VAAL ORANGE CATCHMENT MANAGEMENT AGENCY (VOCMA)

ANNUAL PERFORMANCE PLAN

FOR THE FISCAL YEARS

2024/25 TO 2026/27

FOREWORD BY THE MINISTER

The challenges that our country has experienced in the past few years linked to climate change and the pollution of our river courses prompted our actions in expediting the establishment of relevant institutions that can assist the government in protecting, managing, and conserving the country's water resources. The need to also ensure that water resource management is decentralised and devolved to the lowest community level to achieve wider participation from different stakeholders is not only universally acknowledged as good practice, but it is very critical for our Country where most people did not have the opportunity to participate in the management and the usage of the Country's water resources due to discriminatory policies of the past. The process to establish the Vaal Orange Catchment Management Agency (VOCMA) was also done to create added capacity for my Department, the Department of Water and Sanitation (DWS) to address key imperatives of Water Resource management as outlined in the recently revised National Water Resource Strategy 3.

The Vaal-Orange CMA is the largest Water Management Area (WMA) in the whole country and happens to also be the most central to the economic contribution and development in the Country. Collectively, mining and industrial development in this catchment produces a total of close to 50% of South Africa's Gross Domestic Product (GDP). Economic growth remains a strategic priority for our Country and the need to ensure that our management of water resources supports the development aspirations of our beloved country as spelled out in the National Development Plan (NDP), cannot be over-emphasized. The object of addressing the triple jeopardy faced by many of our people which is poverty, unemployment and inequality requires all sectors to contribute and my Department is working strongly to support the country's vision through the establishment of the CMAs. The Vaal-Orange CMA will support growth and development through proper management and allocation of our resources so that they can be utilised to advance social and economic objectives. The Vaal Orange CMA is uniquely positioned to assist my Department and the country as a whole in achieving these goals.

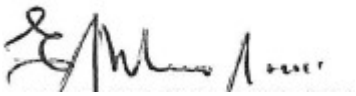
I am proud to indicate that the Vaal-Orange CMA does not only cover the biggest area and has the biggest River in the country, but it also houses some of the most important and strategic projects in the case of the Lesotho Highlands project, one of the largest water projects of its kind in the world. This project guarantees that adequate water is supplied to Gauteng which is the economic hub and the country's centre of trade with Southern Africa and beyond. The Vaal-Orange CMA will also play an important role in the preservation of relations and strengthening cooperation with our neighbouring countries with whom we share important river basins. The Vaal-Orange WMA will represent the county in a cross-boundary role through its impact on international water-sharing basins with Botswana, Lesotho, and Namibia.

The emphasis on stakeholder engagement and improved public confidence as we fulfil our mandate as a Department has been one of my highest priorities. This is one approach I have not only preached but actioned in my role as the Minister in guiding my staff and all the Agencies that I am responsible for in pursuing and implementing all interventions and programs of this Department. The mandate given to

Vaal-Orange CMA is not different. The CMA will have to work and collaborate with all stakeholders affected and concerned with water resource management to ensure collective and integrated water resource management objectives are achieved.

There are many challenges that have been reported to me by various entities caused by the growth of urban settlements in this WMA including the industrial, agricultural, and mining activities. The Vaal-Orange CMA will have to deal decisively with unlawful water use and enforcement challenges, especially within municipalities, mining, and commercial farming. The CMA will need to pay special attention to water conservation and demand management and explore effective conservation measures to expand the horizon within which our water resources can be utilised before augmentation or another Lesotho Highlands project or similar is required to support our development objectives.

In conclusion, the estimated population residing within the Vaal-Orange WMA is close to 12.6 million, but the Vaal River System alone supplies water to a total population of about 20 million. The importance of the Vaal-Orange CMA to many people and the ideals of the country is just too great not to cautiously and meticulously ensure that a credible institution such as VOCMA is created and supported. I remain confident in the board of directors who are appointed as the Board of the Vaal Orange-CMA, and I look forward to their input and implementation of the Annual Performance Plan (APP) to ensure better management and improve accountability to the management of water resources within this important Catchment for the sake of our economy, our people and the sustainability of the environment.



MR SENZO MCHUNU (MP)

MINISTER OF WATER AND SANITATION

DATE: 13 FEBRUARY 2024

FOREWORD BY THE CHAIRPERSON THE GOVERNING BOARD

I hereby present to our shareholder (Department of Water and Sanitation) the 2024/25 Annual Performance Plan (APP), on behalf of the Vaal Orange Catchment Management Agency (VOCMA).

The Vaal Orange Catchment Management Agency is established in terms of section 78 of the National Water Act (NWA), 1998 (Act 36 of 1998). The Minister entrusted us as a board with the legislative mandate which entails, protection, conservation, development, and management of water resources of the Vaal Orange Water Management Area. This area cuts across three provinces, namely Gauteng, Free State and Northern Cape. Since inception of the board, I have declared the operations of VOCMA as business unusual. This refers to the speed at which the agency will have to be established and be functional in a short space of time.

The primary objective of the Annual Performance Plan is to outline the planned activities and associated budget for the 2024/25 financial. The APP takes into consideration the national planned outcomes, the NDP, the DWS Strategic Objectives and the Vaal Orange CMA Strategic Objectives. It is worth mentioning that the VOCMA will embark on the process of developing its Catchment Management Strategy (CMS) during the 2024/25 financial year. The completion of the CMS will afford the organisation proper alignment of the APP, the shareholder Compact (SHC), the VOCMA strategy and the National Water Resources Strategy (NWRS).

The sustainability of the VOCMA depends mainly on improving billing and revenue collection, proper prioritization, and adequate resourcing of planned activities. It is in the light of the above that VOCMA is planning to develop a stakeholder management strategy to garner support from all stakeholders and improve customer satisfaction in the Water Management Area. I believe that a happy customer is a paying customer. Participation on water resource management activities will be devolved to the local stakeholders as much as possible to comply with the National Water Act. This devolution should result in improved trust with customers and stakeholders, increased participation, support and revitalize economic activities.

We will continue to collaborate with Government departments and all other structures whose activities potentially impact on water resources management in our area of jurisdiction and even beyond.

It should be noted that the VOCMA is in a transboundary, there is a necessity to collaborate with certain local and international institutions to effectively manage the Vaal Orange water management area.

My greatest gratitude is to the Minister and Deputy Ministers of the Department of Water and Sanitation for trusting us with this great task. I thank the Director General and his management for the valuable

support in establishing the VOCMA. I wish to express my appreciation to the Interim Chief Executive, the Provincial Heads of the three provinces, the Proto-CMA staff for their hard work and support during our business of business unusual. Although the take-off seems hard, I am however confident that the VOCMA will thrive to becoming an effective Catchment Management Agency in the near future.

MR DEZ FRANSMAN

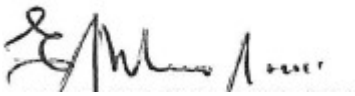
CHAIRPERSON OF THE GOVERNING BOARD

DATE: 01 FEBRUARY 2024

OFFICIAL SIGN-OFF

It is hereby certified that this Annual Performance Plan:

- Was developed by the management of the Catchment Management Agency (VOCMA) under the guidance of VOCMA Governing Board.
- Considers all the relevant policies, legislation and other mandates for which the CMA is responsible.
- Accurately reflects the impact, outcomes and outputs which the VOCMA will endeavour to achieve over the period 2024/25 – 2026/27.

Babalwa Manyakanyaka **Corporate Planning & Organisational Performance**	
Frans Moatshe **Chief Financial Officer**	
Solomon Mathebula **Water Resource Management**	
Solomon Mathebula **Interim Chief Executive**	
Mr Dez Fransman **Chairperson of the Governing Board**	
Mr Senzo Mchunu (MP) **Minister of Water and Sanitation**	

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LIST OF ABBREVIATIONS AND ACRONYMS

Abbreviation / acronym	Description
APP	Annual Performance Plan
CEO	Chief Executive Officer
CMA	Catchment Management Agency
CME	Compliance Monitoring and Enforcement
CMS	Catchment Management Strategy
DPSA	The Department of Public Service and Administration
DWS	Department of Water and Sanitation
HLPW	High-Level Panel on Water
HR	Human Resources
IB	Irrigation Boards
ICT	Information Communication Technology
IGR	Intergovernmental Relations
IWP	Integrated Workforce Planning
MoU	Memorandum of Understanding
MSP	Master System Plan
MTSF	Medium Term Strategic Framework
NDP	National Development Plan
NW&SMP	The National Water and Sanitation Masterplan
NWA	National Water Act, 1998 (Act No 36 of 1998)
NWRS-3	National Water Resource Strategy-3
ORASECOM	Orange-Senqu River Commission
PFMA	Public Finance Management Act, 1999 (Act No 1 of 1999)
REMP	River Eco-status Monitoring Programme
RMS	Records Management System
SADC	South African Development Community
SDG	The Sustainable Development Goals
SMME	Small Medium Micro Enterprises
VOCMA	Vaal Orange Catchment Agency
WAR	Water Allocation Reform
WARMS	Water Registration Management System
WC/WDM	Water Conservation and Demand Management
WDCS	Waste Discharge Charge System
WMA	Water Management Area
WMI	Water Management Institutions
WRM	Water Resource Management
WUAs	Water User Associations

PART A: MANDATE

1. Constitutional mandate

The Constitution of the Republic of South Africa, 1996 (Act 108 of 1996) as amended, provides through the Bill of Rights that:

a) everyone has a right to an environment that is not harmful to their health or well-being.

b) the environment is protected for the benefit of present and future generations through reasonable legislative and other measures that,

   i prevent pollution and ecological degradation.

   ii promote conservation; and

   iii secure ecologically sustainable development and use of national resources while promoting justifiable economic and social development.

2. Legislative and policy mandates

The VOCMA is a water management institution established in terms of section 78 of the National Water Act 36 of 1998 and is operational in the Vaal-Orange Water Management Area (WMA).

The VOCMA has the following inherent functions in terms of section 80 of the National Water Act:

- Investigate and advise interested persons on water resource management.
- Compilation of the Catchment Management Strategy (CMS).
- Co-ordinate related activities of water users and WMIs.
- Promote co-ordination of implementation of any applicable development plan.
- Promote community participation in water resource management.

In terms of section 5 of the National Water Act 36 of 1998, the National Water Resource Strategy determines the water management areas to be managed by catchment management agencies. The National Water Resource Management Strategy third edition (NWRS-3) provides the framework for the protection, use, development, conservation, management and control of water resources for the country as set out in the National Water Act.

The Catchment Management Agency must, in terms of section 80(b) of the National Water Act, develop a catchment management strategy for its water management area which must not conflict with the National Water Resource Management Strategy III. The catchment management strategy will be a stakeholder driven document which, on completion, is a policy mandate by stakeholders.

In terms of the National Pricing Strategy for Raw Water Use Charges the determination of sectorial water resource management charges and the determination of annual waste loads are to be per water management area. In terms of section 57(2) of the National Water Act, the VOCMA can determine the charges payable to the agency, in line with the National Pricing Strategy.

The legislative environment, policies, and frameworks of Government, provide developmental priorities for the country. Defined priorities provide strategic impetus for the water sector and ultimately the functioning of the VOCMA. Key legislation and policy relevant to functioning and delivery of the VOCMA mandate are as follows:

2.1 National Water Act, 1998 (Act 36 of 1998)

The National Water Act, 1998 (Act 36 of 1998) (NWA), as amended provides for establishment of the VOCMA, which is detailed in section 78 as a water resource management authority to perform water resource management functions within its Water Management Area (WMA). The NWA further provides a mandate/object of the VOCMA and detail its inherent powers and functions as follows:

a) To coordinate related activities of water uses and the establishment of the water management institutions within its WMA;
b) To promote coordination of its implementation with the implementation of any applicable development plan established in terms of the Water Services Act,1997 (Act 108 of 1997);
c) To promote community participation in the protection, use, development, conservation, management, and control of the water resources in the WMA.
d) To investigate and advise interested persons on the protection, use, development conservation, management, and control of the water resources in its WMA;
e) To develop a Catchment Management Strategy (CMS);

2.2 Public Finance Management Act, 1998 (Act 1 of 1998)

The Public Finance Management Act, 1998 (Act 1 of 1998) (PFMA) regulates financial management in the national government and provincial governments to ensure that all revenue, expenditure, assets and liabilities of those governments are managed efficiently and effectively; to provide for the responsibilities of persons entrusted with financial management in those governments; and to provide for matters connected therewith. The VOCMA is a public entity listed in Schedule 3A of the PFMA.

2.3 National Water Resource Strategy-3

The National Water Resource Strategy (NWRS) is the blueprint for water resources management in South Africa and aims to ensure the protection and management of water resources to enable equitable and sustainable access to water and sanitation services in support of socio-economic growth and development and sustained ecosystem functioning for the well-being of current and future generations.

The third edition of the NWRS provides for the protection and management of water resources to enable equitable and sustainable access to water and sanitation services in support of socio-economic growth. It also emphasises the development and sustainable ecosystem functioning for the well-being of current the future generations.

The NWRS goals[1] have a direct bearing to the catchment management agencies (CMAs) operations as follows:

a) Water and sanitation must support development and the elimination of poverty and inequality

b) Water and sanitation must contribute to the economy and job creation; and

c) Water that must be protected, used, developed, conserved managed and controlled sustainably and equitably.

Finally, it identifies persistent challenges and concerns which CMAs must prioritise such as implementation of water conservation and water demand management; water pollution and lack of

[1] Source: National Water Resource Strategy -3, Chapter 2, page 6.

protection and restore of ecological infrastructure and vandalism; illegal water abstraction and illegal discharge of effluent into the water resource.

