water & sanitation

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Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Business Case for the Breede-Olifants Catchment Management Agency

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ABBREVIATIONS

AC - Advisory Committee

BEE - Black Economic Empowerment

CMA - Catchment Management Agency

CMF - Catchment Management Forum

CMS - Catchment Management Strategy

CSIR - Council for Scientific and Industrial Research

DM - District Municipality

DWS - Department of Water and Sanitation

EFR - Environmental Flow Requirement

ER - Environmental Reserve

GB - Governing Board

HA - Hectares

ISP - Internal Strategic Perspective

IWRM - Integrated Water Resources Management

LM - Local Municipality

MAP - Mean Annual Precipitation

MAR - Mean Annual Runoff

NGO - Non-Governmental Organisation

NWA - National Water Act

NWRS - National Water Resource Strategy

PE - Public Entity

PFMA - Public Finance Management Act

PSP - Professional Service Provider

RO - Regional Office

RPF - Resource Poor Farmer

SP - Selection Panel

ToR - Terms of Reference

WMA - Water Management Area

WSA - Water Services Authority

WSDP - Water Services Development Plan

WUA - Water User Association

1 INTRODUCTION

The National Water Act (1998) mandates the Minister of Water and Sanitation to establish catchment management agencies (CMAs) for the management of water resources at the catchment level.
In the Western Cape, the Breede-Gouritz CMA was established, Government Gazette Number 37677 of 23 May 2014, to manage the water resources in this amalgamated water management area.
Since the establishment of these CMAs, the Department of Water and Sanitation (DWS) has reviewed the appropriateness of having 9 CMAs across the country and has proposed a reduction in the number of water management areas, and by implication the number of CMAs to six. In this reduction, new boundaries for the nine water management areas will be demarcated through the National Water Resources Strategy (NWRS3) as is required under the National Water Act.

In October 2020, the Minister of Human Settlements, Water, and Sanitation requested public comment for the amendment of the Breede-Gouritz Water Management Area (WMA) through extending the boundary and area of operation to include the Berg-Olifants WMA in terms of section 78(4) of the National Water Act, 1998 (Act no. 36 of 1998), and name of the Breede-Gouritz CMA be changed the Breede-Olifants CMA.
This document sets out the Business Case for the establishment of the Breede-Olifants Catchment Management Agency. The Business Case has been developed to facilitate approval by National Treasury for approval of the new public entity and it also sets out the processes to be followed by the Minister to achieve the required changes.
The report is structured as follows:

- Section 2 provides a description of the new water management area and the key water resource management challenges in the WMA
- Section 3 deals with the strategic motivation for the establishment of CMAs, while section 4 deals with the appropriate corporate form for CMAs
- Section 5 deals with the legal process to be followed to achieve the necessary changes
- Section 6 deals with the functions to be performed by the CMA while section 7 addresses the organizational requirements to perform these functions
- Section 8 deals with the financial issues of viability and cost comparison
- Section 9 deals with institutional and governance issues
- Section 10 deals with regulation and oversight issues
- Section 11 deals with the need for change management to ensure a smooth and effective transition
- Section 12 deals with risk and
- Section 13 deals with implementation considerations and actions.

2 DESCRIPTION OF BREEDE-OLIFANTS WATER MANAGEMENT AREA

2.1 LOCATION

The Breede-Olifants water management area (WMA) is the result of the amalgamation of the Breede-Gouritz WMA and the Berg-Olifants WMA. The new WMA will be bounded by the Atlantic Ocean to the southwest, the Orange WMA to the north, and the Mzimvubu-Tsitsikama WMA to the East. It will largely fall within the Western Cape Province, with small portions of the upper catchment of the Olifants River falling in the Eastern Cape Province, and portions of the Northern section falling within the Northern Cape Province.

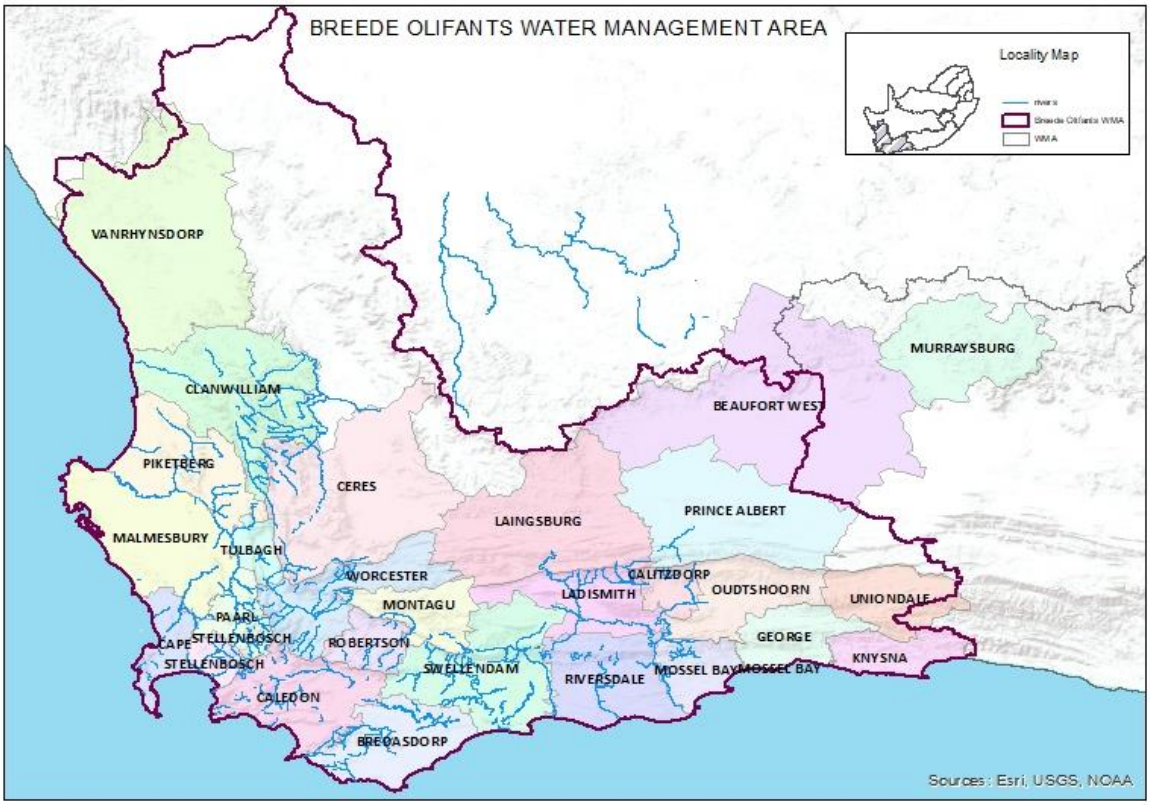

Figure 2-1: Breede-Olifants WMA Map

There are four large rivers within the WMA, the Breede, Berg, Gouritz, and Olifants Rivers. The Olifants River is highly impacted by abstraction for irrigation in the upper reaches. A Preliminary Comprehensive Reserve has been determined for the Olifants River with the recommendation that it is impractical to try and restore the river to a more natural system, and that water should not be taken back from existing lawful users for this purpose, due to the negative impact this will have on the area's economy. The protection of the Doring River is aimed at securing the ecological integrity of the lower reaches and estuary of the Olifants River, the latter being a major permanently open estuary and fish breeding area.

The Table Mountain Group (TMG) Aquifer holds significant potential and has been investigated and developed by the Overstrand Municipality, the Koo WUA, and the potential of Oudtshoorn as an option to augment their existing sources of bulk supply. The TMG aquifer situated within the Hottentots-Holland, Franschoek, and Du Toit's mountain ranges are also being evaluated to augment the bulk supply for the Western Cape Water Supply System (Greater Cape Town).

In the Little Karoo, poor quality brackish groundwater (generally unfit for human consumption but supportive of livestock) is associated with Bokkeveld and Cretaceous (Uitenhage Group) aquifers, whilst the quality of water in the primary alluvial aquifers is variable. The regional flow regime, storage capacity, recharge, and discharge patterns of the Peninsula and Skurweberg (Nardouw) aquifers in a north-south corridor between the Outeniqua and Swartberg ranges, centered around the town of Oudtshoorn in the Olifants River valley are being evaluated. In the Great Karoo, around the towns of Prince Albert and Beaufort West, the exploration and potential extraction of deep lain earth gasses through a process of fracking are investigated.

The WMA has **1 Metropolitan Municipality** – City of Cape Town and the 30 local municipalities that fall within the Breede-Olifants WMA are as follows:

Table 2-1: District and Local Municipalities in the WMA

5 District Municipalities	**24 Local Municipalities**
Cape Winelands	• Breede Valley • Drakenstein • Langeberg • Stellenbosch • Witzenberg
Central Karoo	• Beaufort West • Laingsburg • Prince Albert
Garden Route	• Bitou • George • Hessequa • Kannaland • Knysna • Mosselbay • Oudtshoorn
Overberg	• Cape Agulhas • Overstrand • Swellendam • Theewaterskloof

West Coast	• Bergriver • Cederberg • Matzikama • Saldanabay • Swartland

2.2 TOPOGRAPHY

The variation in topography results in a climate that varies considerably within the region. The water resources of the Breede-Olifants WMA occur in four distinctly different zones:

Gouritz area:

This area is characterized by the flat open plains of the Great and Klein (Little) Karoo, interrupted by steep mountain ranges orientated in an east-west direction which give it three distinct zones of the semi-arid Great Karoo, the Olifants River, and the Coastal Belt.

Breede area:

This area is characterized by the rolling hills of the Overberg, the Hex River Mountains to the north, the Langeberg Mountains in the east, and the Franschhoek and Du Toit Mountains in the west, which flank the wide Breede River valley.

