19 February 2026

2025/26 Water and Wastewater Treatment Network Review – Buffelsjagsrivier

Final Internal Audit Report

Swellendam Municipality
Internal Audit Services

Audit Ref. 2025/26-012

A. Petersen
SENIOR INTERNAL AUDITOR
(SWELLENDAM MUNICIPALITY)

This Engagement Conforms with the International Standards for the Professional Practice of Internal Auditing.

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Audit Ref No **2025/26-012**

Mr. W. Treurnicht
Acting Director: Infrastructure Services
Swellendam Municipality

Dear Mr. Treurnicht

We have the pleasure of submitting our final audit report, presenting internal audit findings and recommendations, and contributing to the maturity of the control framework to increase business efficiency and effectiveness.

The results of the audit, which are presented to management, are aimed at providing assurance that risk treatments covered in the audit are adequate and effective in contributing to the management of the risks impacting management's objectives.

Please take note that this report has been prepared solely for the management of Swellendam Municipality. We do not accept any responsibility to any third party to whom the contents may be disclosed or who, at their own accord, may decide to rely on it, as the report has not been prepared for, and is not intended for, any other purpose.

We would like to express our appreciation for the inputs and assistance from Management and would be pleased to provide you with any further assistance and requests that you have. Please do not hesitate to contact Mr. A. Petersen.

INDEPENDENCE

The Internal Audit Function of the Swellendam Municipality certifies that we are, in all respects, independent, and seen as being independent, with regard to the auditing of the Water and Wastewater Treatment Plants situated in Buffelsjagsrivier.

Yours sincerely,

MR. A. PETERSEN
SENIOR INTERNAL AUDITOR
DATE: 19 FEBRUARY 2026

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

In accordance with the approved 2025/26 Risk-Based Internal Audit Three-year Strategic Plan, the Internal Audit function was required to conduct an audit engagement focusing on the Water and Wastewater Treatment Plant within Buffelsjagsrivier. The engagement required to provide independent assurance to management and Council on the adequacy and effectiveness of internal controls governing the Water and Wastewater treatment network's operations located in Buffelsjagsrivier. A physical site inspection was performed on 18 February 2026 at both the Water and Wastewater Treatment Networks in Buffelsjagsrivier to obtain a comprehensive understanding of the processes, controls, and operational environment.

1.2 BACKGROUND INFORMATION

The Water and Wastewater Treatment Network falls under the Infrastructure Services Directorate, specifically the Water Services Department. The department is responsible for ensuring that both plants operate efficiently and deliver reliable, compliant water and sanitation services to the community. Given the critical role these facilities play in public health, environmental protection, and sustainable municipal service delivery, effective control measures and operational oversight are essential.

The village of Buffelsjagsrivier is supplied with raw water by an open irrigation channel from the Buffelsjagsrivier. The Buffelsjagsrivier water treatment plant is situated at 34°02'51.47S and 20°31'15.89E and is a typical conventional colour removal treatment plant designed to remove excessive colour and turbidity by using coagulating, flocculation, settling and filtration, followed by disinfection.

1.3 PURPOSE, SCOPE, AND APPROACH

The purpose of this review was to evaluate the adequacy and effectiveness of existing controls and provide reasonable assurance that the internal controls governing the Water and Wastewater Treatment Networks processes are adequate, appropriate, and operating effectively and efficiently in the Buffelsjagsrivier region.

Our scope will include:

The review will cover the period 01 September 2025 – 31 December 2025 and be based on the objectives outlined below. In addition, the review assessed the design and operational effectiveness of internal controls.

Our approach will include

- Reviewing and evaluating the general internal controls implemented at the Water and Wastewater Treatment Network plants in Buffelsjagsrivier;
- Reviewing and assessing whether plant equipment was calibrated/serviced, and maintained in accordance with approved maintenance schedules;
- Reviewing the health and safety compliance with environmental and safety regulations applicable to the Water and Wastewater Treatment operations in Buffelsjagsrivier;
- Determine whether municipal officials assigned to these facilities possess the requisite human resource and technical skills to operate the plants effectively and;
- Discussion and observations based on potential audit findings.