2.4 National Development Plan, 2030

The National Development Plan, 2030 (NDP) provides an overarching policy framework on a trajectory indealing with the triple challenges of inequality, unemployment, and poverty. The NDP further supports anew societal deal of increased cooperation between Government, business, labour and other social partners for economic growth and development. The NDP further puts an emphasis on investment and development of bulk water including water resources management infrastructure for water conservation and demand management; integrated catchment management and resource protection such that there is water availability for economic sectors to create jobs.

2.5 National Water and Sanitation Masterplan

The National Water and Sanitation Masterplan (NW&SM) intends to coalesce water users and all the Water Management Institutions (WMI) to resolve issues on water and sanitation service delivery. The NW&SM is a novel plan that will guide the South African water sector led by the DWS and implemented at local government level and other sector partners. The plan is intended towards implementation of tangible actions that will have an impact on the management of South Africa's water resources and the supply and use of water and sanitation in the country.

2.6 African Union, Agenda 2063

Africa Union, Agenda 2063 (Agenda 2063) provides a blueprint and master plan for transformation of Africa into a global powerhouse of the future. It is a strategic framework for the continent that aims to deliver on the goals for inclusive and sustainable development. It serves as a concrete manifestation of the pan-African drive for unity, self-determination, freedom, progress, and collective prosperity. South Africa has prioritised its contribution to the development of the continent and in this regard the African Union Agenda 2063 is key. It provides the strategic framework for the socio-economic transformation of the continent and builds on the initiatives for growth and sustainable development. A prosperous Africa based on inclusive growth and sustainable development is one of Agenda 2063 aspirations and is key to the VOCMA as it places an emphasis on Africa’s unique natural endowments, health and protection of its environment and ecosystems with climate resilient economies and communities.

2.7 United Nations Sustainable Development Goals

The Sustainable Development Goals (SDGs) are designed to be a blueprint in achievement of a sustainablefuture across the world. The SDGs seek to address key systematic barriers to sustainable development such as inequality, unsustainable consumption patterns, weak institutional capacity, and environmental degradation. The SDGs further seeks to improve quality of water through pollution reduction including to ensure sustainable withdrawals and supply of freshwater to address water scarcity. The United Nations further convened a High-Level Panel on Water (HLPW) which made recommendations on how to accelerate progress in the achievement of availability and sustainable management of water and sanitation for all and the achievement of other multiple SDGs. High-level recommendations by the HLPW,among others, included understanding, valuing and managing water

which will provide a foundation for broader integrated water management; integrated approach at local, country and regional levels including building partnerships and international collaboration at global level.

2.8 Southern Africa Development Community Protocol on Shared Watercourses

This South African Development Community (SADC) Protocol provides institutional mechanisms to achieve the SADC agenda of regional integration and poverty alleviation. This protocol therefore seeks to:

a) Promote and facilitate the establishment of shared watercourse agreements and shared watercourse institutions for the management of shared watercourses.

b) Advance the sustainable, equitable and reasonable utilisation of the shared watercourses.

c) Promote a coordinated and integrated environmentally sound development and management of watercourses.

d) Promote the harmonisation and monitoring of legislation and policies for planning, development, conservation, protection of shared watercourses and allocation of resources thereof; and

e) Promote research and technology development, information exchange, capacity building and application of appropriate technologies in shared watercourses management.

3. Relevant court rulings

a) Lötter N O and Others v Minister of Water and Sanitation and Others (725/2020) [2021] ZASCA 159 (8 November 2021) : deals with Water trading

b) Forestry South Africa v Minister of Human Settlements, Water & Sanitation and Others (19684/2019) [2021] ZAWCHC 164 (23 August 2021) – ELU

c) Minister of Water and Sanitation and Others v Casper Jacobus Lotter N.O and Others (CCT 387/21) (Date of judgment: 15 March 2023).

No court rulings have an impact in implementation of the Annual Performance Plan over the three-year planning period. The VOCMA is continuously monitoring progress on court matters which have potential to impact on its policy and strategic direction. The VOCMA may become accessories to the matters that are currently before the Water Tribunal due to their linkages to the proto-CMAs that preceded the VOCMA.

PART B: STRATEGIC FOCUS

1. Purpose

To protect, conserve and sustainably manage the quantity and quality of our water resources in the Vaal Orange Water Management Area.

2. Vision

To ensure pristine, resilient water resources catchment management areas that flourish, nourish, sustain life and serve thriving ecosystems.

3. Mission

To ensure equitable access to ample, quality water for all; through innovative measures and integrated water resource management at a catchment level.

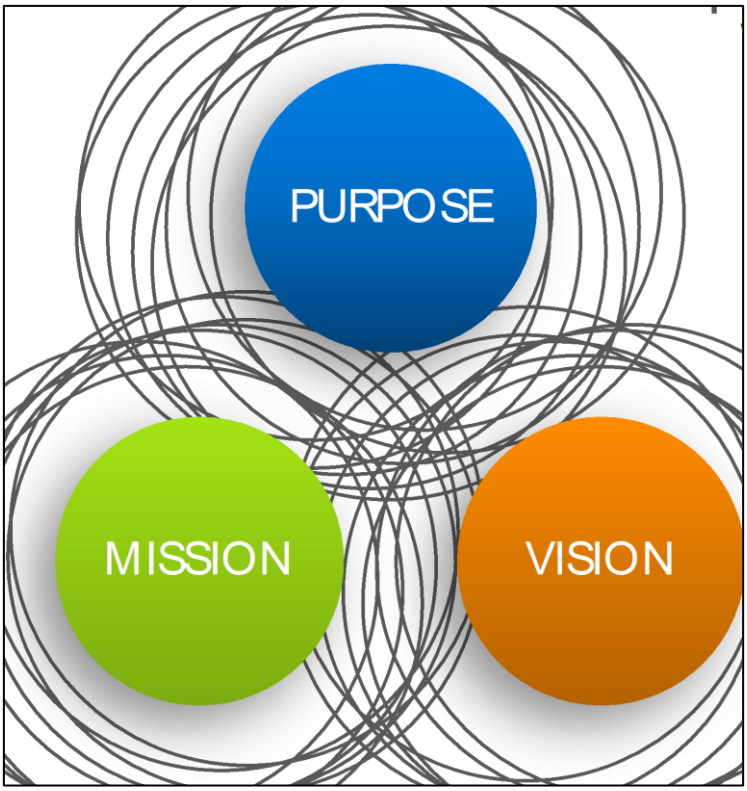
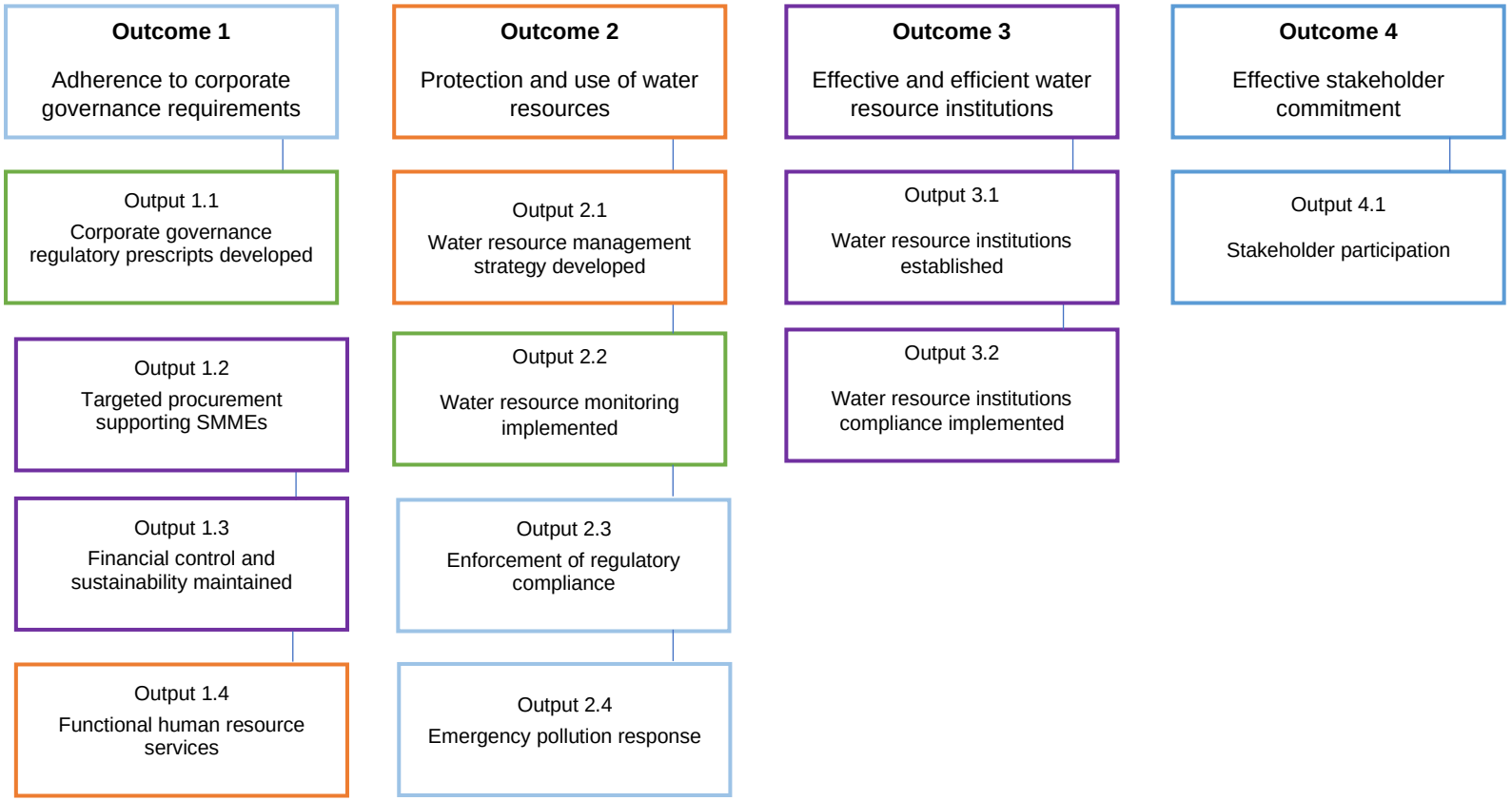


Figure 1: VOCMA strategic intent

4. Strategy map of the VOCMA



Legend for scorecard perspectives

Organisational capacity	Internal operations	Citizen perspective	Management and finances

5. Situational analysis

The Vaal-Orange WMA is one of the six (6) WMAs in South Africa which was established for the whole of the Vaal and the Orange catchment areas. The intention was for integrated CMA hence called VOCMA. The VOCMA manage the water resources that previously fell in separate catchment areas namely Vaal and the Orange catchment areas. The VOCMA though being an integrated CMA it is a single juristic entity (due to common features such as in and out water transfer requirements), there are also nuanced differences coupled with the sheer size of the WMA that dictate for a regionalised operational model.

The VOCMA Area occupies the Central North Eastern part of South Africa. It extends from Ermelo in Mpumalanga, just west of Swaziland in the east across to Kuruman in the Northern Cape to the west. To the northwest, the CMA borders Botswana and the Crocodile (West) and Olifants Catchments. Johannesburg sits on the boundary of the CMA. To the southeast it is bounded by Lesotho, and it includes the Upper Orange and Lower Orange catchments. The Upper Orange Management area is mainly in the Free State and spreads over the Eastern and Northern Cape. It includes the Orange River basin upstream of the South Africa/ Lesotho border and therefore it include the Lesotho Highlands Water Project (LHWP). The Upper Orange flows through to the Lower Orange Water Management Area.

5.1 External environment

The VOCMA has identified thematic areas that will serve as a framework to organise an external environment analysis as follows:

Water availability and requirements

The current system yield in the Vaal River catchment is around 3 000 million m^3/annum. The available system yield is impacted by several factors. The Vaal River Bulk Water Supply Reconciliation Strategy of 2009 states that irrigation water requirement makes up about 37% of the total water use supplied from the Vaal River System. Moreover, detailed validation studies carried out for DWS indicated that as much as 174 million m^3/ annum could be unlawful. The bulk of this unlawful water abstraction is in the river reach upstream of Vaal Dam and downstream of the outflow where the water from the Lesotho Highlands Water Project is discharge into the Ash River from the tunnels. This volume of unlawful abstraction effectively implies that a large proportion of the additional water available from Mohale Dam (part of the Lesotho Highlands Water Project) does not reach the intended users that are supplied from Vaal Dam.

The Orange River, the largest river in South Africa, has its origin in the high lying areas of Lesotho. The river drains a total catchment area of about 1 million km^2, runs generally in a westerly direction and finally discharges into the Atlantic Ocean at Alexander Bay. The Orange is very important, and several transfer systems are in the Orange Catchment, including the Lesotho Highlands Transfer Scheme with 780 m^3 per annum, the Caledon/Modder transfer for the augmentation of water supply to Bloemfontein and Magaung transferring 88 m^3 per annum. Other transfer are Orange/ Fish transfer totalling 629 m^3 per annum, Orange / Riet transfer totalling 260 million m^3 per annum, and the Orange/ Vaal transfer scheme up to a to a maximum of 142 million m^3 per annum. These transfers show that the management of the Vaal-Orange catchments as an integrated water resources system is critical for future assurance of water supply.

