



Compliance monitoring and enforcement
mechanisms under the National Water Act 36 of
1998 for the prevention of water resource pollution
by Water Services Authorities

ST Maphutha



orcid.org/0009-0002-2816-7294

Mini dissertation accepted in partial fulfilment of the
requirements for the degree *Master of Laws in Environmental
Law and Governance* at the North-West University

Supervisor: Dr LJ Erasmus

Graduation: July 2026

ABSTRACT

South Africa is a water-scarce country that cannot afford to diminish the value of the little water resources it has through continuous pollution by untreated or partially treated wastewater. The *National Water Act* 36 of 1998 has established legal tools to assist in the prevention of water resource pollution in general.

This study examines the extent to which the Department of Water and Sanitation, as custodian of South Africa's water resources, utilises the Compliance Monitoring and Enforcement tools provided under the *National Water Act* 36 of 1998 to ensure compliance with water resource protection measures by Wastewater Treatment Works owned and operated by Water Services Authorities (municipalities).

The study found that, historically, the Department of Water and Sanitation has relied predominantly on administrative enforcement tools, such as Notices and Directives. Yet, persistent non-compliance highlights the limited effectiveness of these measures. Recent shifts toward criminal enforcement assume that Water Services Authorities are unwilling rather than unable to comply, without fully accounting for the underlying causes of non-compliance.

This study advocates for a holistic and targeted approach to compliance monitoring, involving multiple role players, to address water resource pollution by Water Services Authorities as a matter of emergency.

The study further recommends that the Department of Water and Sanitation adopt a comprehensive approach, applying the full spectrum of Compliance Monitoring and Enforcement tools to assess their relative effectiveness under varying circumstances and establish a multiparty standing structure of support to Water Services Authorities.

Keywords:

Water Services Authorities, National Water Act, Compliance Monitoring and Enforcement, National Environmental Management Act, governance tools, Green Drop Report, CME Annual Report, Water Use Authorisation, local government

AKNOWLEDGEMENTS

First and foremost, I would like to thank God for the gift of life and strength, which enabled me to complete this study. I extend my sincere gratitude to my family for their unwavering support, patience, and encouragement throughout this journey, especially my wife, Given, and my children, Kgakollo, Toko, and Kerometswe. I also wish to express my appreciation to my beloved sister, Mathabathe Lekgau, and my dear brother, Marutlolle Maphutha, for their continued support and motivation.

I am sincerely grateful to my supervisor, Dr Lourens Erasmus, for the invaluable guidance, constructive feedback, and unwavering support provided throughout the course of this study.

Finally, I would like to thank my friends and colleagues, Phillimon Mphahlele and Ntobeng Mello, for their encouragement and for serving as a sounding board for my ideas during moments of uncertainty.

TABLE OF CONTENTS

Chapter 1 Introduction	1
1.1 Background and Problem Statement	1
1.2 Research Question	6
1.3 Research Methodology	6
1.4 Research Aims and Objectives	7
1.5 Framework	7
Chapter 2 Environmental Legislative Framework.....	8
2.1 Introduction	8
2.2 Section 24 of the Constitution	8
2.3 National Environmental Framework Legislation	9
2.4 Specific Environmental Management Legislation: National Water Act 36 of 1998	10
2.5 Cooperative Governance in Environmental Management within the Water Sector	11
2.5.1 Dispute Resolution within the Intergovernmental Relations Framework	11
2.5.2 Local Government Support as a Principle of Cooperative Governance	12
2.6 The decision-making process for just administration action.....	13
2.6.1 Procedural fairness of an administrative action	15
2.6.2 Written Reasons for CME Action.....	16
2.7 Strategic Compliance Monitoring and Enforcement Approaches.....	16
2.7.1 Legislation and the Strategy	17
2.7.2 Compliance.....	18
2.7.3 Enforcement.....	19
2.8 Chapter summary	20
Chapter 3 The National Water Act 36 of 1998 and its Compliance Monitoring and Enforcement Tools	22
3.1 Introduction	22

3.2	Purpose of Compliance Monitoring and Enforcement in the Context of Water Use	22
3.3	Environmental Management Inspectorate.....	23
3.4	Compliance and Enforcement Functionaries Designations	25
3.5	Powers of Designated Compliance and Enforcement Officials in the DWS	28
3.6	Geographical Spread of Environmental Management Inspectors in the DWS ..	28
3.7	Compliance Monitoring and Enforcement Tools under the NWA	30
3.7.1	Administrative tools	30
3.7.2	Civil action	33
3.7.3	Criminal prosecution	34
3.7.4	Suspension of water use authorisation	35
3.8	Chapter Summary	35
	Chapter 4 Water Pollution Incidents	36
4.1	Introduction	36
4.2	What is a Water Pollution Incident?.....	37
4.3	A Measure of Water Resource Pollution	38
4.4	DWS Compliance Monitoring and Enforcement: Annual Performance Planning	39
4.5	Incidents of Water Resources Pollution: CME Annual Reporting Perspective ...	43
4.5.1	CME Annual Reports	44
4.6	Incidents of Water Resources Pollution: Green Drop Reports	47
4.6.1	What is Green Drop?.....	47
4.6.2	Green Drop incidents of non-compliance	48
4.6.3	The 2022 diagnostic view on the effluent and sludge compliance performance area.....	49
4.6.4	The 2023 Green Drop Watch Report	51
4.7	Chapter Summary	51
	Chapter 5 The DWS's Level of Enforcement and Choice of CME Tools.....	52
5.1	Introduction	52
5.2	Enforcement Investigations	53
5.3	Enforcement Measures	55

5.4	Criminal Enforcement	58
5.5	Chapter Summary	60
Chapter 6 Findings, Recommendations and Conclusions		62
6.1	Introduction	62
6.2	Findings of the study	62
6.2.1	Legislative Framework	62
6.2.2	Implementation of Compliance Monitoring and Enforcement Tools	63
6.2.3	The Commission of Water Resource Pollution by Water Services Authorities	64
6.2.4	Effectiveness of Compliance Monitoring.....	64
6.2.5	Water Resource Pollution as an Emergency	65
6.3	Recommendations	65
6.3.1	Intergovernmental Relations Approach.....	66
6.3.2	Reprioritised Compliance Monitoring Protocols.....	66
6.4	Conclusion	67
BIBLIOGRAPHY		68
ANNEXURE A: EXEMPLAR WARNING LETTER		78
ANNEXURE B: TYPICAL WATER USE LICENCE		81
ANNEXURE C: COMPLIANCE SCORECARD		89
ANNEXURE D: SCORECARD CALCULATION TEMPLATE		90

List of Figures

Figure 1	CME Cycle.....	17
Figure 2	DWS CME Prioritisation Approach	19
Figure 3	Legal Framework for CME function	21
Figure 4	Catchment Management Areas in South Africa	25
Figure 5	Reported Cases of Non-Compliance 22-24	46
Figure 6	National WSA Operated System Overview	50
Figure 7	Reported Cases on Non-Compliant	54
Figure 8	Investigated Cases	55
Figure 9	Employed Enforcement Measures	56

Figure 10 CME Tools within WWSs	57
---------------------------------------	----

List of Tables

Table 1 Environmental Management Inspectors Grading System	27
Table 2 Number of EMIs in DWS	28
Table 3 DWS and CMAs spread of EMIs	29
Table 4: Four years APP targets	40
Table 5: Four years APP Target Achievement/Shortfall	42

LIST OF ABBREVIATIONS

CME	Compliance Monitoring and Enforcement
CoGTA	Department of Cooperative Governance and Traditional Affairs
DWS	Department of Water and Sanitation
EMI	Environmental Management Inspector
IGR Act	Intergovernmental Relations Framework Act 13 of 2005
NEMA	National Environmental Management Act 107 of 1998
NWA	National Water Act 36 of 1998
PAJA	Promotion of Administrative Justice Act 3 of 2000
PELJ	Potchefstroom Electronic Law Journal
RQO	Resource Quality Objectives
SEMA	Specific Environmental Management Act
WSA	Water Services Authority
WUA	Water Use Authorisation
WWS	Wastewater System
WWTW	Wastewater Treatment Works

Chapter 1 Introduction

1.1 Background and Problem Statement

South Africa's water resources are currently under immense pressure from pollution, from various sources;¹ however, one of the key drivers of this pressure is the untreated and partially treated wastewater from Wastewater Treatment Works (hereinafter WWTWs),² and mostly those that are operated and maintained by Water Service Authorities (hereinafter WSAs).³

South Africa experiences an average annual rainfall of less than 500mm,⁴ which is half the world average,⁵ making it the 30th driest country in the world.⁶ Given the current rainfall trends, which serve as the primary source of the country's freshwater supply, there is cause for concern. Considering both current and future water demand, projections indicate that demand will exceed supply by 2030.⁷ Therefore, unless measures are implemented to either reduce demand or increase supply, South Africa will likely face a 'day zero' scenario by 2030.

Water availability is measured by two closely connected elements: quality and quantity.⁸ It is possible to have an adequate quantity of water with poor quality, making it less suitable for human consumption or development, and vice versa.⁹ In this context, water resource quality challenges are not merely environmental issues; they also threaten the way of life for any society. Therefore, anyone who threatens either of these two elements jeopardises the overall availability of water.

¹ Department of Water and Sanitation *National State of Water Report 2024* 2.

² Redelinghuis, Viljoen and Vincent 2025 *PELJ* 2.

³ Department of Water and Sanitation *National Water Resource Strategy 3* 2023 39; In terms s 1 of the *Water Service Act* 108 of 1997 water services authority is any "municipality, including a district or rural council as defined in the *Local Government Transition Act* 209 of 1993, responsible for ensuring access to water services".

⁴ Botai, Botai and Adeola 2018 *South African Journal of Science* 8.

⁵ Mnguni 2020 *WIT Transactions on Ecology and the Environment* 201.

⁶ DWS *National Water Resource Strategy III* 14.

⁷ DWS *National Water and Sanitation Master Plan Volume 1* 2.

⁸ Gunda, Hess, Hornberger and Worland 2019 *Water Security* 1.

⁹ Water Research Commission *How to Manage Water Quality and Water Quantity Together* 35.

The *National Water Act* 36 of 1998 (hereinafter *NWA*) outlines clear measures that must be taken to prevent and address incidents of water resource pollution, either by an authorised or unauthorised user.¹⁰ However, based on various water resources quality reports issued by the Department of Water and Sanitation (hereinafter DWS), in particular the Green Drop Reports, the Blue Drop Reports and the Compliance Monitoring and Enforcement (hereinafter CME) Annual Reports, it seems that these measures are not sufficient.¹¹

The most recent Green Drop report presents a concerning picture of pollution of watercourses,¹² which serve as receiving bodies for effluent from WWTWs; as the majority of untreated effluent from WWTWs inadvertently finds its way back into the river system, among others, because of limited water reuse or reclamation efforts in South Africa.¹³ At face value, one might therefore conclude that the legislative measures in the *NWA* and the tools for their implementation currently in place to prevent such pollution are insufficient to address this issue. If this trend continues unabated, South African rivers could become akin to sewer collection networks, ultimately threatening the sustainability of water supply.

Part 2 of Chapter 3 of the *NWA* mandates the determination of water resource classes and their corresponding Resource Quality Objectives (hereinafter RQOs), which together constitute the general framework for water quality management in South Africa.¹⁴ These objectives aim to establish clear standards for maintaining and protecting the quality of the country's water resources.¹⁵

Section 21 of the *NWA* specifies types of water use, including the discharge of wastewater effluent into a watercourse, that may only be undertaken if authorised. This authorisation,

¹⁰ Sections 19, 20, 53, 54 of the *NWA*.

¹¹ DWS *Green Drop National Report 2022*; DWS *Green Drop Watch Report 2023*; DWS *Compliance Monitoring and Enforcement Annual Report 2023* - 24 53.

¹² DWS *Green Drop National Report 2022* 10.

¹³ Swart *et al A Water Reclamation and Reuse Guide for South African Municipal Engineers* 1.

¹⁴ GN R810 in GG 33541 of 17 September 2010.

¹⁵ Section 13 of the *NWA*.

Water Use Authorisation (hereinafter WUA), may occur either through a general authorisation under section 39 or, where required, through a water-use licence under section 40 of the *NWA*.¹⁶ However, many WSAs have not complied with the conditions attached to their authorisations, contributing to the continued discharge of untreated or partially treated effluent.¹⁷ Such non-compliance directly undermines the core objectives of the *NWA* and weakens the broader framework for effective water resource quality management.

It is the legal responsibility of WSAs to operate and maintain WWTWs in a manner that ensures wastewater is treated to the required compliance standards.¹⁸ WSAs are also accountable for financing and implementing any necessary upgrades or refurbishments to ensure the effective and compliant operation of these facilities.¹⁹

It is accepted reality that access to water, and by extension its use in waterborne sanitation services, is one of the basic human rights.²⁰ However, it is also widely accepted that the provision of water and sanitation services is a capital-intensive enterprise,²¹ and therefore, the cost of its delivery is expected to be covered, at least in part, by consumers.²² However, the fact that households owe municipalities a combined total of R230.5 billion reflects a situation that is both unsustainable and untenable for local government in general, and more so for water and sanitation services specifically given the required cost of delivering the service.²³

To this end, most WSAs rely on national transfers in the form of conditional grants from the national government, through the National Treasury, to fund capital infrastructure for

¹⁶ See para 4.2 below.

¹⁷ See para 4.5.2 below.

¹⁸ Section 11(1) of the *Water Services Act* 108 of 1997.

¹⁹ Section 13(h) of the *Water Services Act* 108 of 1997.

²⁰ Section 27 of the *Constitution of the Republic of South Africa*, 1996.

²¹ OECD *Financing Water: Investing in Sustainable Growth: Policy Perspective* 5.

²² Section 10(3)(d) of the *Water Services Act* 108 of 1997.

²³ Department of Cooperative Governance *Discussion Document on the Review of the White Paper on Local Government* 32.

water services.²⁴ Operational costs, on the other hand, are expected to be covered through a combination of the equitable share grant, municipal revenue, or borrowing in order to fund water and sanitation services.²⁵ Together with the DWS, and in the spirit of cooperative governance, the National Treasury plays a critical role in supporting WSAs to ensure compliance with their water and sanitation services standards.

The WWTWs are not assessed for compliance as stand-alone infrastructure; rather, they are considered part of an interrelated and interdependent system. This system begins at the household outlet, continues through the sewer collection network, including pump stations, into the WWTWs, and concludes with the treated effluent discharged into the receiving river system.²⁶ Collectively, these components constitute what is referred to as the Wastewater Treatment System or Wastewater System (hereinafter WWS).

A significant number of South Africa's WWS are major polluters of water resources, due to the partial or untreated release of wastewater into rivers and streams.²⁷ As a result, in 2021, over 39% of WWSs were classified as critical and in need of environmental surveillance.²⁸ Following all Green Drop assessments of WWSs, only 22 out of 995 were compliant for Green Drop certification (an incentive-based regulatory programme that recognises WWS achieving a score of 90% or above across several auditable areas of performance)²⁹, thus such WWSs were compliant with a minimum of 90% of the assessment criteria.³⁰ This means that 97.7% of WWSs are potentially discharging untreated or partially treated wastewater into South Africa's watercourses.

²⁴ National Treasury *Media Statement Annexure B Aggregated/Consolidated Municipal 2024/25 Medium Term Revenue and Expenditure Framework* para 39.

²⁵ National Treasury *Media Statement Annexure B Aggregated/Consolidated Municipal 2024/25 Medium Term Revenue and Expenditure Framework* para 40.

²⁶ Item 1 in GN R6292 in GG 52814 of 6 June 2025.

²⁷ DWS *Compliance Monitoring and Enforcement Annual Report 2023* - 24 53.

²⁸ DWS *Green Drop National Report 2022* 18.

²⁹ DWS *Green Drop National Report 2022* x.

³⁰ DWS *Green Drop National Report 2022* 10.

Although the provision of water and sanitation services is the primary responsibility of WSAs,³¹ failures in service delivery cannot be attributed solely to them. Both provincial and national governments have constitutional obligations in supporting WSAs in the execution of these functions.³² In the context of water services, the DWS, beyond its role as regulator of WSAs,³³ must also provide support to WSAs in implementing corrective and compliance measures.

The *Constitution of the Republic of South Africa*, 1996 (hereinafter *Constitution*) fully appreciates the multiplicity of public institutions in its design of the South African state and has established mechanisms for cooperation and dispute resolution between different organs of state during the exercise of their powers or the performance of their functions.³⁴ The *Intergovernmental Relations Framework Act* 13 of 2005 (hereinafter *IGRF Act*), which was enacted to give effect to such cooperative governance prescribed by the *Constitution*, requires all organs of state to consult, coordinate and cooperate in the implementation of policy in a seamless and coherent manner so as to promote the idea of singular government.³⁵ The *IGRF Act* further places obligations on organs of state, including the National Treasury, DWS, and COGTA, requiring that in their direct engagements with WSAs, disputes must first be addressed through negotiations, with the possible involvement of mediators. Judicial intervention may only be sought if these mechanisms fail to resolve the dispute.³⁶

However, as highlighted by the National Green Drop and CME reports, the DWS, in its role as the regulator of water resources, appears to be facing challenges in effectively addressing the performance of WSAs. It remains unclear whether these challenges stem

³¹ Part B of Schedule 4 and 5 of the *Constitution of the Republic of South Africa* 1996; s 73 of the *Local Government: Municipal Systems Act* 32 of 2000; s 83 of the *Local Government: Municipal Structures Act* 117 of 1998.

³² Section 154 of the *Constitution*.

³³ Oosthuizen M, van der Linde M and Basson E "National Environmental Management Act 107 of 1998 (NEMA)" 188.

³⁴ Chapter 3 of the *Constitution*.

³⁵ Sections 4 and 5 of *IGRF Act*.

³⁶ Sections 41 and 45 of *IGRF Act*.

from the department's operational strategies, from limitations within the *NWA* itself,³⁷ or other issues within the framework of intergovernmental and cooperative governance.³⁸ This is why, as a point of departure, the compliance and enforcement tools provided by the *NWA* require further examination.

1.2 Research Question

Considering the above, the researcher intends to undertake this study to answer the following question: To what extent are the compliance monitoring and enforcement tools under the *NWA* effective in preventing and addressing water resource pollution by WSAs?

1.3 Research Methodology

The methodology adopted for this study is a literature review, which involves analysing various sources such as legislation, policy documents, governmental reports and registers, textbooks, journal articles, and case law. The primary aim is to examine the DWS' records in order to understand how, in its role as a regulatory authority, it implements its legislative functions. Particular attention is given to the Compliance Monitoring and Enforcement (CME) tools provided under the *NWA* in seeking to answer the research question.³⁹ Given this objective, a literature review is the most appropriate method, as it allows for the re-analysis and synthesis of existing information. The literature review facilitates the development of integrated interpretations that offer new insights and understanding into the ongoing water resources pollution control by WSAs.⁴⁰

The literature review is also suitable in exploring how the *NWA*'s CME tools align with its water resource protection goals. The research question could ideally be processed through the lens of a detailed understanding of the CME tools options that DWS has put in place, either through its standing compliance monitoring and enforcement programme, as

³⁷ Sections 19, 20, 53, 54 and 151 of the *NWA*.

³⁸ Sections 5, 30 and 31 *IGRF Act*.

³⁹ Sections 53, 54 and 151 of the *NWA*.

⁴⁰ Otuturu 2024 *International Journal of Civil Law and Legal Research* 61.

envisioned in the *NWA*,⁴¹ or through its cooperative measures with other spheres of government.⁴²

1.4 Research Aims and Objectives

The aim of this study is to examine the legal framework governing the DWS's CME functions under the *NWA*, with a focus on the tools provided to address water resource pollution. The objectives of the study are to:

- To examine the legal and institutional framework governing CME by the under the *NWA* in relation to water resource pollution by WSAs.
- To evaluate the application of the DWS CME mechanisms in addressing non-compliance with *NWA* by WWSs operated by WSAs..

1.5 Framework

Chapter 1 introduces the background, problem statement and method of this study. Chapter 2 outlines the key pieces of legislation and their interconnections with the DWS's role in monitoring compliance and enforcement with the *NWA* by WWTWs as water users, including the strategies employed by DWS to fulfil this role. In Chapter 3, the researcher will examine the CME tools established under the *NWA*, including the human capacity within DWS required to effectively implement these tools. Chapter 4 will outline the recorded incidences of water resource pollution by WSAs over the two-year period beginning with the 2022/23 DWS financial year. Chapter 5 will evaluate the types of tools employed by DWS in response to these recorded incidences of water resource pollution by WWTWs. Finally, Chapter 6 will present the study's findings and recommendations, drawing conclusions based on the research conducted.

⁴¹ Sections 19, 20 and 53 of the *NWA*.

⁴² Section 35 of the *IGRF Act*.

Chapter 2 Environmental Legislative Framework

2.1 Introduction

This chapter contextualises the legal and institutional framework governing the prevention and control of water resource pollution in South Africa. The chapter seeks to establish the legislative foundation upon which the DWS exercises its CME functions in relation to pollution caused by WSAs.

To achieve this objective, the chapter begins by examining the constitutional framework, particularly the environmental right. It then considers the broader framework legislation governing environmental management and protection. Thereafter, the chapter focuses on the specific legislative framework regulating water resource management and pollution prevention, particularly under the NWA. The chapter further explores the interrelationship between environmental governance and intergovernmental relations in the context of water and sanitation service delivery.