1.4 AUDIT TEAM

Audit Team	Name	Position
Internal Audit Function of Swellendam Municipality	Mr. Ashwin Petersen	Senior Internal Auditor
	Mr. Herschelle Swart	Internal Auditor
	Mr. Xola Mahlaba	Internal Audit: Intern

1.5 MANAGEMENT'S RESPONSIBILITY IN TERMS OF INTERNAL CONTROL

Management is charged with the responsibility for establishing a network of processes with the objective of controlling the operations and processes of Swellendam Municipality in a manner that provides the Council with reasonable assurance that those risks are being managed and objectives are being met. Implementing internal controls is a function of management and is an integral part of the overall process of managing operations.

Internal Control	Fraud & Error
Internal Control can be defined as a process effected by management to provide reasonable assurance relating to: - Operational Controls - Internal Financial Controls - Compliance Controls The general purpose of an audit is to provide information about the adequacy and effectiveness of the system of internal control, risk management, and governance.	Audit procedures alone, even when carried out with due professional care, do not guarantee that fraud will be detected because of the inherent limitations of an audit. Management's attention is also drawn to the fact that inherent limitations exist in the reliance on internal controls and procedures, as errors and lapses in control result from staff carelessness, misunderstanding of instructions, collusion between individuals, and management override.

1.6 INTERNAL AUDIT OPINION

Internal Audit is required to express an opinion on the adequacy and effectiveness of the governance, risk management, and control processes of the Water and Wastewater Treatment Network processes.

Governance – Internal Audit is of the opinion that the governance processes over the water and wastewater treatment networks are partially adequate but require strengthening. While management has established some oversight mechanisms, the audit identified gaps in enforcing occupational health and safety compliance, infrastructure maintenance, and security measures. Key weaknesses include the lack of hazardous signage, the lack of visitor registers, and inadequate supervision of critical equipment and chemical materials.

Risk Management – Internal Audit is of the opinion that the current risk management framework is inadequately implemented and does not sufficiently mitigate operational, safety, and environmental risks. Several findings, such as inadequate protection of equipment and chemicals, irregular cleaning of anaerobic ponds, and insufficient surveillance controls, expose the municipality to potential service disruptions, health and safety incidents, environmental pollution, and regulatory non-compliance.

Control Processes – Internal Audit is of the opinion that control processes over the water and wastewater networks are partially effective but require immediate improvement. Weaknesses were noted in operational and physical controls, including improper access infrastructure (e.g., unstable ladders), inadequate recording of water quality results, insufficient fire safety compliance, and poor security measures at both the water and wastewater treatment networks.

1.7 REPORTING FRAMEWORK

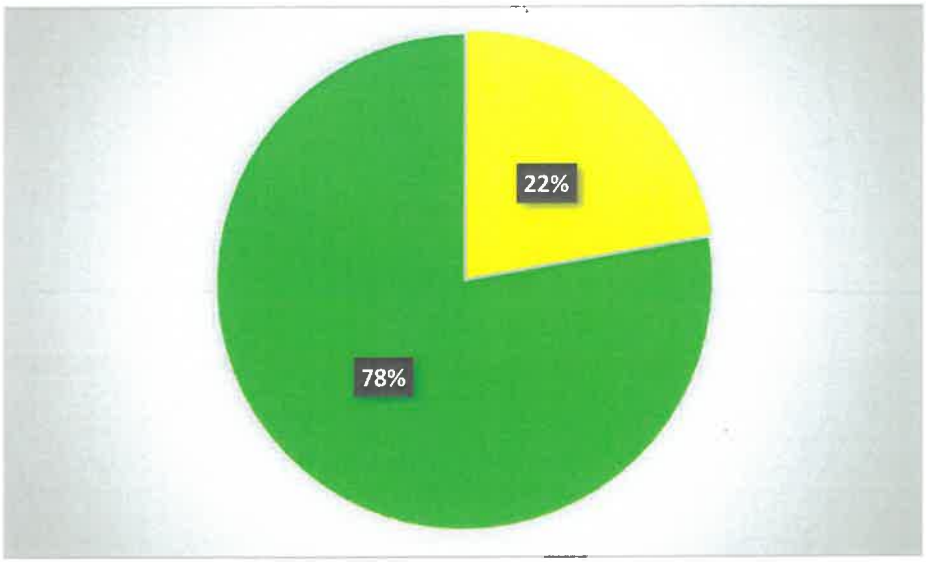
The findings identified have been broadly categorised into:

Rating	Suggested Management Action
Critical	Significant control weaknesses requiring immediate management action
Significant	Control weaknesses that are regarded as serious and require management action within a short period of time
Housekeeping	These control weaknesses do not represent a significant risk to the control environment and can normally be corrected at a minimal cost. The correction of these control weaknesses will have the effect of an improved control environment.
Positive	No action is needed. Management made progress in control the environment.