The construction of Polihale Dam on the Senqu River, as part of Phase 2 of the Lesotho Highlands Development Project is unlikely to come on stream until further notice and therefore the focus of the financial analysis in this business case study is focussed on the years leading up to 2021 and beyond. The extent of the supply deficit is highly dependent on the success of the proposed mitigation strategies,

as is evident from the scenarios in the following figures. There are also challenges to be overcome in replacing the lost yield in the Senqu River to the Orange River System because of supplying water to the Vaal River System.

The availability is very dependent on the successful implementation of several mitigation factors, such as the eradication of unlawful use, Water Conservation and Demand Management (WC/WDM) initiatives, re-use of effluent and desalinated mine water and the introduction of the augmentation options. The eradication of unlawful use, WC/WDM and re-use of treated effluent and mine water are issues which will fall within the jurisdiction, monitoring and control of the VOCMA.

Climate and rainfall patterns

The mean annual temperature ranges between 12°C in the east and 16°C in the west to, with an average of about 15°C for the catchment. Maximum temperatures are experienced in January and minimum temperatures usually occur in July. Rainfall is strongly seasonal with most rain occurring in the summer period (October to April). The peak rainfall months are December and January. Rainfall occurs generally as convective thunderstorms and is sometimes accompanied by hail. Frost occurs in winter and there is occasional light snow on high lying areas.

The overall feature of mean annual rainfall over the Upper Vaal catchment area is that it decreases uniformly westwards from the eastern escarpment regions across the central plateau area. Average potential mean annual gross evaporation (as measured by Class A-pan) ranges from 1 600 mm in the east to a high of 2 200 mm in the drier western parts. The highest-Class A-pan monthly evaporation is in January (range 180 mm to 260 mm) and the lowest evaporation is in June (80 mm to 110 mm). The climatic conditions vary considerably from west to east across the WMA and effects of climate change could have impact on the water resources in the catchment.

Considerable variations in climatic conditions occur over the five sub-catchment areas. The Mean Annual Precipitation (MAP) decreases from 800 mm in the Upper Vaal to 500 mm in the Middle Vaal, 100 mm in the Lower Vaal catchment area. This tendency is reversed when considering potential annual evapotranspiration, which increases from 1 300 mm in the Upper Vaal to 2 800 mm in the Lower Vaal catchment area.

The Upper Orange has reported rainfall patterns as high as 1 000 mm in the Eastern side, and the Western area is reported to only receive about 200 mm per year. The biggest water contributor to the Upper Orange sub-catchment is Lesotho, where rainfall varies between 600mm and 1500mm per year. The Lower Orange catchment area is the driest, experiencing the lowest mean annual rainfall. Yet its water are on highest demand mainly due in part, to the upstream water requirements coupled with downstream international requirements. Potential evaporation can be as high as 3 000 mm per year and often several times more than the annual rainfall.

Rainfall in the Lower Orange ranges from 400 mm, on the eastern side, to a low of 20mm on the coastal side per year. This area is characterised by prolonged droughts except for scarce and highly intermittent runoff from local rivers and occasional inflows from the Fish River in Namibia. Sometimes the harsh dry conditions of this area are terminated by severe flooding. The Lower Orange is completely dependent on the flow from upstream of the Vaal-Orange WMA. Although groundwater resources are limited, it is well used for rural water supplies.

The Western areas, which include Namaqualand, a portion of the Green Kalahari and Calvinia and the Upper Karoo receives rain in the winter during April to September. Eastern areas of this water management area experiences summer rainfall, usually accompanied by thunderstorms.

State of ecosystems

The National Water Policy recognises the protection of aquatic ecosystems as critical to ensuring sustainable delivery of resource-related goods and services. Management of water resources according to hydrological boundaries will enable more effective and integrated protection of river systems.

The Vaal-Orange WMA area is split into 5 Sub-catchment management areas, the Upper Vaal, Middle Vaal, Lower Vaal, Upper Orange and Lower Orange. The Upper Vaal is the life and blood of the economic activities (industrial and mining) in Mpumalanga and Gauteng. Comprises of Petrochemical plants (Sasol), iron and steel processing (Arcelor Mittal), and 3 coal-fired power stations. There is also significant mining activities in the North Western region, extracting coal, gold, base metals Water use in the Upper Vaal is shared by the industrial, urban and mining sectors, accounting for 80% of water usage. The Middle Vaal has significant gold mining activity, predominantly in the Free State. The Middle Vaal uses 40% of the water for irrigation, 30% for urban and industrial sectors, 20% for mining. The Lower Vaal mainly in the NC comprises significantly of alluvial diamond and iron ore extraction. Water use in the Lower Vaal is mainly used for irrigation which accounts for 80%.

Water quality deterioration in the Vaal-Orange River WMA is mainly attributable to one or more of the following land-use impacts.

Irrigation run-off, particularly in the Orange river system side where agriculture is dominant. Upper and Lower Orange has large, irrigated areas that carry fertilisers and high salt loads through leaching (DWA, Orange River Water Quality and Effluent Re-use Report, 2012). Water quality tends to be degraded with considerably higher salt and nutrient concentrations which contributes significantly to the salt load in the Orange River.

The quality of the water in the Vaal-Orange River system must be carefully controlled as the system provides water to a large area of the country. To ensure that the quality of the water is achieved an Integrated Water Quality Plan for the Vaal River system exist but has yet to be implemented. Potential problems with management of the quality of water will arise due to the large industrial and urban settlement patterns that exist in the catchment area.

The VOCMA will thus have to ensure that the quality of water that is being returned to the system by industrial users is of such a quality that future supply is assured. To deal with these challenges the VOCMA will have to develop a policy and process for water quality management. The process will not only involve the VOCMA but the community, affected parties as well as industry. The water quality strategy for the VOCMA will include issues from the whole spectrum of the water cycle including drinking water quality, monitoring, groundwater, rural land uses and water quality, storm water, sewage systems, wastewater treatment plant return flows and effluent control for industries. For this reason, a robust communication and participation plan is desired to achieve the set strategic water quality objectives.

Regulation

The CMAs are responsible for coordinating and managing all regulatory functions within respective water management areas. This includes water use authorisation as well as compliance monitoring and enforcement. The function of technical processing of processing applications for water use withing the water management area, validation and verification of water use to support the water resource management planning function, as well as conducting compliance monitoring and enforcement activities within the water management area are some of the critical functions the VOCMA will be performing.

International considerations

The Vaal-Orange WMA also plays a cross-boundary role through its impact on international water sharing. It has an impact on Botswana, Lesotho, Namibia, Zimbabwe, Mozambique and Swaziland. The Middle Vaal area has a major influential transfer out of the area into the Crocodile & Marico catchment area. The Molopo River acts as the border and is shared between South Africa and Botswana. The waters of the Vaal-Orange River Basin are subject to the Orange-Senqu River Commission (ORASECOM) agreement signed between South Africa, Lesotho, Botswana and Namibia.

Since the Vaal River contributes to the orange River system, the management of the Vaal River falls within and is subject to the international agreements reached with neighboring Lesotho, Botswana and Namibia. These agreements define the responsibilities of the upstream authorities with respect to both quantity and quality of water released downstream, the monitoring of which will need to be addressed as part of the CMA catchment management strategy. The trans-boundary agreement covers the establishment of the Orange-Senqu River commission and specifically includes:

- Article 1 – The establishment of the commission.
- Article 2 – Institutions of the commission.
- Article 3 – Meetings of the council.
- Article 4 -6 – Objectives, functions and powers of the council.
- Article 7 – Obligations of the contracting parties.
- Article 8 – Settlement of disputes.
- Article 9 – Withdrawal.
- Article 10 – Financial arrangements; and
- Article 11 – General provisions.

The Vaal-Orange CMA is expected to operate within defined operating rules and taking into consideration the existing international institutional arrangements.

Other strategic and operational considerations include local surface that have been developed to full extent and the groundwater that is already utilized. It is for this reason that, this WMA is completely dependent on the Upper Orange's water release and transfers, and the adverse consequence is that upstream mining, urban, industrial and irrigation activities have a negative influence on water quality downstream.

Efficient irrigation water use, water monitoring and control are of concern in this region. Contributing towards these concerns is the lack of management and control structures to release water from the Vanderkloof dam. The implementation of efficient integrated flood management measures and cooperating with upstream users is important in this regard to protect the Lower Orange WMA developments and improve its economic contribution to the Gross Domestic Product (GDP). There is also a need to reallocate water and to embark on programmes to relieve poverty in this region through the support of emerging irrigation farmers.

Institutional transformation

Prior to the promulgation of the National Water Act (NWA), there were Irrigation Boards (IBs) within the water management areas. Since the NWA promulgation, several IBs have been transformed into Water User Associations (WUAs) with some disestablished.

As there are numerous IBs that still need to be transformed into WUAs in all the WMAs, the Executive Authority issued a notice to have transformed all the remaining irrigation boards by a certain timeframe. It is estimated that a total of 4 of irrigation boards to be transformed or disestablished within VOCMA Water Management Area.

5.2 Internal environment

The success in the execution of the legislative mandate and strategic imperatives of the VOCMA can be achieved when the organisation has built the required strategic resources and capabilities.

Resourcing the mandate

The current funding model is that allocation from the fiscus makes up 66% of the total VOCMA annual budget when 34% is collection of water resource management charges. This funding model is sub-optimal and will not be sustainable in a long term therefore, a strategically oriented funding framework is required to allow the VOCMA the ability to deliver on its mandate.

Debt management

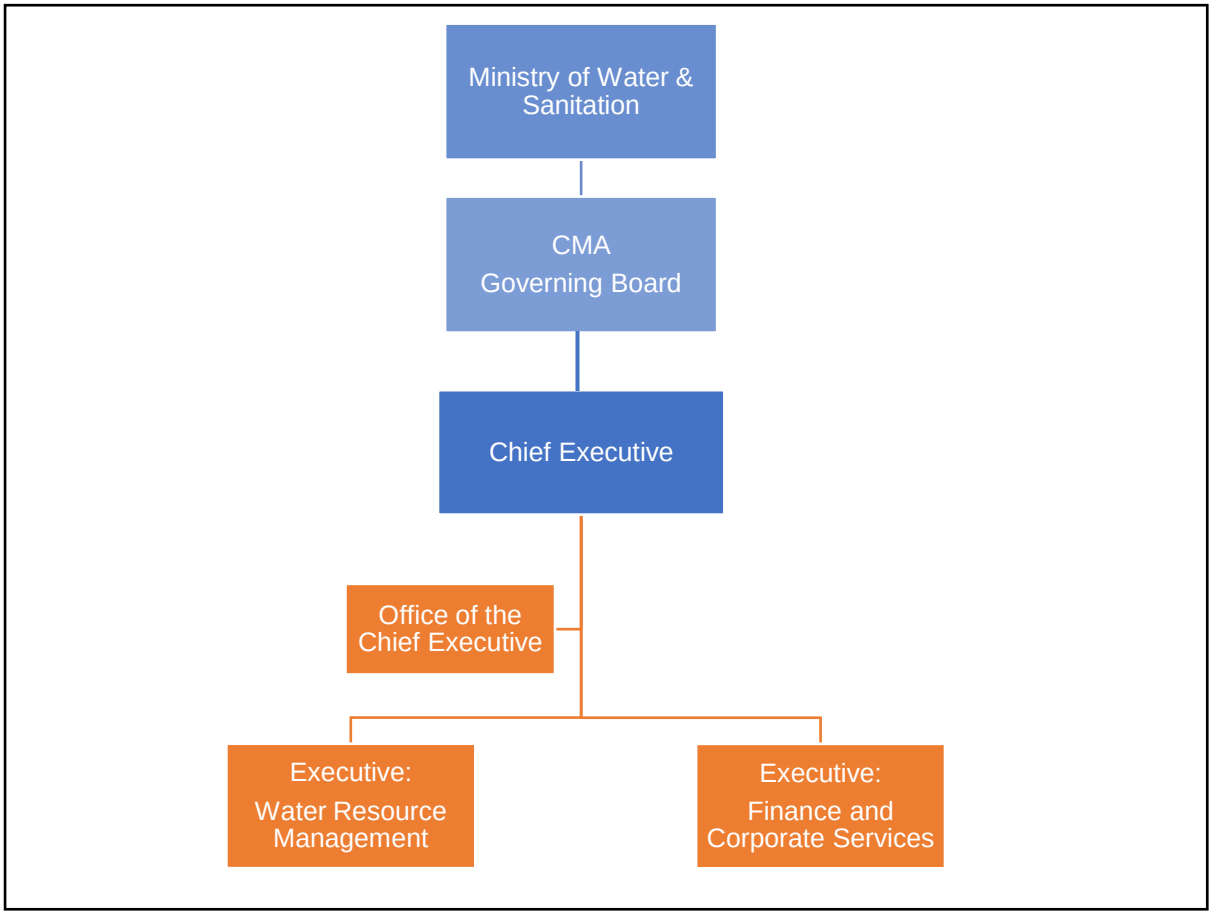
Debt management is a serious concern for business in general and the VOCMA will be no exception. Initially the VOCMA will be dependent on DWS for its billing, collections and debt management. As part of the delegation process, the CMA will, in due course, collect these charges and be responsible for debt management. The efficiency of collection of charges has been a matter of concern in some parts of the country. The VOCMA will ensure incremental acquisition of capabilities to perform this essential activity.

Organisational culture

The envisaged organisational culture of the VOCMA should integrate different cultures from previously separate catchment areas. However, this presents an opportunity to integrate different strength and enhanced diversity, and the same time fostering common culture may be difficult for the organization to effectively define and communicate a consistent message of its prevailing culture. As such the complex organizational culture requires multidisciplinary interventions that are aligned to the requirements of the strategy delivery and execution effort. The VOCMA is optimistic towards a healthy culture that embraces execution-supportive attitudes, behaviours and work practices where a result-oriented work climate is encouraged is espoused. This type of culture will enable alignment of rewards and incentives directly to achievement of strategic outcomes.

