Water Demand Management (WCDM) Strategic Plan for the period 2022-2026 (Version October 2021). The Strategic Plan identifies five challenges:

- Customers in deemed consumption areas consume more that the deemed consumption amount;
- Johannesburg Water staff are prevented from either doing meter reading, credit management disconnections or technical work in defined Limited Technical Areas
- Johannesburg Water is non-compliant in some of its meter related business processes and this contribute to commercial and physical losses.
- About 127 000 properties with prepaid meters are consuming water illegally amounting to about 62 million m3 per year.

A review of the performance of previous efforts against a 2016 WCDM plan showed that:

- WCWDM interventions had an impact in preventing a 7.7% additional water demand increase; but overall water demand grew by about 3% against a planned reduction in demand in the period 2016 to 2021
- Expenditure on the plan was only 47% of the planned amount, reported due to budget constraints. Original budget was R2.8 billion over five years (at an average of R560 million per year) but only R1.5 billion was spend (at an average of R300 million per year).

The 2021-26 plan set out the following 13 priorities:

1. Prioritised repair and rehabilitation of leaking reservoirs (R30 million in first phase, R330 million full cost according to a 2018 estimate) (no estimated saving)
2. Repair and replacement of zonal bulk water meters (only 50% of the 239 zonal bulk meter were operational in 2021). (no estimated saving)
3. Active leak detection, surveying 10 000 km of pipe per year, with an estimate demand reduction of 10 million kl per year (1.6% saving).
4. Pressure reduction through implementation of 177 pressure management zones, with estimate saving of 8 million m3 per year (1.3% saving).
5. Advance pressure reduction and minimisation of night flows, saving 6 million m3 per year (1% saving)
6. Retrofitting and removal of wasteful devices (Infrastructure upgrade and renewal) in Orange Farm and Alexander over the next three years and in Ivory Park, Eldorado Park, Westbury, Noordgesig and Diepsloot target within the next ten years with an anticipated saving of 19 million kl per year (3.1% saving)
7. Installing prepayment meters in deemed consumption areas (no estimated saving)
8. By-law enforcement for illegal connections, credit control and cut-offs. Illegal Connections has been one of the highest contributing factors to escalating commercial water losses within the CoJ. The strategy recognises that this need a combination of technical, non-technical and political interventions.
9. The Pipe Replacement Programme prescribes a renewal rate target of 1.5% per year which has not been achieved in the previous years resulting in an increasing backlog in the renewal of the pipe network.
10. Bulk pipeline rehabilitation and renewal. The company plans to do condition assessment of Bulk water pipelines of diameters ranging from 450mm and greater and

recommend remedial work. Johannesburg Water has 2 312 km of bulk water mains of which 845 km comprises of pipes diameters greater than 400 mm. A total of 103 km of bulk mains pipelines have a Remaining useful Life of less than 5 years.

11. Rehabilitation/replacement of bulk valves (leaking or non-operational) (estimated losses 14 million kl per year) (2.3%). There are approximately 63 bulk leaking or non-operational valves that needs to be replaced in order to reduce water losses (as at 2021).
12. Domestic meter replacement. (no estimate)
13. Large consumer replacement, using AMI technology (no estimate)

It estimated water savings to be 37 million kl, which is less than 40% of the required saving, and proposed a three-year budget of R331 million, R304 million and R206 million respectively.

For the purposes of this strategy (what needs to change), the WCDM does not include an analysis of the unit cost of water saved. This would assist in budget prioritization and motivation.

4.3 Drought readiness

There is a high risk of a significant drought event over the next few years and before additional water supply is commissioned. Consequently, the CoJ needs to be “drought ready”.

Johannesburg Water has developed a Drought Management Plan (October 2022).

An external review by a senior and experienced water resources management and water services specialist with both South African contextual knowledge as well as international experience is recommended.

4.4 Diversifying water sources

Gauteng is highly dependent for its water resources on imported water from regional systems reliant on rainfall. Although climate predictions suggest that the region may experience higher rainfall on average as a result of climate change, the frequency and severity of droughts (and floods) are predicted to increase.

In this context, it is prudent that Johannesburg Water investigate alternative sources of water to supplement the dominant regional system. This will also entail the consideration of the reclamation of groundwater in order to supply it to government institutions.

The Business Plan indicates that Johannesburg Water is investigating options, in partnership with Rand Water, for wastewater treatment reuse (200 Ml/day), ground water extraction (405 Ml/day), dewatering of underground shafts ((15 Ml/day) and treating wastewater to potable standard (100 Ml/day). These investigations will provide more information on options and their relative costs.