Finally, the chapter evaluates the implementation of these legislative and governance frameworks in protecting water resources against pollution by WSAs, with particular emphasis on the exercise of public power and the requirement for lawful, reasonable, and procedurally fair administrative action

2.2 Section 24 of the Constitution

The responsibility for water resource protection is not explicitly articulated in the *Constitution*; however, it can be readily inferred from section 24, as water is a key constituent of the environment.⁴³ Section 24(2) of the *Constitution* provides that environmental protection is a duty shared by all persons, and not the sole responsibility of the state. However, in the context of governmental responsibility, while all three spheres of government share responsibility for the realisation of the environmental right

⁴³ Section 1 of the *NEMA*.

and, by implication, the protection of the country's water resources, the primary organ of state responsible for water resource management, including its protection, is the DWS.⁴⁴

2.3 National Environmental Framework Legislation

The *National Environmental Management Act* 107 of 1998 (hereinafter *NEMA*) functions as broad framework legislation for environmental management in South Africa.⁴⁵ This includes the general duty of environmental care that section 28(1) and (3) of the *NEMA* places on everyone who could cause or has caused or is causing environmental damage must take measures to prevent, desist and remediate a such a damage. This duty applies to everyone, including organs of state, and extends to polluting activities that are authorised, as envisaged in section 24 of the *NEMA*.⁴⁶

The *NEMA* defines the environment broadly to include land, water, and the atmosphere.⁴⁷ It therefore follows that water forms an integral part of the environment, and the pollution prevention duty established under the *NEMA* applies equally within the water resource protection and is enforceable under the *NEMA* itself. For example, the discharge of untreated or partially treated wastewater by a WWTWs falls within the definition of pollution in the *NEMA*, as it constitutes the release of substances that cause changes to the environment with adverse effects on human health, ecosystem functioning, or materials of value, either immediately or in the future.⁴⁸

To give effect to its environmental protection provisions, section 31A of the *NEMA* establishes enforcement authority. This authority extends not only to the *NEMA* itself but also to the Specific Environmental Management Acts (hereinafter SEMAs). It is exercised by designated officials within the Department of Forestry, Fisheries and the Environment (hereinafter DFFE), as well as by similarly designated officials within other government

⁴⁴ Section 3 of the *NWA*.

⁴⁵ Oosthuizen M, van der Linde M and Basson E "National Environmental Management Act 107 of 1998 (*NEMA*)" 126.

⁴⁶ Oosthuizen M, van der Linde M and Basson E "National Environmental Management Act 107 of 1998 (*NEMA*)" 178.

⁴⁷ Section 1 of the *NEMA*.

⁴⁸ Section 1 of the *NEMA*.

departments or organs of state responsible for CME functions arising from their respective SEMAs.⁴⁹ These officials are mandated to enforce the *NEMA* and the relevant SEMAs.⁵⁰ The *NWA* is expressly listed as one of the SEMAs in section 1 of the *NEMA*.

These designated officials are Environmental Management Inspectors (hereinafter EMIs),⁵¹ who are empowered under sections 31G and 31H of the *NEMA* to monitor and enforce compliance with the *NEMA* itself and the SEMAs (i.e. the *NWA*), depending on the grade at which they are designated.⁵² These provisions authorise EMIs to enter premises, inspect activities, request relevant information, and question any person on matters related to compliance and to issue a compliance notice.⁵³ They further empower EMIs to take samples, seize evidence, and issue compliance notices where contraventions are detected.⁵⁴

2.4 Specific Environmental Management Legislation: National Water Act 36 of 1998

In terms of the *NEMA*, section 31BA empowers the Minister of the DWS to designate officials as EMIs. Their mandate, however, is circumscribed by section 31BD of the *NEMA*, which limits their CME functions to specific provisions within the *NEMA* itself or the *NWA* as the SEMA.

Notably, the *NWA* also contains independent provisions establishing functions similar to CME powers. Section 26 authorises the Minister of the DWS to regulate and control water use by prescribing limits, monitoring and registration requirements, and technical standards for waterworks. In addition, section 124 of the *NWA* empowers the Minister to appoint persons to perform the functions set out in section 125 of the *NWA*, which may include taking measures to prevent or remedy pollution of water resources by WSAs

⁴⁹ Section 31B, 31BA, 31BB and 31C of the *NEMA*.

⁵⁰ Oosthuizen M, van der Linde M and Basson E "National Environmental Management Act 107 of 1998 (*NEMA*)" 186.

⁵¹ See para 3.3 below.

⁵² Annexure 1 in GN R480 in GG 40879 of 31 May 2017.

⁵³ GN R 480 in GG 40879 of 31 May 2017.

⁵⁴ Section 31I, 31J, 31K and 31L of the *NEMA*; see para 3.3 below.

These powers may be sufficiently comprehensive to cover CME activities, such as the discharge of wastewater treatment effluent by WSAs.⁵⁵ Accordingly, while the *NEMA* provides a general framework for the designation of EMIs, the *NWA* may establish a distinct regulatory mechanism for water use, which can accommodate compliance and enforcement functions necessary for the protection of water resources.

2.5 Cooperative Governance in Environmental Management within the Water Sector

The South African government consists of three spheres, that is national, provincial, and local; although distinct, are interrelated and interdependent.⁵⁶ In terms of the *Constitution*, these spheres must cooperate and work together.⁵⁷ The *Constitution* appreciates the nature of the design of the government, the devolved and sometimes concurrent allocation of powers and functions.⁵⁸ However, in the same breath, it appreciates the need for all three spheres to work together as a singular unit of government that forms part of the three branches of the state.⁵⁹

2.5.1 Dispute Resolution within the Intergovernmental Relations Framework

The primary legislation governing cooperative governance is the *IGRF Act*, which was enacted to give effect to the principle of cooperative governance as set out in the *Constitution*. In this regard section 45 of the *IGRF Act*, among others, provides that organs of the state must avoid settling disputes through judicial processes before exhausting negotiation and mediation processes within intergovernmental structures.⁶⁰ Since both

⁵⁵ Section 5(3) of the *NWA*, states: "An authorised person may, at any reasonable time and without prior notice, on the authority of a warrant, enter a property with the necessary persons, vehicles, equipment and material, and perform any action necessary to— (a) investigate whether this Act, any condition attached to any authorised water use by or under this Act or any notice or directive is being contravened".

⁵⁶ Section 40(1) of the *Constitution*.

⁵⁷ Section 41(1)(h) of the *Constitution*.

⁵⁸ Section 41(1)(g) and Schedules 4 and 5 of the *Constitution*.

⁵⁹ Section 41(1)(c) of the *Constitution*.

⁶⁰ Section 41 of the *IGRF Act*; Burns and Henrico *Administrative Law* 122; *Eskom Holdings SOC Ltd v Resilient Properties (Pty) Ltd*; *Eskom Holdings SOC Ltd v Sabie Chamber of Commerce & Tourism and Others Chweu Local Municipality v Sabie Chamber of Commerce and Tourism* 2021 (3) SA 47 (SCA) para 81.

the DWS and WSAs qualify as organs of state, the ability of the DWS to rely on judicial enforcement measures it maybe delay due to the need to satisfy section 40 of the *IGRF Act*.⁶¹ Acting for the DWS, EMIs tend to prioritise administrative compliance mechanisms, including directives and compliance notices, while making limited use of civil enforcement mechanisms such as recovering remedial costs or seeking interdicts.⁶²

2.5.2 Local Government Support as a Principle of Cooperative Governance

Another challenge for the DWS, arising from the principle of cooperative governance, is rooted in section 154 of the *Constitution*. This provision imposes an obligation on national and provincial government to support and strengthen the capacity of WSAs in the performance of their functions. Consequently, the DWS cannot simply resort to adversarial enforcement of compliance with the *NWA*, as both institutions are organs of state that are required to act as partners in realising the objects of local government.⁶³ However, this constitutional responsibility has a dual character: while it obliges the DWS to provide support, it also empowers the DWS to intervene where necessary to prevent the decline of a WSA's capacity to exercise its powers or fulfil its functions.⁶⁴

Additionally, the long title of the *NEMA* reinforces the same constitutional principle within the context of environmental management. It does so by providing cooperative environmental governance principles for decision-making by state organs in performing their environmental functions.⁶⁵ This is particularly important given that environmental management responsibilities cut across multiple organs of state, often through the same or overlapping legislative provisions, like CME functions through the *NWA* and the *NEMA*.⁶⁶

⁶¹ Makoti and Odeku 2018 *African Journal of Public Affairs* 106.

⁶² Department of Water and Sanitation *Compliance Monitoring and Enforcement Annual Report 2023/24* 5.

⁶³ Knox-Mosdell and Kotze "Regulation and Mitigation of Environmental Pollution by Local Government" 7-15.

⁶⁴ De Vos and Freedman *South African Constitutional Law in Context* section 8.3.6.

⁶⁵ The long title of the *NEMA* states that: "to provide for co-operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote cooperative governance and procedures for co-ordinating environmental functions exercised by organs of state".

⁶⁶ Oosthuizen M, van der Linde M and Basson E "National Environmental Management Act 107 of 1998 (*NEMA*)" 146.

Furthermore, Schedules 1 and 2 of the *NEMA* list the DWS as one of the organs of state whose functions may significantly affect or involve the management of the environment. The implication is that the DWS is required to submit an Environmental Management Plan (hereinafter EMP) to the DFFE.⁶⁷ The purpose of such a plan is to promote alignment and create synergies between the work of the DWS, including its CME activities, and the broader environmental management mandate of the DFFE, in the spirit of cooperative governance.⁶⁸

In this regard, the EMP of the DWS outlines how it coordinates environmental management and compliance by establishing structured internal mechanisms with relevant agencies, parastatals, and sectoral bodies, and by engaging with national, provincial, and local government departments through formal consultations, joint operations, and cooperative planning processes.⁶⁹ This is particularly relevant, as the DWS routinely records CME activities conducted in collaboration with other organs of state through joint operations aimed at achieving shared environmental protection objectives.⁷⁰

2.6 The decision-making process for just administration action

Section 33 of the *Constitution* provides that "everyone has the right to procedurally fair, reasonable, and lawful administrative action," supported by written reasons, when such action adversely affects them. It further requires that national legislation be enacted to give effect to this fundamental right. The legislation enacted for this purpose is the *Promotion of Administrative Justice Act* 3 of 2000 (hereinafter *PAJA*).

The *PAJA* defines "administrative action" as any decision, or failure to take a decision, by an organ of state such as the DWS, when exercising a public power or performing a public function in terms of legislation. This includes conduct that adversely affects the rights of any person. In this context, regulatory and enforcement decisions taken by the DWS in

⁶⁷ Section 11 of the *NEMA*.

⁶⁸ Oosthuizen M, van der Linde M and Basson E "National Environmental Management Act 107 of 1998 (*NEMA*)" 151.

⁶⁹ DWS *Second Edition-Consolidated Environmental Management Plan* 47.

⁷⁰ Department of Water and Sanitation *CME Annual Report 2022/23* 101.

relation to water use, compliance monitoring, and pollution control may constitute administrative action, thereby triggering the requirements of lawfulness, reasonableness, and procedural fairness under *PAJA*.⁷¹

However, section 1 of the *PAJA* expressly excludes several categories of conduct from this definition.⁷² These include, *inter alia*, the executive powers or functions of the national, provincial and local councils and the legislative functions of parliament, provincial legislatures, or municipal councils; and the judicial functions of courts and traditional leaders.⁷³ Further exclusions include decisions to institute or continue prosecutions, decisions concerning judicial appointments by the Judicial Service Commission, and decisions made under the *Promotion of Access to Information Act* 2 of 2000 or section 4(1) of the *PAJA* itself.

As Hoexter and Penfold clarify, the exclusion of executive, legislative, and judicial functions from the definition of administrative action does not imply that officials performing such roles are incapable of taking decisions that may, in substance, constitute administrative action.⁷⁴ The court has emphasised that the determination depends not on the identity of the functionary, but on the nature of the power exercised and the character of the decision itself.⁷⁵

By extension, when the DWS undertakes CME measures, such as issuing notices or directives, these actions are taken in terms of sections 19, 53, or 54 of the *NWA*. The DWS may also withdraw a water use authorisation from a WSA under the same statutory

⁷¹ Section 1 of the *PAJA*.

⁷² The section 1 of the *PAJA* excludes several categories of actions a non-administrative. These include the executive powers and functions exercised by the national or provincial executive, as well as those performed by municipal councils. It also excludes all legislative functions at national, provincial, and local level. judicial functions, whether exercised by courts, special tribunals, or traditional leaders; are likewise outside the *PAJA*'s scope. In addition, *PAJA* does not cover decisions to institute or continue prosecutions, decisions of the Judicial Service Commission relating to the nomination or appointment of judicial officers or other persons, decisions made under the *Promotion of Access to Information Act* 2 of 2000, or decisions taken under section 4(1) of *PAJA* itself.

⁷³ Hoexter and Penfold *Administrative Law in South Africa* 332.

⁷⁴ Hoexter and Penfold *Administrative Law in South Africa* 333.

⁷⁵ *President of the Republic of South Africa v South African Rugby Football Union* 2000 (1) SA 1 (CC) para 141.

framework. These regulatory actions can adversely affect the WSA as a juristic person, as well as residents as natural persons who rely on the WSA's services. Accordingly, such measures fall within the definition of "administrative action" as contemplated in the.⁷⁶

2.6.1 Procedural fairness of an administrative action

Section 3 of the *PAJA* provides that any administrative action taken by an organ of state that materially and adversely affects the rights or legitimate expectations of others must be procedurally fair. In the context of the DWS, this includes the issuing of notices, directives, or the withdrawal of water use authorisations against WSAs in the exercise of CME functions.⁷⁷ Procedural fairness in such instances would therefore require that WSAs be given adequate notice of the nature and purpose of the proposed CME measures, a reasonable opportunity to make representations or respond, and a clear statement of the administrative action to be taken. It would further require that WSAs are informed of their rights to internal appeal or review, as well as their entitlement to request written reasons for the decision.⁷⁸

However, the DWS may depart from strict procedural-fairness requirements only to the extent that such departure is reasonable and justifiable in the circumstances.⁷⁹ In doing so, the DWS must consider the objectives of the empowering provisions in the *NWA*, particularly the protection and management of water resources.⁸⁰

This departure does not relieve the DWS of the obligation to notify affected parties of the CME action,⁸¹ as well as the purpose and urgency of the CME action in achieving the objectives of the *NWA*.⁸² It has also been recognised that what constitutes procedural fairness depends on the nature of the circumstances and the context in which the decision

⁷⁶ *City of Johannesburg v Rand Properties (Pty) Ltd* 2007 2 All SA 459 (SCA) para 56.

⁷⁷ Kidd M "Administrative Law and Implementation of Environmental Law" 212.

⁷⁸ *Minister of Health v New Clicks South Africa (Pty) Ltd* 2006 (1) BCLR 1 (CC) para 151 and 152; Barrie 2025 *Obiter* 499.

⁷⁹ Section 3(4) of the *PAJA*.

⁸⁰ Section 2(d)(g)(h) of the *NWA*.

⁸¹ *Joseph v City of Johannesburg* 2010 (3) BCLR 212 (CC) para 57; Section 20 of the *NWA*; section 4(1) of the *PAJA*.

⁸² *City of Johannesburg v Rand Properties (Pty) Ltd* 2007 2 All SA 459 (SCA) para 63.

is taken; there is no single, rigid standard of fairness, but rather it is assessed in light of the specific time and circumstances of each case.⁸³

2.6.2 Written Reasons for CME Action

Section 5 of the *PAJA* establishes the right of any person whose rights are materially and adversely affected by administrative action to request written reasons for that action. Failure to provide reasons is presumed to indicate that the action was taken without good reason.⁸⁴ The requirement for the DWS to provide written reasons in the exercise of its CME function serves to promote transparency and accountability of the process.⁸⁵ It ensures that regulated entities such as WSAs are informed of the factors underlying the DWS's CME decisions, including the lawfulness, reasonableness, and non-arbitrariness of such decisions,⁸⁶ thereby enabling affected parties to understand, respond to, or challenge the action if necessary.⁸⁷

Furthermore, one of the NEMA's procedural elements for issuing a compliance notice is that it must specify the particulars of the non-compliance, including the specific conduct that constitutes the contravention.⁸⁸ This requirement also gives further effect to section 5 of the *PAJA*, which guarantees the right to adequate written reasons for administrative action.

2.7 Strategic Compliance Monitoring and Enforcement Approaches

The water sector's CME functions do not take their cue from legislation alone; the DWS developed and published a *Compliance and Enforcement Strategy* (hereinafter *Strategy*) in 2018 to establish an implementation framework primarily structured around the key

⁸³ *Minister of Health v New Clicks South Africa (Pty) Ltd* 2006 (1) BCLR 1 (CC) para 151 and 155; *Bato Star Fishing (Pty) Ltd v Minister of Environmental Affairs and Tourism* 2004 (4) SA 490 (CC) para 45.

⁸⁴ *The Municipal Manager: The City of Johannesburg Metropolitan Municipality Others v San Ridge Heights Rental Property (Pty) Ltd* (517/2022) [2023] ZASCA 109 para 14.

⁸⁵ Kidd M "Administrative Law and Implementation of Environmental Law" 218.

⁸⁶ Kidd M "Administrative Law and Implementation of Environmental Law" 218.

⁸⁷ *The Municipal Manager: The City of Johannesburg Metropolitan Municipality v San Ridge Heights Rental Property (Pty) Ltd* (517/2022) [2023] ZASCA 109 para 15.

⁸⁸ Section 31L(2) of the *NEMA*.

elements necessary for an effective compliance and enforcement system.⁸⁹ These elements, *inter alia*, include water use authorisation, compliance promotion, CME, and institutional arrangements for water resources protection. The *Strategy* subscribes to what it terms the CME Cycle, as depicted in Figure 1 below.⁹⁰

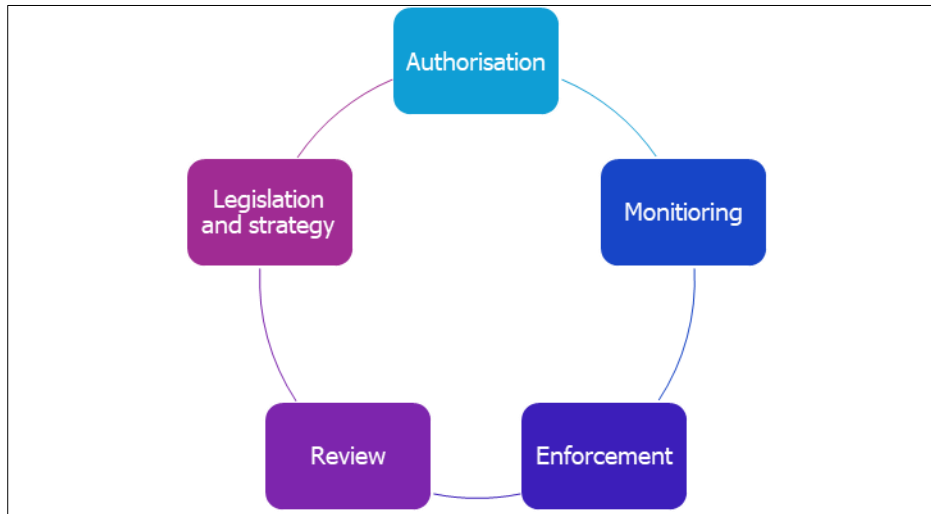


Figure 1 CME Cycle

2.7.1 Legislation and the Strategy

The Strategy postulates that, for CME to be effective, its founding authority, namely legislation and authorisation, must be firmly established, providing clear rules and provisions to guide CME functionaries and equipping them with the necessary tools to execute and achieve their mandate.⁹¹ It further distinguishes the CME function into two distinct components, namely "compliance monitoring" as the "carrot" and "enforcement" as the "stick".⁹² The execution of these functions does not necessarily occur sequentially, as depicted in Figure 2 above.⁹³

⁸⁹ DWS *CME Strategy 2018* 1 of chap 2.

⁹⁰ DWS *CME Strategy 2018* 3 of chap 2.

⁹¹ DWS *CME Strategy 2018* 1 of chap 3.

⁹² DWS *CME Strategy 2018* 1 of Chap 6.

⁹³ Strydom and Field 2023 *PELJ* 11.

2.7.2 Compliance

Compliance monitoring functions as a distinct activity involving the assessment of a broader range of environmental conditions and compliance trends, often through audit sampling, and serves as the basis for evidence led enforcement actions.⁹⁴ It is directed primarily at authorised users, evaluating whether they are operating in accordance with the conditions of their authorisations.⁹⁵

The Strategy introduces "compliance promotion" as an additional element within the CME cycle. It is based on the assumption that, with appropriate support and tools, authorised users who are willing to comply can do so voluntarily. Such support may include compliance assistance programmes (understating authorised conditions), information disclosure strategies, and the application of financial incentives or disincentives, facilitated by DWS as the regulator.⁹⁶

There are close to 55 000 registered users that the DWS must monitor for compliance.⁹⁷ Given this extensive scope of monitoring, the *Strategy* stipulates that the DWS should employ a prioritisation tool to progressively target water use sectors posing the most significant risk to water resource protection in cases of non-compliance, as well as users with a history of repeated or severe violations.⁹⁸

The prioritisation tool, as depicted in Figure 2 below,⁹⁹ is applied within three interrelated categories: national strategic priorities (multidisciplinary and multi-institutional priorities), national annual priorities (the DWS institutional annual priorities), and the DWS CME unit's priorities.¹⁰⁰

⁹⁴ DWS *CME Strategy 2018* 1 of Chap 5.

⁹⁵ DWS *CME Annual Report 2022/23* 4.

⁹⁶ DWS *CME Strategy 2018* 1 and 2 of Chap 4.

⁹⁷ DWS *CME Annual Report 2022/23* 26.

⁹⁸ DWS *CME Strategy* 1 of Annexure A.

⁹⁹ DWS *CME Strategy 2018* 3 of Chap 5.

¹⁰⁰ DWS *CME Strategy* 5 Annexure A.