Berg area:

The Berg area is topographically influenced by the high mountain ranges in the Cape Peninsula and on the eastern side of the area, which introduces a large spatial variability in the mean annual precipitation (MAP). Intensive irrigation takes place in the Upper and Lower Berg River valleys, its tributaries and from private dams, as well as in the Eastern region of the Greater Cape Town subarea (along the Eerste and Lourens Rivers), with small pockets of irrigated land mainly for vegetable crops on the Cape Flats. Dryland cultivation of wheat is dominant in both the Upper Berg and Lower Berg sub-areas (including the Diep River), with some dryland vineyards and olive orchards on the hills.

Olifants area:

The topography of the Olifants area is of three distinct types, namely rolling hills and dunes in the west along the coastal strip, rugged mountains with peaks rising to about 2 000 m above sea level in the southern area, and plains and rocky hills in the north-eastern area that are typical of the Western Karoo.

The Olifants River rises in the mountains in the southeast of the area and flows northwest. Its deep narrow valley widens and flattens downstream of Clanwilliam until the river flows through a wide floodplain downstream of Klawer. The Doring River is a fan-shaped catchment. The main river rises in the south and flows in a northerly direction. It is first joined by the Groot River and then by the Tra-Tra River flowing from the west and the Tankwa River from the east, before flowing in a westerly direction to its confluence with the Olifants River just upstream of Klawer.

The north of the area is flatter and much of the basin lies between 500 and 900 m above sea level. In the east, there are significant mountain ranges, the Hantam near Calvinia and the Roggeveld to the south, which rise to about 1 500 m above sea level. West of Nieuwoudtsville lies the Bokkeveld Mountains escarpment where the plateau elevation of about 700 m drops to about 300 m. The rolling hills and plains of the 30 to 40 km wide strip along the coast from the southern boundary of the WMA to the estuary of the Olifants River are known as the Sandveld. The deep sandy deposits overlaying the bedrock in this area are "primary" aquifers which provide a significant groundwater resource.

2.3 CLIMATE

2.3.1 Rainfall

The Breede-Olifants WMA has widely varying precipitation levels. The precipitation ranges from 160mm in the northern, more inland parts of the WMA to more than 3 000mm in the high mountainous regions.

The Great Karoo and Olifants River catchment regions are classified as a very late summer rainfall region, with a large proportion of annual precipitation falling between March and May and October through storm events, whereas most of the rain in the Breede, Olifants, and Berg areas fall between May and September.

2.4 SOCIO-ECONOMIC DYNAMICS

2.4.1 Population

The total population of the Breede-Olifants WMA is estimated at 7 262 734. The majority of the population resides in the areas where the most economic activity occurs, which is in the urban centers and major coastal towns within the WMA. It is estimated that 95% of the total WMA population resides in urban areas, with 89% concentrated in the Greater Cape Town sub-area, where they are attracted by employment opportunities. Future population trends are likely to be influenced by economic opportunities and job creation. Projections, therefore, are for continued relatively strong population growth in the urban areas and a decline in rural population, attributable to the lack of economic stimulus in small towns and villages, but for the seasonal migration in harvesting time for major fruit producing agri-industry. Other factors influencing the population dynamics are the general trend towards urbanization in the country and the impacts of HIV/AIDS.

The 2021 mid-year population estimates published by StatsSA (report P0302) note a net in-migration for the Western Cape of just over 55 000 persons per year over the last years with such a trend expected to continue. Most of these settles in informal settlements, which require further development including the provision of water and sanitation services. As informal settlements are provided with basic services, the initial water demand is limited, but will gradually increase with development.”.

2.4.2 Economic Activity

The Gross Geographic Product (GGP) of the Breede-Olifants Water Management Areas is estimated at around R520 billion per annum and makes up 13% of South Africa’s Gross Domestic Product (GDP).

The economy of the area is dependent on export fruit, PetroSA, uranium mining, renewable energy, ostrich farming, and tourism.

The largest sector in the Breede, Olifants, and Gouritz areas are the agriculture and processing sector which contributes 23.2% to the GGP. The region is quite significantly dependant on the agricultural economy which provides 58% of jobs to the rural poor. Once the associated manufacturing, construction, and services are considered, an even larger proportion of the economy appears to be dependent on the agricultural sector. Trade and accommodation are the second largest sector of the economy in these areas, related to coastal residential retirement and tourism.

A strong and diversified economy exists in the Berg area, which is dominated by the commercial trade and industrial activities in the Cape Town Metropolitan area, the towns of

Stellenbosch, Paarl, and Wellington and in the developing West Coast area of Saldanha Bay.

Agriculture, although one of the smallest sectors in terms of its contribution to the Gross Geographical Product (± 2,5%), has strong linkages to other sectors of the regional economy and provides livelihood to a large proportion of the rural population.

The economy of the Breede-Olifants WMA is closely dependent upon the availability and health of water resources in the water management area because of its heavy dependence on agriculture, petroleum production (including by-products), inter-basin transfers of bulk water resources to Western Cape Water Supply System, and tourism. Irrigated agriculture, wheat cultivation, and associated activities such as processing and packaging are the primary economic activities in the Breede-Olifants WMA. As a reflection of this, growth in the agricultural, forestry, and fisheries in the Western Cape economy was 2.7% per year and the residential-tourism economy has grown at a brisker 3.4% per year over the decade leading up to December 2010.

2.4.3 Labour

Of the total labour force, 64.2% are formally employed and 18.9% are considered informally employed. The 16.8% unemployment rate that is prevalent in the Breede-Olifants WMA is lower than the national average unemployment rate which is currently measured at 25%. Of those who are in formal employment, 28.2% work in the agricultural sector.

The West Coast District Municipality regional economy's competitive strengths reside in its agro-processing, tourism, and building, and construction value chains. The development of the Saldanha IDZ and other infrastructure projects (e.g. the Clanwilliam Dam Raising) will boost growth. The CWDM's economy has firm agricultural origins, the importance of which continues today and is reflected in the fact that one-fifth of the region's workforce is employed in this sector.

There is a great need to employ, train, retrain, and up-skill workers as the agricultural, manufacturing, and construction sectors have shed semi and unskilled labour on a large scale, not fully compensated for by the net job creation in the skills-intensive services industries. These growth patterns lead to distorted socio-economic outcomes.

2.5 WATER AVAILABILITY AND REQUIREMENTS

2.5.1 Availability

The water availability estimates for the Breede-Olifants WMA component, at a 98% assurance (1:50 Year Yield) of supply is shown in **Error! Reference source not found.**2

Table 2-2: Breede Olifants Water Availability (million m³ per annum) (figures taken from ISPs)

Region	Yield (1:50 Year)									
	Natural Resources		Useable Return Flows			Impact on Yield				
	Surface Water	Ground Water	Irrigation	Urban	Bulk Industry	Desktop Reserve estimate	Invasive Alien Plants	Total Local Yield	Net Transfers In	Grand Total
Gouritz	263	64	7	11	6	40	36	275	0	**275**
Breede	873	107	110			23	78	989	18	**1007**
Berg	425	57	8	37		23	0	482	194	**676**
Olifants	257	62	15	2	0	189	9	336	3	**339**
Breede-Olifants	**1818**	**290**	**140**	**50**	**6**	**275**	**123**	**2082**	**215**	**2297**

The figures in **Error! Reference source not found.** are estimates based on fairly accurate data that has been collected. However, there are some uncertainties that affect these estimates. These include:

- The fact that the riverine and estuarine reserve estimates are desktop estimates that are preliminary,
- Rain gauging in the high rainfall regions is not adequate which impacts the reliability of hydrology, and
- The impact of climate change on rainfall patterns and their influence on the estimates of water availability is yet unknown and will need to be considered in the future.

2.5.2 Current Requirements

Irrigation is by far the dominant water use sector in the water management area, representing around 85% of the local requirements for water. Urban and rural water use make up 9.4% and 2.3% respectively, while water use for afforestation makes up 2.2% of total local requirements. A summary of the sectoral water requirements in each of the sub-areas is given in

Koue Bokkeveld	65	0	1	0	0	**66**	0	**66**
Doring	13	1	1	0	0	**15**	0	**15**
Knersvlakte	3	0	1	3	0	**7**	0	**7**
Lower Olifants	140	3	1	0	0	**144**	4	**148**
Sandveld	35	2	1	0	0	**38**	0	**38**
Greater Cape Town	46	343	5	0	0	**394**	0	**394**
Upper Berg	202	23	4	0	0	**229**	125	**354**
Lower Berg	53	23	5	0	0	**81**	0	**81**
Total Requirements	**1633**	**484**	**42**	**9**	**22**	**2190**	**437**	**2627**

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In

Koue Bokkeveld	65	0	1	0	0	**66**	0	**66**
Doring	13	1	1	0	0	**15**	0	**15**
Knersvlakte	3	0	1	3	0	**7**	0	**7**
Lower Olifants	140	3	1	0	0	**144**	4	**148**
Sandveld	35	2	1	0	0	**38**	0	**38**
Greater Cape Town	46	343	5	0	0	**394**	0	**394**
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Lower Berg	53	23	5	0	0	**81**	0	**81**

Total Requirements	**1633**	**484**	**42**	**9**	**22**	**2190**	**437**	**2627**

, urban and rural water use includes the component of the reserve for basic human needs, water use for mining and bulk industrial includes mining and bulk industrial water uses which are not part of urban systems, and the quantities given for afforestation refer to impact on yield only.