High-level organisational structure

A high-level organisational structure to support the execution of mandate is depicted below:



Managing data and information

ICT is critical business enabler that will provides effective and efficient processes of the VOCMA across its value chain to affect the key business processes.

The VOCMA will invest towards attainment of Master System Plan (MSP) which will be used to achieve business efficiency and effectiveness in the enterprise architecture.

5.3 Alignment with national priorities

Departmental outcomes		Outcome indicator as per the Department's strategic plan			Departmental 5-year targets	CMA outcome	Output		CMA 5-year target
1	Efficient, effective and development orientated department	1.1	Percentage compliance with corporate governance regulatory prescripts		100% compliance	Adherence to corporate governance requirements	Corporate governance regulatory prescripts developed		100%
		1.3	Targeted procurement supporting SMMEs		30%		Targeted procurement supporting SMMEs		40%
			1.3.1	Women	40%		1.3.1	Women	40%
			1.3.2	Youth	30%		1.3.2	Youth	30%
			1.3.3	People with disabilities	7%		1.3.3	People with disabilities	7%
2	Ecological infrastructure protected and restored	2.1	Number of resources classes with determined resource quality objectives			Protection and use of water resources	Water resource monitoring implemented		-
		2.2	Number of rivers in which the river eco-status monitoring programme is implemented		81				
		2.3	Number of main stem rivers monitored for implementation of Resource Directed Measures		10				
		2.4	Wastewater management plans developed and implemented		*See details below*				
			2.4.2	Implement catchment plans	-				
			2.4.3	Implement waste discharge charge system (WDCS) countrywide	-				
4	Enhanced regulation of the water and sanitation sector	4.1	Timeframe for processing water use license application reduced		90 days (working days)		Enforcement of regulatory compliance		-
		4.2	Average number of water users in various sectors monitored for compliance with water use license per year		396				
5	Water distributed for transformation	5.1	Effective and efficient institutions established		*See details below*	Effective and efficient water resource institutions	Water resource institutions established		-
			5.1.1	Water user associations established	41				

6. Overview of the 2024/25 budget and medium-term estimates

The 2024 budget estimates of the VOCMA are detailed below:

6.1 Overview of the CMA budget structure

The VOCMA budget programmes and associated sub-programmes are indicated below:

Programme / sub-programme	Purpose / description
Administration	**Strategic leadership and support services for the organization**
Office of the Chief Executive	Policy and strategic direction for the organization including governance functions
Financial Management	Planning, organizing, controlling and monitoring the organization's financial resources (i.e., financial management, supply chain management as well as billing and revenue management)
Corporate Support Services	Enterprise-wide support on specialized services including human resource management, auxiliary services, legal services, IT and communications
Risk and compliance management	Identify, analyses and mitigate organisational risks
Internal audit	Independent and objective assurance on the effectiveness of organizational internal control processes
Office Accommodation	Payments for rental charges on all occupied leased office space and for municipal services such as electricity, water, and sewage and waste removal.
Water resource management	**Protection, use, development, conservation, management and control of water resources**
Compliance monitoring and enforcement	Compliance monitoring and enforcement activities as well delegated dam safety activities within the water management area.
Institutions, stakeholder engagements and governance	Establishment and oversight of water management institutions, stakeholder consultation and capacity empowerment
Water resource planning and management	Develop catchment management strategy; implement resource directed measures; river health, maintenance and restoration of eco-systems as well as geo-hydrology and hydrology monitoring.
Water use authorisation and registration	Technical processing of water uses license applications, manage water use registration as well as verify and validate water use.

6.2 Expenditure estimates per funding source

Source of funding	Medium term expenditure estimates in R'000		
	2024/25	2025/26	2026/27
Grant approved by Parliament	27 113	28 387	29 722
Water resource charges	240 256	251 548	263 371
Interest received	3 564	3 732	3 906
Total	**270 933**	**283 667**	**296 999**

6.3 Expenditure estimates per budget programme

Programme	Medium term expenditure estimates in R'000		
	2024/25	2025/26	2026/27
Administration	66 578	69 707	72 983
Water Resource Management	204 355	213 960	224 016
Total	**270 933**	**283 667**	**296 999**

6.4 Expenditure estimates per economic classification

Economic classification	Medium term expenditure estimates in R'000		
	2024/25	2025/26	2026/27
Compensation of employees	176 450	184 743	193 426
Goods and services	89 249	93 444	97 836
Payments for capital assets	5 234	5 480	5 737
Total	**270 933**	**283 667**	**296 999**

PART C: MEASURING PERFORMANCE

1. Institutional programme performance information

The structure of the VOCMA's performance information is aligned with the budget structure as detailed below:

1.1. Administration programme

The programme provides strategic leadership and support services for the organisation.

1.1.1 Sub-programmes

Office of the Chief Executive provides policy and strategic direction for the organisation including governance functions.

Financial Management provides for planning, organizing, controlling and monitoring the organization's financial resources within the organisation.

Corporate Support Services provides enterprise-wide support on specialized services including human resource management, auxiliary services, legal services, IT and communications.

Risk and Compliance Management identifies, analyses and mitigate organisational risks.

Internal audit **provides** for independent, assurance and advisory services to improve the CMA's operations.

Office Accommodation provides for payments for rental charges on all occupied leased office space and for municipal services such as electricity, water, and sewage and waste removal.

1.1.2 Outcomes, outputs, performance indicators and targets

Outcomes		Outputs		Output indicators		Annual medium-term targets		
						2024/25	2025/26	2026/27
1	Adherence to corporate governance requirements	1.1	Corporate governance regulatory prescripts developed	1.1.1	Number of financial policies approved	5	5	5
				1.1.2	Number of human resource policies approved	5	5	5
				1.1.3	Communication strategy developed	Draft communication strategy	Final communication strategy	-
				1.1.4	ICT strategy developed	Draft ICT strategy	Final ICT strategy	-
				1.1.5	Strategic risk register developed	Strategic risk register developed	Strategic risk register updated	Strategic risk register updated
				1.1.6	Annual risk management implementation plan developed	-	Risk management implementation plan developed	Risk management implementation plan developed
				1.1.7	Audit plan developed	Draft audit plan	Final audit plan	-
		1.2	Targeted procurement supporting SMMEs	1.2.1	Percentage of targeted procurement budget spent on SMMEs	40%	40%	40%
					A Women	40%	40%	40%
					B Youth	30%	30%	30%
					C People with disabilities	7%	7%	7%
		1.3	Financial control and sustainability maintained	1.3.1	Debtors' payment days	150 days	150 days	150 days
					A Domestic and industry	*150 days*	*150 days*	*150 days*
					B Irrigation	*150 days*	*150 days*	*150 days*
					C Forestry	*150 days*	*150 days*	*150 days*
				1.3.2	Creditors' payment days	30 days	30 days	30 days
				1.3.3	Current ratio	≥1:1	≥1:1	≥1:1
				1.3.4	Percentage of debt collection ratio: toxic debt book	8%	10%	10%

Outcomes		Outputs		Output indicators		Annual medium-term targets		
						2024/25	2025/26	2026/27
				1.3.5	Number of finance business processes developed	5	5	5
		1.4	Functional human resource services	1.4.1	Number of HR business processed developed	5	5	5
				1.4.2	Percentage of vacant positions filled	90%	90%	90%

1.1.3 Indicators, annual and quarterly targets per sub-programme

1.1.3.1 Office of the Chief Executive sub-programme

Output indicators		2024/25 annual targets	Quarterly milestones			
			Quarter 1 April – June	Quarter 2 July - September	Quarter 3 October - December	Quarter 4 January – March
1.1.1	Number of financial policies approved	5	1	2	1	1
1.1.2	Number of human resource policies approved	5	1	2	1	1

1.1.3.2 Financial Management sub-programme

Output indicators			2024/25 annual targets	Quarterly milestones			
				Quarter 1 April – June	**Quarter 2 July - September**	**Quarter 3 October - December**	**Quarter 4 January – March**
1.2.1	Percentage of targeted procurement budget spent on SMMEs		40%	40%	40%	40%	40%
	A	Women	40%	40%	40%	40%	40%
	B	Youth	30%	30%	30%	30%	30%
	C	People with disabilities	7%	7%	7%	7%	7%
1.3.1	Debtors' payment days		150 days	150 days	150 days	150 days	150 days
	A	Domestic and industry	*150 days*	*150 days*	*150 days*	*150 days*	*150 days*
	B	Irrigation	*150 days*	*150 days*	*150 days*	*150 days*	*150 days*
	C	Forestry	*150 days*	*150 days*	*150 days*	*150 days*	*150 days*
1.3.2	Creditors' payment days		30 days	30 days	30 days	30 days	30 days
1.3.3	Current ratio		≥1:1	≥1:1	≥1:1	≥1:1	≥1:1
1.3.4	Percentage of debt collection ratio: toxic debt book		8%	8%	8%	8%	8%
1.3.5	Number of finance business processes developed		1	2	1	1	

1.1.3.3 Corporate Support Services sub-programme

Output indicators		2024/25 annual targets	Quarterly milestones			
			Quarter 1 April – June	**Quarter 2 July - September**	**Quarter 3 October - December**	**Quarter 4 January – March**
1.1.3	Communication strategy developed	Draft communication strategy	Conceptual framework	Identify key audiences	Identify communication related risks	Draft communication strategy
1.1.4	ICT strategy developed	Draft ICT strategy	Define IT requirements and scope	Define overall architecture	Define key performance areas	Draft ICT strategy
1.4.1	Number of HR business processed developed	5	1	2	1	1
1.4.2	Percentage of vacant positions filled	90%	40%	60%	75%	90%

1.1.3.4 Risk and Compliance Management sub-programme

Output indicators		2024/25 annual targets	Quarterly milestones			
			Quarter 1 April – June	**Quarter 2 July - September**	**Quarter 3 October - December**	**Quarter 4 January – March**
1.1.5	Strategic risk register developed	Strategic risk register developed	Risk identification	Strategic risk register developed	Monitoring of strategic risk register	Monitoring of strategic risk register

1.1.3.5 Internal Audit sub-programme

Output indicators		2024/25 annual targets	Quarterly milestones			
			Quarter 1 April – June	Quarter 2 July - September	Quarter 3 October - December	Quarter 4 January – March
1.1.7	Audit plan developed	Draft audit plan	-	Determine business processes	-	Draft audit plan

1.1.4 Abridged risk management plan for the programme

Link to outcome		Risk category	Risk	Mitigation measures
1	Adherence to corporate governance requirements	Governance and accountability.	• Ineffective governance structures and systems to support the Board discharge its fiduciary responsibilities.	• Capacitate the administrative and executive support. • Develop and implement the Board calendar of activities.
		Technological and systems	• Inadequate technological infrastructure: • Unsustainable ICT systems (suitability and appropriateness of technology for massive data processing)	• Develop and implement an ICT Disaster Recovery Plan. • Develop a data improvement strategy to impact positively on the CMA's ability to undertake its WRM functions effectively.
		Financial Management	Inability to collect revenue (water use charges)	• Develop a Revenue Enhancement Strategy and credit control. • Leverage funding through partnership and Memoranda of Understanding (MoUs). • Monitor the implementation of incentive scheme plans whereby VOCMA entered into repayment agreement with the clients etc.
		Human Resource Management	• Critical skills attraction, development, and retention • Inadequate access to specialist skills particular for	• Build capacity by transferring staff from DWS and recruitment of staff. • Develop a talent sourcing and management strategy.

Link to outcome		Risk category	Risk	Mitigation measures
			operational management of the CMA.	

1.1.5 Reconciling performance targets with budget over the medium term

Sub-programme	Proposed budget		
Rand	**2024/25**	**2025/26**	**2026/27**
Office of the Chief Executive	8 470 586	8 868 704	9 285 533
Financial Management	31 843 492	33 340 137	34 907 123
Corporate Services	14 572 973	15 257 903	15 975 024
Risk and Compliance Management	3 048 024	3 191 281	3 341 271
Internal Audit	2 948 024	3 086 581	3 231 650
Office Accommodation	5 694 965	5 962 628	6 242 872
Total	**66 578 064**	**69 707 233**	**72 983 473**

1.2. Water Resource Management programme

The programme provides for the protection, use, development, conservation, management and control of water resources.

1.2.1 Sub-programmes

Compliance Monitoring and Enforcement provides for compliance monitoring and enforcement activities as well delegated dam safety activities within the water management area.

Institutions, Stakeholder Engagements and Governance provides for the establishment and oversight of water management institutions, stakeholder consultation and capacity empowerment.

Water Resource Planning and Management develops catchment management strategy; implement resource directed measures; river health, maintenance and restoration of eco-systems as well as geo-hydrology and hydrology monitoring.

Water Use Authorisation and Registration provides for the technical processing of water uses license applications, manage water use registration as well as verify and validate water use.