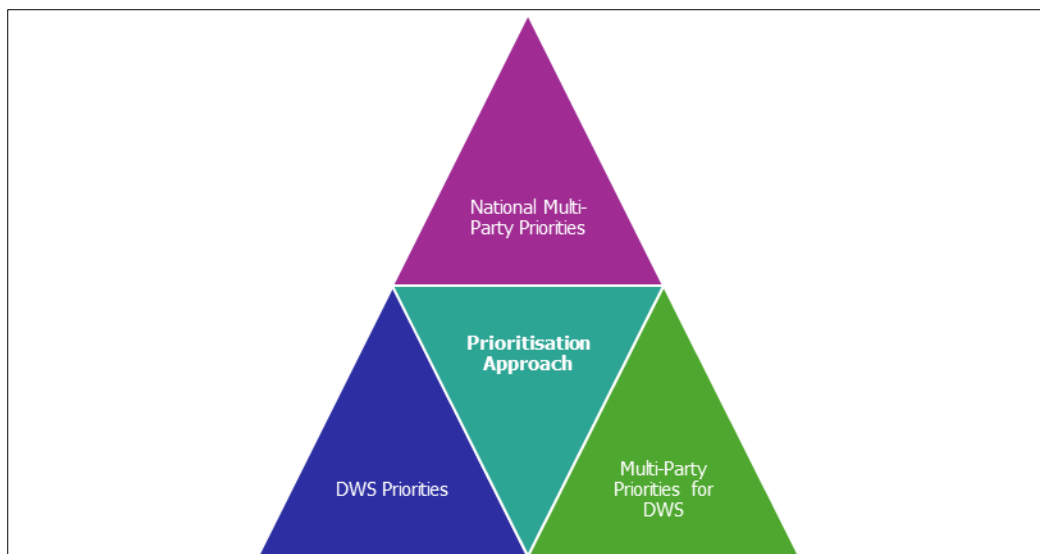


Figure 2 DWS CME Prioritisation Approach

The national strategic priorities are determined by the DFFE based on environmental risk assessments of various sectors. Afterwards, multidisciplinary and multi-institutional teams from all three spheres of government, including regulators like the DWS, assume responsibility for implementing and managing selected priorities.¹⁰¹ While national annual priorities follow the same risk-based approach as national strategic priorities, they are distinct in that the regulator responsible for the identified sector assumes sole responsibility for implementation. For example, if the water sector is prioritised, the DWS would independently take the necessary measures, without the support of a multi-institutional team.¹⁰² The final element is that of institution-specific priorities. In this instance, the DWS has the discretion to determine its own areas of focus. For example, within the water sector, the DWS may prioritise WWTWs over mining activities and pursue those priorities independently.¹⁰³

2.7.3 Enforcement

The *NWA* and the *NEMA* do not explicitly define "enforcement". However, the DWS CME reports provide guidance on its interpretation.¹⁰⁴ Enforcement represents the final stage

¹⁰¹ DWS CME Strategy 3 and 4 of Annexure A.

¹⁰² DWS CME Strategy 4 of Annexure A

¹⁰³ DWS CME Strategy 5 of Annexure A.

¹⁰⁴ DWS CME Annual Report 2022/23 5.

of the CME process. It consists of a structured set of mechanisms and tools designed to ensure compliance with the conditions of authorisation and the general duty of care. Its primary objective is to secure compliance and prevent further non-compliance, using instruments such as warning letters, directives, compliance notices, instructions to undertake audits, admission of guilt fines, civil interdicts, and criminal prosecutions.¹⁰⁵

2.8 Chapter summary

This chapter sought to examine the legislative and institutional framework governing the prevention of water resource pollution in South Africa, with specific reference to the *Constitution*, environmental management legislation, the *NWA*, and the principles of cooperative governance. The objective was to establish the legal foundation within which the DWS exercises its mandate.

This objective of the chapter was achieved through a structured evaluation of the legal and constitutional framework, as illustrated in Figure 3 below. The analysis began with the constitutional provisions relating to environmental protection, followed by an examination of key statutory instruments, including the *NEMA* and the *NWA*.¹⁰⁶

The chapter further considered the intergovernmental governance framework under the *IGRF Act*, particularly its role in enabling coordination between organs of state in the implementation of water resource management functions. In addition, the chapter evaluated how administrative law principles, particularly those under the *PAJA*, shape the exercise of CME powers by requiring lawful, reasonable, and procedurally fair decision-making.

¹⁰⁵ DWS *CME Annual Report 2022/23* 5.

¹⁰⁶ See para 2.2 above.

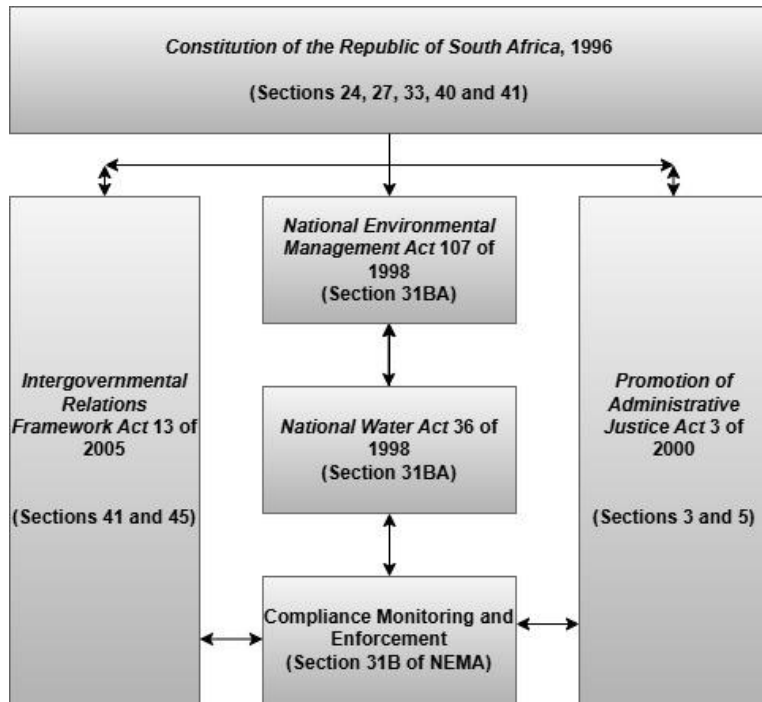


Figure 3 Legal Framework for CME function

The next chapter turns to a more focused examination of the CME tools provided under the NWA. It explores how these tools are designed to give effect to the regulatory mandate of the DWS to protect water resources against pollution, and how they are applied in practice to address non-compliance by WSAs. In doing so, chapter 3 builds directly on the legal framework established in this chapter by shifting from the existence of statutory powers to their practical exercise in the regulation of water resource pollution.

Chapter 3 The National Water Act 36 of 1998 and its Compliance Monitoring and Enforcement Tools

3.1 Introduction

This chapter seeks to build on the legal and institutional framework established in the previous chapter by providing a focused examination of the CME tools provided under the NWA. It illustrates the range of tools available to the DWS in responding to incidents of water resource pollution, particularly those arising from WWTWs. The chapter further outlines the institutional capacity of Environmental Management Inspectors (hereinafter EMIs) within the DWS to operationalise these tools in practice. In doing so, it highlights how the *NWA* equips the DWS with the necessary mechanisms to fulfil its constitutional and legislative mandate of protecting South Africa's water resources against pollution.¹⁰⁷

3.2 Purpose of Compliance Monitoring and Enforcement in the Context of Water Use

The primary purpose of the CME function within DWS is to give effect to its broader constitutional mandate in relation to the protection, promotion, and fulfilment of the rights enshrined in the Bill of Rights.¹⁰⁸ The DWS CME responsibility directly relates to ensuring that everyone has access to an environment that is not harmful to their health or well-being, and to the realisation of the right to sufficient food and water.¹⁰⁹

Compliance monitoring is a planned and ongoing process that assesses whether water users are adhering to their authorisation conditions. Water users must demonstrate their compliance with the conditions of their use, providing evidence. It is a process that involves inspections, planned and unannounced, throughout the authorisation period of the water use.¹¹⁰ On the other hand, enforcement refers to the process of correcting *NWA*

¹⁰⁷ See paras 2.1-2.3 above.

¹⁰⁸ Section 7(2) of the *Constitution*.

¹⁰⁹ Sections 24 and 27 of the *Constitution*. For more on the contents of these fundamental rights – see Currie and De Waal's *Bill of Rights Handbook* chaps 3 and 26.

¹¹⁰ DWS *CME Annual Report 2022|23* 4.

statutory violations, it requires corrective action by water users to ensure compliance and mitigate risks to the water resources pollution. Unlike compliance monitoring (the "carrot"), enforcement acts as the "stick".¹¹¹

Non-compliance and contravention refer to the failure to comply with, or the breach of, obligations governing the use of water as set out in the conditions of a water use authorisation (WUA), whether in the form of a licence or a general authorisation,¹¹² as well as the violation of the general duty of care for the protection of water resources.¹¹³ The non-compliance, in the context of water use, would refer to any breach of an *NWA* provisions or WUA condition, irrespective of whether or not such a breach constitutes a criminal offence.¹¹⁴

3.3 Environmental Management Inspectorate

The CME tools provided under the *NWA*, when considered in isolation, present a rather abstract narrative. Their practical meaning and effectiveness are better understood when viewed in relation to the capacity of the DWS officials tasked with their implementation. The executive branch of the state, like the DWS, bears the responsibility for implementing legislation such *NWA*.¹¹⁵ Accordingly, any discussion of CME tools divorced from the bureaucratic and administrative capacity of the implementing authority provides an incomplete understanding of their intended outcomes.

The effectiveness of EMIs is dependent on the adequacy and availability of the tools required to perform their functions. In assessing the extent to which the DWS utilises the CME tools provided under the *NWA*, it is equally important to evaluate the capacity of the officials who use those tools. The EMIs employed by the DWS are CME officials designated and appointed by the Minister of Water and Sanitation for the enforcement of the *NEMA*

¹¹¹ DWS *CME Annual Report 2022*|23 5.

¹¹² Sections 39 and 40 of the *NWA*.

¹¹³ Section 19 of the *NWA*.

¹¹⁴ Redelinghuis, Viljoen and Vincent 2025 *PELJ* 9; DFFE *National Environmental Compliance and Enforcement Report 2023*|24 Glossary of Terms.

¹¹⁵ Van Rooyen 2007 *African Journal of Public Affairs* 45.

itself or the *NWA*.¹¹⁶ Notwithstanding the designation of certain officials within the DWS as EMIs under section 31BA of the *NEMA*, other CME officials may still perform compliance monitoring functions in terms of section 125(1) of the *NWA*.¹¹⁷

The DWS EMIs form part of the broader body of EMIs designated under the *NEMA* and the SEMAs.¹¹⁸ This body is termed the EMI Network, which is a coordinated and unified structure comprising all EMIs across various sectors, like those responsible for protected areas, biodiversity, and other environmental management functions.¹¹⁹

The Environmental Management Inspectorate unit within the DWS serves as the unified body of EMI-designated officials responsible for performing CME functions within the DWS.¹²⁰ The Environmental Management Inspectorate is not composed exclusively of officials within the DWS national and regional (provincial) offices, it also extends to include EMI-designated officials within Catchment Management Agencies (hereinafter CMAs), which are entities established in terms of the *NWA*.¹²¹

The CMAs are decentralised water management institutions responsible for integrated water resource management, including CME functions, within their respective Catchment Management Areas.¹²² These areas represent a land area where surface water from rainfall drains into a common point at a lower elevation, typically located at the catchment's outlet, is where the collected waters flow into another waterbody.¹²³

There are currently six Catchment Management Areas in South Africa, and Figure 4 below depicts their boundaries. Of these, four CMAs have been formally established and are

¹¹⁶ Sections 31BA and 31D of *NEMA*; *National Environmental Compliance and Enforcement Report 2022-23* 8.

¹¹⁷ DWS *CME Annual Report 2022|23* 18.

¹¹⁸ Sections 31B, 31BA, 31BB or 31C of *NEMA*.

¹¹⁹ DWS *CME Annual Report 2022|23* 17; DFFE 2005 https://www.dffe.gov.za/rcsm_emi.

¹²⁰ DWS *CME Annual Report 2022|23* 17.

¹²¹ Section 78 of the *NWA*; DWS *CME Annual Report 2023 - 24* 26.

¹²² Water Research Commission *Strengthening the Community of Practice working on the integration of water-related ecological infrastructure and built infrastructure in South Africa's Water Management Areas* 3, 4 and 21.

¹²³ Nealer *African Journal of Public Affairs* 7.

operational. Among the established CMAs, only Inkomati-Usuthu and Breede-Olifants actively perform CME functions, which are reported in the DWS annual reports.¹²⁴

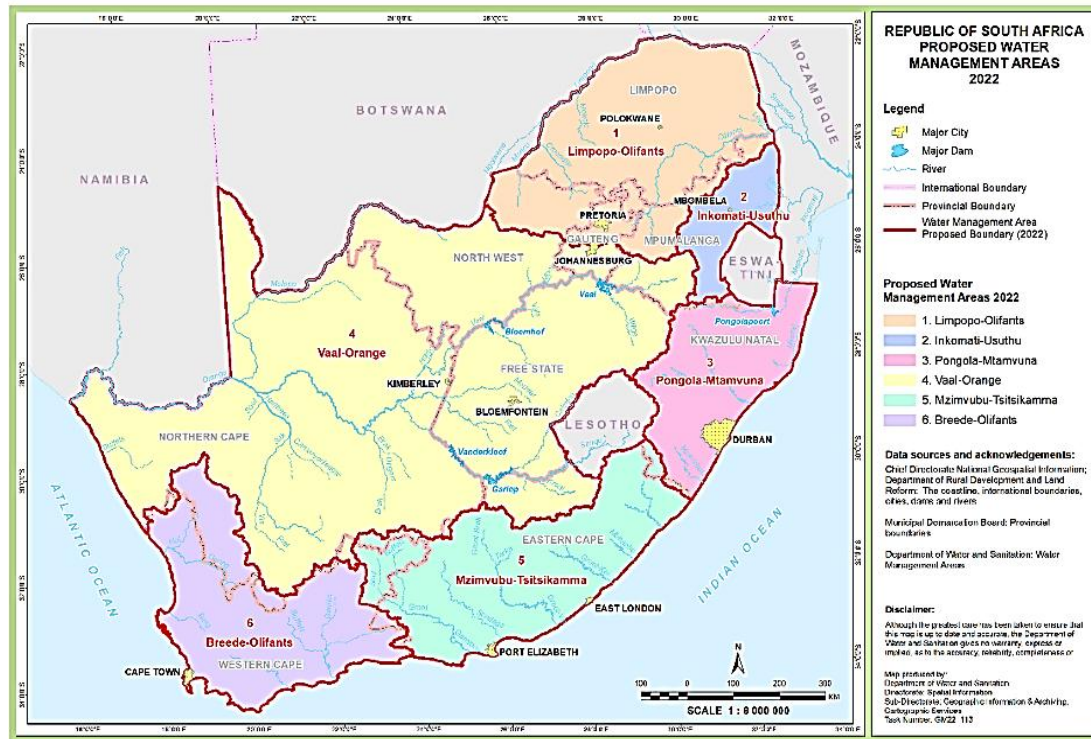


Figure 4 Catchment Management Areas in South Africa

Consequently, all one hundred and forty-four (144) WSAs and their nine hundred and ninety-five (995) WWSs fall within these Water Management Areas.

3.4 Compliance and Enforcement Functionaries Designations

The general authority of EMIs is derived from sections 31G to 31L of the *NEMA*, which establish their powers and functions. These provisions confer authority on EMIs to monitor, investigate, and enforce compliance with the *NEMA* and the SEMAs.¹²⁵

Section 31G of the *NEMA* empowers EMIs to monitor and enforce compliance with designated legislation (the *NWA* and *NEMA*), investigate suspected offences or breaches of authorised conditions (i.e. WUA). Section 31H provides EMIs, as part of investigatory

¹²⁴ DWS *CME Annual Report 2023*|24 18.

¹²⁵ Oosthuizen M, van der Linde M and Basson E "National Environmental Management Act 107 of 1998 (*NEMA*)" 187.

powers, to question persons, inspect and collect evidence, and issue lawful instructions to ascertain compliance.

Sections 31I to 31K of the *NEMA* expand EMIs' enforcement powers to seize, stop, search, and inspect items, vehicles, vessels, aircraft, and premises. Section 31I of the *NEMA* regulates the seizure of items, with or without a warrant, safeguarding seized items in accordance with sections 30 to 34 of the *Criminal Procedure Act* 51 of 1977, and allows EMIs to direct removal or the securing of relevant items.

Section 31J of the *NEMA* empowers EMIs to stop, enter, search, and seize transportation vehicles or their contents on reasonable suspicion of offences or breaches of legislation or authorisation conditions, with or without a warrant. Section 31K authorises routine inspections of buildings, land, or premises, with or without a warrant, to investigate non-compliance and seize items for evidence or verification. Section 31L of the *NEMA* empowers the EMIs to issue compliance notices when there are reasonable grounds to believe that a person has failed to comply with a provision of the *NEMA* or SEMA (i.e. the *NWA*) or with any condition of an authorisation (i.e. WUA).¹²⁶

Regarding the procedural and administrative aspects, sections 31M to 31Q of the *NEMA* support effective CME functions by EMIs. Section 31M of the *NEMA* provides for an objection by a person to whom a compliance notice has been issued against in terms of section 31L of the *NEMA*. Section 31N of *NEMA* provides recourse when a person fails to comply with a compliance notice. These measures may include the variation or revocation of an authorisation, as well as the implementation of remedial steps at that person's cost.

Section 31O of the *NEMA* lists the role of the South African Police Service (hereinafter SAPS) in environmental compliance and enforcement. It confers on the SAPS members the investigative powers of EMIs under the *NEMA* and or SEMA, except the power to conduct inspections or issue compliance notices.¹²⁷ However, these additional powers may

¹²⁶ See para 3.6.1.2 below.

¹²⁷ Sections 31K and 31L of the *NEMA*.

be assigned to a SAPS member by written notice.¹²⁸ Section 31P of the NEMA further confers on EMIs the authority to demand proof of authorisation.

However, the specific scope and extent of these powers are distributed according to the grade to which an EMI is designated, as prescribed in the Regulations Relating to Qualification Criteria, Training and Identification of, and Forms to be Used by Environmental Management Inspectors and Environmental Mineral Resource Inspectors (hereinafter "EMI Regulations") promulgated under *NEMA*.¹²⁹

Accordingly, the extension to which an EMI may perform CME functions, based on the grading, is outlined in Annexure 1 of the EMI Regulations. Table 1 below summarises the various EMI grades and their corresponding powers.¹³⁰

Table 1 Environmental Management Inspectors Grading System¹³¹

Grade	Powers Conferred by <i>NEMA</i>
EMI Grade 5	Powers under sections 31H, 31I(3), and 31J of <i>NEMA</i> .
EMI Grade 4	Powers under sections 31H (excluding 31H(1)(b), 31H(1)(f), 31H(5), and 31K (excluding 31K(5), (6) of <i>NEMA</i>
EMI Grade 3	All powers under <i>NEMA</i> , except sections 31H(5) and 31L.
EMI Grade 2	All powers under the <i>NEMA</i> , except section 31L.
EMI Grade 1	All powers under the <i>NEMA</i> .

The powers of EMIs can generally be summarised as the authority to perform three CME functions. These functions include monitoring compliance with the legislation for which they have been designated, enforcing compliance with such legislation, and conducting investigations to ensure adherence to the same legislative framework.¹³²

¹²⁸ Section 31O(2) of the *NEMA*.

¹²⁹ GN R480 in GG 40879 of 31 May 2017.

¹³⁰ DWS *CME Annual Report 2023* 24 26.

¹³¹ Annexure 1 in GN R480 in GG 40879 of 31 May 2017.

¹³² Oosthuizen M, van der Linde M and Basson E "National Environmental Management Act 107 of 1998 (*NEMA*)" 187; Sections 31G-31L of the *NEMA*.

3.5 Powers of Designated Compliance and Enforcement Officials in the DWS

In the DWS and the CMAs, there are currently one hundred and twenty-four (124) EMIs designated to perform CME functions (see Table 2 below) across only Grades 1 – 3.¹³³

Table 2 Number of EMIs in DWS

EMI Grade	Number of EMIs	Percentage
EMI Grade 1	9	7.3%
EMI Grade 2	114	91.9%
EMI Grade 3	1	0.8%
Total	124	100%

Table 2 shows that the DWS and the CMAs collectively have only nine officials designated as Grade 1 EMIs. These officials may perform all functions and exercise all powers of EMIs in terms of sections 31H to 31L of *NEMA*. A further 114 officials are designated as Grade 2 EMIs, who may perform all CME functions except issuing compliance notices under section 31L. In addition, only one official is authorised to perform all EMI functions, except for the issuance of compliance notices and the exercise of peace officer powers.¹³⁴

3.6 Geographical Spread of Environmental Management Inspectors in the DWS

The CME human capacity within the DWS and the CMAs is geographically distributed across the country, as reflected in Table 3 below.¹³⁵ Notably, the number of designated EMIs has remained unchanged over two years, from 2022/2023 to 2023/2024.

¹³³ DWS *CME Annual Report 2023|24* 26.

¹³⁴ It means an EMIs who is peace officer may exercise all the powers assigned to a non-commissioned police offers, including power assigned in terms of chaps 2, 5, 7 and 8 of the *Criminal Procedure Act* 51 of 1977.

¹³⁵ DWS *CME Annual Report 2023|24* 27.

The EMI capacity implies that each EMI within the DWS is responsible, on average, for monitoring approximately four hundred and forty-three (443) registered water users, based on the existing scope of 55,000 registered users.¹³⁶

Table 3 DWS and CMAs spread of EMIs¹³⁷

Province/Region/CMA	2022/2023	2023/2024	% Share
Inkomati-Usuthu CMA	9	9	7.3
Breede-Olifants CMA	6	6	4.8
Head Office (Compliance Monitoring)	26	26	21
Head Office (Enforcement)	18	18	14.5
KwaZulu-Natal	10	10	8.1
Western Cape	5	5	4
North West	5	5	4
Mpumalanga	7	7	5.6
Free State	4	4	3.2
Limpopo	6	6	4.8
Gauteng	15	15	12.1
Northern Cape (NC)	6	6	4.8
Eastern Cape (EC)	7	7	5.6
Total	124	124	100%

Table 3 above indicates that a significant proportion of CME capacity is concentrated at the DWS's Head Office, where 26 officials (21%) are responsible for compliance monitoring and 18 officials (14.5%) are responsible for enforcement. The Head Office, combined, accounts for over a third of all CME officials, indicating that much of the capacity is centralised rather than located within CMAs or provinces where water resource management challenges are located.

¹³⁶ DWS *National State of Water Report 2023* 183.

¹³⁷ See para 3.3 above.