What is aimed at present is an overall strategy that would inform the implementation of alternative sources that balance cost and risk, within the overall budget constraints facing Johannesburg Water and the CoJ.

4.5 Alternative sanitation technology

Johannesburg Water and the Water Research Commission (WRC) have been in collaboration since 2020, the point of interest being on the demonstration and field-testing of next generation sanitation technologies in households and communities within the CoJ through their South African Sanitation Technology Enterprise Program (SASTEP). The knowledge depicted in the demonstrations projects has allowed Johannesburg Water to better understand and appreciate the intricacies that are required for consideration in being able to implement basic sanitation services appropriate to the CoJ informal settlements citizens. This learning will be ongoing as the technologies improve with the aim to supplement current delivery in the basic sanitation space.

5 Conclusions and next steps

Johannesburg Water adopts the five strategic shifts as essential and comprehensive pillars for the turnaround of the financial and technical performance Johannesburg Water. These are essential for service delivery and for financial reasons, and offer a clear framework for seeking financial support, and should ambitiously be pursued. **Johannesburg Water & CoJ after acknowledging the importance of the strategic shifts and pursue the implementation of the strategic shifts as key pillars of the recovery programme.**

Johannesburg Water will ambitiously pursue the five strategic shifts within the overall CoJ financial recovery programme. Actions to implement the Johannesburg Water turnaround strategy (to be elaborated based on the draft in Annexure 2) will be undertaken as part of the implementation of a CoJ recovery strategy, to which it is aligned.

Johannesburg Water will actively participate in the overall CoJ financial recovery programme. This will maximise the impact of its contributions to its own and to CoJ recovery. Immediate attention should be focused upon projects with the best possible positive operational and financial returns. Within this programme, Johannesburg Water will assert the need to strengthen the integrity and functioning of utilities, with single points of management accountability.

Johannesburg Water will assess its own capabilities and capacity to implement the turnaround strategy and develop and implement an associated action plan. This will include a review of its management and technical capabilities in relation to the Turnaround Strategy goals and targets. Johannesburg Water will develop a specific action plan to strength its management and technical capabilities. The review will include consideration of a performance-based service contracts on an area-basis to reduce non-revenue water. An external peer review of the drought management plan will be undertaken.

Annexure 1: Johannesburg Water performance and governance data

Low investment

There has been serious long-term and systematic under-investment in both asset rehabilitation and asset replacement as well as asset expansion to cater for new growth.

Evidence:

a) The Business Plan requires capital expenditure of R64 billion over ten years but the current year capital budget is less than R1 billion.

b) Actual spending on renewal has been much less than required and has resulted in a very large asset renewal backlog

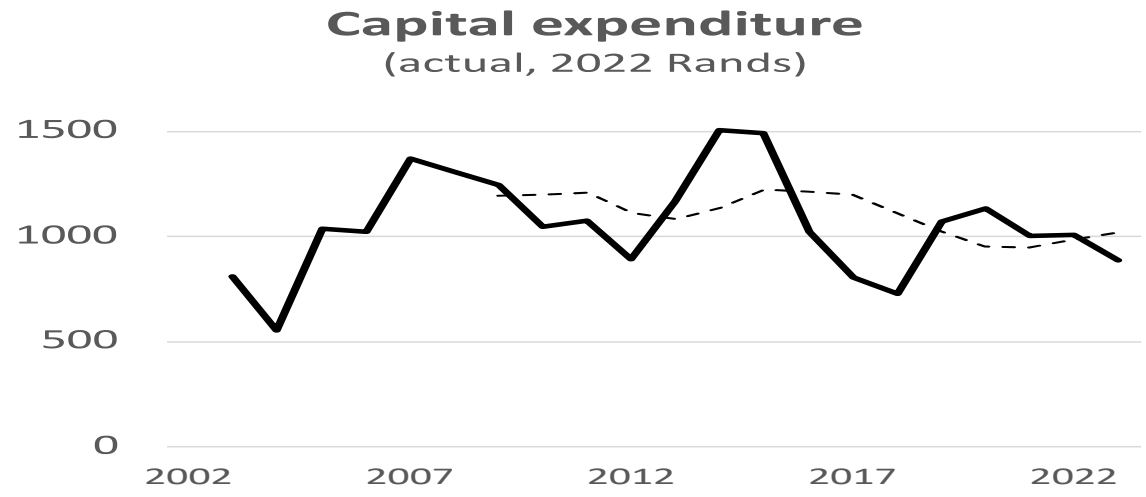
c) Capital expenditure is lower today than it was 15 years ago.

d) Capital budgets are allocated by the CoJ and are not related to the ability of the service to support a higher capital budget.

e) The consequences are a deterioration in service quality and reliability and limiting investment and economic growth in the CoJ.