1.2.2 Outcomes, outputs, performance indicators and targets

Outcomes		Outputs		Output indicators		Annual medium-term targets		
						2024/25	2025/26	2026/27
2	Protection and use of water resources	2.1	Water resource management strategy developed	2.1.1	Catchment management strategy developed	Situational assessment of the water management area	Draft catchment management strategy	Final catchment management strategy
		2.2	Water resource monitoring implemented	2.2.1	Percentage compliance with international obligations	≥90%	≥90%	≥90%
				2.2.2	Number of rivers in which the River Eco-status Monitoring Programme is implemented	11	11	11
				2.2.3	Number of river systems monitored for the implementation of resource directed measures	23	23	23
				2.2.4	Number of strategic points monitored for water resource quality	32	36	40
				2.2.5	Waste discharge charge strategy implemented	Vaal	Vaal	Vaal
		2.3	Enforcement of regulatory compliance	2.3.1	Percentage of applications for water use authorisation processed within regulated period	≥90%	≥90%	≥90%
				2.3.2	Percentage of approved water use authorisations registered in WARMS	≥95%	≥95%	≥95%
				2.3.3	Number of existing water users verified	220	367	611
				2.3.4	Number of existing water users validated	290	483	805
				2.3.5	Number of water users monitored for compliance	208	231	257
				2.3.6	Percentage of enforcement action taken against non-compliant users	≥80%	≥80%	≥80%
		2.4	Emergency pollution incident response	2.4.1	Percentage of pollution incidents responded to within 78hrs of reporting	≥80%	≥80%	≥80%

Outcomes		Outputs		Output indicators		Annual medium-term targets		
						2024/25	2025/26	2026/27
3	Effective and efficient water resource institutions	3.1	Water resource institutions established	3.1.1	Number of irrigation boards transformed into water user associations	2	-	-
		3.2	Water resource institutions' compliance implemented	3.2.1	Number of institutional annual performance plans evaluated	8	14	14
				3.2.2	Number of institutions assessed per quarter	8	14	14
				3.2.3	Number of institutional annual reports evaluated	8	14	14
4	Effective stakeholder commitment	4.1	Stakeholder participation	4.1.1	Stakeholder engagement plan developed	Draft stakeholder engagement plan	Stakeholder engagement plan approved	-

1.2.3 Indicators, annual and quarterly targets per sub-programme

1.2.3.1 Compliance Monitoring and Enforcement sub-programme

Output indicators		2024/25 annual targets	Quarterly milestones			
			Quarter 1 April – June	Quarter 2 July - September	Quarter 3 October - December	Quarter 4 January – March
2.3.5	Number of water users monitored for compliance	208	62	69	51	50
2.3.6	Percentage of enforcement action taken against non-compliant users	≥80%	≥80%	≥80%	≥80%	≥80%
2.4.1	Percentage of pollution incidents responded to within 78hrs of reporting	≥80%	≥80%	≥80%	≥80%	≥80%

1.2.3.2 Institutions, Stakeholder Engagements and Governance sub-programme

Output indicators		2024/25 annual targets		Quarterly milestones			
				Quarter 1 April – June	**Quarter 2 July - September**	**Quarter 3 October - December**	**Quarter 4 January – March**
2.2.1	Percentage compliance with international obligations	≥90%		≥90%	≥90%	≥90%	≥90%
3.1.1	Number of irrigation boards transformed into water user associations	2		0	1	0	1
		Middle Vaal	*1*	*Stakeholder consultation*	1	-	-
		Upper Vaal	*1*	-	*Stakeholder consultation*	*Stakeholder consultation*	1
3.2.1	Number of institutional annual performance plans evaluated	**8**		**0**	**0**	**0**	**8**
3.2.2	Number of institutions assessed per quarter	**8**		**8**	**8**	**8**	**8**
3.2.3	Number of institutional annual reports evaluated	**8**		**0**	**8**	**0**	**0**
4.1.1	Stakeholder engagement plan developed	Draft stakeholder engagement plan					Draft stakeholder engagement plan

1.2.3.3 Water Resource Planning and Management sub-programme

Output indicators		2024/25 annual targets	Quarterly milestones			
			Quarter 1 April – June	**Quarter 2 July - September**	**Quarter 3 October - December**	**Quarter 4 January – March**
2.1.1	Catchment management strategy developed	Situational assessment of the water management area	Review of water management area internal strategic perspectives	Conceptual framework	Stakeholder consultation	Situational assessment of the water management area
2.2.2	Number of rivers in which the River Eco-status Monitoring Programme is implemented	**11**	11	11	11	11
2.2.3	Number of river systems monitored for the implementation of resource directed measures	**23**	23	23	23	23
2.2.4	Number of strategic points monitored for water resource quality	**32**	32	32	32	32
2.2.5	Waste discharge charge strategy implemented	Vaal	Vaal	Vaal	Vaal	Vaal

1.2.3.4 Water Use Authorisation and Registration sub-programme

Output indicators		2024/25 annual targets	Quarterly milestones			
			Quarter 1 April – June	**Quarter 2 July - September**	**Quarter 3 October - December**	**Quarter 4 January – March**
2.3.1	Percentage of applications for water use authorisation processed within applicable period	≥90%	≥90%	≥90%	≥90%	≥90%

Output indicators		2024/25 annual targets		Quarterly milestones			
				Quarter 1 April – June	Quarter 2 July - September	Quarter 3 October - December	Quarter 4 January – March
2.3.2	Percentage of approved water use authorisations registered in WARMS	≥95%		≥95%	≥95%	≥95%	≥95%
2.3.3	Number of existing water users verified	**220**		**55**	**60**	**50**	**55**
		Middle Vaal	60	*15*	*20*	*10*	*15*
		Lower Vaal	160	*40*	*40*	*40*	*40*
2.3.4	Number of existing water users validated	**290**		**70**	**80**	**70**	**70**
		Upper Vaal	130	*30*	*40*	*30*	*30*
		Lower Orange	160	*40*	*40*	*40*	*40*

1.2.4 Abridged risk management plan for the programme

Link to outcomes		Risk category	Risk Description	Mitigation plans
2	Protection and use of water resources	Environmental Management	Impact of climate change and natural disasters on water availability, safety, and future security sustainability within the WMA	• Develop the climate change and natural disasters strategy. • Develop and implement land-based activities water pollution Strategy.
			Poor water quality and quantity at catchment points	• monitor catchment raw water quality. • communicate the water quality status of the catchments to interested and affected parties. • develop and implement measures and strategies to maintain acceptable pollution levels in the catchment system. • Promote IGR collaborations with the local municipalities

Link to outcomes		Risk category	Risk Description	Mitigation plans
		Regulatory and compliance risk	• Inadequate implementation of delegated functions and powers • Inadequate capacity to implement water resource management functions and delegation of powers as provided in the National water Act.	• Develop a delivery agreement between DWS and the VOCMA regarding the timeframes and requirements for the final delegation of functions to the VOCMA. • Implement a punitive charge for water users have not applied for new licenses or comply with the NWA. • Establish a task team from relevant divisions (CME, WUA and Revenue), and develop terms of reference for non-registration of water use.
		Governance, Regulatory and Compliance risks	• Non-compliance to governance, statutory and regulatory requirements, and prescripts • Non-adherence to legal obligation in complying to environmental legislations.	• Develop a Catchment Management Strategy to ensure compliance. • Develop an annual report containing details of transfers of water entitlements under S25 (1) or (2). • Implement a punitive charge for water users have not applied for new licenses or comply with the NWA. • Conduct planned inspection on authorized and unauthorised water uses.
3	Effective and efficient water resource institutions	Socio-economic risk	• Inability to effect transformation in the sector catchment • Inability to drive transformation in the water sector in the catchment with a particular focus on redress and meeting the needs of poor communities.	Develop and implement a VOCMA Transformation Strategy.
4	Effective stakeholder commitment	Intergovernmental programme	Inadequate coordination and cooperation between the three spheres of government on municipal transboundary matters	• Maintain effective relationships with relevant local authorities and the provincial departments. • Ensure a proper understanding of the role, boundaries, and purpose of the CMA.
			Stakeholder Management	• Ineffective stakeholder acceptability, management, and relations • Erosion of stakeholder confidence and trust.

1.2.5 Reconciling performance targets with budget over the medium term

Sub-programme	Proposed budget		
Rand	**2024/25**	**2025/26**	**2026/27**
Compliance, Monitoring and Enforcement	57 136 570	59 821 988	62 633 622
Institutions, Stakeholder Engagements & Governance	13 146 905	13 764 809	14 411 755
Water Resource Planning and Management	45 144 810	47 266 616	49 488 147
Water Use Authorisation and Registration	88 926 952	93 106 519	97 482 ,525
Total	**204 355 236**	**213 959 932**	**224 016 049**

2. Explanation of planned performance over the planning period

The finalisation of the catchment management strategy (CMS) for the water management area is an essential enabler for the CMA's performance. The completion of the CMS is planned over the medium term and other plans per budget programme are summarised below:

2.1 Programme 1: Administration

As a new entity, the stability in its operations is essential. Therefore, of utmost importance, is the compliance with corporate governance prescripts. To ensure this, plans are underway to finalise and implement the governance plan, develop and implement financial and human resources policies with the associated business processes.

Also, the 2019-2024 Medium Term Strategic Framework (MTSF) emphasises the significance of empowering vulnerable and designated groups (i.e. women, youth and persons with disabilities). To support this, the CMA plans to procure from these groups in line with the 2022 Preferential Procurement Regulations.

Another critical aspect relating to the management of the entity is its financial sustainability. In view of this, plans are underway to manage its finances in a sustainable manner.

Finally, to support the operations of the organisation, plans are underway to manage its risk and to ensure the independent, assurance and advisory services from the auditing activities.

2.2 Programme 2: Water Resource Management

As South Africa is a water scarce country, it is faced with the challenge of protecting water resources (i.e. quantity and quality) and the need to utilise water for social and economic development. Some of the country's water resources are overused (e.g. polluted, the available water is already allocated and / or the surrounding environment is in a poor state) with other water resources are underutilised.

The Department has devolved the protection of these water resources to the CMA and the planned performance over the medium-term is summarised as follows:

As a CMA is faced with several competing water users (e.g. mining, agriculture, industry etc.), the CMA is required to allocate water among these uses in a manner that promotes social and economic development of all in the water management area. The National Water Act thus requires the CMA to develop a CMS that considers several activities such as the water resource classes and resource quality objective of its river systems, international obligations, water allocation plan. The CMS therefore will provide strategies, objectives, plans, guidelines and procedures for the management of the water resources in the water management area.

The National Water Act requires the protection of the water resources for the benefit of current and future requirements. As the Department is tasked with determining the required protection levels for the country's water resources, the CMAs are required to ensure that this protection levels are implemented within the water management area. Several monitoring programmes will be implemented over the medium-term which include monitoring the implementation of resource directed measures, river eco-status and waste discharge activities.

Strong regulation is critical to achieve water security in South Africa and the CMAs are critical in supporting this within respective water management areas. Compliance, monitoring and enforcement (CME) is one of the priority focus areas identified in the National Water Resources Strategy as it supports water allocation and water allocation reform (WAR) to ensure that water is used according to authorisation conditions, and by legally authorised water users within water management areas.

The management of pollution incidents is an essential activity for public safety. The CMA plans to implement a pollution emergency response within the water management for the benefit of the water resources and human safety.

PART D: TECHNICAL INDICATOR DESCRIPTIONS

1. Administration Programme

1.1. Office of the Chief Executive sub-programme

PPI no 1.1.1: Number of financial policies approved

Indicator title	Number of financial policies approved
Definition	This monitors the extent in which the organisational financial policies are developed and finalised within a given period.
Source of data	The following will be used: • Literature review process • Consultation sessions • Draft policies
Method of calculation / assessment	This will be the actual number of approved financial policies
Means of verification	Approved financial policies
Assumptions	The policies will be in line with the organisation's vision
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Cumulative
Reporting cycle	Quarterly
Desire performance	5 policies approved as follows: Asset management | Financial management Management accounting | Revenue management Supply chain management
Indicator responsibility	Chief Executive

PPI no 1.1.2: Number of human resource policies approved

Indicator title	Number of human resource policies approved
Definition	This monitors the extent in which the organisational human resource policies are developed and finalised within a given period.
Source of data	The following will be used: • Literature review process • Consultation sessions • Draft policies
Method of calculation / assessment	This will be the actual number of approved human resource policies
Means of verification	Approved human resource policies
Assumptions	The policies will be in line with the organisation's vision
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Cumulative
Reporting cycle	Quarterly
Desire performance	5 policies
Indicator responsibility	Chief Executive

1.2. Financial Management sub-programme

PPI no 1.2.1: Percentage of targeted procurement budget spent on SMMEs

Indicator title	Percentage of targeted procurement budget spent on SMMEs
Definition	This measures the extent in which the organisation empowers qualifying small, medium and micro enterprises through the procurement of goods and services
Source of data	Supply chain database
Method of calculation / assessment	If the actual procurement from an SMME is given the value “x” and the total procurement is given the value "y"; the formula is as follows: $$y\% = {}^{x}/_{y} \times 100$$
Means of verification	Payment reports to SMMEs for the reporting period
Assumptions	An SMME is defined in line with the National Small Enterprise Act, 2019 as amended
Disaggregation of beneficiaries (where applicable)	The following targets for designated groups **Designated group** / **Target** Women / 40% Youth / 30% People with disabilities / 7%
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	40%
Indicator responsibility	Finance and Corporate Services

PPI no 1.3.1: Debtors’ payment days

Indicator title	Debtors’ payment days
Definition	This measures the extent in which the organisation reduces the outstanding debts within a given financial year from the various sectors
Source of data	• Age analysis • Billing report • Impairment
Method of calculation / assessment	The formula is as follows $$Debtor\ days = trade\ debtors - impairment\ sales\ (billing) \times number\ of\ days\ in\ financial\ year\ (as\ at\ reporting\ period)$$
Means of verification	Debtor days report
Assumptions	Availability of information and documentation
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	150 days for the various sectors
Indicator responsibility	Finance and Corporate Services