The provinces with higher numbers of officials, such as Gauteng (15 officials, 12.1%) and KwaZulu-Natal (10 officials, 8.1%), likely reflect areas of higher population density or water resource pollution risk. Nevertheless, the overall number of CME officials appears low given nine hundred and ninety-five (995) WSSs and other water users in the water sector.

3.7 Compliance Monitoring and Enforcement Tools under the NWA

In the previous sections, the study examined the human capacity of the DWS and CMAs to monitor and enforce compliance, as well as the legal powers vested in them to perform these functions. This section will focus on the types of legal tools available to these institutions in the performance of CME functions.

3.7.1 Administrative tools

In enforcing compliance or addressing non-compliance with WUA conditions, the DWS relies on several tools embedded in the *NWA* and the *NEMA*. These tools are both administrative and legal (civil and criminal) in form and substance.¹³⁸ The enforcement tools comprise warning letters, directives, compliance notices, instructions to undertake audits, admission of guilt fines, civil interdicts, and criminal prosecution.¹³⁹

3.7.1.1 Warning Letter

The DWS has developed warning letters as an additional CME tool, extraneous to the statutory tools provided under the *NWA*.¹⁴⁰ The DFFE defines these warning letters as written documents that provide a non-compliant user an opportunity to comply without initiating formal administrative or judicial proceedings.¹⁴¹

¹³⁸ DWS *CME Annual Report 2022|23* 5; Kidd M "Administrative Law and Implementation of Environmental Law 250; Oosthuizen M, van der Linde M and Basson E "National Environmental Management NWA 107 of 1998 (NEMA)" 180 and 189.

¹³⁹ DWS *CME Annual Report 2022|23* 5; Sections 19, 20 and 53 of the *NWA*. Each of these is discussed in more detail below – see paras 3.6.1 – 3.6.3.

¹⁴⁰ DWS *CME Annual Report 2022|23* 5.

¹⁴¹ DFFE *National Environmental Compliance and Enforcement Report 2022/23* Glossary of Terms.

Annexure A contains an exemplar warning letter issued by the DWS; in its reading it can be gleaned that is both reactive and proactive compliance tool. In its reactive form, it details a response from an inspection that confirmed unlawful water use activities; namely, the construction of "gabion structures and retaining walls" within a watercourse without authorisation in contravention of sections 21(c) and 21(i) of the *NWA*.¹⁴²

However, the letter also contains proactive elements by directing landowners to consult the DWS before undertaking any further work, therefore preventing any future non-compliance before it occurs.¹⁴³ It serves both to address the existing contravention and to deter and guide the landowners toward lawful water use, and serves as a warning of potential enforcement under sections 19 and 53 of the *NWA*, should further contraventions persist.

3.7.1.2 Compliance Notice

The *NWA* does not explicitly provide for a compliance notice as in the *NEMA*, which already empowers DWS-designated EMIs to issue such.¹⁴⁴ However, DWS EMIs may also issue a compliance notice in terms of section 53 of the *NWA* in addition to the empowering provision of section 31L of the *NEMA*.¹⁴⁵ Both provisions serve as formal enforcement tools that seek to secure compliance with the *NWA* or WUA and or the *NEMA*.¹⁴⁶

Under section 53 of the *NWA*, an authorised official may issue a compliance notice to any person contravening a WUA condition, directive, or any provision of the *NWA* itself, requiring them to take steps to prevent or remedy the effects of such contravention. Similarly, section 31L of *NEMA* empowers an EMIs to issue a compliance notice when there are reasonable grounds to believe that a person has not complied with environmental legislation (i.e. WUA or licence condition).

¹⁴² DWS *Warning Letter: Annexure A* para 2.3.

¹⁴³ DWS *Warning Letter: Annexure A* para 3.2.

¹⁴⁴ 31L of the *NEMA*; see Table 1 above.

¹⁴⁵ See para 2.2 above; Oosthuizen M, van der Linde M and Basson E "National Environmental Management Act 107 of 1998 (NEMA)" 189.

¹⁴⁶ Feris *PELJ* 55.

Although the DWS distinguishes between directives and compliance notices as separate CME tools, in practice, it often treats them as a single instrument.¹⁴⁷ It departs from this distinction by subsequently defining them, on the same page, as a unified CME tool.¹⁴⁸ This practice may undermine the distinct legal character and procedural basis of each tool, as they are recognised in law as separate and independent enforcement instruments, each with its own statutory purpose and procedural requirements.¹⁴⁹

Furthermore, in practice, DWS uses a compliance notice as a preliminary CME tool, serving as a "notice of intention to issue a directive".¹⁵⁰ It is mainly used to afford an unauthorised or contravening user an opportunity to rectify the non-compliance.¹⁵¹ It further assists DWS in complying with the requirements of the *PAJA*,¹⁵² by affording the contravening user an opportunity to raise any other matter in the representations of what DWS accept as a contravention. In addition, non-compliance with a compliance notice also constitutes an offence, whereby criminal proceedings may be instituted.¹⁵³

3.7.1.3 Directives

The *NWA* provides four primary provisions empowering the DWS to issue directives, namely sections 19, 20, 53, and 118; the latter falls outside the scope of this study. Directives constitute a core CME tool used by DWS to enforce the *NWA* generally and the conditions of WUAs in particular.

Section 19 of the *NWA* empowers the DWS to issue a Directive to any person who has caused, is causing, or may potentially cause pollution of a water resource. The Directive requires the individual to take reasonable measures to prevent, cease, or mitigate the continuation or recurrence of the pollution, in line with the general duty of care.

¹⁴⁷ DWS *CME Annual Report 2023* 245.

¹⁴⁸ DWS *CME Annual Report 2023* 245.

¹⁴⁹ Section 31L of the *NEMA*; sections 19, 20, and 53 of the *NWA*; Oosthuizen M, van der Linde M and Basson E "National Environmental Management Act 107 of 1998 (NEMA)" 189.

¹⁵⁰ *De Jager N.O v Minister of Water Affairs* (5481/2022) [2025] ZAMPMHC 8 para 17.

¹⁵¹ Feris 2017 *PELJ* 55.

¹⁵² Section 3 of *PAJA*; see para 2.5 above.

¹⁵³ Section 151 of the *NWA*.

Section 20 of the *NWA* empowers DWS to issue a Directive in response to an emergency incident, whether imminent or already occurring, that presents an immediate threat of pollution to water resources. The Directive may require the responsible party to implement specific measures to prevent or contain the effects of the incident, as prescribed in the Directive.

A Section 53 Directive under the *NWA* is issued in response to a contravention arising from an unauthorised water use or failure to comply with the conditions attached to WUA, which could include pollution of water resources through effluent that does not meet discharge standards. If the user fails to comply with the Directive, DWS may take steps to rectify the contravening activity, and the costs of corrective measures may be recovered from the non-compliant user.¹⁵⁴

Section 151 of the *NWA* lists several acts that constitute criminal offences, one of which is the failure to comply with a directive issued under sections 19, 20, 53, or 118 of the *NWA*. In such cases, the DWS is empowered to take remedial measures on its own initiative to address acts of pollution or degradation.¹⁵⁵ It may, subsequently, recover the costs of those remedial measures from the owner, person in control, or user of the land from which the pollution originates.¹⁵⁶ This authority extends to emergency incidents involving the release or potential release of pollutants or hazardous substances into a water resource.¹⁵⁷

3.7.2 Civil action

In general, civil action as a CME tool may take two primary forms. The first is an application for an interdict, where the DWS seeks to prevent or compel certain conduct to stop ongoing or imminent harm to a water resource.¹⁵⁸ The second is a civil claim for

¹⁵⁴ Mdlatose *Evaluation of the water use licensing regime of the National Water Act in advancing the protection and conservation of water resources* 23.

¹⁵⁵ Section 19(4) of the *NWA*.

¹⁵⁶ See para 3.6.2 below.

¹⁵⁷ Section 20 of the *NWA*.

¹⁵⁸ Section 155 of *NWA*.

damages, through which the DWS may recover costs it has incurred in undertaking remedial measures necessitated by unlawful water use or pollution.¹⁵⁹ This action does not preclude DWS from taking any other enforcement measures in concurrence with it.¹⁶⁰

Civil claims constitute one of the CME tools at the DWS's disposal in addressing incidents of water resource pollution.¹⁶¹ In its general form, civil action empowers the DWS to approach a competent court to compel a person or entity to comply with the provisions of the *NWA*, including adherence to Directives issued in terms sections 19, 20 and 53 of the *NWA*, this tool is mostly used to recover the costs that DWS might have incurred in taking remedial measures to remediate the pollution.¹⁶²

3.7.3 Criminal prosecution

Criminal prosecution is also one of the CME tools available to DWS. The *NWA* list various instances of non-compliance as criminal offences.¹⁶³ These include, *inter alia*, the pollution of water resources, failure to comply with a Directive issued under the *NWA* and breaches of conditions attached to water use authorisations. The sanctions applicable to contraventions of the offences listed in section 151(1) of the *NWA* include a fine, imprisonment for a period not exceeding five years, or both. In the case of a second or subsequent conviction, a fine or imprisonment for up to ten years, or both.¹⁶⁴

Once the DWS has completed an investigation and identified conduct that constitutes an offence under the *NWA*,¹⁶⁵ the matter must be referred to the National Prosecuting Authority (hereinafter NPA), as only the NPA may institute and conduct criminal proceedings on behalf of the State in terms of section 179 of the *Constitution* and section 20 of the *National Prosecuting Authority Act 32 of 1998*.¹⁶⁶

¹⁵⁹ Section 19(5) of *NWA*.

¹⁶⁰ DWS *CME Annual Report 2023*|24 23.

¹⁶¹ DWS *CME Annual Report 2023*|24 23.

¹⁶² Section 19(5) and 20(7) of the *NWA*.

¹⁶³ Section 151(1) of the *NWA*.

¹⁶⁴ Section 151(2) of the *NWA*.

¹⁶⁵ DWS *CME Annual Report 2022*|23 5.

¹⁶⁶ See para 5.3 below.

3.7.4 Suspension of water use authorisation

In terms of section 54 of the *NWA*, DWS may suspend or withdraw entitlement to use a water resource if a person fails to comply with the conditions of such an entitlement. The suspension may be for a specified period or remain in effect until the DWS is satisfied that the non-compliance has been rectified. This is mostly invoked upon failure by a contravening user to comply with the Directive.

3.8 Chapter Summary

This chapter has outlined the compliance and enforcement tools available under the *NWA* that may be employed by DWS CME functionaries and EMIs to ensure compliance with WUA conditions and the provisions of the *NWA*. These tools apply generally to all water uses listed under section 21 of the *NWA* and are not limited to WWTWs effluent discharge into water resources.

The chapter further examined the human capacity of EMIs within the DWS and their CMAs to effectively implement the water pollution provisions of the *NWA*. It outlined the purpose of CME in ensuring lawful water use and protecting water resources, as well as the conceptual distinction between compliance monitoring and enforcement. In addition, it detailed the legal powers of EMIs under both the *NEMA* and the *NWA*, including their designation and functional scope. Overall, the chapter demonstrates how these tools enable the DWS to give effect to its constitutional and legislative mandate to safeguard South Africa's water resources.

The following chapter builds on this analysis by examining recorded incidences of water resource pollution during the 2022/23 and 2023/24 financial years. It provides further insight into the extent and nature of non-compliance by WWTWs during this period

Chapter 4 Water Pollution Incidents

4.1 Introduction

Chapter 2 outlined the established constitutional and legislative framework governing water resource protection, while Chapter 3 examined the CME tools available under the *NWA*, as well as the institutional capacity of the DWS to implement these instruments. Against this background, the present chapter shifts the focus to the actual occurrence of water resource pollution by WSAs, since the legislative framework, enforcement tools, and institutional capacity discussed in the preceding chapters ultimately find application in responding to these incidents of pollution.

Accordingly, this chapter examines documented incidents of water resource pollution, primarily, as reported in the DWS' National Green Drop Report (2022), Green Drop Watch Report (2023) and CME annual reports of 2022/23 and 2023/24, with the objective of assessing the extent and frequency of such events. The analysis focuses on pollution incidents recorded over the 2022/2023 to 2023/2024 years of performance, covering a two-year period. Each performance year spans from 1 April to 31 March of the following year. This timeframe provides a sufficient series of data to identify trends in CME performance by DWS and CMAs,¹⁶⁷ as well as to evaluate the effluent quality compliance levels achieved by WSAs during the same period, as per the National Green Drop 2022 report.

These reports (CME Annual and Green Drop National Reports) serve as data source in developing an understanding of the extent to which the *NWA* empowers the EMIs to prevent water resource pollution, it is primary account of DWS, as part of an executive branch of the state, on how successful or otherwise it has been in implementing the legislation (the *NWA*),¹⁶⁸ with particular reference to water resource protection from WWTWs.

¹⁶⁷ See para 3.2 above.

¹⁶⁸ See para 2.1-2.3.

The primary record of water pollution incidents by WSAs is captured on the Integrated Regulatory Information System (hereinafter IRIS) by WSAs themselves as part of a self-reporting monitoring programme, on time interval indicated in their WUAs, which serves as the main data source for the Green Drop reports.¹⁶⁹ For CME reports, the DWS relies on its National Compliance Information Management System (NCIMS) and the Enforcement Case Management System (ECMS).¹⁷⁰ Data from these systems is analysed specifically for Green Drop Reports and CME annual reporting, respectively.¹⁷¹

4.2 What is a Water Pollution Incident?

The legal definition of water resource pollution incident refers to the "alteration of water resources attributes in a manner that renders it unsuitable for any use that is expected of it or harmful to human beings or its quality objectives or aquatic species".¹⁷² In addition to section 1 of the *NWA*'s definition of water resource, section 20 of the *NWA* also provides for another category of pollution incident, classified as emergency incident with similar effects to the section 1 definition. An emergency incident refers to "any incident or accident involving a substance that pollutes or has the potential to pollute a water resource". These definitions will become important later in evaluating the rate of pollution and the relevance of the enforcement response by the DWS.¹⁷³

In the reading of the sections 1 and 20 of the *NWA*, incidents of pollution are a distinct and discrete act of water pollution by a user at one point in time, mostly on a day. Support for this interpretation is also found in the *Strategy*, which refers to "repeat offenders". In that it refers to "repeat offenders". The use of this term suggests that an incident of

¹⁶⁹ DWS *Green Drop Watch Report 2023* vi; DWS *Green Drop National Report 22* 3

¹⁷⁰ DWS *National State of Water Report 2023* 181.

¹⁷¹ Sections 139–141 of the *NWA* establish the framework for national water information systems, including hydrological, water quality, and groundwater data, as well as a register of water use authorisations. Their objectives are to support the protection, sustainable use, and management of water resources, facilitate planning, research, environmental assessments, and disaster management, and ensure access to information on the status of water resources. They also provide for the collection of data, documents, samples, or materials necessary for monitoring and managing water resources.

¹⁷² Section 1 of the *NWA*.

¹⁷³ See para 4.41 and 4.5.2 below.

pollution is regarded as a single violation committed by a user at a particular point in time, which may recur during subsequent monitoring periods.

For this study, the focus is limited to the one hundred and forty-four (144) WSAs currently authorised in South Africa, and the number of recorded incidents over a defined period of time, which is a day (24-hour period), in which they commit pollution violations in contravention of the *NWA*.

4.3 A Measure of Water Resource Pollution

A WWTW effluent discharge constitutes a water use as defined under section 21(f) and (g) of the *NWA*. Such a discharge may be authorised in one of two ways, either under a general authorisation in terms of section 39 of the *NWA*,¹⁷⁴ or through a licence issued in terms of section 40 of the *NWA*. General authorisations prescribe two categories of permissible effluent discharge quality limits: general limits and special limits,¹⁷⁵ the latter being largely determined by the RQOs of the receiving water resource.¹⁷⁶

Under a general authorisation, a WSA may discharge treated wastewater into a water resource up to a maximum volume of 2 000 m³ per day.¹⁷⁷ While monitoring and reporting to the DWS's IRIS is monthly;¹⁷⁸ however, this does not permit a WSA to contravene the authorised discharge standards on non-reporting days.¹⁷⁹ Thus, even though WSAs are required to submit monthly reports to DWS on the quality of treated wastewater effluent discharged, they remain obliged to comply with the prescribed effluent quality standards at least 90% of the authorised time points.¹⁸⁰

On the other hand, the special limits are informed by the RQOs of the receiving body of WWTW discharge, which are derived from the water resource classification system.¹⁸¹

¹⁷⁴ GN R665 in GG 36820 of 06 September 2013.

¹⁷⁵ Item 2.7 in GN R665 in GG 36820 of 06 September 2013.

¹⁷⁶ Item 2.14 in GN R665 in GG 36820 of 06 September 2013

¹⁷⁷ Item 2.7 in GN R665 in GG 36820 of 06 September 2013.

¹⁷⁸ Section 141 of the *NWA*.

¹⁷⁹ DWS *Green Drop National Report 2022 2*; Item 3.14(b) in GN R665 in GG 36820 of 06 September 2013.

¹⁸⁰ DWS *Green Drop National Report 2022 2*.

¹⁸¹ Reg 2(1) in GN R810 in GG 33541 of 17 September 2010.

Class I represents the highest effluent compliance standards, as these water resources are in a pristine condition and therefore require a higher level of protection.¹⁸² It should further be noted that WWTW effluent quality discharge in Class I water resources is generally consistent across different water management areas, and in some cases, the special limits prescribed under general authorisations are more stringent than the Class I effluent receiving standards.

In summary, the WSA 90% compliance requirement is assessed using general authorisation standards or licensed conditions, with the latter linked to RQOs classification of the receiving water resource from the WWTW point of effluent discharge. And any non-compliance with the WUA conditions related to effluent quality equates to water resource pollution.¹⁸³

4.4 DWS Compliance Monitoring and Enforcement: Annual Performance Planning

Incidents of water resource pollution, as indicated in the 2018 DWS' Strategy, are tracked by the DWS through various tools, platforms, and programmes.¹⁸⁴ As part of its organisational performance management, the DWS sets performance indicators and targets, including those related to CME functions, in its Annual Performance Plan (hereinafter APP), and reports on this planned performance in its Annual Report (hereinafter AR) each year.¹⁸⁵

APPs and ARs are the most reliable and independently auditable instruments that organs of state use to measure their performance in achieving organisational objectives,¹⁸⁶ including the implementation of core legislation such as the *NWA* by the DWS.

¹⁸² Reg 3(a) in GN R810 in GG 33541 of 17 September 2010.

¹⁸³ See para 4.5.3 below.

¹⁸⁴ DWS *CME Strategy* 10-16.

¹⁸⁵ Regs 25 and 31 in GN R877 in GG 40167 of 29 July 2016

¹⁸⁶ Auditor-General 2025 <https://pfma-2021-2022.agsareports.co.za/audit-101/?utm>

From the 2020/21 to 2023/24 performance years, the DWS has maintained four performance indicators to measure progress toward achieving the strategic outcome of "enhanced regulation of the water and sanitation sector" (see Table 4 below). The overarching objective, as set out in section 2 of the *NWA*, is to protect water resources in the public interest and for the benefit of current and future generations. These performance indicators, which relate directly to CME functions, have remained consistent throughout the period, providing a reliable three-year data series that illustrates patterns of performance in implementing the NWA's CME provisions. The relevance and directness of these APP and AR documents cannot be overstated, as they reflect the DWS's approach to CME performance at the organisational level and serve as authoritative evidence for evaluating compliance and regulatory effectiveness.

These indicators include: (i) number of water users monitored, (ii) number of WWS assessed for Green Drop, (iii) percentage of reported compliance cases investigated, and lastly (iv) number of non-compliant WWS monitored. Collectively, these indicators provide a basis for assessing the DWS regulatory performance and its efforts to ensure compliance with WUA conditions by WWTWs.

Table 4: Four years APP targets

Annual Performance Plan				
Outcome	Enhanced regulation of the water and sanitation sector			
Output	65% Compliance to environmental legislation by 2025 [2020/21 performance year] - Water resource regulatory prescripts developed and implemented [2021/22 – 2023/24 performance year]			
Annual Output Targets	2020/21¹⁸⁷	2021/22¹⁸⁸	2022/23¹⁸⁹	2023/24¹⁹⁰
Output Indicator 1: Number of water users monitored for compliance	333	324	379	406

¹⁸⁷ DWS APP 2020/21 47-48.

¹⁸⁸ DWS APP 2021/22 33-34.

¹⁸⁹ DWS APP 2022/23 52.

¹⁹⁰ DWS APP 2023/24 60.

Annual Performance Plan				
Outcome	Enhanced regulation of the water and sanitation sector			
Output	65% Compliance to environmental legislation by 2025 [2020/21 performance year] - Water resource regulatory prescripts developed and implemented [2021/22 – 2023/24 performance year]			
Annual Output Targets	2020/21¹⁸⁷	2021/22¹⁸⁸	2022/23¹⁸⁹	2023/24¹⁹⁰
Output Indicator 2: Percentage of reported non-compliant cases investigated	80%	80%	80%	80%
Output Indicator 3: Number of wastewater supply systems assessed for compliance with the Green Drop Regulatory requirements	963	963	0	1004
Output Indicator 4: Number of non-compliant wastewater systems monitored against the Regulatory Requirements	341	366	408	429

The number of users monitored for compliance with their WUA conditions is an important point to reflect on because it paints the scope that EMIs within the DWS need to traverse to fulfil their responsibility of protecting the water resources from non-compliance of users. For instance, in 2020/21 there were about 85,000 billed water users,¹⁹¹ a figure which remained constant till 2023/24,¹⁹² and about 55000 registered user.¹⁹³

By contrast, the number of reported cases is not a known figure at the beginning of the planning stage, and it is therefore captured as a percentage target. The percentage target constitutes the second performance indicator, which relates to cases reported to the DWS through various channels, including complaints, referrals, water use licence monitoring

¹⁹¹ DWS APP 2020/21 16.

¹⁹² DWS APP 2023/24 28.

¹⁹³ DWS National State of Water Report 2023 183.

results (IRIS), validation and verification processes, and site visits by officials.¹⁹⁴ This is an important indicator to investigate, as it illustrates the extent to which reported cases are pursued and provides insight into the nature of enforcement actions that follow.