In order to assist management with the allocation of resources to address the weaknesses and improve internal control, we have assigned subjective ratings to each of our recommendations. These ratings are for guidance purposes only, and management must evaluate them in the light of their own experience and risk appetite.

Individual ratings do not necessarily take into account the effect of compensating controls or control weaknesses in other areas. Therefore, individual ratings should not be considered in isolation, and their effect on other objectives and areas should also be considered.

1.8 OBJECTIVES AND SUMMARY OF RESULTS



	Summary of Results	Rating of Finding
1.	Inadequate weather protection of critical equipment and chemical materials at the water treatment plant	Significant
2.	Inadequate recording of water quality test results	Significant
3.	Lack of hazardous signs displayed at the entrance of the chlorination room	Housekeeping
4.	Lack of a visitor/sign-in register at the water and wastewater networks	Housekeeping
5.	Inadequate surveillance and security controls in the panel room at the water treatment networks	Housekeeping
6.	Non-compliance with fire safety requirements due to improper mounting of fire extinguisher	Housekeeping
7.	Lack of properly installed access ladder to the flocculation settling tank	Housekeeping
8.	Lack of security and restrictive signage at the wastewater treatment network and pumpstation	Housekeeping
9.	Inadequate maintenance and irregular cleaning of anaerobic ponds at wastewater treatment network	Housekeeping

2. DETAILED AUDIT FINDINGS

Areas where Management's attention is drawn for further attention improvement of the control environment follow:

2.1. Inadequate weather protection of critical equipment and chemical materials at the water treatment plant	**Significant**

Criteria

In accordance with the Local Government: Municipal Finance Management Act, 2003 (Act No. 56 of 2003) specifically Section 63, which requires the accounting officer to ensure safeguarding and maintenance of municipal assets, and Section 62(1)(c), which obliges the municipality to maintain effective internal controls.

Condition

During the physical inspection conducted at the water treatment network, Internal Audit observed that the standby generator was not adequately covered and/or protected against adverse weather conditions. The generator is exposed to environmental elements such as rain, wind, and excessive sunlight, which may compromise its operational integrity and lifespan. In addition, it was noted that Soda Ash (sodium carbonate), utilised in the water treatment process, was not stored in a covered and/or weather-protected area. Exposure to moisture and environmental conditions may affect the chemical composition and effectiveness of the product.

Root Cause

- Lack of a structured maintenance and asset risk assessment plan addressing environmental exposure risk.

Impact/ Effect

- Exposure of the generator to weather conditions may result in mechanical failure during power outages, disrupting water treatment operations.
- Improper storage of Soda Ash may reduce chemical effectiveness, impact water quality processes, and pose safety hazards to staff.

No	Audit Recommendation	Management Agreed Action	Responsibility and Status
1	Internal Audit recommends that management install a weatherproof canopy or enclosure specifically designed to protect the generator from environmental exposure. In addition, store the Soda Ash (sodium carbonate) in a covered, dry, and well-ventilated area in accordance with manufacturer guidelines.	Management in agreement with finding. The water canopy will serve as a capital budget input for 2026/27.	**Responsible Person(s):** Mapala Lekalakala **Due Date:** 30 September 2026

Closing Comments: Chief Audit Executive

Management's Response is noted and accepted. Corrective action will be followed up on.

2.2. Inadequate recording of water quality test results	Significant

Criteria

In accordance with the Swellendam Municipality By-Law relating to water and sanitation services and industrial effluent, section 43(1), it states that the municipality may take samples of water obtained from a source, authorised in terms of section 6 or 7 of the Act,

Condition

During the physical inspection at the water treatment network, Internal Audit observed that water quality testing results were not consistently or regularly recorded in the designated monitoring logbook. The failure to maintain accurate and up-to-date water quality records limits management's ability to monitor compliance, identify trends, and take timely corrective action where deviations occur. Proper documentation of water quality testing is a fundamental control to ensure that treated water complies with applicable standards and remains safe for public consumption.

Root Cause

- Lack of enforcement of standard operating procedures relating to water quality monitoring and record keeping.
- Inadequate supervision and review of completed logbooks by plant management.

Impact/ Effect

- Potential non-compliance with water quality monitoring requirements and applicable standards such as SANS 241.
- Inadequate audit trail and reduced reliability of reported performance information.