PPI no 1.3.2: Creditors' payment days

Indicator title	**Creditors' payment days**
Definition	This measures the extent in which the organisation pays its creditors in line with the regulatory prescripts
Source of data	The following will be used • Invoice register • Payment report(s)
Method of calculation / assessment	If the number of valid invoices is given the value "x" and the total number of valid invoices due for payment is given the value "y"; the formula is as follows: $$Creditor\ payment\ days = {}^{x}/_{y} \times 100$$
Means of verification	The payment document (indicating payment number and date)
Assumptions	A valid invoice is one with no queries. If there are queries the invoice will not be included in the calculations.
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	30 days
Indicator responsibility	Finance and Corporate Services

PPI no 1.3.3: Current ratio

Indicator title	**Current ratio**
Definition	This measures the extent the organisation maintains a positive balance within a given period.
Source of data	The following will be used: • Liabilities – payables • Current assets • Accruals
Method of calculation / assessment	The formula is as follows: $$Current\ ratio = \frac{current\ assets}{\text{current liabilities}}$$
Means of verification	The following will be used: • Asset register • Bank statements • Commitments
Assumptions	Current assets are calculated net of depreciation.
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	A positive ratio of ≥ 1: 1
Indicator responsibility	Finance and Corporate Services

PPI no 1.3.4: Percentage of debt collection ratio: toxic debt book

Indicator title	Percentage of debt collection ratio: toxic debt book
Definition	This measures the extent the organisation recovers debt from the toxic debt. This part of the debt is reported as outstanding for a period greater than 180 days. The debt is made up of both active and closed / cancelled accounts.
Source of data	The financial record will be maintained
Method of calculation / assessment	If the number of recovered debts from toxic book is given the value “x” and the total of toxic book balance is given the value "y"; the formula is as follows: $$\%\ of\ debt\ collection\ ratio\ = {}^{x}/_{y} \times 100$$
Means of verification	Payment reports and general ledger
Assumptions	Reliable financial records are available
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	8% of debt collection ratio: toxic debt book
Indicator responsibility	Finance and Corporate Services

PPI no 1.3.5: Number of finance business processes developed

Indicator title	Number of finance business processes developed
Definition	This monitors the extent in which the organisational financial business processes are developed within a given period.
Source of data	The approved policies will be used
Method of calculation / assessment	This will be the actual number of approved financial processes developed
Means of verification	The approved policies will be used
Assumptions	The financial policies will inform the business processes
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Cumulative
Reporting cycle	Quarterly
Desire performance	5 Asset management | Financial management Management accounting | Revenue management Supply chain management
Indicator responsibility	Finance and Corporate Services

1.3. Corporate Support Services sub-programme

PPI no 1.1.3: Communication strategy developed

Indicator title	Communication strategy developed
Definition	This measures the process of developing the communications strategy for the organisation.
Source of data	The organisational strategic and annual performance plans
Method of calculation / assessment	This will be the approved communications strategy
Means of verification	Approved communications strategy for the Vaal-Orange catchment management agency
Assumptions	Adequate human and financial resources
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Cumulative
Reporting cycle	Quarterly
Desire performance	Draft communication strategy developed
Indicator responsibility	Finance and Corporate Services

PPI no 1.1.4: ICT strategy developed

Indicator title	ICT strategy developed
Definition	This measures the process of developing the ICT strategy for the organisation.
Source of data	The organisational strategic and annual performance plans
Method of calculation / assessment	This will be the approved ICT strategy
Means of verification	Approved ICT strategy for the Vaal -Orange catchment management agency
Assumptions	Adequate human and financial resources
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Cumulative
Reporting cycle	Quarterly
Desire performance	Draft ICT strategy developed
Indicator responsibility	Finance and Corporate Services

PPI no 1.4.1: Number of HR business processed developed

Indicator title	Number of HR business processed developed
Definition	This monitors the extent in which the organisational human resource business processes are developed within a given period.
Source of data	Human resource policies
Method of calculation / assessment	This will be the actual number of human resource processes developed
Means of verification	Approved human resource business processes catchment management agency
Assumptions	The human resource policies will be approved
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Cumulative
Reporting cycle	Quarterly
Desire performance	5 human resource business processed developed
Indicator responsibility	Finance and Corporate Services

PPI no 1.4.2: Percentage of vacant positions filled

Indicator title	Percentage of vacant positions filled
Definition	This measures the extent in which the organisation fills its vacant positions within a given period
Source of data	A list of vacant and filled positions will be maintained
Method of calculation / assessment	If the number of filled positions is given the value "x" and the total number of vacant positions is given the value "y"; the formula is as follows: $\%\ of\ vacant\ positions\ filled\ = {}^{x}/_{y} \times 100$
Means of verification	Vacancy rate report
Assumptions	Acceptance letters
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	90%
Indicator responsibility	Finance and Corporate Services

1.4. Risk and Compliance Management sub-programme

PPI no 1.1.5: Strategic risk register developed

Indicator title	Strategic risk register developed
Definition	This measures the process of developing the strategic risk for the organisation.
Source of data	The organisational strategic and annual performance plans
Method of calculation / assessment	This will be the approved strategic risk register
Means of verification	Approved strategic risk register for the Vaal -Orange catchment management agency
Assumptions	Adequate human and financial resources
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Cumulative
Reporting cycle	Quarterly
Desire performance	Strategic risk register developed
Indicator responsibility	Risk and Compliance Management

PPI no 1.1.6: Annual risk management implementation plan developed

Indicator title	Annual risk management implementation plan developed
Definition	This measures the process of developing the risk management implementation plan for the organisation
Source of data	The organisational strategic, annual performance plans and strategic risk register
Method of calculation / assessment	This will be the approved risk management implementation plan
Means of verification	Approved risk management implementation plan for the Vaal -Orange catchment management agency
Assumptions	Adequate human and financial resources
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Cumulative
Reporting cycle	Quarterly
Desire performance	0
Indicator responsibility	Risk and Compliance Management

1.5. Internal Audit sub-programme

PPI no 1.1.7: Audit plan developed

Indicator title	Audit plan developed
Definition	This measures the process of developing the audit plan for the organisation.
Source of data	The organisational strategic and annual performance plans
Method of calculation / assessment	This will be the approved audit plan
Means of verification	Approved audit plan for the Vaal -Orange catchment management agency
Assumptions	Adequate human and financial resources
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Cumulative
Reporting cycle	Quarterly
Desire performance	Draft audit plan developed
Indicator responsibility	Internal Audit

2. Water Resource Management Programme

2.1. Compliance Monitoring and Enforcement sub-programme

PPI no 2.3.5: Number of water users monitored for compliance

Indicator title	Number of water users monitored for compliance
Definition	This measures the compliance of water users with legislation, standards, water use entitlements and regulations within the water management area. The water users fall within the public, mining, industry, government, agriculture and forestry sectors. The monitoring can either be an inspection or an audit of the water user.
Source of data	Water use entitlements and compliance inspection reports with scorecards completed and uploaded in the National Compliance Monitoring System (NCIMS). Compliance inspection reports are either initial compliance inspection, partial compliance inspection or follow-up compliance inspection reports. These reports are completed as per NCIMS template and include the copy of authorisation, score sheet (number of conditions complied or not complied to calculate % compliance).
Method of calculation / assessment	This is the actual number of water user's compliance evaluations conducted within the financial year
Means of verification	• Compliance inspection reports on NCIMS. • Compliance verification against conditions of authorisation.
Assumptions	Data availability and credible information
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	208 water users monitored for compliance
Indicator responsibility	Water Resource Management

PPI no 2.3.6: Percentage of enforcement actions taken against non-compliant users

Indicator title	Percentage of enforcement actions taken against non-compliant users
Definition	This measures the monitoring and enforcement capacity of the organisation taken against non-compliant water users. An enforcement action can be administrative (i.e. notices or directives) or a criminal case or legal for civil action (i.e. interdict or contempt of court application)
Source of data	The inspection / audit reports / reported cases captured in Enforcement Case Management System.
Method of calculation / assessment	If the number enforcement actions is given the value "x" and the total number of enforcement actions that had to be undertaken within the water management area is given the value "y"; the formula is as follows: $\%\,of\ enforcement\ actions\ taken\ = {}^{x}/_{y} \times 100$
Means of verification	This will be the notices, directives, interdicts and criminal cases taken against the water users in the water management area
Assumptions	Data availability and credible information
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	≥80% enforcement actions taken against non-compliant users
Indicator responsibility	Water Resource Management

PPI no 2.4.1: Percentage of pollution incidents responded to within 78 hours of reporting

Indicator title	Percentage of pollution incidents responded to within 78 hours of reporting
Definition	This measures the extent in which the organisation deals with pollution incidents in the water management area to protect the water resources
Source of data	A database of pollution incidents
Method of calculation / assessment	If the number reported pollution incidents is given the value "x" and the total number of pollution incidents to deal with in the water management area is given the value "y"; the formula is as follows: $\%\,of\ pollution\ incidents\ responded\ to\ = {}^{x}/_{y} \times 100$
Means of verification	This will be the investigation reports
Assumptions	Adequate human and financial resources to respond within 78 hours will be available.
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	≥80% pollution incidents responded to within 78 hours of reporting
Indicator responsibility	Water Resource Management

2.2. Institutions, Stakeholder Engagement and Governance sub-programme

PPI no 2.2.1: Percentage compliance with international obligations

Indicator title	Percentage compliance with international obligations
Definition	This measures the extent in which South Africa meets its international obligations with neighbouring countries sharing water resources with the water management area
Source of data	The international obligations will be used
Method of calculation / assessment	If the number international obligations complied with is given the value "x" and the total number of international obligations for the water management area is given the value "y"; the formula is as follows: $$\%\ compliance\ with\ international\ obligations = {}^{x}/_{y} \times 100$$
Means of verification	This will be the reports on the compliance level
Assumptions	Data availability and credible information
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	≥90% compliance with international obligations
Indicator responsibility	Water Resource Management

PPI no 3.1.1: Number of irrigation boards transformed into water user associations

Indicator title	Number of irrigation boards transformed into water user associations
Definition	This measures the extent of the organisation in transforming irrigation boards within the water management area into water user associations.
Source of data	Proposals and constitutions of Irrigation boards to be transformed
Method of calculation / assessment	The roadmap and implementation plans on the transformation of Irrigation Boards and the review of constitutions and proposals for the 4 irrigation boards
Means of verification	Status report(s) on transformation of respective irrigation boards
Assumptions	Cooperation from the irrigations boards
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	2
Indicator responsibility	Water Resource Management

PPI no 3.2.1: Number of institutional annual performance plans evaluated

Indicator title	Number of institutional annual performance plans evaluated
Definition	This measures the compliance of institutions within the water management area to provide the Executive Authority with their annual performance plans in line with the National Water Act.
Source of data	Water institutions' annual performance plans
Method of calculation / assessment	Number of performance assessments/appraisals conducted
Means of verification	This will be the performance assessments / appraisals conducted
Assumptions	The water institutions will submit their annual performance plans on time
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	8 institutional annual performance plans evaluated Lower Vaal: Kalahari East WUA; Tshiping WUA; Vaalharts WUA; Tosca Molopo WUA Lower Orange: Orange Vaal WUA; Boegoeberg WUA; Kakamas WUA; Kalahari West WUA
Indicator responsibility	Water Resource Management

PPI no 3.2.2: Number of institutions assessed per quarter

Indicator title	Number of institutions assessed per quarter
Definition	This measures the compliance of institutions within the water management area to provide the Executive Authority with their quarterly reports in line with the National Water Act.
Source of data	Water institutions' quarterly reports
Method of calculation / assessment	Number of performance assessments/appraisals conducted
Means of verification	This will be the performance assessments / appraisals conducted
Assumptions	The water institutions will submit their quarterly on time
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	8 institutional quarterly reports assessed Lower Vaal: Kalahari East WUA; Tshiping WUA; Vaalharts WUA; Tosca Molopo WUA Lower Orange: Orange Vaal WUA; Boegoeberg WUA; Kakamas WUA; Kalahari West WUA
Indicator responsibility	Water Resource Management

PPI no 3.2.3: Number of institutional annual reports evaluated

Indicator title	Number of institutional annual reports evaluated
Definition	This measures the compliance of institutions within the water management area to provide the Executive Authority with their annual reports in line with the National Water Act.
Source of data	Water institutions' annual reports
Method of calculation / assessment	Number of performance assessments/appraisals conducted
Means of verification	This will be the performance assessments / appraisals conducted
Assumptions	The water institutions will submit their annual on time
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	8 institutional annual reports assessed Lower Vaal: Kalahari East WUA; Tshiping WUA; Vaalharts WUA; Tosca Molopo WUA Lower Orange: Orange Vaal WUA; Boegoeberg WUA; Kakamas WUA; Kalahari West WUA
Indicator responsibility	Water Resource Management

PPI no 4.1.1: Stakeholder engagement plan developed

Indicator title	Stakeholder engagement plan developed
Definition	This monitors the process of developing the stakeholder engagement for the water management area
Source of data	The following will be used • Stakeholder identification and expectation document • Stakeholder communication plan
Method of calculation / assessment	This will be the approved stakeholder engagement plan
Means of verification	Approved stakeholder engagement plan for the Vaal-Orange water management area
Assumptions	Adequate human and financial resources
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	Draft stakeholder engagement plan developed
Indicator responsibility	Water Resource Management

2.3. Water Resource Planning and Management sub-programme

PPI no 2.1.1: Catchment management strategy developed

Indicator title	Catchment management strategy developed
Definition	This measures the process of developing the catchment management strategy for the water management area in line with the National Water Act
Source of data	The following will be used • Water resource classes and resource quality objective • Water allocation plan • Stakeholder consultations
Method of calculation / assessment	This will be the draft catchment management strategy
Means of verification	Situational assessment report for the Vaal-Orange water management area
Assumptions	Stakeholder cooperation
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Cumulative
Reporting cycle	Quarterly
Desire performance	Situational assessment for the Vaal-Orange water management area
Indicator responsibility	Water Resource Management

PPI no 2.2.2: Number of rivers in which the River Eco-status Monitoring Programme is implemented

Indicator title	Number of rivers in which the River Eco-status Monitoring Programme is implemented
Definition	This monitors the number of river systems in which the system's ecological health is measured for the water management area
Source of data	A database of river eco-status indicators is maintained.
Method of calculation / assessment	This will be the number of river systems as specified
Means of verification	SASS forms for Vaal-Orange water management area
Assumptions	Adequate human and financial resources available
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	11 river systems in which the River Eco-status Monitoring Programme is implemented Upper Vaal: Taaibos; Mooi; Waterval; Blesbok; Suikerbos Lower Vaal: Vaal River[2]; Harts River Upper Orange: Caledon River; Modder; Riet Lower Orange: Orange River
Indicator responsibility	Water Resource Management

[2] The Vaal River covers the Upper and Lower Vaal sub-catchments.