The third and fourth performance indicators are somewhat related, the former results in Green Drop assessment reports whilst the latter monitor those systems that have been found non-compliant as part of the assessments, this is important indicator because it goes into the heart of CME function, enforcement.¹⁹⁵ In this regard, the Green Drop assessments do not merely evaluate WWTW performance, but also serve as a regulatory tool for identifying risks, compliance failures, and operational deficiencies within WWSs. The subsequent monitoring of non-compliant systems enables the DWS to track corrective actions, assess whether WSAs are implementing remedial measures, and determine whether further enforcement intervention is necessary.¹⁹⁶

As it will be indicated in Table 5 below, in 2020/21, performance across all output indicators was significantly below target, with major shortfalls in the monitoring of water users and WWSs. This underperformance can be attributed to the COVID-19 pandemic.¹⁹⁷

Table 5: Four years APP Target Achievement/Shortfall

Annual Report				
Outcome	Enhanced regulation of the water and sanitation sector			
Output	65% Compliance to environmental legislation by 2025			
Annual Output Target	2020/21¹⁹⁸	2021/22¹⁹⁹	2022/23²⁰⁰	2023/24²⁰¹
Achievement				
Output Indicator 1: Number of water users monitored for compliance	172 (under y 161)	338 (over by 14)	422 (over by 43)	429 (over by 25)

¹⁹⁴ DWS APP 2023/24 184.

¹⁹⁵ DWS APP 2023/24 187.

¹⁹⁶ DWS Green Drop National Report 2022 18.

¹⁹⁷ DWS CME Annual Report 2022/23 26.

¹⁹⁸ DWS AR 2020/21 104.

¹⁹⁹ DWS AR 2021/22 69-70.

²⁰⁰ DWS AR 2022/23 78-79.

²⁰¹ DWS AR 2023/24 87-88.

Annual Report				
Outcome	Enhanced regulation of the water and sanitation sector			
Output	65% Compliance to environmental legislation by 2025			
Annual Output Target Achievement	2020/21¹⁹⁸	2021/22¹⁹⁹	2022/23²⁰⁰	2023/24²⁰¹
Output Indicator 2: Percentage of reported non-compliant cases investigated	74% (153 of 206 cases)	88% (324 of 367)	81% (344 out of 342) cases investigated	80% (467 of 583)
Output Indicator 3: Number of wastewater supply systems assessed for compliance with the Green Drop Regulatory requirements	0 (under 100%)	992 (Over by 29)	0 (No Green Drop Assessment)	1004 (Green Drop Watch Report)
Output Indicator 4: Number of non-compliant wastewater systems monitored against the Regulatory Requirements	No report	462 (over by 96)	455 (47 over)	438 (over by 9)

However, from 2021/22 onwards, there was a marked recovery, with DWS consistently meeting or exceeding most of its annual performance output targets. Monitoring of water users and non-compliant WWS improved steadily, often surpassing planned targets, while investigations of reported cases stabilised at or above 80%. The Green Drop assessments reflected a clear bi-annual cyclical pattern, with publication of WWSs assessment report in 2022 and the Watch Report in 2023. It is important to note that the DWS planned to monitor 435 WWSs that were found non-compliant with regulatory requirements, and this number represents almost half of all the WWSs owned by WSAs.²⁰²

4.5 Incidents of Water Resources Pollution: CME Annual Reporting Perspective

In addition to the APP and AR, CME functionaries within the DWS produce more detailed accounts of CME activities through dedicated CME Annual Reports. The 2023/24 report

²⁰² DWS APP 2023/24 to 2025/26 187.

continues a decade-long practice of producing this specialised form of reporting. These reports present compliance and enforcement information by user category (sector), including WWTWs, and express compliance levels as a percentage of adherence to WUA conditions (refer to **Annexure B** for typical WUA conditions)

The conditions are classified as either administrative or technical. Technical licence conditions have a direct impact on the performance of WWTWs in fulfilling their responsibility to prevent water resources pollution, while administrative conditions serve as supporting requirements to enable compliance with the technical conditions (refer to **Annexure C** for a compliance scorecard).

As outlined in Annexure C, percentage compliance is determined based on assessable points linked to the conditions of the licence, with the compliance and non-compliance findings converted into a percentage score of overall compliance by a user (refer to **Annexure D** for scorecard calculation template).

It should be noted that compliance with licence conditions does not necessarily imply that a user does not contribute to water resource pollution. It is possible for a user to exceed the compliance threshold, for example, achieving over 65% compliance; yet still have an incident of water resource pollution. This was the case at the Rietspruit WWTW, operated by eMalahleni Local Municipality, which achieved 67% compliance during monitoring but nonetheless triggered enforcement action by DWS due to a pollution incident observed during the monitoring exercise.²⁰³

4.5.1 CME Annual Reports

The CME Annual Reports provide a comprehensive overview of the *NWA* violations from the year preceding their publication, from the perspective of CME functionaries.²⁰⁴ As noted previously, compliance monitoring within DWS is guided both by planned performance and by the capacity to respond to unplanned *NWA* violations as they are

²⁰³ DWS *CME Annual Report 2022/23* 71.

²⁰⁴ DWS *CME Annual Report 2022/23* 10.

reported. This dual approach is reflected in the inclusion of two compliance monitoring performance indicators in the APP (refer to Output Indicators 1 and 2 in Table 4 above), representing the proactive and reactive dimensions of DWS's Strategy.²⁰⁵

4.5.1.1 Proactive compliance monitoring

As of 2023, there were 55 000 registered users in South Africa.²⁰⁶ The targeted number for compliance monitoring inspection against the overall users still represents less than a percentage point of all these registered users.²⁰⁷

Of the 422 and 433 water users monitored for compliance in the 2022/23 and 2023/24 financial years,²⁰⁸ only 46 and 75, respectively, were WWTWs operated by municipalities.²⁰⁹ Only 28% of them were found compliant with their licence conditions in 2022/23, whilst only 5% were compliant in 2023/24.²¹⁰

4.5.1.2 Reactive compliance monitoring

It must be noted that non-compliance reports are not limited to water use under section 21(f) and (g) of the *NWA*, which relates to effluent discharge of treated wastewater, they also include all uses under section 21 of *NWA*. However, the specific focus of this study is on municipalities that serve as WSAs and operate WWTWs and therefore relate to water use under Section 21(f) and (g) of the *NWA*.

In 2022/23, the DWS set a target to investigate 80% of reported cases. Out of 460 cases reported, 386 were investigated, representing an achievement of 84%, which exceeded the target by 4%.²¹¹ Similarly, in 2023/24, the target remained at 80%. A total of 583

²⁰⁵ DWS *CME Strategy 2018* 4.

²⁰⁶ DWS *National State of Water Report 2023* 183.

²⁰⁷ DWS *CME Annual Report 2022/23* 26.

²⁰⁸ DWS *CME Annual Report 2022/23* 30; DWS *CME Annual Report 2023/24* 46.

²⁰⁹ DWS *CME Annual Report 2022/23* 30-31; DWS *CME Annual Report 2023/24* 46-47.

²¹⁰ DWS *CME Annual Report 2022/23* 71-74; DWS *CME Annual Report 2023/24* 100-107.

²¹¹ DWS *CME Annual Report 2022/23* 33.

cases were reported, of which 467 were investigated, resulting in an achievement of exactly 80%, thereby meeting but not exceeding the set target.²¹²

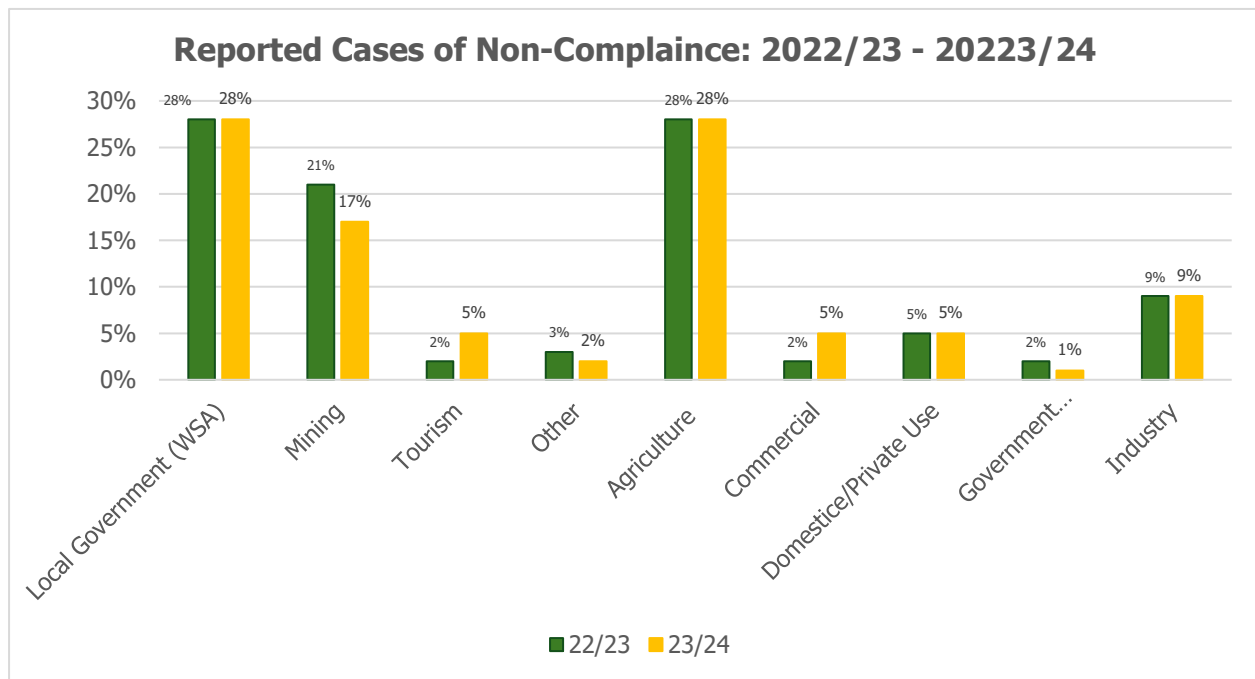


Figure 5 Reported Cases of Non-Compliance 22-24

Figure 5 above illustrates the persistent level of non-compliance by WWTWs (WSAs), dwarfed by the agricultural sector. The reported cases of non-compliance for 2022/23 and 2023/24 show that WWTWs remained one of the most significant contributors to reported cases. In both years, WWTWs accounted for close to 30% of all reported cases, making it the single largest sector of concern.

Figure 5 also represents 292 reported cases over the two years, which is twice the total number of WSAs in South Africa. Even if the cases were evenly distributed, each WSA would be reported twice, indicating that certain WSAs were cited multiple times during this period. This high proportion likely underscores persistent compliance challenges within WSAs.

²¹² Department of Water and Sanitation *CME Annual Report 2023/24* 52.

4.6 Incidents of Water Resources Pollution: Green Drop Reports

4.6.1 What is Green Drop?

The Green Drop assessment is an incentive-based regulatory programme aimed at encouraging WSAs to comply with the effluent quality standards stipulated in their wastewater discharge authorisations, whether under general or special limits.²¹³ The incentive component is derived from sector recognition, with awards and public esteem granted to WSAs that demonstrate excellence in compliance and wastewater management performance.²¹⁴

The WSAs, for the purposes of Green Drop certification, are assessed through a Green Drop Standard. The standard is constituted by five Key Performance Areas (hereinafter KPAs) that add up to 100% with bonus and penalties constituting fifteen percent each. The KPAs are capacity management (15%), environmental management (15%), financial management (20%), technical management (20%), and effluent and sludge compliance (30%).²¹⁵

KPA E deals with the effluent and sludge compliance, which falls directly within the scope of this study as it assesses effluent and sludge quality compliance. It is further subdivided into four sub-areas, namely: (i) submission of compliance monitoring data (sampling test results) to the Department of Water and Sanitation (DWS); (ii) possession of a valid water use licence; (iii) compliance of effluent discharge quality with physical, microbiological, and chemical standards; and (iv) classification of sludge in accordance with applicable guidelines.²¹⁶ Compliance with KPA E generally indicates that a WWS is not polluting water resources. However, a WSA may achieve the 90% threshold for this KPA and still fail to obtain Green Drop certification. Conversely, no WSA can obtain Green Drop certification without first meeting the KPA E requirements.

²¹³ GN R665 in GG 36820 of 06 September 2013.

²¹⁴ Ntombela *et al* *Water SA* 704.

²¹⁵ DWS *Green Drop National Report 2022* 6-8.

²¹⁶ DWS *Green Drop National Report 2022* 7-8.

For the reasons outlined above, the analysis of water resource pollution incidents, as presented in Green Drop Reports, in this study will be undertaken through the lens of WWS performance against KPA E, as reflected in the diagnostic reporting approach of the Green Drop Report. This diagnostic snapshot represents an effort by DWS to identify specific areas of strong or weak performance within the overall score of a WSA.²¹⁷

4.6.2 Green Drop incidents of non-compliance

The primary record of water pollution incidents by WSAs is captured on the IRIS system by WSAs themselves, a self-reporting, as part of monitoring programme, which serves as the main data source for the Green Drop reports.²¹⁸ The same reporting requirement also forms a standard condition of water use authorisations.

In 2022, DWS reported on a Green Drop Certification audit conducted across all 850 WWSs operated by the hundred and forty four (144) WSAs for the period July 2020 – June 2021 (WSA financial year),²¹⁹ which was 100% coverage, this is from all 995 WWSs in South Africa, including those that are not operated by WSAs.²²⁰ This means every WWTW and its point of discharge into the river system was assessed for compliance at 90% threshold with its WUA conditions, from this assessment, only 22 WWSs managed to achieve a minimum threshold of 90%.²²¹ It must be noted that WSA-owned and operated WWSs constitute 80% of all WWSs within the Green Drop assessment pool.

The 334 WWSs, which represent 39% of the overall that WWSs, received less than 31%. These are WWSs that are then constantly being monitored from a regulatory compliance point of view (Output Indicator 4 in DWS' APP).²²² The regulatory enforcement in this instance refers to the submission, by WSA, a "corrective action plan" to DWS within 60 days from the publication of the Green Drop report.²²³ It must be noted that DWS issued

²¹⁷ DWS *Green Drop National Report 2022* 3.

²¹⁸ DWS *Green Drop Watch Report 2023* vi.

²¹⁹ DWS *Green Drop National Report 2022* 6.

²²⁰ DWS *Green Drop National Report 2022* x.

²²¹ DWS *Green Drop National Report 2022* 10.

²²² DWS *Green Drop National Report 2022* xi.

²²³ DWS *Green Drop National Report 2022* 44.

non-compliance letters to all 334 WSAs whose systems scored below 31%.²²⁴ These WWSs reflect significant failures in treatment and sewer collection performance, attributable to inadequate infrastructure investment and insufficient operational and technical capacity.²²⁵

4.6.3 The 2022 diagnostic view on the effluent and sludge compliance performance area

In 2022, the Green Drop Report highlighted a serious trend of non-compliance under KPA E. A total of 56% (475) of all WWSs were scored as critical, meaning they failed to achieve more than 31% compliance in effluent and sludge quality, not in the overall score, but specifically in relation to discharged effluent quality and sludge treatment. Furthermore, seven WSSs fell within the range of partial compliance, scoring below 80% but above 31%.²²⁶

In an ideal scenario, no WSS should score below 31% in any of its KPAs, particularly in effluent and sludge compliance. The benchmark for optimal performance is to achieve scores above 80% across all KPAs,²²⁷ with systems operating within the range of 80–100% regarded as functioning at an optimal level.²²⁸ However, as can be deduced from Figure 6 below,²²⁹ it indicates the gaps in so many respects, it summarises the national KPA E score per province.

²²⁴ DWS *Green Drop Watch Report 2023* vii.

²²⁵ DWS *Green Drop National Report 2022* 10.

²²⁶ DWS *Green Drop National Report 2022* 20.

²²⁷ DWS *Green Drop National Report 2022* 20.

²²⁸ DWS *Green Drop National Report 2022* 47.

²²⁹ DWS *Green Drop National Report 2022* 47, 93, 140, 177, 227, 263, 306, 341 and 398.

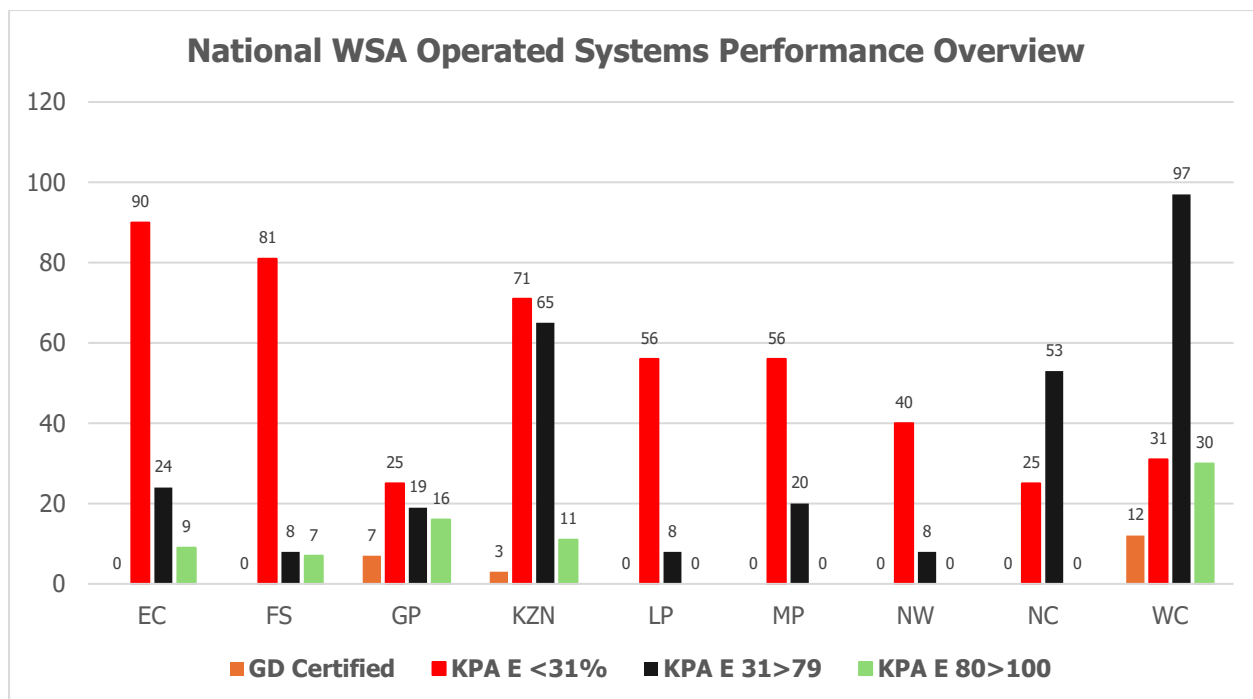


Figure 6 National WSA Operated System Overview

Figure 6 above reveals a widespread national crisis in effluent and sludge compliance. A substantial proportion of WWSs scored below the 90% threshold, which, by implication, constitutes incidents of water resource pollution. Of these, a critical share failed to score above 31%, indicating severe and persistent non-compliance, which can be deemed a system's dysfunction; while many others fell within the partial compliance range of 31–79%, still well below the minimum acceptable standard.

In practical terms, each monitoring period, whether sampled daily or monthly, in line with WUA conditions, it represents a repeated occurrence of pollution. This national pattern demonstrates that water resources are being consistently and widely compromised, with only a limited number of WSSs operating within the optimal range of 80–100%.

In summary, there were 777 wastewater supply systems that operated below 80% of the KPA E, thus these WSAs have polluted water resources throughout the year under review.

This number far exceeds the number of WWSs that were diagnosed as critical, below 31% on the overall score, which was 334.²³⁰

4.6.4 The 2023 Green Drop Watch Report

The 2023 Green Drop Watch Report (hereinafter the "Watch Report") is a follow-up assessment designed to track improvements against the 2022 Green Drop National Report,²³¹ which serves as the baseline. The Watch Report focuses on three key areas: firstly, the implementation of corrective action plans for systems that scored below 31% overall;²³² secondly, the extent to which these corrective action plans have been funded; and thirdly, the interventions implemented by the DWS in response to the identified deficiencies.²³³ The Watch Report focuses on the 334 dysfunctional systems, that were flagged in 2022 Green Drop National Report.

This regulatory intervention, the Watch Report, by DWS seems to be an enforcement of some sort. It does not assess compliance for the period under review; it is a support programme to assist the under performers in terms of Green Drop Assessment.

4.7 Chapter Summary

This chapter set out to examine the state of water resource pollution associated with WWS operated by WSAs, with particular reference to recorded pollution incidents reported through Green Drop and CME reporting systems. It has presented empirical evidence outlining the extent and nature of water resource pollution associated with these systems. The main findings indicate persistent and widespread non-compliance across WWTW operations, reflected in low levels of Green Drop certification and a significant proportion of systems classified as high risk or in need of intervention. The next chapter shifts the focus from the observed pollution trends to the manner in which the DWS responds to these challenges through its CME tools under the *NWA*.

²³⁰ DWS *Green Drop National Report 2022* xi.

²³¹ DWS *Green Drop Watch Report 2023* i.

²³² DWS *Green Drop Watch Report 2023* vii.

²³³ DWS *Green Drop Watch Report 2023* vii.

Chapter 5 The DWS's Level of Enforcement and Choice of CME Tools

5.1 Introduction

This chapter builds on the constitutional and legal framework for water resource protection outlined in Chapter 2, as well as the CME tools established under the *NWA* and examined in Chapter 3. It also draws on the empirical evidence of water resource pollution by WSAs presented in Chapter 4. Taken together, these chapters provide the legal basis, enforcement instruments, and factual context necessary to assess the regulatory response to water resource pollution. Within this broader framework, the present chapter focuses on how the DWS responds to the incidences of non-compliance and pollution identified in Chapter 4. It examines the deployment of CME tools under the *NWA* and evaluates the extent to which these instruments are applied in practice in relation to non-compliant WWSs.