No	Audit Recommendation	Management Agreed Action	Responsibility and Status
1	Internal Audit recommends that management reinforce the requirement that all water quality tests be recorded immediately after testing in the official logbook or approved electronic system. In addition, implement a daily or weekly supervisory review and sign-off of water quality records to ensure completeness and accuracy. Develop or update standard operating procedures (SOPs) for water quality monitoring and documentation.	Management in agreement with finding. Logbook for final water testing implemented in the form of a shift-register.	**Responsible Person(s):** Mapala Lekalakala **Due Date:** 30 March 2026

Closing Comments: Chief Audit Executive

Management's Response is noted and accepted. Corrective action will be followed up on.

2.3. Lack of hazardous signs displayed at the entrance of the chlorination room | Housekeeping

Criteria

In accordance with the Occupational Health and Safety Act, 85 of 1993, Section 8(1): General duties of employers to their employees, it states that every employer shall provide and maintain, as far as is reasonably practicable, a working environment that is safe and without risk to the health of employees.

Condition

During the physical inspection, Internal Audit observed that safety and hazard warning signs were not visible in the chlorination room.

Root Cause

- Lack of routine inspections and signage replacement processes.

Impact/ Effect

- Possibility of accidents and/or exposure to hazardous substances.
- Non-compliance with safety legislation.

No	Audit Recommendation	Management Agreed Action	Responsibility and Status
1	Internal Audit recommends that a full assessment be conducted on the water treatment network, which requires safety signage, and that all missing safety signs be replaced. In addition, implement periodic reviews to maintain compliance.	Management in agreement with finding. Signage will be purchased before April 2026.	**Responsible Person(s):** Mapala Lekalakala **Due Date:** 30 April 2026

Closing Comments: Chief Audit Executive

Management's Response is noted and accepted. Corrective action will be followed up on.

2.4. Lack of a visitor/sign-in register at the water and wastewater networks	Housekeeping

Criteria

In accordance with the Swellendam Municipality By-Law relating to water and sanitation services and industrial effluent, section 13: unauthorise use of water services, it states that no person may, temporarily or permanently, gain access to water services from the water supply system, sewage disposal system or any other sanitation or effluent services unless an agreement has been entered into with the municipality for the rendering of those services.

Condition

During the physical inspection conducted at the Buffelsjagsrivier water and wastewater treatment networks, Internal Audit observed that no visitor and/or sign-in/out register was available at the plants to track access to the premises.

Root Cause

- Lack of administrative and oversight processes at the facility.

Impact/ Effect

- Inability to track visitors and/or contractors for accountability and/or emergency response.
- Potential damage to the infrastructure of the municipality.

No	Audit Recommendation	Management Agreed Action	Responsibility and Status
1	Internal Audit recommends that a mandatory sign-in/out register be developed and maintained for visitors and staff at all the access points, such as entrances and exits.	Management in agreement with finding. Attendance register was developed and implemented at all plants.	**Responsible Person(s):** Mapala Lekalakala **Due Date:** 30 March 2026

Closing Comments: Chief Audit Executive

Management's Response is noted and accepted. Corrective action will be followed up on.

2.5. Inadequate surveillance and security controls in the panel room at the water and wastewater treatment networks	Housekeeping

Criteria

In accordance with the Local Government: Municipal Finance Management Act, 2003 (Act No. 56 of 2003) specifically Section 63, which requires the accounting officer to ensure safeguarding and maintenance of municipal assets, and Section 62(1)(c), which obliges the municipality to maintain effective internal controls.

Condition

During the physical inspection, Internal Audit observed that the electrical panel room (control room) at both networks was found to be unattended and not equipped with CCTV cameras and/or monitoring controls to detect unwanted activities.

Root Cause

- Inadequate security and surveillance controls.

Impact/ Effect

- Potential tampering, unauthorised access, and/or safety incident.
- Potential damage to key operational systems and infrastructure can go undetected.

No	Audit Recommendation	Management Agreed Action	Responsibility and Status
1	Internal Audit recommends that management install CCTV cameras and ensure restricted access to the electrical panel room (control room).	Management in agreement with finding. CCTV cameras procured by Chief traffic officer for implementation before August 2026.	**Responsible Person(s):** Mapala Lekalakala **Due Date:** 30 August 2026

Closing Comments: Chief Audit Executive

Management's Response is noted and accepted. Corrective action will be followed up on.