With the exception of 2 years (2013 and 2014), capital expenditure has been lower in real terms in every year compared to 2007, 15 years ago, and has been declining (Figure 6).

Figure 6: Capital expenditure on water and sanitation is lower today than 15 years area.



Source: Business Plans 2022/23 and 2023/24 and Annual Reports.

Actual spending on renewal has been less than required and has resulted in a very large asset renewal backlog (Table 1).

Table 1: Asset renewal backlog (R billion)

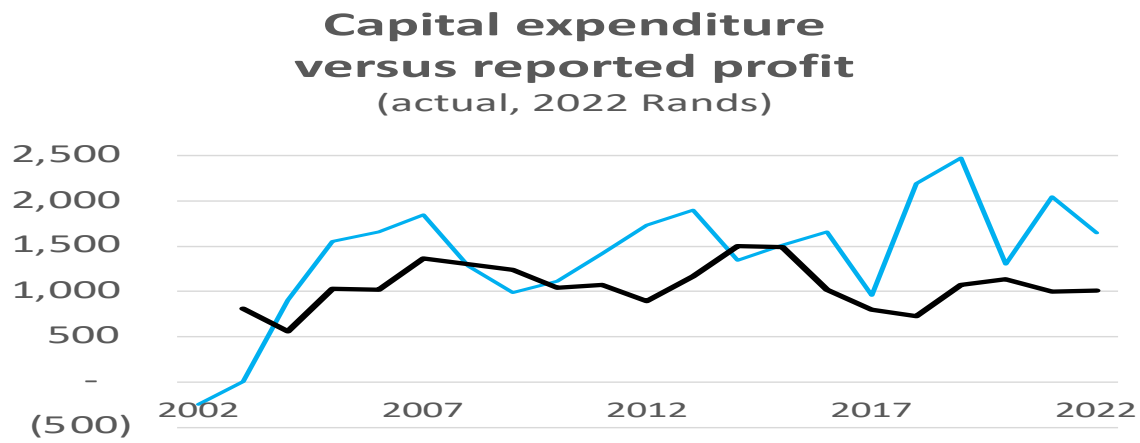
Water mains replacement	3.8
Sewer mains replacement	3.4
Water and sewer capacity upgrading backlog	11.9
WWTW capacity upgrading and equipment replacement	5.1
Total renewal backlog	**24**

Source: Business Plan 2023/24

Capital budgets are allocated by the CoJ and are not related to the ability of the service to support a higher capital budget.

Reported profit[5] (blue) has exceeded actual CAPEX (black) in 15 of the last 18 years (Figure 7).

Figure 7: Capital expenditure versus reported profit in millions of Rands (2022)

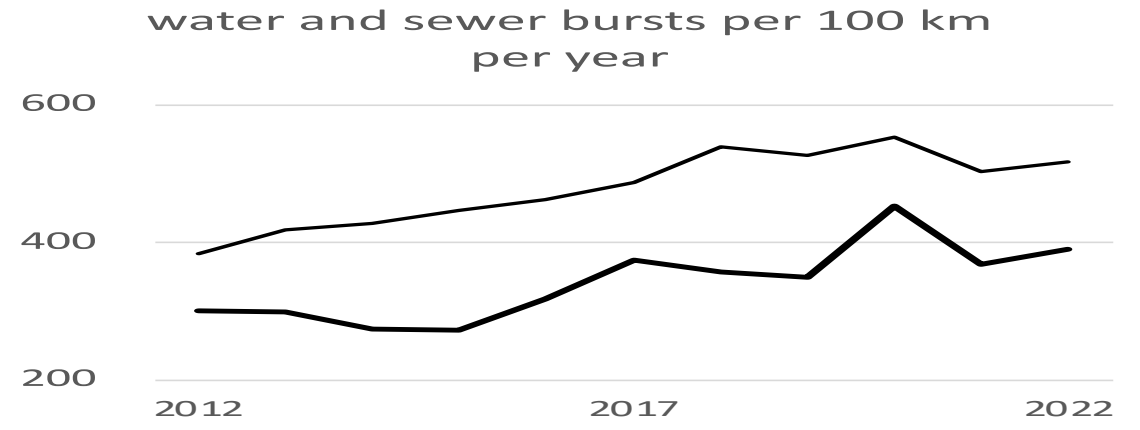


Source: Business Plans 2022/23 and 2023/24 and Annual Reports.