This chapter will assess the DWS prioritisation approach in selecting and implementing enforcement interventions, with particular emphasis on high-risk and critically non-compliant wastewater systems. The analysis will draw on baseline data from 828 WWSs, derived from a total of 850 systems assessed, excluding the 22 systems that achieved Green Drop certification. Of these, 31% were identified as being in a critical condition, forming the basis for evaluating compliance monitoring and enforcement responses

In line with this risk profile, the DWS CME approach would be expected to prioritise interventions against non-compliant WWTW following the publication of the 2022 Green Drop Report, which revealed a widespread pattern of non-compliance. In this regard, Output Indicator 4 of the DWS' 2022/23–2023/24 APP targets the monitoring of more than 400 non-compliant WWS (see Table 5 above). This target is consistent with the DWS' prioritisation framework, which focuses on high-impact polluters and repeat non-compliant water users. The 2023/24 audited AR states that the DWS achieved compliance monitoring of 455 WWSs in 2022/23 (used as the baseline year for the 2023/24 plan), while 438 systems were monitored in 2023/24 under Output Indicator 4 (see Table 5 above).

In addition to ARs, the 2023/24 CME Annual Report reported other compliance monitoring in relation to WWSs, as depicted in Table 5 below.²³⁴

Of particular importance is that the DWS ARs and APPs do not specify the enforcement tools or actions taken against non-compliant WWSs under Output Indicator 4. These reports merely indicate that compliance monitoring was conducted, without providing details on subsequent enforcement measures. This points to the conclusion that any follow-up enforcement actions are reported separately through the DWS CME Annual Reports.

5.2 Enforcement Investigations

The choice of an enforcement action or tool arises from the outcome of an investigation, a formal process undertaken by the DWS upon a reasonable suspicion that the provisions of the *NWA* or the conditions of WUA have been violated. The purpose of this process is to gather admissible evidence to inform and support appropriate enforcement action.²³⁵

It is evident that there is no further need to conduct investigation of non-compliant WWS based on Green Drop report, however, as stated previous WWSs can be repeated violators of the WUA conditions and the *NWA* in general, to this end DWS record and investigate reported cases of violation, as depicted in Figure 8 below,²³⁶ over the period of three years, starting in 2021/22 to 23/24 financial year.

²³⁴ DWS *CME Annual Report 2023/24* 55.

²³⁵ DWS *CME Annual Report 2023/24* 5.

²³⁶ DWS *CME Annual Report 2023/24* 55.

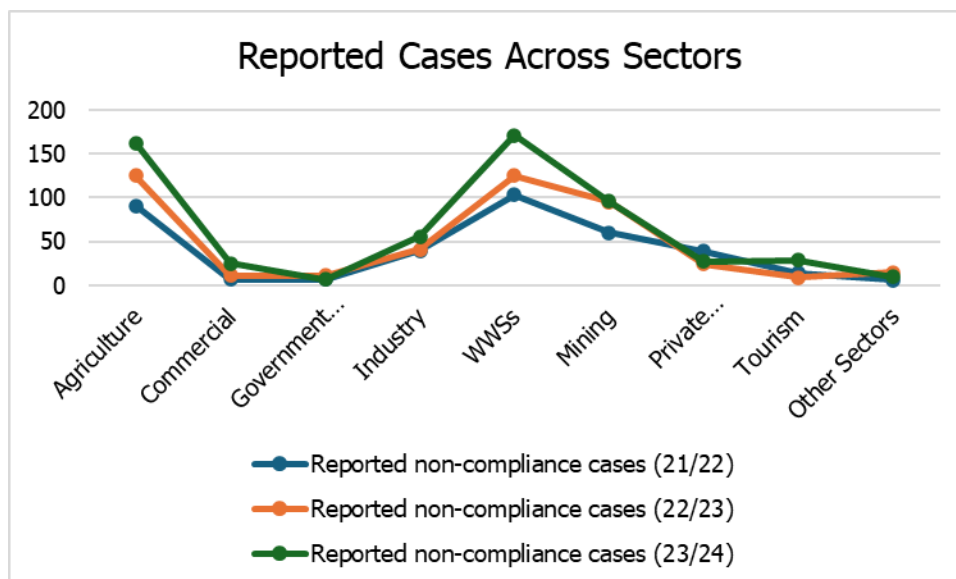


Figure 7 Reported Cases on Non-Compliant²³⁷

Figure 7 above indicates that WWSs consistently represent the highest proportion of reported non-compliance cases across the three financial years (2021/22, 2022/23, and 2023/24). In the 2023/24 financial year, reported non-compliance cases for WWSs peaked at 171 cases, showing a notable increase compared to 2022/23, when cases were around 125, and 2021/22, when they were slightly over 100. This upward trajectory suggests consistent and persistent challenge of compliance by WWSs.

Of these reasonable suspicion of non-compliance cases, DWS followed the reports with investigations. Figure 8 below shows that WWSs consistently account for the largest share of investigated non-compliance cases across all three financial years (2021/22, 2022/23, and 2023/24), in line with the reported figures in Figure 8 above.²³⁸

²³⁷ DWS CME Annual Report 2023/24 55.

²³⁸ DWS CME Annual Report 2023/24 55.

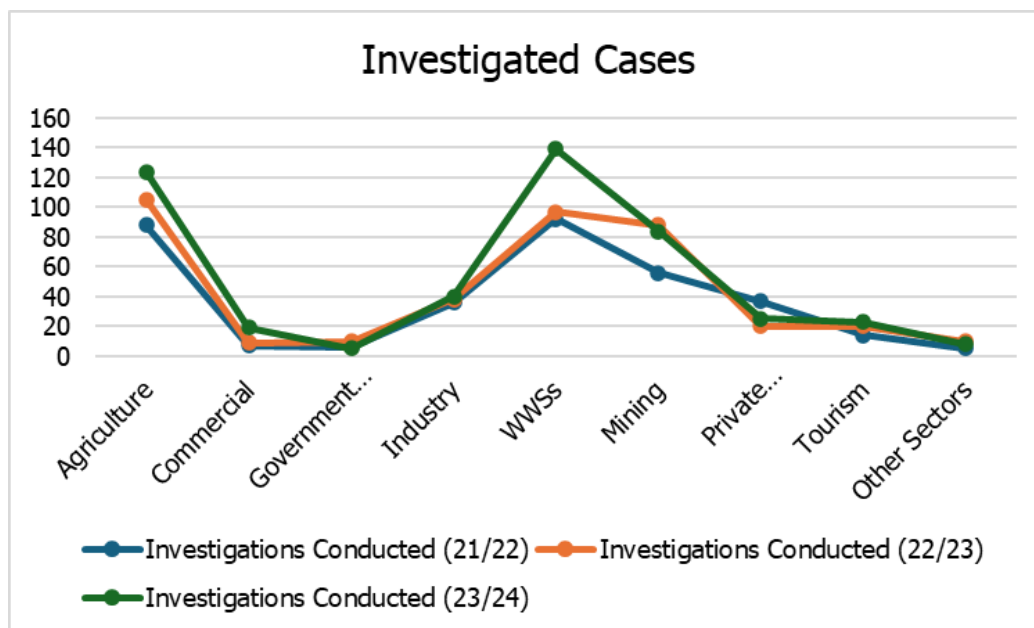


Figure 8 Investigated Cases²³⁹

The overall investigation rate across all sectors was above 90% only in 2021/22 but declined to 84% (2022/23) and 80% (2023/24). For WWSs specifically, the rates were 89.3%, 77.6%, and 81.3% in all three years, indicating that less than 90% of reported non-compliance cases were investigated in the latter two years.

5.3 Enforcement Measures

In the CME hierarchy, the "stick" follows the "carrot." In response to non-compliance identified through Green Drop assessments, CME plans, and reported or investigated cases, the DWS would, where necessary, employ enforcement measures to ensure that WSAs address their non-compliance.

Figure 9 below summarises the enforcement actions and types of the *NWA* tools that the DWS deployed to address non-compliance across all sectors of water users.²⁴⁰ In general, DWS predominantly issues Notices as an initial enforcement response to non-compliance. The subsequent issuance of Directives represents a significantly lower proportion relative

²³⁹ DWS CME Annual Report 2023/24 55.

²⁴⁰ DWS CME Annual Report 2023/24 55.

to Notices, suggesting that most non-compliant users take corrective action following the issuance of a Notice.



Figure 9 Employed Enforcement Measures²⁴¹

However, there was a marked increase in criminal enforcement during the 2022/23 financial year. The number of criminal cases opened rose sharply from six (6) in 2021/22 to seventeen (17) in 2022/23 and further escalated to sixty-three (63) in 2023/24. It is also noteworthy that the number of cases referred to the NPA increased from zero (0) to twelve (12) over the same two-year period, indicating a strengthening of DWS's transition from administrative enforcement actions to criminal prosecution in addressing persistent non-compliance.

²⁴¹ DWS CME Annual Report 2023/24 55.

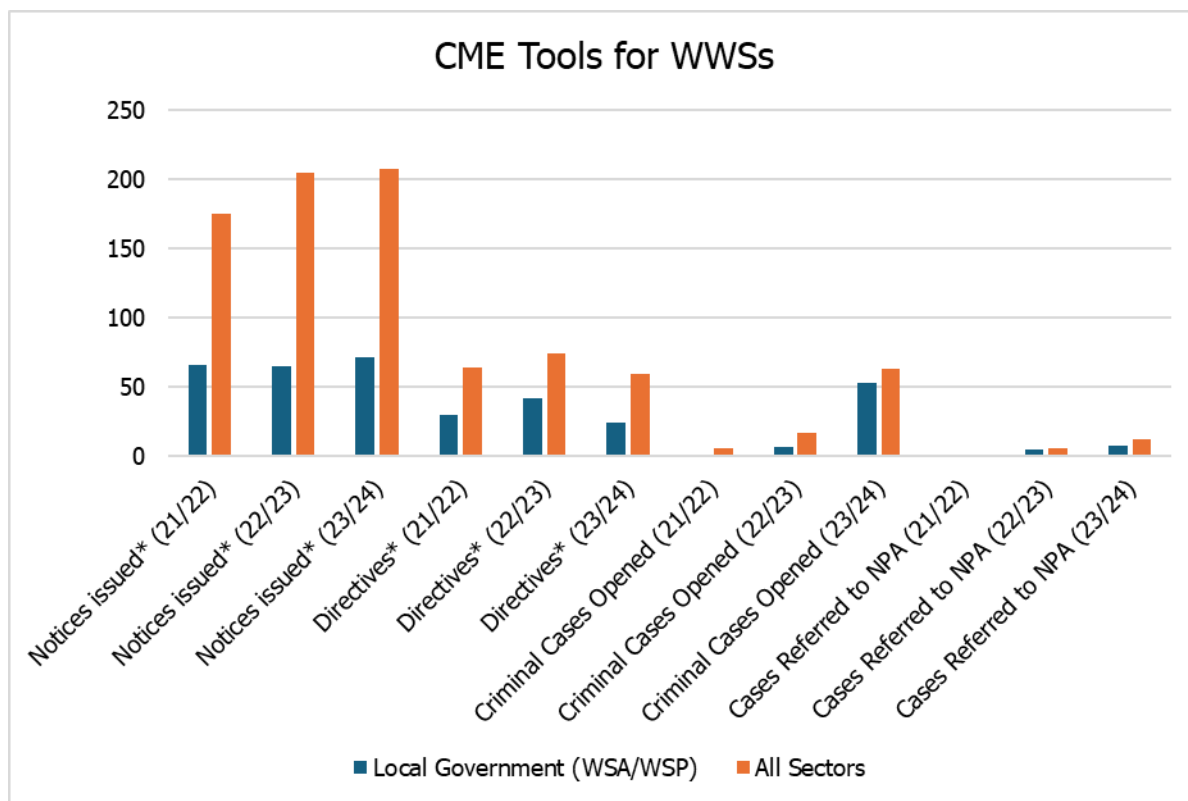


Figure 10 CME Tools within WWSs²⁴²

Figure 10 above illustrates the use of CME tools over three years against WWSs.²⁴³ It compares the performance of Local Government (as WWSs) with that of the overall use of CME tools across the sectors.

Overall, the administrative enforcement tools, such as Notices and Directives, are used far more frequently than criminal enforcement actions, with WWSs taking a biggest portion of issued tools. Notices issued remain the most widely used CME tool throughout the three years. Both in WWSs and all other sectors show a consistent increase in the number of Notices issued.

While WSAs were consistently issued with between 66 and 71 Notices each year, the total across all sectors was significantly higher, averaging around 195 Notices and approximately 65 Directives per year for WWSs. WWSs accounted for the largest portion

²⁴² DWS CME Annual Report 2023/24 55.

²⁴³ DWS CME Annual Report 2023/24 55.

of the Notices and Directives issued, indicating that this sector remains a key focus of DWS CME efforts.

This consistently higher use of administrative tools compared to other enforcement measures before 2023/24 indicates a strong emphasis on promoting compliance through administrative actions before resorting to criminal proceedings. However, there was a clear departure from this trend in 2023/24, as the number of criminal cases opened increased substantially, rising from relatively few in previous years to levels comparable with Notices and Directives.

Although the total number of cases referred to the NPA remained small, they showed a significant increase of about 100% in 2023/24 compared to the previous years, with WWSs accounting for most of this rise. This drastic move in the utilisation of administrative CME tools (Notices and Directives) in favour of criminal compliance measures represents a clear strategic shift by the DWS. This reflects the DWS' declared intention to transition from a passive to a more assertive enforcement approach, characterised by an increased pursuit of criminal actions.²⁴⁴

5.4 Criminal Enforcement

Given DWS's stated intention to aggressively pursue criminal enforcement of the *NWA* against WSAs, it is important to examine this approach in detail. Essentially, it involves organs of state, WSAs, and DWS taking legal action against each other to protect water resources from pollution by WWTWs. However, this approach may conflict with the spirit and provisions of section 45 of the *IGRF Act* and is likely to result in protracted and resource intensive enforcement processes.²⁴⁵

It was further noted, as a general trend, that approximately half of criminal enforcement cases for environmental violations are resolved through plea and sentencing agreements

²⁴⁴ DWS *CME Annual Report 2023/24* 134.

²⁴⁵ Kidd M "Administrative Law and Implementation of Environmental Law" 236.

in terms of section 105A of the *Criminal Procedure Act* 51 of 1977 (hereinafter, the *CPA*).

In the case of Lekwa Local Municipality, the municipality faced seven counts relating to environmental non-compliance. These included unauthorised disposal of waste, failure to comply with a compliance notice and directive, unlawful water use, causing significant pollution to the environment, and unlawfully and negligently disposing and distributing raw, untreated sewage. In terms of a plea and sentencing agreement, the municipality agreed to pay a fine of R70 million, which is to be allocated over the next three years to repair and rehabilitate non-functioning wastewater infrastructure.²⁴⁶

In the case of Dipaleseng Local Municipality, the municipality faced several charges emanating from untreated wastewater from their WWTW, these included pollution of water resources in contravention of the *NWA*, and failure to comply with remedial directives. In terms of a plea and sentencing agreement, the municipality agreed to pay a fine of R160 million, with R40 million suspended for five years on condition of no further pollution-related convictions. The fine is to be used over the coming years to repair and rehabilitate non-functioning wastewater infrastructure and restore the quality of affected water resources.²⁴⁷

In the case of eMalahleni Local Municipality, the municipality committed similar contraventions to those in Dipaleseng and Lekwa, unauthorised disposal of waste and negligent pollution due to the overflow of untreated sewage from sewer manholes. Under a plea and sentencing agreement, the municipality was fined R650 million, of which R150 million was suspended for three years. The remaining R500 million is earmarked for urgent repair and rehabilitation of its wastewater infrastructure, subject to proof of expenditure and technical rehabilitation reports.²⁴⁸

²⁴⁶ DFFE *National Environmental Compliance and Enforcement Report 2023-24* 79.

²⁴⁷ DWS 2024 <https://www.gov.za/news/media-statements/deputy-minister-sello-seitlholo-welcomes-fine-imposed-dipaleseng-local>

²⁴⁸ Marriah-Maharaj 2025 https://iol.co.za/news/crime-and-courts/2025-11-13-r650-million-fine-for-emalahleni-municipality-after-raw-sewage-floods-environment/#google_vignette.

A point to consider regarding this new and aggressive enforcement approach adopted by DWS is that the NPA recognises the inherent complexity of criminal enforcement of environmental violations.²⁴⁹ This complexity stems from both the nature of environmental law and the scientific and technical evidence required to substantiate cases, including extended turnaround times for case finalisation, significant resource demands, and the presentation of evidence involving specialised scientific and technical elements that may fall outside the expertise of prosecutors and judicial officers.²⁵⁰

Another concerning aspect of DWS's new aggressive approach to enforcing the *NWA* violations for the purpose of criminally prosecuting WSAs is that its EMIs, who may be trained scientists, are now expected to possess an understanding of the law of evidence and criminal procedure for the approach to be effective,²⁵¹ notwithstanding the inherent challenges associated with this approach.

For DWS, the challenges of criminal enforcement are evidenced by the fact that, in 2022/23, all six judicial enforcement cases of the *NWA* violations were resolved through plea and sentencing agreements, with only one case involving a WSA. In 2023/24, both plea and sentencing agreements concluded during the year were against WSAs.²⁵² From this trend, it follows that DWS would follow a national trend when it comes to criminal enforcement of the *NWA*, that is these cases will be settled through plea and sentencing agreement.

The point that then needs to be evaluation is whether these plea and sentencing agreements yield any results, whether they stop continuation of water resource pollution by WWSs.

5.5 Chapter Summary

This chapter evaluated the DWS' application of CME tools under the *NWA*, with specific focus on the regulatory response to non-compliance by WWSs in relation to their water

²⁴⁹ NPA *Annual Report 2022/23* 56

²⁵⁰ Strydom and Field 2023 *PELJ* 20.

²⁵¹ Kidd M "Administrative Law and Implementation of Environmental Law" 240.

²⁵² DWS *CME Annual Report 2023/24* 158-161.

use authorisations. The objective of the chapter was to evaluate how CME tools are prioritised and applied within a risk-based regulatory framework informed by Green Drop performance outcomes. This objective was achieved through an examination of the 2022 Green Drop Report and subsequent DWS planning and reporting instruments, including APP and AR. The analysis demonstrated how non-compliance data was translated into enforcement prioritisation thresholds and monitoring targets within the CME system.

A key observation from the analysis is that CME implementation is predominantly structured around administrative enforcement mechanisms, which constitute the operational core of regulatory intervention. In addition, the analysis indicates an emerging reliance on criminal prosecution as an enforcement option, through the escalation of cases to prosecutorial authorities, reflecting an evolving enforcement trajectory within the DWS regulatory framework. Recent plea and sentencing agreements involving Lekwa, Dipaleseng, and eMalahleni municipalities illustrate this shift in enforcement approach.

Chapter 6 Findings, Recommendations and Conclusions

6.1 Introduction

The preceding chapters examined the legislative framework that empowers the DWS to execute CME functions effectively. It is evident that CME functions involve administrative actions, requiring the DWS to follow the processes outlined in the *NEMA* and the *NWA* to comply with the *PAJA* when engaging with WSAs. Additionally, the DWS must observe the provisions of the *IGRF Act*, particularly section 45, when implementing similar measures.

It is apparent from Green Drop reports and CME Annual Report assessments that WSAs remain persistent and significant single source polluters of water resources. At the same time, DWS has demonstrated readiness to adapt its enforcement approach to effectively address non-compliance by WSAs.

6.2 Findings of the study

The literature review revealed the following in this study:

6.2.1 Legislative Framework

The DWS's CME functions against WSAs operate within a legislative framework comprising the *NWA* (as the sector-specific SEMA legislation), the *NEMA* as the overarching environmental management framework empowering the designation of EMIs, the *PAJA* governing procedural fairness in CME processes, and the *IGRF Act*, which regulates coordination between DWS and WSAs. This framework is further anchored in the *Constitution*, which obliges the DWS to support WSAs in the provision of sustainable water and sanitation services.²⁵³

It is an accepted fact that CME functions are administrative actions, in form and substance; as such, adherence to procedural fairness under the *PAJA* is a legal requirement that DWS observe. However, it is not evident that DWS consistently observes

²⁵³ See para 2.1-2.5 above.

its obligations under section 45 of *IGRF Act* to avoid judicial resolution of disputes with WSAs, nor the support it must provide to WSAs in terms of section 154 of the *Constitution*. The only reported CME-related intergovernmental coordination DWS engages in is on EMI Network activities, and there is no other evidence to suggest that DWS has a deliberate programme to support WSAs to comply, except for its role as regulator.²⁵⁴

6.2.2 Implementation of Compliance Monitoring and Enforcement Tools

The DWS primarily relies on Directives and Notices to enforce compliance with the *NWA* and WUA conditions. In practice, Compliance Notices are issued as "intent to issue" Directives in terms of sections 19 or 53 of the *NWA*. While Warning Letters are listed among the CME tools, they are not recorded as official CME responses to the *NWA* violations by WSAs, which may reflect their extraneous nature relative to other *NWA* tools.

Instructions to undertake audits, as a CME tool, is not reflected in use in any of the DWS' CME annual reports. In contrast, criminal prosecutions have seen a surge over the past two years; however, their efficacy remains to be tested in the coming years. The number of cases opened compared to those referred to the NPA for prosecution does not tally, indicating weaknesses in enforcement investigation. Ideally, the figures for cases opened and cases referred to NPA should be closely aligned or show minimal disjuncture.

Furthermore, only one (1) out of six (6) plea and sentencing agreements was concluded in 2022/23, while in 2023/24, there were only two (2) such agreements. It remains unclear whether the single case referred to the NPA in 2021/22 is the same as the one the plea and sentencing agreement concluded in 2022/23, or whether the two (2) agreements settled in 2023/24 are part of the seven cases that were opened in 2022/23.

The withdrawal of water use entitlements has never been applied against WSAs, and it is highly unlikely that such a CME tool could ever be used against WSA, given the centrality of access to water and sanitation to basic human life.

²⁵⁴ See para 3.2 above.