Table 2-3: Water Requirements (million m³/annum)

Water Requirements (million m³/annum)								
Sub-area	**Irrigation**	**Urban**	**Rural**	**Bulk Indus-try**	**Afforestation**	**Total Local Requirements**	**Transfers Out**	**Grand Total**
Upper Breede	495	23	4	0	0	**522**	22	**544**
Rivierson-derend	91	2	2	0	1	**96**	168	**264**
Lower Breede	72	1	1	0	0	**74**	0	**74**
Overberg East	0	2	2	0	0	**4**	0	**4**
Overberg West	64	8	2	0	5	**79**	23	**102**
Gamka	49	5	1	0	0	**55**	0	**55**
Touws / Buffels / Groot	49	2	2	0	0	**53**	0	**53**
Olifants	62	10	2	0	0	**74**	0	**74**
Gouritz / Goukou	51	3	3	0	1	**58**	1	**59**

Coastal	43	32	3	6	14	**98**	0	**98**
Upper Olifants	100	1	1	0	1	**103**	94	**197**
Koue Bokkeveld	65	0	1	0	0	**66**	0	**66**
Doring	13	1	1	0	0	**15**	0	**15**
Knersvlakte	3	0	1	3	0	**7**	0	**7**
Lower Olifants	140	3	1	0	0	**144**	4	**148**
Sandveld	35	2	1	0	0	**38**	0	**38**
Greater Cape Town	46	343	5	0	0	**394**	0	**394**
Upper Berg	202	23	4	0	0	**229**	125	**354**
Lower Berg	53	23	5	0	0	**81**	0	**81**
Total Requirements	**1633**	**484**	**42**	**9**	**22**	**2190**	**437**	**2627**

A large proportion of the local water requirements are consumed in the Upper Breede sub-area (about 47%) which has 28% of the total population of the Breede and Gouritz WMA. The Coastal sub-area uses the second-largest amount of water with about 9% of total local requirements being used in this sub-area.

Most of the water that is transferred out of the Breede area goes to the Berg area and specifically to the City of Cape Town (170 $Mm^{3)}$ where a large proportion of the urban population of the Western Cape resides, and to agriculture (50Mm^3). Consideration of how much water will be directed to the city, depending on economic and population growth, from the Breede area will have to be given in the future. This might have a significant impact on the water available for local use within the Breede area and all the economic activities that depend on water availability. Equally, meeting the environmental water requirements may impact water availability in some sub-areas.

The current water requirement estimates are also marred by uncertainties. Much uncertainty about water requirements arises from the fact that a significant proportion of the total current irrigation activity lies outside of government-controlled schemes and Water User Associations (WUAs), and figures for irrigation water use from different sources vary considerably.

There are also some future considerations that will impact water use:

- The irrigation water requirement estimates are based on water use registration and not on actual current water use – there are some unexercised allocations, but equally, there appears to be an increase in water use by other farmers. The trends in water use will need to be better understood and monitored,
- The impact of climate change,
- The impact of changes in land use resulting from the transformation of the agriculture industry to better reflect the racial demographics of South Africa, and
- The impact of water conservation and demand management, particularly in the urban areas.

2.5.2.1 Saldanha Bay Economic Growth

The South African government expects significant economic growth to come from infrastructure investment and the creation of Industrial Development Zones (IDZs) where concentrated manufacturing and industrial processing facilities will increase local and national economic output and in return improve the social conditions of local communities.

In the Western Cape, Saldanha Bay owing to its important natural assets (mineral and fish resources) as well as its infrastructural advantage of a deep-sea harbour has been identified and was proclaimed as an IDZ.

An analysis of planned economic developments (Including those in the EIA stage) including those in the IDZ has revealed a possible future complex mixture of industries in the Saldanha Bay development scenario. These developments will increase pressure on various resources, including water for the region. Currently, industrial activities consume approximately twice the volume of water as domestic use.

2.5.3 Water Requirements vs. Availability

The current yield balance within the Breede-Olifants WMA, given the water availability and water requirements estimates, is estimated at a 99 million m^3/annum deficit. The breakdown of the yield balance can be seen in **Error! Reference source not found.**4.

The Breede area has a yield surplus of 19 million m3/annum which can be used for reallocation to the emerging farmers. Though not all this surplus water is available in government-owned dams/schemes, DWS can endeavour to influence the owners into making any long-term surpluses available for use by resource-poor farmers.

Table 2-4: Breede-Olifants Yield Balance (million m3/annum)

Description		**WMA Sub-Areas**				**Total Breede-Olifants**
		Breede	**Gouritz**	**Berg**	**Olifants**	
Available Water	**Local Yield**	989	275	482	336	2082
	Transfers In	18	0	194	3	215
	Total	**1007**	**275**	**676**	**339**	**2297**
Water requirements	**Local Requirements**	775	338	704	373	2190
	Transfers Out	213	1	0	0	214
	Total	**988**	**339**	**704**	**373**	**2404**
Balance		**19**	**-64**	**-28**	**-34**	**-99**

Several interventions can be put in place that could help increase the amount of water available for local use in the Breede-Olifants WMA. The additional water returned to the system as a result of these interventions can be used to better support resource-poor farmers. The list of potential interventions includes the following:

- Verification of existing lawful use – once this is done some water could be returned to the system.
- Water reallocation through compulsory licensing to meet the Reserve and/or equity requirements.
- Water conservation and demand management – it is estimated that savings of between 30% and 40% are available in the urban sector and water savings could be made in the agricultural sector if water conveyance and distribution systems were better maintained and upgraded.

- Water reuse - the use of treated effluent from WWTWs offers potential for re-use, particularly in the larger towns. Exchange with nearby irrigation users is one option, as is the irrigation of local sports fields and parks.
- Clearing invasive alien plants could also save a lot of water – although it is unlikely that all invasive plants could be cleared, some success can be achieved in this regard that could free up some water for better and more productive use.
- Improved management of groundwater resources.
- Development of the groundwater resources, particularly those of the very deep confined Peninsula aquifer of the TMG. The TMG potential is currently being investigated by the CCT to develop a pilot well field.
- Aquifer Storage Recovery offers a zero-evaporation storage option by injecting surplus surface water (in times of surplus) into an aquifer for subsequent abstraction (in times of deficit).
- Improved management of the WCWSS, notably the releases from the Voëlvlei Dam to the Misverstand Weir.
- Development of new water resources – it has been estimated that there is more than 300 million m^3/annum of additional groundwater that could theoretically be abstracted on an environmentally sustainable basis and between 90 and 140 million m^3/a of additional surface water yield can be developed in an economically viable way. Further investigation is needed, however, on the feasibility of using the groundwater potential.
- Improved scheduling and measurement, compliance monitoring, and regulation of abstraction of irrigation.
- The use of improved salinity management techniques.

2.6 KEY WATER CHALLENGES

2.6.1 Reallocation of water

One of the key water challenges in the water management area is the need to reallocate water to redress historical imbalances in access to water for productive purposes and to address issues of inequality and poverty in the area. This challenge will need to be addressed through compulsory licensing and through voluntary actions by current water users in the area to surrender water for reallocation purposes.

2.6.2 Water Quality

Due to the naturally saline geology and the diffuse return flows from the irrigated farmlands that wash-off fertilizers and leach natural salts in the area, surface water is affected by salinity. Elevated salinity occurs naturally over the inland catchments of the Great and Little Karoo as a result of the geology of the area and high evaporation rates. This is a historical situation and one to which the ecology and the farmers have adopted.

Point source pollution such as the discharge of inadequately treated wastewater effluent from wastewater treatment works (WWTWs), and irrigation with treated, partial, and/or untreated winery, dairy farming, piggery, cheese production, and other industrial effluent are further concerns that have an impact of the water quality in the Breede-Olifants WMA. In the developed urban areas, particularly the more densely populated coastal towns, man-made interventions result in problems commonly associated with urban water use. These include discharge of water containing waste, WWTW not meeting their required water quality standards for discharge, and point discharge through stormwater, and/or diffuse pollution from informal settlements.

2.6.3 Declining Ecosystems

Over the past decade, there has been a decline in ecosystem health in many parts of the main rivers in the Breede-Olifants WMA, indicated by comparative river health surveys in 1999 and 2010. The causes of this decline are varied and complex, being a combination of a mechanical disturbance of these rivers, over-abstraction with on-farm storage, and in some cases water quality deterioration. The estuaries have also been under general pressure from development encroachment and reduced flows. The brackish water mixing zone in the Breede estuary for example has been shrinking over the past decade, which has profound implications for the breeding of marine fish species.

The coastal catchments of the WMA are ecologically sensitive, which places a greater demand on leaving water in the system to maintain the aquatic ecology in that region.

2.6.4 Stressed Water Resources

The current demands on the catchment are approaching and, in some cases, exceeding the average available water resources. This is exacerbated by being in a predominantly winter rainfall region, where the availability of water during winter storms does not coincide with the needs for summer irrigation and supply to the tourist influx to coastal towns. This significant seasonal variability implies that only about half of the total average annual streamflow can reliably be used. Abstraction during summer low flow periods already exceeds what is available in many of these catchments, while winter demand also exceeds what is available during drier years.

The WMA is in deficit (either through over registration and/or calculated crop water demand versus actual water used), which means that effective water conservation and demand management, and reconciliation actions are critical. The inland catchments of the WMA do not receive sufficient rainfall to sustain reliable supplies from surface water resources. As such there will be an increasing reliance placed on the groundwater resource throughout this WMA.

The ***Annual Status Report 2020*** of the Department's ***implementation and maintenance of the water reconciliation strategy for the Western Cape Water Supply System***, states that:

"*For the median growth scenario, the population is expected to increase from 4.5 million people to 8.43 million by 2050. the expected average annual growth rate of 1.6% is likely to be driven in part by the net migration into the western cape province and environmental factors such as retirement to the coastal towns. for planning purposes, the median growth scenario was used in the determination of future water requirements. the city of cape town accounts for 79% of the total projected population. therefore, the city of cape town is the highest future water demand centre in the WCWSS. The second*

highest water demand centre will be the West Coast DM at 7% but declining compared to the city. The Drakenstein LM will be the third-highest water demand centre, accounting for 5.2% of the total population of the WCWSS." And

"*Summary of additional yield generated through the short to medium term water reconciliation options:*

i) The total additional yield from the augmentation options when implemented will be 126.48 million m_3/a by 2028/29 hydrological year.

ii) Out of the total additional yield, the additional water from non-surface water resources will comprise the following:

a. 45.64 million m_3/a will be from groundwater which increases the diversification of the available water in the WCWSS. This accounts for 37.5 % of the total additional yield

b. 54.84 million m_3/a will be supplied from desalination of seawater and water reuse which accounts for 43.5% of the total yield. The initial priority focus will be on the development of water reuse from treated wastewater particularly by the City of Cape Town.

c. The Berg River Voëlvlei Augmentation Scheme (BRVAS) will provide an additional 23 million m_3/a to both the domestic and industries as well as the agriculture sector. This accounts for 19% of the total additional yield.

iii) The most critical augmentation option is the removal of Invasive Alien Vegetation (IAP) in the priority sub-catchments of the headwaters of the key dams for the WCWSS, namely the Theewaterskloof and Berg River Dams. This will improve the streamflow into these critical dams and improve the yield of the WCWSS."