Declining reliability of supply

The consequence of low investment has been a deterioration in service quality and reliability. Water mains bursts (bold line) and sewer overflows (narrow line) have increased by 30% and 33% percent respectively over the last 10 years (Figure 8).

Figure 8: water mains bursts and sewer overflows per 100 km per year

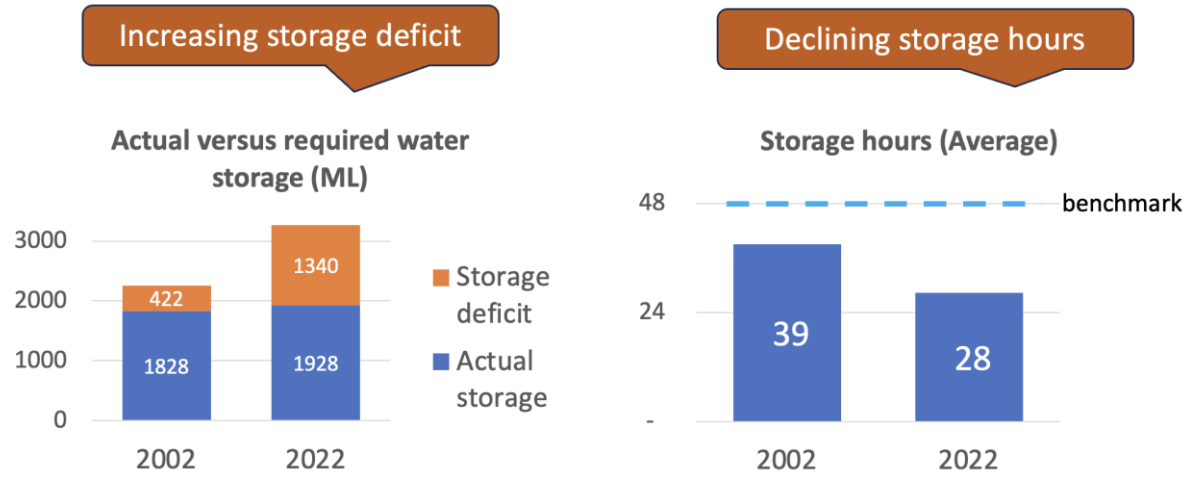


Source: Business Plans 2022/23 and 2023/24 and Annual Reports.

[5] Profit excluding interest & depreciation.

Storage capacity has not kept up with increasing demand, resulting in a system that is more vulnerable to cuts in electricity supply (Figure 9).

Figure 9: Storage capacity has not kept pace with increasing demand.