PPI no 2.2.3: Number of river systems monitored for the implementation of resource directed measures

Indicator title	Number of river systems monitored for the implementation of resource directed measures
Definition	This monitors the river systems in which resource directed measures have been implemented
Source of data	Data will be obtained from the various monitoring systems in place of which the water management system will be the main source
Method of calculation / assessment	The river systems in which RDMs are implemented will be monitored and assessed against the desired water quality outcomes of the individual systems
Means of verification	Reports on the river systems monitored for the Vaal
Assumptions	Adequate human and financial resources available
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	See details below
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	23 river systems monitored for the implementation of resource directed measures
Indicator responsibility	Water Resource Management

PPI no 2.2.4: Number of strategic points monitored for water resource quality

Indicator title	Number of strategic points monitored for water resource quality
Definition	This monitors the strategic points in river systems to understand the water quality status of the resource.
Source of data	A database is maintained.
Method of calculation / assessment	This will be the number of points monitored at different river systems
Means of verification	Certificates and/or inspection Reports field when conducting monitoring
Assumptions	Adequate human and financial resources available
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	32
Indicator responsibility	Water Resource Management

PPI no 2.2.5: Waste discharge charge strategy implemented

Indicator title	Waste discharge charge strategy implemented
Definition	This monitors the implementation of the waste discharge charge system in the water management area
Source of data	WMS and WARMS
Method of calculation / assessment	Implementation of the waste discharge charge system in the Vaal area
Means of verification	Report indicating the implementation of the waste discharge charge system in the Vaal area
Assumptions	Accurate and updated information in the databases
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	Vaal waste discharge charge strategy implemented
Indicator responsibility	Water Resource Management

2.4. Water Use Authorisation and Registration sub-programme

PPI no 2.3.1: Percentage of applications for water use authorisation processed within applicable period

Indicator title	Percentage of applications for water use authorisation processed within applicable period
Definition	This monitors the extent to which the organisation processes applications for water authorisations within the applicable 90 working days of receipt of a complete application
Source of data	A list of water use license applications is maintained
Method of calculation / assessment	If the actual number of applications for water use authorisation processed within the applicable period is provided the value "x" and the total number of received applications acknowledged as complete that should be processed within the applicable period is given the value "y" the formula is as follows: $\%\ of\ applications\ for\ water\ use\ authorisation\ processed = {}^{x}/_{y} \times 100$
Means of verification	• Application forms or proof of payment or acknowledgement letter of application, • Decision document (i.e. decline letter, withdrawal letter, closure letter and confirmation of a general authorisation or schedule 1)
Assumptions	• Acknowledgement letter of application and decision document • Exclusion: The period 15 December to 05 January in any given financial year is excluded from the applicable number of days as the department is inactive
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	≥90% applications for water use authorisation processed within applicable period
Indicator responsibility	Water Resource Management

PPI no 2.3.2: Percentage of approved water use authorisations registered in WARMS

Indicator title	Percentage of approved water use authorisations registered in WARMS
Definition	This monitors the organisation's efficiency in registering the approved water use authorisations in WARMS
Source of data	Approved water use authorisations
Method of calculation / assessment	If the actual number of registered water use authorisation in WARMS is provided the value "x" and the total number of approved water use authorisation in the water management area is given the value "y" the formula is as follows: $\%\ of\ approved\ water\ use\ authorisations\ registered\ in\ WARMS = {}^{x}/_{y} \times 100$
Means of verification	Approved water use authorisations registered in WARMS
Assumptions	The approved applications will be registered within 72 hours of receipt
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Non-cumulative
Reporting cycle	Quarterly
Desire performance	≥95% approved water use authorisations registered in WARMS
Indicator responsibility	Water Resource Management

PPI no 2.3.3: Number of existing water users verified

Indicator title	Number of existing water users verified
Definition	This monitors the number of verified water users' extent of lawfulness
Source of data	WARMS, deeds office, remote sensing, schedules of water use and proclamations
Method of calculation / assessment	This will be the number of verified properties in the water management area
Means of verification	List of verified properties
Assumptions	• All water users have registered their water use and those who have not registered will avail themselves during stakeholder consultations. • Stakeholders buy-in • Legal challenges will be dealt with
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Cumulative
Reporting cycle	Quarterly
Desire performance	220 existing water users verified
Indicator responsibility	Water Resource Management

PPI no 2.3.4: Number of existing water users validated

Indicator title	Number of existing water users validated
Definition	This monitors the number of validated water users' extent of lawfulness. Validation is a technical step that precedes the verification process. This is aimed at confirming how much water was used in the qualifying period by using certain procedures, systems, and data. The information is collated from different sources, including WARMS and field surveys information, as well as remote sensing methods like satellite imagery, aerial photography, ortho photographs, and topo-cadastral maps. Verification is a legal process to determine the extent of existing lawful water use
Source of data	WARMS, deeds office, remote sensing, schedules of water use and proclamations
Method of calculation / assessment	This will be the number of verified properties in the water management area
Means of verification	List of validated properties
Assumptions	• All water users have registered their water use and those who have not registered will avail themselves during stakeholder consultations. • Stakeholders buy-in • Legal challenges will be dealt with
Disaggregation of beneficiaries (where applicable)	Not applicable
Spatial transformation (where applicable)	Not applicable
Calculation type	Cumulative
Reporting cycle	Quarterly
Desire performance	290 existing water users validated
Indicator responsibility	Water Resource Management

PART E: ANNEXURES

Water Resource Management Programme

Compliance Monitoring and Enforcement sub-programme

PPI no 2.3.5: Number of water users monitored for compliance

Sub-catchment area	Total number	Names	Planned inspections per quarter			
			Quarter 1 April – June	Quarter 2 July - September	Quarter 3 October - December	Quarter 4 January – March
Mining sector	**56**		**15**	**20**	**15**	**16**
Upper Vaal	34	New Kleinfontein	New Kleinfontein			
		Brikor	Brikor			
		Ezulwini	Ezulwini			
		Kloof Shaft 4	Kloof Shaft 4			
		New Vaal Colliery	New Vaal Colliery			
		Labrie Coal	Labrie Coal		Labrie Coal	
		Mooiplaats	Mooiplaats		Mooiplaats	
		New Denmark Colliery	New Denmark Colliery		New Denmark Colliery	
		Doornkop	Doornkop			
		Sibanye Gold Driefontein	Sibanye Gold Driefontein			
		Gravelotte		Gravelotte		
		Burnstone		Burnstone		
		Sasol Mining		Sasol Mining		Sasol Mining
		Msobo Coal		Msobo Coal		Msobo Coal
		Leliefontein Colliery		Leliefontein Colliery		Leliefontein Colliery
		Uitgevalen Colliery		Uitgevalen Colliery		Uitgevalen Colliery
		Penumbra Colliery		Penumbra Colliery		Penumbra Colliery
		Vunene Colliery		Vunene Colliery		Vunene Colliery
		Ergo Mine		Ergo Mine		
		Lancaster Mine		Lancaster Mine		
		Covalent Water Company		Covalent Water Company		
		Blyvoor Gold Capital		Blyvoor Gold Capital		
		Glen Douglas		Glen Douglas	Glen Douglas	
		Holfontein			Holfontein	
		Evander Gold			Evander Gold	
		Kloof Operations			Kloof Operations	
		Harmony Gold-Mponeng			Harmony Gold-Mponeng	
		Far West Rand Gold-Driefontein			Far West Rand Gold-Driefontein	
		Atoll				Atoll
		South Deep				South Deep
		Sigma-Mooikraal				Sigma-Mooikraal
		Taung Gold				Taung Gold

Sub-catchment area	Total number	Names	Planned inspections per quarter			
			Quarter 1 April – June	Quarter 2 July - September	Quarter 3 October - December	Quarter 4 January – March
		Harmony-Kusasalethu				Harmony-Kusasalethu
		Middlevlei Mine				Middlevlei Mine
Middle Vaal	8	Dankie Oupa Delwery CC	Dankie Oupa Delwery CC			
		Harmony Odendalsrus: Target Operations		Harmony Odendalsrus: Target Operations		
		Harmony: Vaal River Operations (Anglo Gold Ashanti)		Harmony: Vaal River Operations (Anglo Gold Ashanti)		
		Rooikuil Beleggings		Rooikuil Beleggings		
		Clinker supplies Viefontein			Clinker supplies Viefontein	
		Kopanang Gold Mining Company-VMR			Kopanang Gold Mining Company-VMR	
		Nicolor				Nicolor
		Chinese Africa Precious Metals (CAPM)				Chinese Africa Precious Metals (CAPM)
Lower Vaal	7	Tshipi Entle Manganese Mine (LV)	Tshipi Entle Manganese Mine			
		Ltx Boerdery Belegging	Ltx Boerdery Belegging			
		Coza Mining		Coza Mining		
		Kalahari Manganese Mine		Kalahari Manganese Mine		
		Northern Node			Northern Node	
		Dumela Diamonds			Dumela Diamonds	
		Rooipoort Development				Rooipoort Development
Upper Orange	2	Blue Diamond Mine Koffiefontein	Blue Diamond Mine Koffiefontein			
		Jagersfontein Developments			Jagersfontein Developments	
Lower Orange	5	Kasimira Trading 829	Kasimira Trading 829			
		Demaqua Trading		Demaqua Trading		
		Bondeo 140		Bondeo 140		
		Steinmann Group			Steinmann Group	
		Zerco Roode Hauwel Naswa Mining				Zerco Roode Hauwel Naswa Mining

Sub-catchment area	Total number	Names	Planned inspections per quarter			
			Quarter 1 April – June	Quarter 2 July - September	Quarter 3 October - December	Quarter 4 January – March
Agriculture (irrigation sector)	**20**		**7**	**6**	**4**	**3**
Upper Vaal	5	GTG Piggery	GTG Piggery			
		Taaiboschbult Feedlot	Taaiboschbult Feedlot			
		Taaibosch Piggery		Taaibosch Piggery		
		Soet Doring Piggery			Soet Doring Piggery	
		Voorspoed Piggery				Voorspoed Piggery
Middle Vaal	2	Loormar Boerdery BK EDMS	Loormar Boerdery BK EDMS			
		Rekwefonstein trust: Farm Nieteweet 30 portion		Rekwefonstein trust: Farm Nieteweet 30 portion		
Lower Vaal	2	Lobola Farming	Lobola Farming			
		Dorata		Dorata		
Upper Orange	4	Botebo Farming	Botebo Farming			
		Rotondo Walnuts: Farm 1093		Rotondo Walnuts: Farm 1093		
		Troksie: Farm Poortjie 38 Rouxville portion			Troksie: Farm Poortjie 38 Rouxville portion	
		Mick Quin Family Trust				Mick Quin Family Trust
Lower Orange	7	SJR Boerdery	SJR Boerdery			
		Bokamoso Trust (Kakamas)	Bokamoso Trust (Kakamas)			
		Steynmond Empowerment Farm (Kakamas)		Steynmond Empowerment Farm (Kakamas)		
		Zwart Booisberg Boerdery		Zwart Booisberg Boerdery		
		Thusano Empowerment Farm			Thusano Empowerment Farm	
		Vroee Son Family			Vroee Son Family	
		CJ Mulke				CJ Mulke
Municipal WWTW	**82**		**26**	**28**	**24**	**15**
Upper Vaal	72	Harrismith	Harrismith		Harrismith	
		Tshiame	Tshiame		Tshiame	
		Namahadi	Namahadi			Namahadi
		Warden	Warden		Warden	
		Jan Smuts	Jan Smuts			
		Daveyton	Daveyton			
		Herbert Bickley	Herbert Bickley			