2.6.5 Costly Infrastructure

Assured supply is provided by several publicly owned dams, as well as private farm dams, which in total can store a little over half the average annual streamflow in the system. Opportunities to expand this storage infrastructure have been proposed, particularly the raising of some of the existing dams, the building of new larger schemes, or the construction of small on-farm off-channel impoundments. However, this additional water comes at a high cost, because it requires the storage of only larger winter floods for use in late summer and there are a limited number of feasible dam sites. These supply constraints, costs, and the value of water are reflected in the range in the trading price for agricultural water.

2.6.6 Alien vegetation

Invasive alien plants species are invading rivers and depleting groundwater resources. The removal of alien vegetation will assist in the rehabilitation and protection of wetlands for ecological functioning and tourism appeal. Alien vegetation accounts for a reduction in yield of more than 31 million m^3/a. Clearing could offer significant benefits towards meeting the requirements of the Reserve and augment the depleted summer low flows.

2.6.7 Protection of estuaries

Functional estuaries are essential from both an environmental and a socio-economic perspective. Several estuaries in the WMA require protection in terms of sufficient water, proper water quality, and public safety (health) management.

3 STRATEGIC MOTIVATION

The National Water Policy for South Africa and the National Water Act were developed based on extensive public participation and considerable international expertise and advice. This gave rise to the recommendation to follow international good practice in the decentralization of water management, and the establishment of water management institutions based on hydrological rather than political boundaries. In the development of the National Water Resources Strategy (2004), a process which included extensive public participation, 19 water management areas were defined for the country, in each of which, it was envisaged, a Catchment Management Agency (CMA) would be established.

To date, there are two functional CMAs, one in the Inkomati-Usuthu Water Management Area, and one in the Breede-Overberg-Gouritz WMA. Further development of CMAs was halted as the Department reconsidered the appropriateness of establishing nineteen CMAs and the possibility of redefining the water management area boundaries to create a smaller number of CMAs each with a larger area of jurisdiction. A smaller number of CMAs was seen as enabling better economies of scale about utilizing scarce technical skills and reducing the regulatory and oversight requirements on the Minister and Department. The current decision of DWS is to establish six (6) CMAs that cover the whole country.

The following sections set out the rationale behind the need to establish a CMA to manage water resources in the Breede-Olifants water management area.

3.1 CURRENT STATUS WRM CHALLENGES WITHIN DWS

3.1.1 Policy development

Currently, DWS provide an enabling environment for water resources management through the development of policy, legislation, methodologies and guidelines. Further, the DWS develops the national water resources strategy, the pricing strategy and the necessary institutional roles and responsibilities among key functions. Fully functional CMAs will perform most of the responsible authority functions in relation to authorising and enforcing water use, and setting and collecting water use charges.

3.1.2 Billing process and customer dissatisfaction

DWS issues bills centrally to collect revenue and payment is made into a common central account at head office. Such an arms-length relationship between DWS National and users at WMA level always results in dissatisfaction with bills that are issued resulting in a significant number of users defaulting in their payments. Currently, there seems to be legitimacy challenges for both the Proto-CMA and the DWS as the arms-length billing process erodes trust among water users. The inevitable result is a growing debt book indicating loss of potential revenue to sustain the water resources management functions at WMA.

3.1.3 Revenue from Inter-basin transfers

The current arrangements on revenue management also result in loss of potential payments for inter-basin water transfers. DWS is the recipient of the funds which ostensibly deposited into a common account for distribution for various uses as determined by the DWS. Once established, the proposed CMAs will be best placed to manage revenue in their respective WMAs informed by real time water use information. This approach is seen as an enabler for better economies of scale with regard to utilising scarce technical skills and reducing the WMA operational challenges.

3.2 MOTIVATION FOR THE DEVOLUTION OF WRM FUNCTIONS TO CMAS

3.2.1 Water scarcity

South Africa is considered a semi-arid region hence the importance regarding the efficient use of water is highlighted. One of the main reasons for the establishment of CMAs is to investigate and advise on the protection, use, development and control over water in the catchment to ensure efficiency and sustainability. CMAs are best placed to engage water users in WMA in order to develop responsive needs-based water resources management strategies to achieve equitable access and allocation of limited resources.

3.2.2 National Growth and development imperatives

Water plays a vital role in the well-being and economic activity of any society, be it within a rural or urban community, country or region. As a basic primary commodity, water contributes either directly (e.g. production of food) or indirectly (e.g. generation of electricity) to our livelihoods, lifestyles and wider economic activities. In a water scarce country like South Africa, which also has a history of discrimination and disenfranchisement of a large section of its population, water is a catalyst and a critical resource to address much societal and economic inequalities (Stuart-Hill and Meissner, 2018).

3.2.3 Democratization of water resources management

Decentralisation places an emphasis on public participation in water management and related decision-making processes. Decentralisation also rests on the subsidiary principle, which is encapsulated in the South African Constitution (RSA). The NWA embraces the right to water and well-being as laid out in the country's constitution and emphasises the elements of integrated water resource management (IWRM) in various ways (Stuart-Hill and Schulze,2010). The CMAs strongly represent the principle of social equity and transformation. CMAs are critical in the transition from a narrowly defined, technological focused and centralised governance approach (command and control) to an adaptive and integrative polycentric governance system. CMAs were therefore to be the symbol of post-apartheid water management with a shift in management from a central government to a more decentralized approach aimed at giving local communities, more so previously disadvantaged communities a say in the management of water resources (Bourblanc and Blanchon, 2013).

3.2.4 Governance and responsive management

CMAs are service-delivery agencies and are listed in the Public Finance Management Act, 1999 (Act 1 of 1999). In their operations, they are also subject to Treasury Regulations that seek to ensure accountability, financial viability and good governance. Establishing CMAs helps achieve a number of legal requirements. First it improves governance within DWS as well as ensuring adherence to the

spirit of the NWA. Second, once CMAs takeover their functions, IWRM will also take effect in line with the spirit and intent of the NWA. The involvement of affected water users in water resources management is likely to facilitate the legitimacy of the water sector in general, as CMAs become responsive to the needs of users. This in turn, has the potential to assist in efforts to manage water related revenue, and hence ensure the sustainability of the CMAs. In terms of the NWA, CMAs are custodians of water governance and capacity building within specified WMAs.

3.2.5 Best practice from the established CMA

The two CMAs that are already in operation have shown that CMAs can improve representation of HDI's and all sectors in water management. Also, that inclusive decision making has the potential to improve planning and governance within the WMA. Inclusivity has been shown to yield progress on key water programmes in the Inkomati-Usuthu and Breede-Gouritz WMAs since both CMAs apply a common CMS platform to consult, identify and plan for development priorities.

Some of the programmes that have been successfully implemented include the processing and recommendation of water use license applications (WULAs) verification and validation of water use, improvement in revenue management, reduced unlawful water use, water use efficiency management, general support to emerging farmers and lastly representative participation of users in the WMA.

1.1.1 Integrated water resource management in the South African context

Since the 1990s, Integrated Water Resources management (IWRM) is the internationally accepted paradigm and practice for water resources management, with the United Nations Environmental management programme defining it as:

"… a process that promotes the coordinated development and management of water, land and related resources in order to maximize economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. IWRM is a cross-sectoral policy approach designed to replace the traditional, fragmented sectoral approach to water resources and management that has led to poor services and unsustainable resource use. Integrated Water Resources Management is based on the understanding that water resources are an integral component of the ecosystem, a natural resource, and a social and economic good.

The cross-sectoral nature of water resources management demands that the governance and management of this scarce resource is decentralised to facilitate local stakeholder involvement in decision making. At the centre of such decentralisation is the need to differentiate policy and regulatory functions from actual management and implementation functions. CMAs are therefore important custodians of the decentralised water governance process. However, for CMAs to take full responsibility for the delivery of integrated water resources management, they require institutional authority over the relevant aspects of the water resource business process and associated functions.

The principle on the devolution of (integrated) water resources management to an appropriate catchment level, with the South African specific contexts mentioned above, make such devolution even more critical.

3.2.6 Management according to hydrological boundaries

Water is best managed in an integrated manner, taking cognisance of the linkages between land and water, between groundwater and surface water, and between the social and natural environment. Water is most easily managed within the natural boundaries of catchments (within which water drains into one river system) allowing for integrated management of that system. The establishment of a CMA allows for the management of scarce water resources according to hydrological rather than political boundaries, as is best practice internationally.

The National Water Policy also 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.

3.3 FRAMEWORK AND IMPERATIVES FOR CMA ESTABLISHMENT

3.3.1 Principles

Reform of the South African public service following the new dispensation to i) service delivery and adoption of the principles of Batho Pele and ii) transformation of the public sector to ensure employment equity and redress of historical inequality, informs an institutional, organisational and cultural transformation from the way in which water resources were managed in the past. Chapter 1 of the National Water Act (Act 36 of 1998) sets out *equity, sustainability, efficiency and representativity* as guiding principles in the protection, use, development, conservation, management and control of water resources in South Africa, as captured in the slogan of the White Paper[1]: *"some, for all, forever".*

This implies a shift in water resource management to an approach based on *integrated water resource management (IWRM), stakeholder involvement/ participation* in decision-making (empowerment of citizens), and *cooperative governance*. Moreover, institutional change is indicated; water management institutions must develop a *service delivery orientation*, which must reflect a *customer approach* to the business of water resources management.