Performance data for Johannesburg Water

Table 2: Performance data for Johannesburg Water from 2012 to 2022

	Joburg Water		target	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Level	Trend
1	Water use	lcd	220	325	330	330	320	309	288	285	286	275	268	268	high	↗
2	Risk of restrictions	use exceeds assured supply						high	high	high	high	high	high	high	high	↘
3	Restrictions implemented							no	yes	no	no	no	yes	yes		
3	Access to a piped water on premises	% of households												93%	good	--
4	Access to at least basic water service	% of households	99%					97.5%	96.9%	97.1%	99.6%	99.5%	99.8%	99%	good	↗
5	Access to at least basic sanitation service	% of households	93%					95%	93%	94%	94%	93%	93%	93%	good	↘
6	Drinking water quality	% compliance	99%	97.7%	99.9%	99.8%	99.8%	99.8%	99.8%	99.9%	99.7%	99.4%	99.4%	99.4%	good	→
7		Blue Drop score		98.9%		96.1%									--	--
8		Blue Drop Risk Rating											34.7%		--	--
9	Water reliability	pipe bursts / 100km pa	50	301	299	274	273	319	375	358	350	454	368	391	high	↘
10		Supply interruptions													--	↘
11	Sewer spills	sewer spills / 100km pa	50	384	419	428	447	462	488	540	527	554	503	517	high	↘
12	Wastewater treatment performance	% compliance	90%	97%	95%	92%	92%	75%	74%	72%	78%	80%	85%	80%	low	↘
13		Green Drop score	90		86								73		low	↘
14	Non-revenue water (NRW)	%	25%	36%	38%	39%	36%	35%	40%	38%	39%	35%	39%	45%	high	↘
15	Cash collection efficiency	%	95%	82%	80%	86%	80%	82%	83%	82%	78%	75%	78%	75%	low	↘
16	Utility efficiency indicator	(1-NRW) x collection efficiency	71%	53%	50%	53%	52%	53%	50%	50%	48%	49%	47%	41%	low	↘
17	Water storage capacity	hours of supply	48											low	--	--
18	Water treatment capacity utilitisation	Operational/design capacity	<80%										98%		high	--
19	Wastewater treatment capacity utilisation	Operational/design capacity	<80%										89%		high	--
20	Replacement of water pipe network	km per year / netwok length	1.5%				1.2%		0.3%	0.2%	1.1%	0.6%	0.9%	0.8%	low	↗
21	Replacement of sewer pipe network	km per year / netwok length	1.5%				0.3%		0.3%	0.4%	0.4%	0.5%	0.1%	0.6%	low	↗
22	Rate of asset renewal	%	2.0%	0.5%	0.4%	1.0%	1.7%	1.3%	1.1%	0.9%	1.3%	1.3%	1.1%	0.9%	low	↘
23	Ability to spend capital budget	% spend versus budget	90%	100%	97%		97%	97%	87%	84%	100%	95%	90%	92%	good	↘
24	Adequacy of total capital budget	% of required budget	80%								52%	48%	32%	18%	low	↘
25	Adequancy of renewals	capex budget / renewal required	100%							60%	74%	87%	52%	44%	low	↘
26	# of registered professional engineers	per million population	5				0.8	0.8	0.8	0.7	0.7	0.7	0.8	0.7	low	↘
27	# of professionals registered with ECSA	per million population	12				4.9	5.3	5.2	5.0	6.7	6.5	6.9	7.4	low	↗
28	Staff productivity	staff per 1000 customers												2.1		
29	Staff turnover (reported)	1 - staff retention		2%	1%	3%	1%	2%	3%	3%	2%	2%	2%	2%	--	--
30	Staff turnover (calculated)	Staff exits / total staff	5%										6%	4%	good	--
31	Staff vacancy rate	Vacancies / total staff	10%				18%		19%			23%	25%	22%	high	↘
32	Staff overtime	Overtime as % total payroll													--	--
33	Staff absenteeism	GSAR	2%								3.34%	2.90%	3.0%	3.36%	high	↘
34	Staff satisfaction	Survey result	65%											62.1%	low	--
35	Operating cost coverage ratio	gross margin / opex	1.5	1.45	1.48	1.33	1.34	1.37	1.19	1.45	1.48	1.20	1.34	1.26	low	→
36	Grant dependency	op grants / operating revenue					2.9%	2.9%	0.8%	1.8%	1.7%	2.5%	2.2%	2.1%	good	→
37	Return on assets	Net income / total assets		7%	7%	4%	5%	7%	2%	10%	11%	4%	8%	7%	--	--
38	Return on equity	Net income / equity		16%	17%	9%	11%	14%	5%	19%	20%	7%	18%	10%	--	--
39	Cash cover (days)	target 30 - 90	30				46	41	24	4	13	22	19	22	low	↗
40		cash reserves / expenses x 365	30	2	6	3	23	21	12	6	17	22	19	22	low	↗
41	Current ratio (can pay short term debt?)	curr.assets / curr. liabilities	1.5	0.85	0.86	0.81	0.80	0.72	0.67	0.82	1.09	1.04	1.19	1.26	low	↗
42	Debtor days (managing customer debt)	net cust.debt / service charges	30	97	106	108	89	81	81	84	90	74	93	88	high	↗
43	Payables payment period	time to pay suppliers	30									84	86	88	high	↘
44	Self-financing ratio	cash from from ops / CAPEX		92%	92%	63%	59%	66%	116%	179%	106%	91%	119%	108%	good	↗
45	Debt to equity ratio (leverage)	appropriate use of debt finance	0.5 - 2	0.72	0.64	0.55	0.58	0.52	0.46	0.38	0.31	0.44	0.36	0.31	low	↘
46	Debt service ratio (>1.2)	Net op. income / debt service	1.2	2.4	2.9	2.2	1.0	1.6	0.5	1.6	2.4	1.0	2.0	1.7	good	--
47	Customer satisfaction with water service	customer survey	72%		66%	68%	69%	69%	69%	71%	71%	71%	72%	74%	good	↗
48	Water bursts restored within 48 hours	internal management system	92%	89%	89%	79%	81%	84%	90%	89%	91%	91%	84%	80%	low	↘
49	Sewer blockages cleared within 24 hours	internal management system	95%	94%	96%	95%	93%	94%	96%	95%	96%	95%	95%	96%	good	↗
50	Meters read	as % bills sent	95%					86%	86%	83%	90%	90%	90%	90%	good	→
51	Non-payment burden (paying customers)	bad debt prov. / cash receipts	5%	22%	25%	16%	24%	22%	20%	22%	28%	33%	29%	33%	high	↘

Governance data for Johannesburg Water

Data on board appointments, chairmanship, and professional engineering registration is shown in Table 3, showing high frequency in change in chairmanship, a high non-executive board turnover and low professional engineering representation on the board. (Data excludes another near full replacement of the Board in early 2023.)