2.6. Non-compliance with fire safety requirements due to improper mounting of fire extinguisher	Housekeeping

Criteria

In accordance with the Occupational Health and Safety Act, 85 of 1993, Section 8(1): General duties of employers to their employees, it states that every employer shall provide and maintain, as far as is reasonably practicable, a working environment that is safe and without risk to the health of employees.

Condition

During the physical inspection at the water treatment network, Internal Audit observed that a fire extinguisher was not mounted on the designated wall bracket, but instead placed directly on the ground. This practice is inconsistent with basic fire safety and occupational health requirements, which require fire extinguishers to be securely mounted in clearly visible and easily accessible locations to ensure prompt use during emergencies.

Root Cause

- Lack of routine safety inspections and monitoring controls at the plant.
- Lack of awareness or accountability regarding fire equipment compliance requirements

Impact/ Effect

- Non-compliance with occupational health and safety legislation and municipal safety policies.

No	Audit Recommendation	Management Agreed Action	Responsibility and Status
1	Internal Audit recommends that management implement a monthly safety inspection checklist to be completed and signed off by plant management and documentation.	Management in agreement with finding. Monthly OHS checklist was implemented on 25 February 2026.	**Responsible Person(s):** Mapala Lekalakala **Due Date:** 30 April 2026

Closing Comments: Chief Audit Executive

Management's Response is noted and accepted. Corrective action will be followed up on.

2.7. Lack of properly installed access ladder to the flocculation settling tank | Housekeeping

Criteria

In accordance with the Occupational Health and Safety Act, 85 of 1993, Section 8(1): General duties of employers to their employees, it states that every employer shall provide and maintain, as far as is reasonably practicable, a working environment that is safe and without risk to the health of employees.

Condition

During the physical inspection at the water treatment network, Internal Audit observed that there was no stable or properly mounted step ladder installed to provide safe access to the flocculation settling tank. Access to the tank area appears to be improvised and not supported by fixed, secure infrastructure.

Root Cause

- Inadequate infrastructure planning and risk assessment when installing or upgrading plant facility.

Impact/ Effect

- Increased risk of slips, trips, falls, and serious injury to plant personnel.
- Potential non-compliance with the Occupational Health and Safety Act 85 of 1993 and related safety regulations requiring safe access to work areas.

No	Audit Recommendation	Management Agreed Action	Responsibility and Status
1	Internal Audit recommends that management install a fixed, non-slip, corrosion-resistant access ladder that is securely mounted and compliant with occupational health and safety standards, with handrails and, where necessary, fall protection mechanisms.	Management in agreement with finding. New access ladder will serve as a capital budget input for 2026/27 financial year.	**Responsible Person(s):** Mapala Lekalakala **Due Date:** 30 August 2026

Closing Comments: Chief Audit Executive

Management's Response is noted and accepted. Corrective action will be followed up on.

2.8. Lack of security and restrictive signage at the wastewater treatment network | Housekeeping

Criteria

In accordance with the Local Government: Municipal Finance Management Act, 2003 (Act No. 56 of 2003) specifically Section 63, which requires the accounting officer to ensure safeguarding and maintenance of municipal assets, and Section 62(1)(c), which obliges the municipality to maintain effective internal controls.

Condition

During the physical inspection at the wastewater treatment network, Internal Audit observed that there were no visible signs indicating that the site is municipal property, nor were there any warning or restrictive signage prohibiting unauthorised entry at both the pump station and the wastewater treatment plant.

The absence of clear signage reduces awareness of site ownership and access restrictions, thereby increasing the risk of unauthorised access. Wastewater treatment facilities contain hazardous areas, mechanical equipment, and potentially dangerous substances, which require controlled access and appropriate warning communication.

Root Cause

- Inadequate periodic inspection of security and compliance measures at operational facilities

Impact/ Effect

- Unauthorised access, vandalism, theft, and/or tampering on critical municipal infrastructure.
- Disruption of wastewater treatment processes due to interference or damage to infrastructure.

No	Audit Recommendation	Management Agreed Action	Responsibility and Status
1	Internal Audit recommends that management install clear and durable signage at all entry points to the pump station and wastewater treatment plant, indicating: 1) municipal property ownership, 2) no unauthorised entry warnings and 3) hazard warnings relevant to the site.	Management in agreement with finding. New signage of property owner to be implemented within the new financial year of 2026/27.	**Responsible Person(s):** Raywon October **Due Date:** 30 August 2026

Closing Comments: Chief Audit Executive

Management's Response is noted and accepted. Corrective action will be followed up on.