6.2.3 The Commission of Water Resource Pollution by Water Services Authorities

It is quite evident from the study that the majority of WSAs owned WWSs are not complying with effluent discharge quality standards. According to the 2022 National Green Drop Report, of the 850 WWSs owned and operated by WSAs, only 22 systems (3%) achieved Green Drop certification. In stark contrast, 334 systems (39%) scored below 31%, indicating a state of severe dysfunctionality, while a further 443 systems (52%) fell within the partial compliance range (31–79%). Collectively, these figures reveal that over 90% of WWSs contribute to varying degrees to the pollution of water resources.²⁵⁵

This pattern highlights a national wastewater management system that is in crisis, where most WWSs continuously discharge inadequately treated wastewater effluent into our rivers, directly contravening sections 19 and 20 of the *NWA*. Section 20 of the *NWA* is point is important because it relates addressing incidences of water resource pollution as emergency incidents. This issue is further discussed under paragraph 6.2.5 below.

6.2.4 Effectiveness of Compliance Monitoring

The DWS APPs consistently commit to the monitoring of hundreds of non-compliant WWSs under Output Indicator 4; however, they do not specify the enforcement tools or measures subsequently undertaken as part of the achievements reported in the ARs. Enforcement actions are instead reported separately through the CME Annual Reports, without being linked to Output Indicator 4.²⁵⁶

Furthermore, proactive compliance monitoring inspections remain disproportionately low compared to the overall number of registered water users, in general terms, and not specifically related to WWSs. For instance, out of approximately 55,000 registered users, only 379 were inspected in 2022/23 and 433 in 2023/24, with WSAs WWTWs accounting for merely 12–17% of the total inspections. It is also unclear whether the prioritisation

²⁵⁵ See paras 4.4 and 4.5 above.

²⁵⁶ See para 4.3 above.

approach outlined in the Compliance, Monitoring, and Enforcement Strategy informs these proactive compliance measures.

Further analysis reveals that the compliance audit approach is not specifically targeted at the critical conditions of authorisation. The case of the Rietspruit WWTW, which achieved 67% compliance yet triggered enforcement action for effluent pollution, illustrates that licence compliance percentages do not necessarily reflect actual compliance with environmental protection conditions prescribed in the WUA.

6.2.5 Water Resource Pollution as an Emergency

The study further finds that DWS does not treat persistent non-compliance by WWSs as pollution incidents within the meaning of section 20 of the *NWA*, which regulates "control of emergency incidents". Section 20(1) of the *NWA* defines an emergency incident as any unexpected event where a substance pollutes or has the potential to pollute a water resource. Given the continuous discharge of untreated or partially treated effluent from dysfunctional WWTWs into rivers and streams, these instances objectively meet the definitional threshold of "pollution incidents" as envisaged under this section.

However, the DWS continues to address these violations through routine administrative enforcement under sections 19 and 53 of the *NWA* rather than invoking the emergency response framework under section 20, which mandates immediate containment, clean-up, and remedial action by responsible persons or authorities. The failure to categorise such systemic effluent discharges as emergency incidents results in delayed remedial interventions and a diminished sense of urgency, contrary to the statutory intention of section 20.

6.3 Recommendations

The discharge of untreated or partially treated wastewater by WSAs into rivers and streams, at a consistent and persistent rate, is not only a crisis; it is an emergency that falls within the meaning of section 20 of the *NWA*, where the response should follow the letter of this law. In other words, WSAs must report the pollution incidents immediately

to DWS or affected CMA and WSAs to take measures to minimise the pollution.²⁵⁷ It cannot be treated as a one-off or isolated occurrence; rather, it requires a coordinated and concerted effort by all spheres of government.

6.3.1 Intergovernmental Relations Approach

The Green Drop National Report highlights that underinvestment in wastewater collection and treatment infrastructure, coupled with a lack of skilled capacity at the WSA level, remains a critical challenge.²⁵⁸ Considering that most WSAs rely on national transfers for both capital and operating budgets, as well as households owing WSAs in billions, this situation poses significant obstacles to addressing the crisis effectively. It is therefore recommended that the DWS, National Treasury, CoGTA, and WSAs establish a standing intergovernmental structure to manage this issue as an emergency within the meaning of section 20 of the *NWA*.

6.3.2 Reprioritised Compliance Monitoring Protocols

The DWS has adopted an aggressive approach to enforcing the *NWA* and the conditions of WUAs against WSAs through criminal enforcement tools. There remains a limited understanding of the underlying causes of non-compliance. A root cause driven solution is therefore essential to effectively address the crisis.²⁵⁹

Furthermore, the DWS compliance monitoring of WSAs should prioritise WUA conditions that have an immediate and direct impact on non-compliance, rather than assessing all conditions. This should not be seen as ignorance of other conditions of WUA, it simply serves the purpose of prioritising conditions that have a direct link to performance of WWTWs in relation to polluting parameters. This targeted approach would avoid monitoring outcomes like the Rietspruit WWTW, where a system is overall compliant but polluting water resources.²⁶⁰

²⁵⁷ Section 20(3) and (4) of the *NWA*.

²⁵⁸ See para 4.5.2 above.

²⁵⁹ See para 5.3 above.

²⁶⁰ See para 4.4 above.

6.4 Conclusion

Over the years, DWS has primarily relied on administrative CME tools, namely Notices and Directives, to ensure adherence to the *NWA* and WUA conditions. The limited effectiveness of these tools has prompted a shift towards criminal enforcement. However, given the documented challenges associated with criminal enforcement of environmental violations, its effectiveness remains uncertain.²⁶¹

It is therefore critical that the DWS adopts a comprehensive approach, utilising the full spectrum of CME tools under the law, to determine which mechanisms yield the best outcomes under specific circumstances.

It must also recognise that certain challenges within local government, such as corruption and a culture of non-payment for services by households,²⁶² are not issues that CME tools alone can resolve. Understanding the real causes of WSAs non-compliance with the *NWA* requires a holistic view of the challenge, and similarly, even to find a solution.

As such, to answer the research question: It is evident that the DWS has relied predominantly on administrative CME tools to address water resource pollution by WSAs, notwithstanding the recent shift towards increased criminal enforcement in the 2023/24 financial year. Civil enforcement remedies remain seldom utilised, as shown by the limited use of cost-recovery measures following remedial or preventative action, the non-existence of suspension of a WUA for WSAs and the invocation of section 20 of the *NWA* as an emergency directive to prevent or mitigate pollution.

²⁶¹ See para 6.3 above.

²⁶² See para 1.1 above.

BIBLIOGRAPHY

Books

Burns and Henrico *Administrative Law*

Burns Y and Henrico R *Administrative Law* 5th ed (Lexis Nexis Durban 2020)

Hoexter and Penfold *Administrative Law in South Africa*

Hoexter C and Penfold G *Administrative Law in South Africa* 3rd ed (Juta Claremont 2021)

Currie and De Waal *Bill of Rights Handbook*

Currie I and De Waal J *Bill of Rights Handbook* 6th ed (Juta Cape Town 2013)

De Vos and Freedman *South African Constitutional Law in Context*

De Vos P and Freedman W *South African Constitutional Law in Context* 2nd ed (Oxford University Press Cape Town 2021)

Du Plessis (ed) *Environmental Law and Local Government in South Africa*

Du Plessis A (ed) *Environmental Law and Local Government in South Africa* 2nd ed (Juta Claremont 2021)

Glazewski *Environmental Law in South Africa*

Glazewski J *Environmental Law in South Africa* 12th ed (LexisNexis 2024)

Kidd "Administrative Law and the Implementation of Environmental Law"

Kidd M "Administrative Law and the Implementation of Environmental Law" in King ND, Retief FP and Strydom HA (eds) *Fuggie and Rabie's Environmental Management in South Africa* 3rd ed (Juta Pretoria 2018) 125 – 207

King, Strydom, Retief (eds) *Fuggle & Rabie's Environmental Management in South Africa*

King ND, Strydom HA, Retief FP (eds) *Fuggle & Rabie's Environmental Management in South Africa* 3rd ed (Juta Cape Town 2018)

Knox-Mosdell and Kotzé "Regulation and mitigation of environmental pollution by local government"

Knox-Mosdell and Kotzé "Regulation and mitigation of environmental pollution by local government" in Du Plessis (ed) *Environmental Law and Local Government in South Africa* 2nd ed (Juta Claremont 2021)

Mouton *How to Succeed in your Master's and Doctoral Studies: A South African Guide and Resource Book*

Mouton J *How to Succeed in your Master's and Doctoral Studies: A South African Guide and Resource Book* (Van Schaik Pretoria 2001)

Oosthuizen, van der Linde and Basson "National Environmental Management NWA 107 of 1998 (NEMA)"

Oosthuizen M, van der Linde M and Basson E "National Environmental Management NWA 107 of 1998 (NEMA)" in King ND, Retief FP and Strydom HA (eds) *Fuggle and Rabie's Environmental Management in South Africa* 3rd ed (Juta Pretoria 2018) 125 – 207

Riedel *Research Strategies for Secondary Data*

Riedel M *Research Strategies for Secondary Data* (SAGE Publications 2000)

Schnell "Time Series Designs"

Schnell "Time Series Designs" in Barnes and Forde (eds) *The Encyclopedia of Research Methods in Criminology and Criminal Justice* (Wiley-Blackwell 2021)

Stewart and Kamins *Secondary Research*

Stewart DW and Kamins MA Secondary Research (SAGE Publications 1993)

Swart *et al A Water Reclamation and Reuse Guide for South African Municipal Engineers*

Swart CD *et al A Water Reclamation and Reuse Guide for South African Municipal Engineers* (Water Research Commission Pretoria 2022)

Journal Articles

Botai, Botai and Adeola 2018 *South African Journal of Science*

Botai CM, Botai JO and Adeola M "Spatial Distribution of Temporal Precipitation Contrasts In South Africa" 2018 *South African Journal of Science* 70-78

Makoti and Odeku 2018 *African Journal of Public Affairs*

Makoti MZ and Odeku OK "Critical Perspective on the Complexity and Functionality of Intergovernmental Relations between Provincial and Local Governments in South Africa" 2018 *African Journal of Public Affairs* 98-112

Cheong *et al* 2023 *International Journal of Qualitative Methods*

Cheong H *et al* "Secondary Qualitative Research Methodology Using Online Data within the Context of Social Sciences" 2023 *International Journal of Qualitative Methods* 1 – 19

Feris 2017 *PELJ*

Feris LA "Compliance Notices – A New Tool in Environmental Enforcement" 2017 *Potchefstroom Electronic Law Journal* 53 – 118

George 2025 *Obiter*

George B "Application of Section 3(2)(b)(ii) and (3)(a) of PAJA Act 3 of 2000: Procedural Fairness and the Right to Particular Legal Representation *Dyanti v Rhodes University* 2023 (1) SA 32 (SCA)" 2025 *Obiter* 497 - 501

Gunda *et al Water Security*

Gunda T *et al* "Water Security in Practice: The Quantity-Quality-Society Nexus" 2019 *Water Security* 1-6

Nealer 2016 *African Journal of Public Affairs*

Nealer EJ "Catchment Management Through Integrated Water Resource Management and Co-Operative Governance in a Municipal Area" 2016 *African Journal of Public Affairs* 1 – 17

Mnguni 2020 *WIT Transactions on Ecology and the Environment*

Mnguni E "Review of Water Resources and Management in South Africa" 2020 *WIT Transactions on Ecology and the Environment* 197-206

Ntombela *et al* 2016 *Water SA*

Ntombela *et al* "A critical look at South Africa's Green Drop Programme" *Water SA* 703-710

Okeng and Diala 2024 *PELJ*

Okeng E and Diala A "Promotion of Service Delivery in Terms of the Social Contract Theory in South Africa's Legal Framework" 2024 *Potchefstroom Electronic Law Journal* 23-24

Strydom and Field 2023 *PELJ*

Strydom M and Field T "Is the Stick Real? Trends from Concluded Prosecutions of Industrial Environmental Crimes in South Africa" 2023 *Potchefstroom Electronic Law Journal* 2-40

Otuturu 2024 *International Journal of Civil Law and Legal Research*

Otuturu GG "Legal Research Methodology: The Nuts and Bolts of Research Proposal" 2024 *International Journal of Civil Law and Legal Research* 56-66

Redelinghuis, Viljoen and Vincent 2025 *PELJ*

Redelinghuis L, Viljoen G and Vincent LT "Municipal Sewage Pollution in South Africa: Evaluating Criminal Prosecution, Legal Defences and Regulatory Reform" 2025 *PELJ* 1-31

Van Rooyen 2007 *African Journal of Public Affairs*

Van Rooyen EJ "Reflections on Community Participation in the Context of Good Governance" *African Journal of Public Affairs* 2007 41-47.

Legislation

Constitution of the Republic of South Africa, 1996

Intergovernmental Relations Framework Act 13 of 2005

Local Government: Municipal Structures Act 117 of 1998

Local Government: Municipal Systems Act 32 of 2000

National Water Act 36 of 1998

Promotion of Administrative Justice Act 3 of 2000

Water Services Act 108 of 1997

Water Services Act 108 of 1997

Government Publications

GN R810 in GG 33541 of 17 September 2010

GN R665 in GG 36820 of 06 September 2013

GN R877 in GG 40167 of 29 July 2016

GN R480 in GG 40879 of 31 May 2017

GN R 480 in GG 40879 of 31 May 2017

GN R3630 in GG 48865 of 30 June 2023

Governmental Reports

Department of Cooperative Governance Discussion Document on the Review of the White Paper on Local Government (Government Printing Works Pretoria 2025)

Department of Forestry, Fisheries and *Environment National Environmental Compliance and Enforcement Report 2022-23* (Government Printing Works Pretoria 2023)

Department of Water and Sanitation *Annual Performance Plan 2020/21* (Government Printing Works Pretoria 2021)

Department of Water and Sanitation *Annual Performance Plan 2021/22* (Government Printing Works Pretoria 2022)

Department of Water and Sanitation *Annual Performance Plan 2022/23* (Government Printing Works Pretoria 2023)

Department of Water and Sanitation *Annual Performance Plan 2023/24* (Government Printing Works Pretoria 2024)

Department of Water and Sanitation *Annual Report 2021/22* (Government Printing Works Pretoria 2022)

Department of Water and Sanitation *Annual Report 2022/23* (Government Printing Works Pretoria 2023)

Department of Water and Sanitation *Annual Report 2023/24* (Government Printing Works Pretoria 2024)

Department of Water and Sanitation *Compliance Monitoring and Enforcement Strategy 2018* (Government Printing Works Pretoria 2018)

Department of Water and Sanitation *Compliance Monitoring and Enforcement Annual Report 2023* (Government Printing Works Pretoria 2023)

Department of Water and Sanitation *Compliance Monitoring and Enforcement Annual Report 2023 - 24* (Government Printing Works Pretoria 2024)

Department of Water and Sanitation *Compliance Monitoring and Enforcement Annual Report 2022 - 23* (Government Printing Works Pretoria 2023)

Department of Water and Sanitation *Compliance Monitoring and Enforcement Strategy* (Government Printing Works Pretoria 2018)

Department of Water and Sanitation *Green Drop National Report 2022* (Government Printing Works Pretoria 2022)

Department of Water and Sanitation *Green Drop Watch Report 2023* (Government Printing Works Pretoria 2023)

Department of Water and Sanitation *National State of Water Report 2023* (Government Printing Works Pretoria 2023)

Department of Water and Sanitation *National Water and Sanitation Master Plan Volume 1* (Government Printing Works Pretoria 2015)

Department of Water and Sanitation *National Water Policy Review (NWPR) Approved Policy Positions 23* (Government Printing Works Pretoria 2014)

Department of Water and Sanitation *National Water Resource Strategy III* (Government Printing Works Pretoria 2023)

Department of Water and Sanitation Second Edition-Consolidated Environmental Management Plan (Government Printing Works Pretoria 2009)

Department of Water and Sanitation *Warning Letter*

Department of Water and Sanitation Water and Sanitation *Green Drop National Report 2022* (Government Printing Works Pretoria 2022)

Department of Water and Sanitation Water and Sanitation *Green Drop Watch Report 2023* (Government Printing Works Pretoria 2023)

National Prosecuting Authority Annual Report 2022/23 (NPA Pretoria 2023)

Organisation for Economic Co-operation and Development 2018 *Financing Water: Investing in Sustainable Growth Policy Perspectives* (OECD Publishing 2018)

Water Research Commission *How to Manage Water Quality and Water Quantity Together* (WRC Pretoria 2019)

Water Research Commission *Strengthening the Community of Practice working on the integration of water-related ecological infrastructure and built infrastructure in South Africa's Water Management Areas* (WRC Pretoria 2025)

Internet Sources

Auditor-General 2025 *What is Auditing?* <https://pfma-2021-2022.agsareports.co.za/audit-101/?utm> accessed 16 November 2025

Department of Forestry, Fisheries and Environment *2025 Environmental Management Inspectorate* https://www.dffe.gov.za/rscsm_emi accessed 02 October 2025

DWS 2024 *Deputy Minister Sello Seitlholo welcomes fine imposed on Dipaleseng Local Municipality* <https://www.gov.za/news/media-statements/deputy-minister-sello-seitlholo-welcomes-fine-imposed-dipaleseng-local> accessed on the 16 November 2025

Marriah-Maharaj 2025 *R650 million fine for Emalahleni Municipality after raw sewage floods environment* https://iol.co.za/news/crime-and-courts/2025-11-13-r650-million-fine-for-emalahleni-municipality-after-raw-sewage-floods-environment/#google_vignette. accessed on the 16 November 2025

National Treasury *Media Statement Annexure B Aggregated/Consolidated Municipal 2024/25 Medium Term Revenue and Expenditure Framework* (2024) available at https://www.treasury.gov.za/comm_media/press/2024/Annexure%20A,%20B%20and%20C%20-%20Local%20Government%20Adopted%20Operating%20and%20Capital%20Budgets%20for%202024-25%20MTREF.pdf accessed 22 April 2025

Case law

Bato Star Fishing (Pty) Ltd v Minister of Environmental Affairs and Tourism 2004 (4) SA 490 (CC)

City of Johannesburg v Rand Properties (Pty) Ltd and Others 2007 2 All SA 459 (SCA)

Fihlani v Port St Johns Local Municipality and Others (1046/2025) [2025] ZAECMHC 66

Joseph and Others v City of Johannesburg and Others 2010 (3) BCLR 212 (CC)

Minister of Health and Another v New Clicks South Africa (Pty) Ltd and Others 2006 (1) BCLR 1 (CC)

President of the Republic of South Africa v South African Rugby Football Union 2000 (1) SA 1 (CC)

The Municipal Manager: The City of Johannesburg Metropolitan Municipality and Others v San Ridge Heights Rental Property (Pty) Ltd (517/2022) [2023] ZASCA

Theses and Dissertations

Mdlalose NPS *Evaluation of the water use licensing regime of the National Water Act in advancing the protection and conservation of water resources* (LLM -dissertation University of KwaZulu-Natal 2019)

ANNEXURE A: EXEMPLAR WARNING LETTER



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

KWAZULU-NATAL PROVINCIAL OPERATIONS
Southern Life Building, 88 Joe Slovo Street, Durban

	[REDACTED]		Private Bag X54304,		[REDACTED]
	[REDACTED]		Durban,		[REDACTED]
e-mail:	[REDACTED]		4000	Ref	[REDACTED]

BY HAND OR EMAIL

[REDACTED]
[REDACTED]
[REDACTED]
Durban
3610

BY HAND AND EMAIL

Dear Mr and Ms [REDACTED]

NOTICE TO COMPLY WITH THE PROVISIONS OF SECTION 22(1) OF THE NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998) FOR ENGAGING IN ACTIVITIES IDENTIFIED AS WATER USES IN TERMS OF SECTION 21(C) "IMPEDING OR DIVERTING THE FLOW OF WATER IN A WATERCOURSE"; AND SECTION 21(I) "ALTERING THE BED, BANKS, COURSE OR CHARACTERISTICS OF A WATERCOURSE", WITHOUT A VALID WATER USE AUTHORIZATION AT [REDACTED] ETHEKWINI MUNICIPALITY, KWAZULU-NATAL

1. BACKGROUND

- 1.1 On the 22 May 2024, the Department of Water and Sanitation: KwaZulu-Natal Provincial Operations (DWS: KZN) Compliance Monitoring & Enforcement (CME) Section received a referral complaint about the installation of gabion baskets and retaining wall along the banks of the Palmiet River, [REDACTED] a property owned by Mr and Ms [REDACTED] and requested the Department to investigate the lawfulness of the activity.



NATIONAL DEVELOPMENT PLAN
Our Future - make it work

2. SITE INSPECTION AND FINDINGS

- 2.1 In responding to the complaint an initial site investigation was conducted on the [REDACTED] [REDACTED] KZN CME officials and no one was found on site to meet the officials. On the 03 September 2024 a follow-up joint investigation by the DWS, eThekweni Municipality and Department of Economic Development, Tourism and Environmental Affairs (EDTEA) was conducted at the property.
- 2.2 On the [REDACTED] September 2024 during the site visit the officials met with [REDACTED] who introduced themselves as the owners of the property situated at [REDACTED] [REDACTED] advised the officials that they were told by a person from eThekweni Municipality who came to fix the manhole at their house that they should build a wall to keep the water from the stream from overflowing into their house. [REDACTED] also indicated that gabion structures were then constructed within a watercourse upstream of their property and this diverted the flow of water to their property. It was alleged that initial installation of the gabion structures was done by the eThekweni Municipality on [REDACTED] following damage on the road caused by the floods.
- 2.3 The following observations were made:
- 2.3.1 Gabion structures on [REDACTED] installed by the eThekweni Municipality,
 - 2.3.2 Gabion structures along the stream on the property upgradient,
 - 2.3.3 Retaining walls and gabions along the riverbanks,
 - 2.3.4 Diverting of the stream or river; and
 - 2.3.5 Stormwater drainage system within the property.
- 2.4 Based on the observations above, the following findings were made:
- 2.4.1 Installing a retaining wall and gabions along the watercourse constitutes water uses in terms of Section 21(c) (*i.e. diverting or impeding the flow of water in a watercourse*) and Section 21(i) (*i.e. altering the bed, banks, course or characteristics of a watercourse*).
 - 2.4.2 These activities are not authorised or registered and therefore are in contravention with Section 22(1) of the NWA.
 - 2.4.3 No water use authorization and/or registration had been applied for from the Department.
- 2.5 The Department acknowledges that these alterations on the stream were done as mitigatory measures to protect the property against possible increased flow in the stream as a result of work done upstream of the watercourse.