These principles of institutional reform, sustainability and equality, in conjunction with the philosophy of *social and economic development* and *poverty eradication*, are reflected in the National Water Act (NWA) as a process of decentralisation and subsidiarity. This implies an organisational and institutional change process within the Department of Water Affairs (DWS), resulting in the formation of catchment-based water management institutions. Associated with, and inherent to, this process is the significant transfer of roles, responsibilities and functions from central government (DWS) to the Catchment Management Agencies (CMAs) as catchment-based organs of state.

3.3.2 Legal framework

The National Water Act (Act 36 of 1998) is based on IWRM principles and mandates the Minister (of Water and Sanitation) to establish catchment management agencies to facilitate decentralised

1 DWS. 1997. *White Paper on a National Water Policy for South Africa*. Department of Water Affairs and Forestry, Pretoria, South Africa.

management of water resources. In giving effect to the Constitution, there is a clear national policy, legal and strategic intent to decentralise the management of water resources through the establishment of Catchment Management Agencies aligned to IWRM.

Chapter 7 of the National Water Act makes provision for the progressive establishment of CMAs and states that the *purpose* is to ensure that water resource management is delegated to these regional / catchment level institutions, and to involve current and future water users and local communities in the decision-making processes. The National Water Act reflects and enables this shift to decentralise water management institutions. In broad terms, the initial role of a CMA is articulated in the Act as:

I. managing water resources in a WMA,

II. co-ordinating the functions of other institutions involved in water related matters,

III. involving local communities in water resource management.

The Act also requires the progressive development of a national water resource strategy[2] (NWRS) that provides the framework for water resource management for the country as a whole, and guides the establishment of CMA institutions to manage water resources at a regional or catchment scale[3] in defined water management areas[4]

The establishment of CMAs and catchment management strategies implies a shift in water governance to an approach based on integrated water resource management (IWRM), a management approach that empowers affected citizens. Moreover, institutional change requires that water management institutions must develop a service delivery orientation, which must reflect a customer approach to the business of water resources management. Inevitably, the intent of the NWA envisages an organisational and institutional transformation, resulting in decentralised governance via catchment-based water management institutions. Associated with, and inherent to this process is the significant transfer of roles, responsibilities and functions from within DWS (Head and Regional Offices) to the CMAs.

3.3.3 Decentralisation for effective WRM

The legal assignment/ delegation of water resources management functions to CMAs facilitates the implementation of the NWA and the NWRS. The NWA indicates that CMAs must take control of the water resources management within a WMA, and must take care to ensure the involvement of local water management institutions and the participation of stakeholders, including taking control and authority over revenue aspects of water resource management, and specifically authorization and enforcement of water use. The focus is the relationship between the **CMA and the water user** (large and small) in the WMA as the CMA is responsible for managing quality and quantity of water to ensure security and reliability to the user. To achieve this, the national policy and legal intent is for CMAs to develop a catchment-based management strategy encompassing all relevant water resource management aspects as required by the NWA. This implies that the CMA needs to have a strong relationship with the water users to ensure that revenue is collected to support the

[2] Section 5(1) of the NWA

[3] Section 6(1)*(j), (k) and (l)* of the NWA

[4] Section 6(1)*(c)* of the NWA

functioning of the CMA. The strategic intent behind this focus on the CMA and user relationship is clear: water resources must be managed closest to the user to build trust and legitimacy.

There are two other important strategic drivers in the water resources management sphere that also needs to be considered, namely the need to manage according to hydrological boundaries and the financial viability of the CMA. Both are important for the consolidation of the water resources management regime at a WMA level. The current policy and strategic intent imply that:

I. Availability of water will decrease as the effects of climate change increases[5]

II. In order for the water resources management functions to be managed sustainably, billing and revenue collection must be improved.

III. Decentralised decision-making means that CMAs will perform functions in collaboration with users in the WMA for purposes of building trust and legitimacy and will address issues quicker.

The establishment of the CMAs can therefore enable the intended change from the current "distant management approach" where Proto-CMA functions are embedded within Regional Offices to a "water management area" based integrated water resources management approach that promotes efficient water management and improved revenue management through location of institutions CMAs closest to water user with a specific mandate and function.

3.4 EVOLUTION OF THE CMA

The principles guiding reform and transformation in resource management, and the legal requirements of decentralization and subsidiarity contained with the NWA, imply a process of institutional change in the management of water resources. This process moves the responsibility for resource management from DWS to the CMA as the catchment-based organ of the state. Several stages can be identified that describe this process of shifting responsibilities and the evolution of the CMA.

The first stage following the *establishment of the CMA* is about creating **legitimacy** within the WMA, during which relationships are developed between the CMA, other water management institutions (WMIs), and stakeholders in the WMA. The CMA undertakes the critical role of advising on, and coordinating water resource management, and developing the catchment management strategy (CMS). This stage is about building relationships and establishing credibility and legitimacy within the WMA. The CMA assumes several initial functions, as defined in Section 80 of the NWA:

- to investigate and advise interested persons on the protection, use, development, conservation, management, and control of the water resources in its water management area
- to develop a catchment management strategy

[5] The impacts of climate change is predicted to longer and more intense floods and droughts, meaning that existing infrastructure (dams, etc) will collect less water from more intense floods, as opposed to this same rainfall over a longer period.

- to co-ordinate the related activities of water users and the water management institutions within its water management area
- to promote the coordination of its implementation with the implementation of any application development plan established in terms of the Water Services Act, 1997 (Act No. 108 of 1997); and
- to promote community participation in the protection, use, development, conservation, management, and control of the water resources in its water management area.

To perform these functions, the CMA has some inherent powers under the NWA:- i) the powers of a natural person of full capacity (Section 79(1)), ii) a range of powers related to planning and conducting the routine administrative and organizational business of the CMA (Schedule 4) and iii) powers to make and recover charges in terms of the Minister's pricing strategy for water use charges to cover their costs (Section 84(1)).

Following legitimization of the CMA, a phase of **consolidation** is entered during which the CMA is focused on building capacity and strengthening the organization to undertake its water resource management functions. This implies strengthening of systems within the organization, including fiduciary management and governance of the CMA, and the establishment of stable information and implementation systems. Additional water use management functions are delegated to the CMA. DWS staff, possibly seconded to the CMA during the legitimization phase, are now transferred to the CMA as a coherent business unit, with the requisite infrastructure and budget. The CMA (led by the Governing Board and CEO) compiles a comprehensive business plan. This must also link to the DWS timeframes for establishing water use charges (under the Pricing Strategy).

The final phase during the evolution of the CMA is the progression to a fully functional CMA and the delegation of **responsible authority** functions[6]. The majority of water resource management and implementation roles and responsibilities are now seated in the CMA, which assumes the role of Responsible Authority. The relationship between the CMA and DWS is well established, and the systems and processes within and between these institutions are stable. Under Section 73(1)(a) of the NWA, the Minister can assign the powers and duties of a responsible authority to a CMA. The most significant of these are the powers and duties related to authorization of water use and the issuing, review, and amendment of licenses. In Section 63 of the NWA, there is a further provision for the delegation of powers and duties vested in the Minister[7], rather than assignment. However, the

[6] The powers and duties of a responsible authority are described as:- i) issue general authorisations and licences in respect of water use subject to conditions, ii) extend the licence period under certain conditions, iii) review licences at periods stated in the licence and make amendments to its conditions or renew it, iv) weaive the need for a licence if the water use is authorised under another law, v) promote "one-stop shop" licensing, vi) require license applicants to provide security for licence obligations, vii) require registration of existing lawful water uses, viii) require an existing water user to apply to verify its water use, ix) undertake compulsory licensing where there is water stress, x) suspend or withdraw entitlements to use water and xi) enforce licence conditions.

[7] Some additional powers and duties may be delegated to the fully-functional CMA, as described in Schedule 3 of the NWA:- i) power to manage, monitor, conserve and protect water resources and to implement the CMS, ii) establishment of water-use rules, iii) establishment of management systems, iv) require alterations to waterworks and may direct users to terminate illegal use and v) temporarily control, limit or prohibit the use of water during periods of water shortage.

Minister is prohibited from delegating certain powers under Section 63(2)[8]. In addition to providing the legal basis to the CMA performing its functions in its WMA, the NWA also allows the CMA to perform functions outside its WMA, under the condition that this does not impinge on the execution of its functions or detrimentally affect other water management institutions.

3.4.1 Status of CMAs in the Breede-Olifants Water Management Area

In the Western Cape, the Breede-Gouritz CMA was established, Government Gazette Number 37677 of 23 May 2014, to manage the water resources in this amalgamated WMA.

In October 2020, the Minister of Human Settlements, Water, and Sanitation requested public comment for the amendment of the Breede-Gouritz WMA through extending the boundary and area of operation to include the Berg-Olifants WMA in terms of section 78(4) of the National Water Act, 1998 (Act no. 36 of 1998), and the name of the Breede-Gouritz CMA be changed the Breede-Olifants CMA. The Breede-Gouritz CMA has been established as a schedule 3A Public Entity. The section below outlines the reasoning behind this decision and the recommendation that a similar corporate form is adopted for the Breede-Olifants CMA.

[8] i) the power to make a regulation, ii) the power to authorise a water management institution to expropriate under Section 64(1) of the NWA, iii) the power to appoint a member of the Governing Board of a CMA and iv) the power to appoint a member of the Water Tribunal.

4 CORPORATE FORM

4.1 LEGAL NATURE OF CMA

The Policy Framework for the Governance and Administration of Public Sector Institutions (October 2005) sets out the following possible corporate forms for public institutions:

Public Service including:

- National Government Agencies
- Provincial Government Agencies

Public Entities including:

- Stewardship and Research Entities
- Service Delivery Entities
- Regulatory and Statutory Advisory Entities

Government Enterprises including:

- Statutory Corporations and Financial Intermediaries
- State-Owned Companies
- Subsidiary Companies of public entities
- State Interest Companies

Public Interest Institutions including:

- Education, Welfare, Recreation Institutions, and Professional Bodies

The appropriate corporate form must be informed by the purpose of the entity, and specifically by the risks, powers, and functions of the CMA. A distinction should be drawn between a delegation of functions between DWS and the CMA. The establishment of agencies such as CMAs is an integral part of strengthening and improving governance, by assigning responsibility and accountability to the institution best placed to ensure efficient use of resources and effective service delivery. It is appropriate only where there are good reasons for independent governance and control.