2.9. Inadequate maintenance and irregular cleaning of anaerobic ponds at wastewater treatment network | Housekeeping

Criteria

In accordance with the Swellendam Municipality By-Law relating to water and sanitation services and industrial effluent, section 38: provision and maintenance of water installations, it states that an owner must provide and maintain his water installation and sewage at his own cost.

Condition

During the physical inspection at the water treatment network, Internal Audit observed that the anaerobic base/ponds have not been cleaned on a regular basis. There was a visible accumulation of sludge and debris, indicating that routine desludging and maintenance activities are not being performed in accordance with sound operational practices.

Root Cause

- Lack of a formalised maintenance schedule for anaerobic ponds.

Impact/ Effect

- Lack of operational oversight and maintenance control.

No	Audit Recommendation	Management Agreed Action	Responsibility and Status
1	Internal Audit recommends that management develop and implement a maintenance schedule for anaerobic ponds, including defined cleaning intervals and responsible officials.	Management in agreement with finding. Maintenance register in the form of a SOP will be compiled before 30 March 2026.	**Responsible Person(s):** Raywon October **Due Date:** 30 March 2026

Closing Comments: Chief Audit Executive

Management's Response is noted and accepted. Corrective action will be followed up on.

3. RE-ASSESSMENT OF KEY RISK

Risk	Pre-audit Inherent Risk Rating	Risk Treatment / Current control processes	Post Audit Inherent Risk Rating	Executive Finding Summary	Post Audit Residual Risk Rating
Ageing infrastructure and inadequate capacity of the water and wastewater network	90 (High)	• Operational Plan; • Grant Funding Allocations for projects; • Implementation of Capital & Maintenance Budget (Limited) and; • Monthly monitoring of water and wastewater samples.	67.50 (High)	During the physical inspection conducted various internal control deficiencies were noted. The following were identified: • Inadequate weather protection of critical equipment and chemical materials at the water treatment plant; • Inadequate recording of water quality test results; • Lack of hazardous signs displayed at the entrance of the chlorination room; • Lack of a visitor/sign-in register at the water and wastewater networks; • Inadequate surveillance and security controls in the panel room at the water treatment networks; • Non-compliance with fire safety requirements due to improper mounting of fire extinguisher; • Lack of properly installed access ladder to the flocculation settling tank; • Lack of security and restrictive signage at the wastewater treatment network and pumpstation and • Inadequate maintenance and irregular cleaning of anaerobic ponds at wastewater treatment network.	72 (High)

Risk Appetite Statement:

The post-audit risk rating of the risk is above the risk appetite of **40** as per the risk appetite statement in the 2025/26 risk management policy, and additional measures are needed to address and manage the risk.

4. DISTRIBUTION LIST

This report has been prepared for the sole and exclusive use of Swellendam Municipality. Therefore, it may not be made available to anyone other than authorised persons within the municipality or relied upon by any third party. No part of this work may be reproduced and/or transmitted in any form by any means, electronic or mechanical, including photocopying and recording, or by information storage or retrieval system, except as permitted, in writing by Swellendam Municipality.

No	Key Strategic Official(s)	Name	To Take Action	Secure Action	For information & oversight
1.	Audit and Performance Committee	Audit and Performance Committee Members			✓
2.	Auditor-General of South Africa (ASGA)	Auditor-General of South Africa (ASGA)			✓
3.	Accounting Officer	Ms. A. Vorster			✓
4.	Director: Financial Services	Ms. E. Wasserman		✓	✓
5.	Acting Director: Community Services	Mr. J. Van Niekerk			✓
6.	Acting Director: Infrastructure Services	Mr. W. Treurnicht	✓		✓

5. DISCLAIMER

Please note that Internal Audit only considered and expressed an opinion based on the physical inspection conducted on the information and documentation made available and accepted the correctness of the instructions received. This report is purely based on the investigation conducted on Buffelsjagsrivier Water and Wastewater Treatment Networks.

6. ACCEPTANCE OF INTERNAL AUDIT REPORT

We agree to the audit findings and recommendations made and hereby accept the abovementioned report.

MR. J. BOOYSEN
MANAGER: WATER AND SANITATION SERVICES
DATE: 23 FEBRUARY 2026

COMMENTS:

Findings agreed with by management. Most findings were due to the lack of proper housekeeping and will be attended to, periodically.

MS. A VORSTER
MUNICIPAL MANAGER
DATE:

COMMENTS: Remedial action to be implemented in full by 31 March 2026.