Table 3: Johannesburg Water non-executive board appointments and chairmanship

Board	2021/2	2020/1	2019/20	2018/19	Total/Ave
New non-exec appointments	7	6	7	4	24
Total non-executive board members	9	12	10	9	40
Turnover	78%	50%	70%	44%	60%
Chair	Rachel Kalidass	Sibusiso Buthelezi	Sibusiso Buthelezi	Getty Simelane	
Appointed as director	11/03/2020	11/03/2020	11/03/2020	01/03/2014	

Source: Johannesburg Water Annual Reports

The Company has the engineering skills as depicted in the table below.

Engineers/Technicians/Technologists	**Number**
Number of Registered Engineers/Technicians/Technologists	54
Number of Unregistered Engineers Technicians/Technologists	95
TOTAL	**149**
Snapshot date: 17 April 2024	

Source: Johannesburg Water

Annexure 2: Strategic objectives and actions in support of the strategic shifts

The actions identified in this section are in areas where changes to existing practices as set out in the current business plan are needed. This is not a comprehensive list of all activities related to each area.

In order to achieve its strategic objectives, Johannesburg Water needs to have suitable management accountability and self-sufficiency related to the five core management areas – (1) asset maintenance, (2) asset creation, (3) customer management, (4) revenue collection and financial management, and (5) people management. In other words, the Johannesburg Water management team needs to be set up to succeed in all five of these areas, with full responsibility and accountability.

To achieve this, the governance of Johannesburg Water and the shareholder and financial relationships between the CoJ and Johannesburg Water need to be reset. See Strategic Shifts #2 and #3.

1 Asset renewal, new asset creation and maintenance

Timely renewal and expansion of capacity, together with sound asset management through operations and maintenance, are essential foundations for the sustainable provision of a reliable service at an acceptable quality.

Strategic objectives		
• Expand infrastructure to support and stimulate economic growth and keep up with demand. • Implement planned and pro-active maintenance, together with timely rehabilitation and replacement, and safe-guard assets to maintain reliability of services.		
Action and target	**Responsibility**	**Timing**
Capital investment programme		
1. **Create a larger prioritised tender-ready project pipeline** to ensure effective capital spend in anticipation of increases in the capital budget.	JW capex planning	Annually
2. Increase and sustain annual asset renewal at 2% of asset base, that is, R2 billion per annum, to make up backlog**.**	CoJ/JW Board	Annually
3. Create capability to understand the economics and financing of projects, and to partner with the CoJ and other financiers to arrange funding and financing for project with high economic value and/or high returns.	JW Board; JW mng	30 September 2024
4. Develop medium and long-term funded capital programme that meets the investment needs for water and sanitation in the CoJ, supported by a financial model of the business. (Link with CoJ's long-term plan for infrastructure.)	JW Board; JW mng	30 September 2024
5. **Undertake an external review of capital programme** with a view to optimisation and appropriate use of best-practice and evolving technologies.	JW mng	30 September 2024
6. **Ensure alignment of capital plan** with CoJ's development and land-use management plans	JW, COJ planning and land-use management	Five yearly

Strategic objectives		
• Expand infrastructure to support and stimulate economic growth and keep up with demand. • Implement planned and pro-active maintenance, together with timely rehabilitation and replacement, and safe-guard assets to maintain reliability of services.		
Action and target	**Responsibility**	**Timing**
7. **Secure funding/financing for Lanseria WWTW** with a transaction advisor appointed by end September 2024.	JW fin/ops CoJ treasury; SPMO/PPP unit	30 September 2024
8. Develop a plan for the security of energy supply to wastewater treatment facilities and sewer pumpstations, including power backup and alternative energy sources.	JW Capex planning	30 September 2024
9. Develop a plan to secure bulk wastewater treatment facilities.	JW Capex planning	30 September 2024
Asset management, operations and maintenance		
10. Update asset condition assessments	JW mng	30 September 2024
11. Ensure full and effective implementation of the field management systems	JW mng	30 September 2024
12. Increase planned, proactive maintenance effort and expenditure	JW mng	Annual
13. Implement a performance-based contract for non-revenue water reduction	JW mng	30 December 2024
14. Assess in-sourcing support services to improve operational effectiveness and efficiency (fleet, IT, meter reading)	JW Board CoJ	30 September 2024
15. Reduce non-revenue water to 30%	JW mng	30 June 2028
16. Develop and implement a Board approved effluent reuse strategy with an initial target revenue of R60 million per year.	JW Board JW mng	30 September 2024