An added requirement is that once public sector institutions are legally established, the National Treasury, through the Accountant General, lists them in Part A, Schedule 3 of the PFMA to enable effective financial management and accountability.

The drivers for devolution and various corporate forms for the Breede-Olifants CMA were considered. These are discussed briefly below.

4.2 A CASE FOR DEVOLUTION

The National Treasury/DPSA Governance Framework highlights several reasons for the devolution of government functions. A number of these reasons are relevant here:

4.2.1 Stakeholder participation

As has been mentioned above, stakeholder participation in water resources management is required by South African policy and legislation, but also by international best practices. Participation of stakeholders is necessary to find appropriate and acceptable solutions to a number of the complex issues facing water managers in the Breede-Olifants water management area.

Both public confidence and stakeholder participation are mutually reinforcing objectives where one strengthens the other to create a synergistic relationship. Stakeholder participation will ensure that the needs for use of water resources are provided as best expressed by the stakeholders. Mechanisms put in place must promote ongoing and continuous engagement with stakeholders and between stakeholders, and particularly with historically disadvantaged communities.

4.2.2 Ring-fencing risk

The establishment of a public entity allows for a coherent, integrated approach to managing risk through tight controls and good governance. One of the key risks that are best managed outside government is the financial risk associated with effective tariffing, billing, and revenue collection. Since the CMA will be dependent on income from water use charges, there will be a much greater incentive for effective revenue management than is the case in the Department.

4.2.3 Access to professional, specialist skills

Access to specialist skills is particularly important for the operational management of the CMA, including financial management, contract management, and specialist water resource management skills (hydrology, geohydrology, water quality, engineering, aquatic ecology, toxicology, etc). Accessing such skills will require moving outside government remuneration structures and developing the CMA as an employer of choice by creating an innovative, stimulating, and conducive work environment.

4.2.4 Public confidence in decision-making

The NWA recognizes that the ultimate aim of water resources management is to achieve the beneficial use of water in the public interest. In doing this it is important to build confidence amongst users that water as a resource is a public good and must be managed in such a manner that all must benefit.

Given the complexity of water management in the Breede-Olifants water management area, and the importance of this area to the economy, public confidence will be improved by demonstrating good governance through appropriate accountability and governance structures. Separation of functions will allow DWS to act as a regulator (visibly), particularly about the regulation of tariffs, but also through the setting of national norms and standards (e.g. for water quality).

4.3 APPROPRIATE CORPORATE FORM

Based on the assessment above, various corporate forms were considered. These are discussed briefly below.

4.3.1 Departmental programme or dedicated business unit

Based on the assessment of the rationale for the CMA, a program within the Department or a departmental agency is not considered appropriate. A program is limited in its ability to ring-fence risk and to manage relationships with stakeholders effectively and accountably. While a departmental agency can overcome some of these problems, it also presents challenges in terms of its legitimacy with stakeholders and other spheres of government and a ring-fencing risk. Moreover, managing complex risk within a departmental agency is difficult, particularly as access to specialist skills in managing entity risk may be limited by departmental systems and processes.

4.3.2 Public Entity vs. Business Enterprise

The public entity corporate form is suitable for functions that require the involvement of stakeholders and experts to ensure effective and efficient delivery and where a moderate degree of autonomy in decision-making is desirable, or functions where it is necessary to assign decision-making to an independent juristic person to enhance public confidence in the implementation of a policy framework or the provision of policy advice or research. A business enterprise, on the other hand, is primarily focused on the provision of goods and services in a market environment.

There are four key reasons why the creation of a public entity is preferred for the CMA:

- The Breede-Gouritz CMA already exists in the water management area as an effective public entity on which to build the extended responsibilities of the amalgamated Breede-Olifants CMA
- The CMA is a service-delivery entity performing a function of government
- The CMA does not directly provide goods and services in a market environment but it is dependent on revenue from water users for the delivery of the services
- The CMA needs to involve stakeholders in the management of water resources and to build public confidence in its implementation of water resources policy.

It is therefore proposed that the Breede-Olifants CMA be established as a national public entity and listed under Schedule 3 (a) of the PFMA because it:

- would be established in terms of National legislation
- may be partially funded from the National Revenue Fund
- would be accountable to Parliament
- would not be authorized to carry out a business activity providing goods and services in a market environment.

4.3.3 Associated Attributes of the Public Entity

Following the Governance Framework, the attributes of a public entity (for service delivery) are presented below and form the basis for the CMA, particularly in terms of governance, organizational and financial arrangements.

4.3.3.1 Legal issues

- *Legal status*: the CMA is a separate juristic person in terms of the NWA.
- *Establishment*: created in terms of the National Water Act (s78(1)) by the Minister of Environmental and Water Affairs
- *Dissolution*: dissolved in terms of the National Water Act (s88(1)) by the Minister of Environmental and Water Affairs.

4.3.3.2 Accountability relationships

- *Political accountability*: The Minister, as the Executive Authority, is accountable to Parliament and represents the government's policy and shareholder interests. The Governing Board is accountable to the Minister, and the Minister should develop a service level agreement with the Board.
- *PFMA statutory accountability*: The Governing Board is the Accounting Authority in terms of the PFMA.
- *Reporting arrangements*: the CMA prepares a separate annual report and annual financial statements, which are sent to the Minister via the accounting officer of DWS. The Minister tables these documents in Parliament.

4.3.3.3 Governance arrangements

- *Appointment of Board*: The Governing Board is appointed by the Minister, taking cognizance of the recommendations of the Advisory Committee (s81(1) of NWA). The Minister determines performance criteria for the Board.
- *Dissolution of the Board***:** The Minister as the Executive Authority
- *Replacement of Board members***:** The Minister as Executive Authority appoints alternative members to the Board where Board members resign or are removed before completion of their term of office. Board members are removed by the Minister under s83(1) of the National Water Act. Alternatives are appointed for the remainder of the term of office.
- *Appointment of CEO*: The Governing Board appoints the Chief Executive Officer (with the approval of the Minister) and determines performance criteria and assesses the performance of the CEO. The Minister is empowered to remove the CEO after consultation with the Board.

4.3.3.4 Financial arrangements

- *Tabling of plans*: The Governing Board must approve and submit a strategic plan to the Minister.
- *Submission and approval of budgets*: The Governing Board approves the budget and submits it to Minister.

- *Funding/ Budget*: cost recovery (water charges), grants-in-aid, donations, and DWS subsidies / financial aid.
- *Spending autonomy*: The Entity is autonomous within the limits of relevant legislation and agreements.
- *Pricing*: By the Entity, in line with the national Pricing Strategy on Raw Water.
- *Borrowing powers*: the CMA will need specific approval from the Minister of Finance for borrowing, but should only require overdraft facilities for working capital.
- *Surpluses/dividends*: The Entity may not make a profit.
- *Accounting basis*: accrual-based GAAP.

4.3.3.5 HR arrangements

- *Human resource regime*: The CMA will develop its HR regime within DWS CMA Guidelines and aligned to the framework prescribed by DPSA. It will be responsible for determining positions, job evaluations and for appointing and dismissing staff.
- *Wage determination*: The CMA will determine salaries within the DWS CMA Guidelines and align to the framework prescribed by DPSA.

4.3.3.6 Powers of the entity

- *Procurement*: Procurement will be done within the PPPFA and the CMA's own governance rules.

5 LEGAL PROCESS

5.1 INTRODUCTION

The establishment of the Breede-Olifants CMA requires some consideration of the appropriate legal process to be followed amalgamating the Berg and Olifants WMAs with the established and fully functional Breede-Gouritz CMA. An examination of the National Water Act has been done, and the legal issues about the process are set out below, as well as the appropriate process to be followed to establish the Breede-Olifants CMA.

5.2 LEGAL REQUIREMENTS

The overriding imperative of the NWRS2 is that the nation's water resources are an **indivisible national asset** to be **managed** in an equitable, sustainable, socially, economically, and environmentally **optimal** manner for the **benefit** of society. Furthermore, The Minister, DG, organs, and WMI, **must** give effect to the NWRS2 when exercising any power or duty under the Act. There are 19 water management areas designated in terms of the NWRS2.

A review is currently being undertaken, to revise the proposed WMA boundaries and as a result, it is necessary to re-organize the WMAs/CMAs by way of amalgamation and /or re-delimitation. This necessitates a change in the number and geographical definition of WMAs/CMAs.

To enable the process for the Breede-Gouritz WMA and the Berg-Olifants WMA to become one WMA, the change in the number of WMAs will be reflected in the NWRS3. The boundaries of the existing Breede-Gouritz Catchment Management Agency should be changed to include the Berg-Olifants WMA.

The recommended approach is therefore as follows:

- The National Water Resources Strategy 2 must be amended to change the boundaries of the water management areas according to the six new proposed areas; and then
- The provisions of section 78(1)(b) and (4) and section 89(1) should be applied to realign the existing Breede-Gouritz CMA with the newly proclaimed WMA, rename the CMA, and transfer any assets and liabilities accordingly.
- Olifants-Doorn CMA should be disestablished in terms of section 88(1) and (2) of the National Water Act, 1998 (Act No 36 of 1998) for the realignment of the WMA of Breede-Gouritz CMA to include the Berg-Olifants WMA.
- In the proposal in terms of section 77 of the National Water Act it must be indicated and arranged how and when the following will happen or be done:
    - The effective date from which the amended water management area and name of the Breede - Olifants CMA will come into operation
    - The dissolution of the Governing Board of the Breede - Gouritz CMA to be on the date just before the effective date on which the amended name and water management area come into operation

- The appointment of the advisory committee in time to perform the recommendation processes in terms of section 81 of the National Water Act for the appointment of the Governing Board by the Minister to have the Governing Board for the Breede - Olifants CMA in place on the effective date.
- The transfer of assets and liabilities dedicated to the Berg – Olifants Proto – CMA to the Breede – Olifants CMA on the effective date
- Transfer of staff dedicated to the Berg – Olifants water management area to the Breede - Olifants CMA on the effective date
- Directive in terms of Item 2(2) of Schedule 4 of the National Water Act by the Minister regarding the remuneration of Governing Board members; and
- The determination of the salary of the CEO in terms of Item 3(7) of Schedule 4 of the National Water Act by the Governing Board in consultation with the Minister of Public service and Administration subject to the approval of the Minister of Water and Environmental Affairs.