Sub-catchment area	Total number	Names	Planned inspections per quarter			
			Quarter 1 April – June	Quarter 2 July - September	Quarter 3 October - December	Quarter 4 January – March
		Tsakane	Tsakane			
		Kwazenzele	Kwazenzele			
		Devon	Devon			
		Ratanda	Ratanda			
		Rietspruit	Rietspruit			
		Secunda	Secunda			
		Vaal Marina	Vaal Marina			
		Cornelia	Cornelia			
		Amersfoort	Amersfoort		Amersfoort	
		Davel	Davel		Davel	
		Olifantsvlei	Olifantsvlei		Olifantsvlei	
		Goudkoppies	Goudkoppies			
		Vlaakplaats	Vlaakplaats			
		Flip Human	Flip Human			
		Vredefort	Vredefort			
		Parys	Parys			
		Meyerton	Meyerton		Meyerton	
		Kestel		Kestel		Kestel
		Tweeling		Tweeling		Tweeling
		Makwane		Makwane		Makwane
		Elands		Elands		Elands
		Phuthaditjaba		Phuthaditjaba		
		Benoni		Benoni		
		Rynfiled		Rynfiled		
		Heidelberg		Heidelberg		
		Carl Grundling		Carl Grundling		
		Balfour		Balfour		
		Sebokeng		Sebokeng		
		Groenpunt		Groenpunt	Groenpunt	
		Embalenhle		Embalenhle		
		Villiers		Villiers		
		Oranjeville		Oranjeville		
		Deneysville		Deneysville		
		Breyten		Breyten		Breyten
		Ermelo		Ermelo		Ermelo
		Morgenzon		Morgenzon		
		Bushkoppies,		Bushkoppies,		
		Rondebult		Rondebult		
		Hannes van Niekerk		Hannes van Niekerk		
		Wedela		Wedela		
		Klipdrift		Klipdrift		
		Kokosi		Kokosi		
		Reitz			Reitz	Reitz
		Bethelhem,			Bethelhem,	
		Welgedacht			Welgedacht	
		Anchor			Anchor	
		Ezulwini			Ezulwini	
		Leeukuil			Leeukuil	
		Evander			Evander	
		Grootvlei			Grootvlei	
		Standerton			Standerton	
		Vrede			Vrede	
		Waterval			Waterval	
		Khutsong			Khutsong	
		Welverdiend			Welverdiend	
		JP Marais				
		Ennerdale				
		Holy Country				

Sub-catchment area	Total number	Names	Planned inspections per quarter			
			Quarter 1 April – June	Quarter 2 July - September	Quarter 3 October - December	Quarter 4 January – March
		Nthorwane				
		Memel Oxidation				
		Dekema				Dekema
		Sibanye Cooke 1				Sibanye Cooke 1
		Orberholzer				Orberholzer
		Potchestroom				Potchestroom
		Puthaditjaba				Puthaditjaba
Middle Vaal	1	Theronia WWTW			Theronia WWTW	
Lower Vaal	4	Lekwa Teemang: Bloemhof	Lekwa Teemang: Bloemhof			
		Dr Ruth Segomotsi Mompathi: Christiana WWTW		Dr Ruth Segomotsi Mompathi: Christiana WWTW		
		Gamagara Municipality: Kathu WWTW			Gamagara Municipality: Kathu WWTW	
		Sol Plaatjie Municipality Homevale WWTW				Sol Plaatjie Municipality Homevale WWTW
Upper Orange	2	Public Works: Maseru Bridge WWTW		Public Works: Maseru Bridge WWTW		
		North Eastern WWTW				North Eastern WWTW
Lower Orange	3	Karoo Hoogland Municipality: Fraserburg	Karoo Hoogland Municipality: Fraserburg			
		Karoo Hoogland Municipality: Sutherland		Karoo Hoogland Municipality: Sutherland		
		Kai! Garip Municipality			Kai! Garip Municipality	
Municipal landfill	**2**		**1**			**1**
Lower Vaal	2	Ga Segonya Kuruman landfill site	Ga Segonya Kuruman landfill site			
		Sol Plaatjie Municipality landfill site				Sol Plaatjie Municipality landfill site
Industries	**48**		**13**	**15**	**8**	**15**
Upper Vaal	41	Lonmin	Lonmin			
		Transnet	Transnet			
		Arcellor Mittal-Vanderbijlpark	Arcellor Mittal-Vanderbijlpark			
		Lethabo Power Station	Lethabo Power Station			
		Sasol Secunda	Sasol Secunda			
		Grootvlei Power Station	Grootvlei Power Station			

Sub-catchment area	Total number	Names	Planned inspections per quarter			
			Quarter 1 April – June	Quarter 2 July - September	Quarter 3 October - December	Quarter 4 January – March
		Camden Power Station	Camden Power Station		Camden Power Station	
		Corobrik-Driefontein	Corobrik-Driefontein			
		Arcellor Mittal-Vereeniging	Arcellor Mittal-Vereeniging			
		Crestchoice Abattoir	Crestchoice Abattoir			
		Sedibeng Brewery	Sedibeng Brewery		Sedibeng Brewery	
		Enstra		Enstra		
		Steynol		Steynol		
		Total SA		Total SA		
		Coca Cola		Coca Cola		
		Ceramic Industries		Ceramic Industries		
		Safripol		Safripol		
		Senmin		Senmin		
		Tutuka Power Station		Tutuka Power Station		Tutuka Power Station
		Majuba Power Station		Majuba Power Station		Majuba Power Station
		Haarsco		Haarsco		
		Fochville Abattoir		Fochville Abattoir		
		Rheinmetal Denel Munition		Rheinmetal Denel Munition		
		Samancor Metalloys		Samancor Metalloys		Samancor Metalloys
		Karen Beef			Karen Beef	
		ArcellorMittal-Vanderbijlpark			ArcellorMittal-Vanderbijlpark	
		Sasol-Sasolburg			Sasol-Sasolburg	
		Omnia			Omnia	
		Eastern Basin AMD Plant				Eastern Basin AMD Plant
		Balfour Abattoir				Balfour Abattoir
		EBM				EBM
		Cape Gate				Cape Gate
		Natref				Natref
		Goldi				Goldi
		Scaw Metal				Scaw Metal
		Bright Alloys				Bright Alloys
		Chubby Chicken Rendering Plant				Chubby Chicken Rendering Plant
		Koepel Abattoir				Koepel Abattoir
		ArcellorMittal-Vereeniging				ArcellorMittal-Vereeniging
Lower Vaal	4	SR Fuel	SR Fuel			
		Rascal Seed Research Laboratories		Rascal Seed Research Laboratories		
		Life Solar			Life Solar	
		Lichtenburg ABO Wind				Lichtenburg ABO Wind

Sub-catchment area	Total number	Names	Planned inspections per quarter			
			Quarter 1 April – June	Quarter 2 July - September	Quarter 3 October - December	Quarter 4 January – March
Lower Orange	3	Khoisan Development (Pty) Ltd	Khoisan Development (Pty)Ltd			
		ACWA Power Project		ACWA Power Project		
		National Research Foundation			National Research Foundation	
Grand total	**208**		**62**	**69**	**51**	**50**

Water Resource Planning and Management

PPI no 2.2.3: Number of river systems monitored for the implementation of resource directed measures (RQO points)

Sub-catchment	Name	Coordinates
Grootdraai	Vaal River at R35 Bloukop Bridge	26°51'18.60"S 29°41'51.65"E
	Kaalspruit at Vaal Confluence (new)	26°54'28.0"S 29°30'22.80"E
Wilge	Wilge at Frankfort confluence with Liebenbergsvlei (new)	27°18'36.59"S 28°31'58.58"E
Waterval	Wolwefontein u/s Vaal confluence on Watervalrivier	26°58'19.0"S 28°43'38.0"E
	LM3 at Roodebank on Watervalrivier	26°44'16.0"S 28°15'11.0"E
Vaal Dam	Delangersdrift Bridge on R546 to Vrede on Klip River	27°10'58.00"S 29°14'6.00"E
	Unnamed tributary of Vaal on R26 to Frankfort	27° 4'52.64"S 28°34'17.60"
Suikerbos	Suikerbosrant along N3	26°38'46.34"S 28°22'51.65"E
	Poortjie Road on Blesbokspruit	26°28'43.07"S 28°25'31.62"E
Lower Klip	Klip River at Vosloo Park confluence with Vaal Barrage Lake	26°40'0.06"S 27°57'27.34"E
Rietspruit	Rietspruit at Kaalplaas	26°43'44.03"S 27°43'4.16"E
Wonderfontein	Mooi River Loop at Blaaubank	26°22'23.73"S 27°14'15.50"E
Mooi River	Mooi River at Hoogekraal/ Kroomdraai	26°52'49.84"S 26°57'49.62"E
	Vaal River at Scandinavia Bridge	26°56'14.43"S 27° 3'25.87"E
Grootdraai	Grootdraai Dam	26°55'9.2"S 29°17'41.6"E
Vaal Dam	Thembalihle Dam	27°26'21.8"S 29°11'45.1"E
Wilge	Gerrands Dam	28°16'55.3"S 28°17'30.6"E
	Loch Athlone Dam	28°15'00,4"S 28°18'30.6"E
	Saulspoort Dam	28°13'1.5"S 28°21'46.9"E
Wonderfontein	Boskop Dam	26°33'42"S 27°6'41"E
Mooi River	Klipdrift Dam	26°37'0"S 27°17'52"E
Vaal Dam	Vaal Dam	26°52'57"S 28°6'58"E
Leeutaai	Vaal Barrage	26°45'53"S 27°41'3"E

PPI no 2.2.4: Number of strategic points monitored for water resource quality

Sub-catchment area	Total number	Names	Planned inspections per quarter			
			Quarter 1 April – June	Quarter 2 July - September	Quarter 3 October - December	Quarter 4 January – March
Upper Vaal	9	Vaal River Origin at N17	Vaal River Origin at N17	Vaal River Origin at N17	Vaal River Origin at N17	Vaal River Origin at N17
		Vaal River at R29/ N2	Vaal River at R29/ N2	Vaal River at R29/ N2	Vaal River at R29/ N2	Vaal River at R29/ N2
		Vaal River on N11	Vaal River on N11	Vaal River on N11	Vaal River on N11	Vaal River on N11
		Vaal River at R35	Vaal River at R35	Vaal River at R35	Vaal River at R35	Vaal River at R35
		Vaal River at Villiers	Vaal River at Villiers	Vaal River at Villiers	Vaal River at Villiers	Vaal River at Villiers
		Vaal River at Kromdraai	Vaal River at Kromdraai	Vaal River at Kromdraai	Vaal River at Kromdraai	Vaal River at Kromdraai
		Vaal Dam	Vaal Dam	Vaal Dam	Vaal Dam	Vaal Dam
		Vaal Barrage	Vaal Barrage	Vaal Barrage	Vaal Barrage	Vaal Barrage
		Grootdraai Dam	Grootdraai Dam	Grootdraai Dam	Grootdraai Dam	Grootdraai Dam
Middle Vaal	2	Allemanskraal dam	Allemanskraal dam	Allemanskraal dam	Allemanskraal dam	Allemanskraal dam
		Erfenis dam	Erfenis dam	Erfenis dam	Erfenis dam	Erfenis dam
Lower Vaal	11	Taung Dam	Taung Dam	Taung Dam	Taung Dam	Taung Dam
		Wentzel Dam	Wentzel Dam	Wentzel Dam	Wentzel Dam	Wentzel Dam
		Spitskop Dam	Spitskop Dam	Spitskop Dam	Spitskop Dam	Spitskop Dam
		Bloemhof Dam	Bloemhof Dam	Bloemhof Dam	Bloemhof Dam	Bloemhof Dam
		Barberspan WWTW	Barberspan WWTW	Barberspan WWTW	Barberspan WWTW	Barberspan WWTW
		Bloemhof WWTW	Bloemhof WWTW	Bloemhof WWTW	Bloemhof WWTW	Bloemhof WWTW
		Vryburg WWTW	Vryburg WWTW	Vryburg WWTW	Vryburg WWTW	Vryburg WWTW
		Homevale WWTW	Homevale WWTW	Homevale WWTW	Homevale WWTW	Homevale WWTW
		Lichtenburg WWTW	Lichtenburg WWTW	Lichtenburg WWTW	Lichtenburg WWTW	Lichtenburg WWTW
		Warrenton WWTW	Warrenton WWTW	Warrenton WWTW	Warrenton WWTW	Warrenton WWTW
		Hartswater WWTW	Hartswater WWTW	Hartswater WWTW	Hartswater WWTW	Hartswater WWTW
Upper Orange	3	Gariep Dam	Gariep Dam	Gariep Dam	Gariep Dam	Gariep Dam
		Kalkfontein Dam	Kalkfontein Dam	Kalkfontein Dam	Kalkfontein Dam	Kalkfontein Dam
		Vanderkloof Dam	Vanderkloof Dam	Vanderkloof Dam	Vanderkloof Dam	Vanderkloof Dam
Lower Orange	7	Vaal / Orange River confluence at Douglas	Vaal / Orange River confluence at Douglas	Vaal / Orange River confluence at Douglas	Vaal / Orange River confluence at Douglas	Vaal / Orange River confluence at Douglas
		Sendelingsdrift at Orange River	Sendelingsdrift at Orange River	Sendelingsdrift at Orange River	Sendelingsdrift at Orange River	Sendelingsdrift at Orange River
		Upington WTW	Upington WTW	Upington WTW	Upington WTW	Upington WTW
		Orange River Mouth in Alexander Bay	Orange River Mouth in Alexander Bay	Orange River Mouth in Alexander Bay	Orange River Mouth in Alexander Bay	Orange River Mouth in Alexander Bay
		Orange River at Vioolsdrift	Orange River at Vioolsdrift	Orange River at Vioolsdrift	Orange River at Vioolsdrift	Orange River at Vioolsdrift

Sub-catchment area	Total number	Names	Planned inspections per quarter			
			Quarter 1 April – June	Quarter 2 July - September	Quarter 3 October - December	Quarter 4 January – March
		Orange River at Blouputs	Orange River at Blouputs	Orange River at Blouputs	Orange River at Blouputs	Orange River at Blouputs
		Kameelmond WWTW	Kameelmond WWTW	Kameelmond WWTW	Kameelmond WWTW	Kameelmond WWTW
Grand total	**32**		**32**	**32**	**32**	**32**