2 Revenue and finance (including the revenue value chain)

Sufficient cash revenue and sound finances are essential underpinnings of a successful and sustainable water and sanitations service.

Strategic objectives

Create single point of accountability for financial performance of the business, including ability to optimize revenues and expenditures (capital and operating) based on overall performance of the business.

Maximise revenue potential, improve revenue (billing) and cash collection.

Action and target	**Responsibility**	**Timing**
Revenue and finance (including revenue value chain)		
1. Allocate full responsibility for revenue determination to Johannesburg Water (meter management, meter reading, calculation of the	JW + CoJ	31 December 2024

Action and target	Responsibility	Timing
bill on SAP) [CoJ produces consolidated bill, but with billing data provided by Johannesburg Water.]		
2. Allocate full revenue and customer management responsibility, including credit control, for a portion of customers (including at least all large water users) to Johannesburg Water.	JW + CoJ	31 December 2024
3. Develop and implement cash collections strategy	JW + CoJ	31 December 2024
4. Ensure effective and coordinated management of debtors book	CoJ + JW	Dependant on 1,2 &3 being concluded by June 2025.
5. Review the SLA with RSSC to meet performance targets	COJ+JW	30 September 2024
6. Review overall water tariff and subsidy structure to ensure that JW can become financially sustainable	RSSC+JW	30 September 2024
7. Improve cooperation and joint oversight of credit-control actions on 'shared' customers between CoJ and JW, through agreed joint standard operating procedures	JW + CoJ	30 September 2024
8. Review current cross-subsidisation model.	COJ/JW	30 September 2024
9. Develop and implement a timely meter replacement programme with goal of achieve a 5% increase in billed revenue.	JW	31 December 2024
10. Ensure effective enforcement of by-laws	COJ/JW	30 September 2024
11. Review water tariff and implement a fit-for-purpose tariff structure, including a rebasing of the appropriate tariff level.	JW	30 September 2024

3 Customer relationship management

Strategic objective

Ensure consistent delivery of quality services, offer predicable turnarounds, and implement a responsive customer interface with good communications.

Action and target	Responsibility	Timing
Customer relationship management		

Action and target	Responsibility	Timing
1. Reintroduce key customer management and ensure effective performance	JW	30 September 2024
2. Implement a full and integrated customer management system (from point of contact to resolution and feedback, including integration with operations and asset management) for JW customers.	JW	30 September 2024
3. Rationalised front-office (first contact) and back-office processes for all customer-related engagements and processes; and with clearly defined roles for CoJ and JW in the case of shared customers (JW and CoJ)	JW + CoJ	30 September 2024
4. Clarify communications protocols between CoJ and JW	JW,+ CoJ	30 September 2024
5. Strengthen and capacitate JW mini–Call Centre to ensure quality outputs to ensure good service delivery.	JW	30 September 2024
6. Introduce a single water outage dashboard, with transparency on areas affected (allow GIS capability and customers to easily know if they are affected), nature of the problem, estimate time to reinstatement of water at customers.	JW	30 September 2024
7. Implementation of Field Service Management technology solution	JW	30 September 2024

4 People management and related processes

Good performance depends on capable and motivated staff, operating within a conducive organizational culture and environment with appropriate systems and processes to support their work. The Company has the engineering skills as depicted in the table below.

Engineers/Technicians/Technologists	Number
Number of Registered Engineers/Technicians/Technologists	54
Number of Unregistered Engineers Technicians/Technologists	95
TOTAL	**149**
Snapshot date: 17 April 2024	

Strategic objectives

Create and sustain a capable workforce through recruiting, training and retaining staff to ensure capability (skills, experience and knowhow) to deliver on our mandate.

Be an employer of choice through creating and sustaining a culture of pride in the work that we do,

Build trust through credibility (doing what you say) and implementing transparent management processes with effective communications and staff engagement.