5.3 AMENDMENT OF THE BOUNDARIES OF THE WATER MANAGEMENT AREA

The amendment of the boundaries of the water management area must be done through an amendment to the National Water Resources Strategy 2 (NWRS 2) or indeed the polmugation of the National Water Resources Strategy 3. In order to expedite this, it is possible to publish this section of the NWRS 2 separately from the main body of the NWRS. This will enable publication for comment earlier than the main body of the NWRS, the taking into account of comments received, and the final publication of the new water management areas and boundaries within a period of 4 to 5 months. The rest of the NWRS revision is expected to take longer than this.

5.4 AMENDING OF THE WATER MANAGEMENT AREA AND NAME OF THE BREEDE - OLIFANTS CMA

Once the water management areas have been reproclaimed through the NWRS according to the new division into 6 WMAs, the NWA prescribes that the Minister should amend the water management area and name of the Breede - Gouritz CMA to align with the new Breede – Olifants WMA as per section 78 (4) of the NWA.

If the Minister is satisfied that the amendments will not affect the rights of person, this can be done without following the requirements for publication and comment specified in subsection (3). It is argued that the process will, indeed, not affect the rights of any person, and therefore the publication for comment is not needed, particularly since the amendments to the water management areas will have received comment through the stipulated procedures to amend the NWRS. As a result, it is recommended that the Minister simply publish in the Government Gazette the amendments to the water management area and name of the CMA.

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6 FUNCTIONS OF CMA

6.1 INTRODUCTION

The Breede-Gouritz CMA is an established corporate entity with the powers of a juristic person and full capacity (s 79(1)). The Breede-Gouritz CMA is fully functional with a governing board, staff and offices, and delegated functions. This Business Case intends to expand the scope of functions performed by the functional CMA by extending the boundary and area of operation of the Breede-Gouritz CMA to include the Berg-Olifants WMA.

The functions that the Breede-Olifants CMA will perform are informed by the National Water Act, and fall into three categories:

- Initial functions as described under the National Water Act (S80),
- Inherent functions conferred on a CMA under the National Water Act, and
- Other functions that may be delegated or assigned to the CMA by the Minister.

In addition to these functions, there are several functions not specified in the Act which are required for the CMA to achieve its objectives, such as human resource management, which do not require delegation but are functions that must be performed by any organization.

Some functions, such as water resources planning and monitoring, are split between DWS and the CMA.

6.2 DELEGATION VS. ASSIGNMENT

The NWA enables the Minister either to delegate or to assign functions to a CMA. It is important to understand clearly the differences between these two actions.

Delegation refers to the transfer of powers to another functionary or body to enable that body to exercise those powers. Delegation is 'a revocable act by which an organ of state transfers power or function, vested in it by legislation, to another organ of the state.'[9] Section 238 of the Constitution provides that an organ of state may delegate a power or function to any other executive organ of the state. The important element of delegation is that a delegated function can be withdrawn by the delegatee, and the delegatee retains the right to exercise the delegated function as well. Thus, it is not a permanent transfer of power or function.

Assignment of a power or function, on the other hand, constitutes the ***permanent*** transfer of that power or function to another body or person.

In this regard, DWS will carefully consider what functions are to be assigned and what functions are to be delegated to a CMA.

6.3 DELEGATION OF FUNCTIONS

There are some functions on which the Minister has discretion with regards to delegation, and there are certain functions which the Act prohibits the Minister from delegating. For example, the Minister may not delegate the power to make regulations, authorize a water management institution (WMI) to expropriate land, appoint a member of the Water Tribunal or the governing board of a CMA.

The policy position underpinning this functional analysis is that CMAs will, in due course, perform most of the water resources management functions and that DWS will only retain those strategic and national level functions. Thus, in determining whether a function should be delegated to a CMA, the following issues should be considered:

- The spatial scale at which the function must be performed, in particular, national or regional multi-WMA functions should not be delegated, while WMA or local functions should be.
- The significance of the potential impact of the function;
- The capacity to perform the function, which would include a plan to build that capacity for the delegation, rather than the need to demonstrate existing capacity; and
- The principle that a WMI cannot regulate or audit itself.

Based on these principles, and the identification of those functions that a CMA would not perform, the water resources management functions that may be delegated and performed by a fully functional CMA are outlined below.

6.3.1 Develop Policy & Strategy

The formulation of policy and legislation will remain a DWS function, to which a CMA would provide input. At the strategy level, a CMA is responsible for the development of a catchment management strategy, as well as financial and business planning for the organization.

DWS will continue to:

- Develop legislation, methodology and guidelines to enable WRM.
- Develop the national water resources strategy, the pricing strategy, and the institutional roles and responsibilities.
- Determine the water resources class, as well as the Reserve and RQOs in resources of national significance[10].

In some cases, DWS may delegate the determination of the Reserve and resource quality objectives (RQOs) to the CMA for those resources that are not considered to be of national significance.

[10] This concept has not been defined, and must be defined in order to be able to distinguish between what will be done by DWA and what by the CMA

6.3.2 Regulate Water Use

A fully functional CMA will perform most of the responsible authority functions in relation to authorizing and enforcing water use and setting and collecting water use charges. However, DWS will retain authorization and allocation of water for strategic purposes, inter-WMA transfers, and where the CMA is the proposed water user.

Water use registration, validation, and verification will be done by the CMA. DWS will, however, maintain the national WARMS database and CMAs will have to provide the information to DWS for this.

6.3.3 Establish, Support, and Regulate Institutions

DWS will remain responsible for the establishment, support, and regulation of CMAs, Water User Associations that manage government waterworks or have government-guaranteed loans, and any national-level bodies such as the TCTA and WRC. DWS will also be responsible for inter-WMA coordination and conflict resolution.

A CMA may establish, regulate and support water management institutions that have been specified in its catchment management strategy, such as water user associations, as long as these do not manage government water schemes or have government-guaranteed loans. The CMA is obliged to coordinate water-related activities of institutions and ensure community participation in WRM within the WMA.

6.3.4 Monitoring and planning

DWS will remain responsible for the development of the national information monitoring system and monitoring of water resources at those points defined as part of a national monitoring system. This is necessary to maintain national-level monitoring and assessment of the state of water resources. The actual monitoring may be outsourced or delegated to a CMA.

Each CMA will be responsible for any additional monitoring of water resources that is necessary for the implementation of the catchment management strategy in their water management area and assessment and evaluation based on this monitoring.

DWS will remain responsible for national water resources planning, including the determination of allocable water per water management area and the determination of allocations for international purposes. The CMA will plan for the allocation and management of water within the allocable water determined by DWS. The CMA may prepare reconciliation scenarios for its area of jurisdiction but will need to coordinate this carefully with DWS to avoid duplication.

The CMA will be responsible for water resource rehabilitation, emergency interventions and disaster management. The CMA will be responsible for issuing flood warnings within the WMA, with DWS issuing flood warnings with inter-WMA impacts or implications. Drought rules will be determined and implemented by the CMA.

6.3.5 Infrastructure

The funding, development, refurbishment, operation, and maintenance of national water resources infrastructure will remain a function of DWS and the TCTA. The CMA will be empowered to develop infrastructure in the service of its core functions, such as monitoring infrastructure.

DWS will remain responsible for dam safety regulations across the country.

6.4 TRANSFER OF FUNCTIONS TO THE BREEDE-OLIFANTS CMA

The Breede-Olifants CMA is in a unique position because the Breede-Gouritz CMA is a fully functional CMA which in this case is just expanding the boundaries to include the Berg-Olifants WMA. This means that the Breede-Olifants CMA will continue carrying out their *initial and inherent functions* as well as functions already delegated or assigned to the CMA.

6.4.1 Developing relationships and legitimacy

As a "new" public entity the Breede-Olifants CMA will initially have to focus on developing a catchment management strategy, building relationships, and building its profile amongst stakeholders in the WMA.

6.4.2 Build capacity and consolidate

Functions to be performed and delegated are outlined below:

(i) Resource Directed Measures

The NWA prescribes in chapter 3 that for all significant water resources, the class, reserve, and resource quality objectives have to be determined as soon as reasonably practicable. S14 requires that all water management institutions give effect to these while executing their functions. During this phase, the CMA should be in a position to determine these factors for water resources within the WMA that are not considered to be of national significance, and the relevant powers must be delegated to the CMA. All reserve determinations that are inter-WMA or have strategic importance will be undertaken by DWS.

(ii) Water Resources Monitoring

Water resources monitoring includes both water quality and quantity monitoring of surface and groundwater. The monitoring required for the national information monitoring system must be kept under the control of DWS. However, the CMA will be delegated the power to monitor water resources as necessary for the implementation of the CMS and the management of water at the WMA level. Since this monitoring will have to feed into the national systems, the CMA must comply with monitoring standards and protocols determined by DWS.

In the delegation of this function, DWS must set conditions for the provision of information and data to DWS and the necessary protocols and standards for such.

(iii) Disaster Management

During this phase 2, the CMA will be delegated the authority to assess and manage droughts, floods and water quality disasters in the WMA. The CMA should have developed a disaster management plan (DMP) as part of the CMS, which it should now implement.

(iv) Water Conservation and Demand Management

The implementation of WC/WDM is the encouragement of water users to conserve water, thus lowering the overall water demand. During this phase, the CMA should be involved in assisting to implement WC/WDM strategies. This does not, however, require the delegation of specific powers or functions.

(v) Operating of Waterworks

Under specific circumstances, CMAs may be required to either develop or operate waterworks. During this phase, this function may be delegated if necessary.