3. NOTICE TO COMPLY

- 3.1 In terms of Section 22(1) of the NWA: *A person may only use water -*
- (a) without a licence -*
 - (i) if that water use is permissible under Schedule 1;*
 - (ii) if that water use is permissible as a continuation of an existing lawful use; or*
 - (iii) if that water use is permissible in terms of a general authorisation issued under section 39;*
 - (b) if the water use is authorised by a licence under this Act; or*
 - (c) if the responsible authority has dispensed with a licence requirement under subsection (3).*
- 3.2 Should the property owners wish to undertake any further work on the watercourse, including the construction of retaining walls and installation of gabion structures, they must consult with this Department's Water Use Licensing Section [REDACTED] prior to commencement, to ensure compliance with any applicable water use authorization and registration requirements triggered by their proposed activities within the regulated area of a watercourse.
- 3.3 Notwithstanding the above, it remains the responsibility of the landowner to identify any possible impacts from their operations which may have a negative impact on any water resources and the environment in general and to implement relevant measures, in consultation with this Department and any other affected Organ of State and stakeholders, to minimise and/or prevent such undesired impacts from occurring, reoccurring and/or continuing.
- 3.4 You are hereby advised that should you fail to comply with the requirements of this non-compliance letter in future, this Department will be compelled to pursue enforcement action through a Section 53(1)(a) of the NWA directive.

Should you have any further queries, please contact the relevant official at the above contact number. For a full copy of the NWA, please visit www.dws.gov.za or any other DWS office.

Yours Faithfully,

ANNEXURE B: TYPICAL WATER USE LICENCE



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Private Bag X313, Pretoria 0001, 185 Francis Baard Street, Sedibeng Building, Pretoria.,
Tel: 012 336 7500 Fax (012) 323 4472/ (012) 326 2715. www.dws.gov.za

LICENCE IN TERMS OF CHAPTER 4 OF THE NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998) (THE ACT)

I, [REDACTED], in my capacity as Director-General in the Department of Water and Sanitation and acting under authority of the powers delegated to me by the Minister of Water and Sanitation, hereby authorise the following water uses in respect of this licence.

SIGNE [REDACTED]

DATE: [REDACTED]

FILE NO: [REDACTED]
LICENCE NO.: [REDACTED]

1. Licensee: [REDACTED]
Postal Address [REDACTED]
2. Water Use
 - 2.2 Section 21(f) of the Act: Discharging waste or water containing waste into a water resource, subject to the conditions set out in Appendices I and II.
 - 2.3 Section 21(g) of the Act: Disposing of waste in a manner which may detrimentally impact on a water resource, subject to the conditions set out in Appendices I and II.
3. Property in respect of which the licence is issued
 - 3.1 [REDACTED]
4. Registered owner of the Property
 - 4.1 [REDACTED]
5. Licence and Review Period
 - 5.1 This licence is valid for a period of twenty (20) years from the date of issuance and it may be reviewed at an interval of not more than five (5) years. B 06707

APPENDIX I

General conditions for the licence

1. This licence is subject to all applicable provisions of the National Water Act, 1998 (Act 36 of 1998).
2. The responsibility for complying with the provisions of the licence is vested in the Licensee and not any other person or body.
3. The Licensee must immediately inform the Provincial Head of any change of name, address, premises and/or legal status.
4. If the property in respect of which this licence is issued is subdivided or consolidated, the Licensee must provide full details of all changes in respect of the properties to the Provincial Head of the Department within 60 days of the said change taking place.
5. If a water user association is established in the area to manage the resource, membership of the Licensee to this association is compulsory.
6. The Licensee shall be responsible for any water use charges or levies imposed by a responsible authority.
7. While effect must be given to the Reserve as determined in terms of the Act, where a desktop determination of the Reserve has been used in issuance of a licence, when a comprehensive determination of the Reserve has finally been made; it shall be given effect to.
8. The licence shall not be construed as exempting the Licensee from compliance with the provisions of any other applicable Act, Ordinance, Regulation or By-law.
9. The licence and amendment of this licence are also subject to all the applicable procedural requirements and other applicable provisions of the Act, as amended from time to time.
10. The Licensee must conduct an annual internal audit on compliance with the conditions of licence. A report on the audit shall be submitted to the Provincial Head within one month of the finalisation of the audit.
11. The Licensee must appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. The first audit must be conducted within 3 (three) months of the date this licence and a report on the audit shall be submitted to the Provincial Head within one month of finalisation of the report.
12. Flow metering, recording and integrating devices must be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than two years. Calibration certificates shall be available for inspection by the Provincial Head or his /her representative upon request.
13. The Licensee must continually investigate new and emerging technologies and put into practice water efficient devices or apply techniques for the re-use of water containing waste, in an endeavour to conserve water at all times.

7/11/18 -01- 2 2

APPENDIX II

Section 21(f) of the Act: Discharging waste or water containing waste into a water resource

Section 21(g) of the Act: Disposing of waste in a manner which may detrimentally impact on a water resource

1. QUANTITY OF WASTEWATER TO BE DISCHARGED

- 1.1 This Licence authorises the discharge of a maximum quantity of six million five hundred and seventy thousand cubic meters cubic metres (6 570 000 m³/a) per annum of wastewater into [REDACTED] from [REDACTED] WWTWs, based on an average flow of twenty three thousand cubic meters (23 000 m³) per day at the geographic points 28° 18' 40"S & 28° 13' 00 "E.
- 1.2 The quantity of wastewater authorised to be discharged in terms of this licence must not be exceeded.

2. QUANTITY OF WASTEWATER TO BE DISPOSED

- 2.1 The Licensee is also authorised to dispose waste sludge in the waste disposal facilities as set out in Table 1.

Table 1: Waste Disposal facilities

Facility	Purpose	Volume (m ³ /a)	Property Description	Co-ordinates
Lagoons	Disposal of treated sludge	65 700 m ³ /a	Portion of the farm [REDACTED] [REDACTED]	[REDACTED] [REDACTED]

- 2.2 The quantity of wastewater authorised to be disposed in terms of this licence may not be exceeded.

3. QUALITY OF WASTEWATER TO BE DISCHARGED

- 3.1 The quality of the wastewater discharged from the WWTWs must not exceed the following limits as set out in Table 2:

Table 2: Quality of wastewater to be discharged

Variable	Limit
pH	5.5-9.5
Electrical Conductivity in mS/m	75
Nitrate (as N) in mg/l	1.5
Ammonia (as N) in mg/l	1.0
Chemical oxygen demand(COD) in mg/l	75
<i>E coli</i> units (FCU) per 100ml	0
Orthophosphate (as P) in mg/l	1
Suspended solids in mg/l	25

2016-01-22

4. MONITORING

4.1. Quantity

- 4.1.1. The quantity of wastewater discharged into the Jordaanpruit must be metered and recorded daily.
- 4.1.2. Monitoring for the quantity of wastewater shall be done at the inlet of the works.

4.2 Quality

- 4.2.1 Monitoring points for quality must be at the outlet point of the WWTWs where the wastewater is discharged into the Jordaanpruit; and at upstream and downstream of the discharge point.
- 4.2.2 These monitoring points must be identified in consultation with the Provincial Head and approved by the Provincial Head.
- 4.2.3 The date, time and monitoring point in respect of each sample taken must be recorded together with the results of the analysis.
- 4.2.4 The samples taken at the [REDACTED] WWTWs Outlet" must be monitored daily. Upstream and downstream of the [REDACTED] WWTWs must be monitored once in a week and reported monthly to the Provincial Head.:

4.3 Flow

- 4.3.1 Flow metering, recording and integrating devices must be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than two years. Calibration certificates must be available for inspection by the Provincial Head or his representative upon request.
- 4.3.2 The date, time and monitoring point in respect of each sample taken must be recorded together with the results of the analysis.

4.4 Bio-Monitoring

- 4.4.1. The Licensee must develop and submit to the Provincial Head within six (6) months of issuance of the licence a bio-monitoring programme that will include the compilation of an initial database from which the scope and frequency of future bio-monitoring can be developed. This initial assessment must lead to the establishment of a reliable site-specific long-term bio-monitoring programme. This programme must be able to qualify and quantify the impact on biological systems in the water environment in the area directly affected by WWTWs activities as well as downstream from these activities.
- 4.4.2 A competent and capable aquatic scientist must be appointed by the Licensee to submit a monitoring programme for aquatic macro-invertebrates and habitat integrity. Aquatic macro-invertebrates must be sampled using the latest SASS (South African Scoring System) method. Habitat Integrity must be assessed using the Rapid Bio assessment Analysis (C.J. Kleynhans 1999) method described by the Department (SASS 2002).
- 4.4.3 After any incident, SASS surveys must be conducted annually in autumn, spring and summer at a site upstream and downstream of the disturbance until the impacts of the incident are not noticeable anymore. An annual report on the SASS surveys must be submitted to the Provincial Head.

4.5.1 Groundwater Monitoring

- 4.5.1 The Licensee must develop and implement a groundwater monitoring network which must be set as an early warning system to detect any pollution caused by seepage from the

activities of [REDACTED] WWTWs and its associated infrastructure within six (6) months from the date of issuance of this licence. This must include hydrocensus on boreholes within a 1 km radius of the WWTWs, and analysis of these boreholes. This must be submitted for approval to the Provincial Head prior implementation.

- 4.5.2 Monitoring boreholes in the monitoring network specified in condition 4.5.1 in must be clearly marked, numbered, and must be equipped with lockable caps. The Department reserves the right to sample monitoring boreholes at any time and to analyse these samples, or to have samples taken and analysed.
- 4.5.3 The quality of groundwater resource must be monitored by taking samples quarterly at groundwater monitoring points as described in condition 4.5.1 in Appendix II. Each sample shall be analysed for the variables and at frequencies, as set out in Table 3 in Appendix II and/ or any other variable as may be required from time to time by the Provincial Head. The results of the analysis must be submitted to the Provincial Office.

Table 3: Variables to be monitored and Monitoring Frequency

Variables	Monitoring Frequency
pH	Quarterly
Electrical Conductivity (mS/m)	Quarterly
Fluoride AS F(mg/l)	Quarterly
Calcium as Ca (mg/l)	Quarterly
Magnesium as Mg (mg/l)	Quarterly
Nitrate (mg/l)	Quarterly
Chloride as Cl (mg/l)	Quarterly
Sulphate as SO ₄ (mg/l)	Quarterly
Sodium as Na (mg/l)	Quarterly

- 4.5.4 The date, time and monitoring point in respect of each sample taken shall be recorded together with the results of the analysis.
- 4.5.5 The Licensee shall submit to the Provincial Head a concise report in which all sources of pollution are identified, with mitigating measures and an implementation programme, within a period of one (1) year from the date of issuance of this licence.
- 4.5.6 Should pollution of groundwater resource occur the Licensee must conduct and complete a groundwater study to determine the impact on ground water associated with the Waste Water Treatment Works and any mitigation actions that could be required. This must be submitted to the Provincial Head within one (1) year from the date of issuance of this licence.

5. METHODS OF SAMPLING AND ANALYSIS

- 5.1 Sampling and analysis shall, wherever applicable, be carried out in accordance with methods prescribed by, and obtainable from, the South African Bureau of Standards (SABS), in terms of the Standards Act, Act 30 of 1982, or any other method approved in writing by the Provincial Head.
- 5.2 The methods of analysis shall not be changed without prior notification to, and written approval by the Provincial Head.
- 5.3 Sample analysis must be conducted by a recognized analytical laboratory, accredited to analyze the relevant constituents in the wastewater, or approved by the Provincial Head to perform the analyses.

7856-01-21

6. SLUDGE MANAGEMENT

- 6.1 Wastewater sludge from the sludge digesters , drying beds and other solid sewage waste and other solid waste, for instance grit and screenings must be handled, stored, transported, utilised or disposed of in such a manner as not to cause any odour, flies, health hazard, secondary pollution or other nuisance.
- 6.2 Sludge emanating from the treatment process must be quantified, analysed, dealt with according to the requirements of chapter 5 of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008) and the Guideline for the Utilisation and Disposal of wastewater sludge (volume 1-5), dated March 2006 and any updates thereafter, to the satisfaction of the Provincial Head.
- 6.3 Any wastewater sludge or any other solid waste may be alienated for utilisation or disposal thereof, only in terms of written agreement and provided that the responsibility for complying with the requirements contained in this licence is accepted by Licensee and such other party, jointly and separately.
- 6.4 Wastewater management plan must be put in place and adhered to for the duration of the licence.

7. OPERATIONS AND MAINTENANCE OF THE WASTEWATER TREATMENT WORKS

- 7.1 Suitably qualified and experienced mechanical and electrical artisans must be available to be called in for inspection and maintenance of the works.
- 7.2 No waste, which may deleteriously affect the efficient functioning of the works, shall be received in the sewage purification works. The Licensee shall take all steps possible to prevent discharge of any substance into the WWTWs, which could have a deleterious effect on the operation of works and/or final waste
- 7.3 The Licensee shall establish and implement a continual process of raising awareness amongst itself, its workers and stakeholders for the need for Water Conservation and Water Demand Management.
- 7.4 The Licensee shall as far as is practically possible investigate and implement measures to re-use return flows from sewage works for other uses including controlled activities and end users dual system supply.
- 7.5 If the Licensee is not the end user/beneficiary of the water use related infrastructure and will not be responsible for long term maintenance and management of the infrastructure, the Licensee must provide a programme for hand over to the successor-in-title including a brief management/maintenance plan and the agreement for infrastructure along with allocation of responsibilities, within three (3) months of the date of issuance of this licence.

8. PIPELINES

- 8.1 The pipelines used for the conveyance of waste or water containing waste shall be painted in a conspicuous colour or manufactured of a coloured material distinctly different from the colour of the pipelines in which drinking water is flowing to avoid the possibility of any cross-connections of the different pipelines.
- 8.2 All stop-valves and taps on the pipelines conveying the waste or water containing waste shall be of a type that can be opened and closed by means of a loose wrench. This wrench shall be in the safekeeping of a responsible member of the staff to prevent unauthorised use thereof.

2015-01-22

8.3 The Licensee must inspect the pipelines conveying the water containing waste and the pumping facilities on a weekly basis to check for leaks or malfunctions and records shall be kept of such inspections.

8.4 The Licensee shall have the full length of the pipeline surveyed on an annual basis to monitor the integrity of the pipeline. The results of the survey must be reported in writing to the Provincial Head.

9. PUMP STATIONS

9.1 The Licensee shall develop and implement a scheduled monitoring and maintenance plan for all sewage pump stations and manholes under its control.

9.2 All pump stations shall have an emergency containment facility with sufficient capacity to ensure untreated effluent retention up to a 24-hour period.

9.3 The Licensee must supply the co-ordinates of all the pump stations in the area of jurisdiction before the first review of the licence.

10. MANHOLES

10.1 The Licensee shall ensure that:

10.1.1 Manholes are covered at all times with a suitable cover that cannot be removed by unauthorised persons

10.1.2 Manhole covers of a material that is less prone to theft are used.

10.1.3 No new WWTWs lines and manholes shall be constructed in the 1:100 year flood line; and

10.1.4 Existing WWTWs lines and manholes situated within the 1:100 year flood lines shall be sealed adequately to ensure minimal ingress of water during any rainfall event.

11. FENCING, NOTICES AND DRAINS

11.1 The site of the sewage purification works must be adequately fenced to prevent the entry of animals and unauthorised persons.

11.2 Cut-off drains shall be provided around the sewage purification works to prevent stormwater ingress into the surrounding of the works. These drains shall be so designed to contain the maximum runoff, which could be expected over a period of 24 hours with a frequency of once in every 20 years.

12. POLLUTION PREVENTION, INCIDENTS AND MALFUNCTIONS

12.1 The Licensee must notify the Provincial Head within 24 hours of the occurrence or potential occurrence of any incident which has the potential to cause, or has caused water and environmental pollution, health risks or which is a contravention of the licence conditions.

12.2 The Licensee must, within 14 days, or a shorter period of time, as specified by the Provincial Head, from the occurrence or detection of any incident referred above, submit an action plan, which must include a detailed time schedule, to the satisfaction of the Provincial Head of measures taken to:

10.2.1 correct the impacts resulting from the incident;

10.2.2 prevent the incident from causing any further impacts; and

10.2.3 prevent a recurrence of a similar incident.

2018-01-22

12.3 The Licensee must keep all records relating to the compliance or non-compliance with the conditions of this licence in good order. Such records shall be made available to the Provincial Head within 14 (fourteen) days of receipt of a written request by the Provincial Head for such records.

12.4 The Licensee must keep an incident report and complaints register, which must be made available to any external auditors and the Provincial Head.

13. CONTINGENCY PLANS AND INCIDENT REPORTING

13.1 The Licensee must develop and implement an Emergency and Contingency Plan.

13.2 The Licensee must implement and promote an environmental call and reporting centre where the following can be reported:

- 11.2.1 illegal disposals of waste and/or littering;
- 11.2.2 broken, ruptured or leaking pipelines wasting potable water;
- 11.2.3 open or leaking taps on the property of the Licensee;
- 11.2.4 open manholes;
- 11.2.5 leaking or broken sewerage lines and pipes;
- 11.2.6 overflowing manholes and pump stations;
- 11.2.7 possible offenders of any environmental regulations, by-laws and/or ordinances;
- 11.2.8 any other aspect that might hamper the effective management of the water resources.

13.3 The Licensee must compile an environmental call and reporting centre protocol, that must be included in the Plan, and which will investigate every complaint within 24 hours of it being reported.

13.4 The Licensee must rectify all valid issues reported within 7 days of the issue being reported to the Licensee. All incidents shall be recorded in an incident register which will include reasons for non-rectification of issues raised

13.5 Statistical summary of malfunctions and incidents shall be included in the Annual Report.

14. AUDITING

14.1 An external auditor must perform annual auditing of the performance of the works.

14.2 The reports generated by the auditors must be submitted to the Provincial Head by the end of March every year.

15. REPORTING

15.1 The information required in terms of conditions 3 in Appendix II must be submitted monthly to the Provincial Head, under reference [REDACTED] within one month of the close of the period concerned.

16. SITE SPECIFIC CONDITION

16.1 The licensee must submit as-built drawings for [REDACTED] WWTWs to the Provincial Head within three (3) months of issuance of the licence.

[END OF LICENCE]

7825-01-22

ANNEXURE C: COMPLIANCE SCORECARD

ANNEXURE C: Summary of Compliance inspection Status (Scorecard)

Summary of compliance Inspection Status				
Conditions	Full (Compliant)		None (Non-Compliant)	
Number	6		41	
Number & percentage for compliance and non compliance	12.77%		87.23%	
Number & percentage for compliance and non compliance to administrative and technical actions	A:3	50.00%	A:13	31.71%
	T:3	50.00%	T:28	68.29%

Green color indicates compliance and red colour is non-compliance.
A: Administrative actions
T : Technical actions

Summary Comment:

WWTWs was found to be compliant with 12.77% made up of 50.00% Administrative and 50.00% Technical. The conditions which were found to be non compliant (100.00%) made up of 31.71% Administrative and 68.29% Technical.

ANNEXURE D: SCORECARD CALCULATION TEMPLATE

Score Card

STEP 1. Calculate the number of compliance, non-compliance and not-scope of the audit

- (a). If there are 38 conditions that you have assessed in total (whether they are compliant or not).
- (b). 13 condition is compliant.
- (c). 20 conditions were non-compliant
- (d). 6 not-scope of the audit.

STEP 2. Convert step 1 onto percentages

- (a). 13 conditions is compliant - $\frac{13 \times 100}{38} = 34.21\%$
- (b). 20 conditions were non-compliant - $\frac{20 \times 100}{38} = 52.63\%$
- (c). 5 not scope of the audit - $\frac{5 \times 100}{38} = 13.16\%$

Compliant (13): 34.21%	Non-compliant (20): 52.63%	Not-scope of the audit (5): 13.16%
------------------------	----------------------------	------------------------------------

STEP 3.

(i). Calculate number of administrative conditions, and number of technically conditions that are compliant.

- (a). Compliant , technical condition is 8, and the total/general number of compliances is also 13
- (b). Compliant, administrative condition is 5, and the total/ general number of compliances is 13

(ii). Calculate number of administrative conditions, and number of technically conditions that are non-compliant.

- (a). Non-compliant , technical condition is 16, and the total/general number of non- compliances is also 20
- (b). Non-compliant, administrative condition is 4, and the total/ general number of non-compliances is 20

STEP 4. CONVERT STEP 3 INTO PERCENTAGES

(i). Calculate number of administrative conditions, and number of technically conditions that are compliant.

(a). Compliant , technical condition is 8, and the total/general number of compliances is also 13

$$C, T \text{ is } \frac{8 \times 100}{13} = 61.54\%$$

(b). Compliant, administrative condition is 5, and the total/ general number of compliances is 13

$$C, A \text{ is } \frac{5 \times 100}{13} = 38.46\%$$

(ii). Calculate number of administrative conditions, and number of technically conditions that are non-compliant.

(a). Non-compliant, technical condition is 16, and the total/general number of non- compliances is 19

$$NC, T \text{ is } \frac{16 \times 100}{20} = 80\%$$

(b). Non-compliant, administrative condition is 4, and the total/ general number of non-compliances is 19

$$NC, A \text{ is } \frac{4 \times 100}{20} = 20\%$$

NCIMS Scorecard

Conditions to comply with during phase [Operational]	Full (Compliant)		None (Non-compliant)		Not part of scope of the audit
Number	(13) 34.21%		(20) 52.63%		(5) 13.16%
Number & Percentage for compliance and non-compliance	(13) 39.39%		(20) 60.61%		
Number & Percentage for compliance and non-compliance related to Administrative and Technical actions	A: (5)	38.46%	A: (4)	20%	
	T: (8)	61.54%	T: (16)	80%	