Action and target	Responsibility	Timing
People, systems and processes		
1. Reintroduce professional engineer pipeline development including bursaries, career pathing, mentoring, support for professional registrations and other mechanisms to recruit and retain registered professional engineers	JW	On going
2. Implement an artisan training programme	JW	30 June 2025
3. Ensure that JW IT strategy supports the distinct business requirements of JW, notably own management of 30% of customers	JW	30 September 2024
4. Develop and implement a 'big data' strategy as a component of the IT strategy for effective use of big data to improve and optimise planning, capex and operations.	JW	30 September 2024
5. Conduct Organisational and capacity review to ensure the right skills and talent to deliver on the strategy.	JW + CoJ	30 June 2025

5. Climate resilience

Action and target	Responsibility	Timing
Climate resilience		
1. Improve financial and economic analysis of the water conversation demand management (WCDM) strategic plan to assist in prioritisation and budget motivation.	JW	30 September 2024
2. Develop more ambitious targets for the WCDM including addressing difficult challenges such as the deemed consumption areas.	JW	30 September 2024
3. Develop a more detailed implementation plan for the WCDM strategic plan, with milestones and targets and report against this	JW	30 September 2024

Action and target	Responsibility	Timing
4. External review of the Drought Management Plan by a senior and experienced water resources management and water services specialist with both South African contextual knowledge as well as international experience.	JW	31 December 2024
5. Develop a strategy to inform decisions related to the implementation of projects to development alternative water sources (such as groundwater, reuse, acid mine drainage, reuse to potable) that explicitly looks at costs versus risks.	JW	31 December 2024

Annexure 3: Johannesburg Water request for support

This strategy arises from request from Johannesburg Water for support. It was agreed that the process would start with a diagnostic and strategic review that would seek to understand the overall situation of Johannesburg Water, and underlying trends and causes, and to situate the specific requests for support from COJ and Johannesburg Water in this context. The support request is summarized below.

Johannesburg Water support request summary	Phase 1: Immediate support available within existing resources
1. Water Business Diagnostic & Strategy Review Support process to start with a rapid diagnostic review and strategic conversations to understand the performance of Johannesburg Water, including underlying trends and causes, and situate requests for support in this context.	This support priority was not included in the letter from Johannesburg Water but was agreed as a starting point for support in meetings between the CSP, WB and Johannesburg Water on 5 October and 17 November 2022. A concept note outlining the diagnostic process and outputs was developed and is included as an Annexure. The output of Diagnostic is a review of Johannesburg Water's current strategy.
2. Performance-Based Contracts (PBC) to address Non-Revenue Water Address slow implementation of WC/WDM and interest in use of PBCs; linked to consumer awareness.	Presentations of PBC examples from around the world, including lessons learned from cities similar in scale and challenges to Johannesburg. This may include twinning with a similar water service provider depending on availability, and to be informed by preparatory discussions with Johannesburg Water.
3. Drought Management Plan Existing drought management plan to be peer reviewed and benchmarked; development of KPIs to assist JW to make the right decisions at the right time.	Review and comments by global experts on the current Drought Management Plan.
4. Asset Management Strengthen internal capacity for updating the entity's asset management plan; technical support in sustaining the AMP.	CSP is responding to a request from COJ and Johannesburg Water to develop a Strategic Asset Management Plan (linked to CIDMS) – need to ensure linkages and alignment with this support request
5. Customer Behavioural Change An approach needed to behavioural change to encourage payment for WSS, address misuse of sewer system, and reduce NRW.	Presentations of behavioural examples from around the world, including lessons learned from cities similar in scale and challenges to CoJ. Potential twinning with a similar water service provider depending on availability.

Annexure 4: Suggested amendments to existing Mission statement

Vision

- A water and sanitation Entity that cares.

Mission

To provide the people, businesses and institutions of CoJ with access to reliable, quality water and sanitation services by doing the following:

- Delivering a professional, sustainable, affordable, and cost-effective service;
- Upgrading services in marginalised areas;
- Creating a responsive, customer-focused culture;
- Valuing and developing our employees to build sustainable capacity;
- Safeguarding public health and safety;
- Preserving natural resources; and,
- Managing assets to economically maintain and extend their useful life;
- Making use of best practice, innovation and technology to improve service offerings and efficiencies;
- Instilling a culture of continuous improvement in all that we do;
- Ensuring financial viability and sustainability to support our mission, and,
- Promoting and ensuring sound governance.

Organisational values

- We value and promote teamwork.
- We take accountability for our individual and team performance.
- We deliver a customer service that we have promised.
- We ensure that communication with our stakeholders is a priority.
- We build cost effectiveness in our business activities.