(vi) Issuing of general authorizations and limited authorization functions

During this phase, the issuing of general authorizations can be delegated to the CMA, as well as authorization of water use with limited impacts, along the lines of the powers currently delegated to regional offices.

(vii) Institutional Oversight

The CMA will, from the establishment, be responsible for institutional oversight within the WMA, which includes coordinating with institutions, establishing stakeholder forums, and providing support to other water management and water services institutions.

During this phase, the CMA should be delegated the power to establish Water User Associations (WUAs) that do not manage government waterworks and do not have government-guaranteed loans.

6.4.3 Fully functional and responsible authority

During the third phase the following powers and functions will be delegated to the CMA:

(i) Water Use Authorisation and Licensing

Water use authorization and licensing are continued from phase 1, at which stage the CMA would have been involved with processing applications and advising DWS on issues related to licensing applications, and phase 2 where general authorizations and limited licensing powers were delegated to the CMA.

During the final phase, the CMA will be delegated the power to authorize water use and issue licenses. These functions will be delegated to the CMA for non-strategic water use as authorizing strategic water uses will remain a function of DWS.

(ii) Compulsory Licensing

In areas with water stress (demand exceeds availability) or inequitable access to water resources, compulsory licensing is undertaken to assess the volume and quality of water available and allocating

that available resource equitably and sustainably. In phase 3, the CMA will be delegated the power to undertake compulsory licensing.

(iii) Issuing of Directives[11]

As the responsible authority, the CMA should be delegated the power to issue directives (over and above the inherent powers in this regard conferred by the NWA). The directives could include, but will not be limited to:

- Requesting alterations to waterworks
- Determining operating rules for systems
- Controlling, limiting, and prohibiting water use.

6.5 CONSIDERATIONS FOR THE DELEGATION PROCESS

Both the Governing Board of a CMA and the Minister will have their view of what functions should be delegated to the CMA at what point in time, and these outlines offered above should be seen as a guideline only, not a prescriptive list.

The rate and order of the powers and functions to be delegated may be influenced by:

- Water resources management priorities of the CMA as outlined in the CMS
- Functions in the WMA that are not performed adequately by the regional office
- The ability of DWS to reconfigure current information systems to accommodate the WMA geographical demarcation
- WRM initiatives of other institutions
- Whether the CMA has adequate capacity and resources to perform the proposed functions, or has a clear plan to address possible capacity limitations
- Whether the regional office staff are available for secondment and/or transfer as a critical mass with the functions, and the implications for the remaining functions performed by DWS and
- The status of support functions such as finance and corporate services within the CMA.

The division of functions under the National Water Act into initial functions of a CMA, inherent functions implicit in the NWA, functions to be delegated to CMAs, and functions to remain the responsibility of DWS and/or the Minister are captured in detail in Annexure A.

6.5.1 Outsourcing or development a technical support pool

The CMA doesn't need to perform all of its functions in-house. Certain functions could be outsourced to other water management institutions, consulting firms, or technical contractors. The possibility also

[11] Refer to Appendix 1 for additional information

exists, in due course, for several CMAs to develop a shared technical pool that can bring together scarce technical resources to serve more than one CMAs.

However, it must be noted that in this case, the CMA does not relinquish any powers or duties but simply hires in skills and resources as may be required from time to time.

6.6 IMPLICATIONS FOR DWS STRUCTURE AND FUNCTIONS

Once all CMAs have been established as responsible authorities, the functions to be performed by DWS will be significantly reduced, with implications for the structure and budget of DWS as well. It is envisaged that the water resources management staff in the regional offices will be very small, with a limited number of functions. There will also be an impact on the staff in the national office, with some or part of the functions currently performed in the national office being taken over by CMAs as well.

The functions that will be retained by DWS in the long term are:

- Development, revision, and amendment of policy and legislation
- National water resources planning and reconciliation of supply and demand, ensuring that CMAs operate within such planning parameters, and ensuring that South Africa operates with an appropriate level of water security at the national level;
- Development, operation, and maintenance of national monitoring and information systems
- Authorisation of strategic water use, national infrastructure development and operation, and determination of inter-basin transfers
- Regulation and oversight of CMAs, and WUAs managing government waterworks or with government-guaranteed loans
- Determination of classification, reserves, and resource quality objectives for water resources of national significance or with significant inter-water management area implications and ensuring that CMAs implement such requirements
- Developing and ensuring the implementation of the National Water Resource Strategy, including the raw water pricing strategy
- Determination of monitoring and information protocols and standards
- Flood monitoring and management in national systems
- Development, operation, and maintenance of national water resources infrastructure
- Determination of guidelines and regulations for the establishment of institutions
- Ensuring water use authorizations are in line with national policy, procedures, and guidelines, including policies on redress and equity
- Providing technical support to CMAs

- Negotiating and overseeing agreements in transboundary basins.

7 ORGANISATIONAL ARRANGEMENTS

7.1 PROPOSED FUNCTIONAL STRUCTURE OF THE BREEDE-OLIFANTS CMA

The Breede-Olifants CMA's functional structure must, in addition to providing for the implementation of the initial functions, provide a systematic response to its water resource management challenges. A possible high-level functional organization of the Breede-Olifants CMA consists of functional areas captured in the diagram below and briefly described in the subsequent sections.

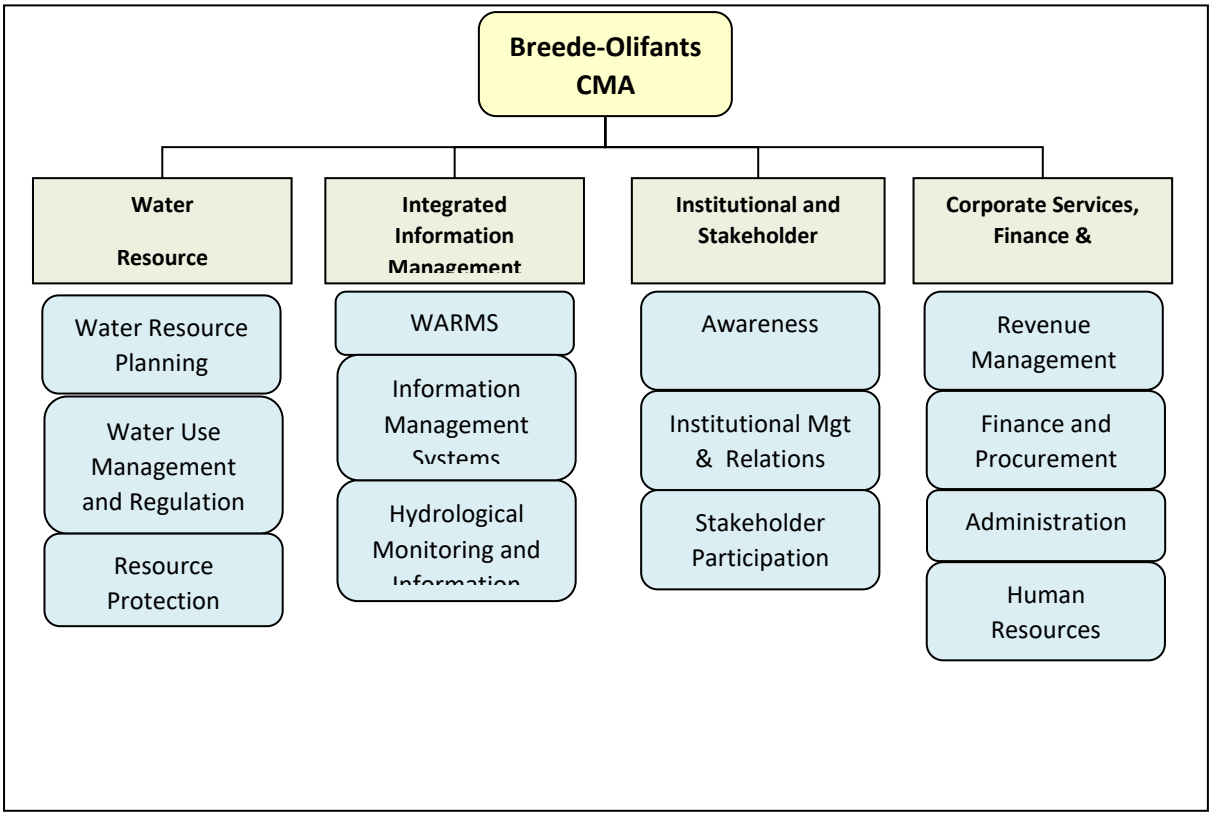


Figure 7-1: Breede-Olifants CMA functional structure

7.1.1 Water Resource Management

The water resource management functional area is responsible for coordinating and managing all water resource-related functions including water resource planning, water use management, and related responsibilities such as water resource protection and regulation, and water allocation reform.

A summary list of activities per sub-function is presented below.

- Water Resource Planning is responsible for planning the development, allocation, and utilization of water resources (including water quality aspects) to meet resource quality objectives (QR) and to reconcile supply and demand, including the operation of water resources infrastructure. This division will be responsible for performing the following functions:

- Conducting and commissioning water resources studies and investigations on water resources, advising DWS and interested parties on the matter, and providing support to integrated water resources planning through:
    - Developing a catchment management strategy (CMS) by the national water resources strategy. This function includes:
        - Conducting, commissioning, and participating in investigations and studies to gather information to support management decisions for strategy development
        - Developing management strategies, including WRM/ reconciliation, allocation, and water quality management plans
        - Investigating and providing advice to DWS on WMA planning to inform the NWRS and other national processes
        - Advising users/institutions on implications of CMS/ NWRS for water resource development
    - Investigating and providing advice on disaster management to DWS and other institutions on the management of floods, droughts, and pollution incidents, putting in place early warning systems and supporting municipalities in preventing development within floodplains.

- *Water Use Management and Regulation*: The water use management and regulation programme includes activities such as licensing, registration of water users, pollution control and ensuring water use compliance and enforcement for the 11 prescribed water uses. The water quality management priority includes the registration of waste discharge and developing measures for effective resource protection and compliance.

  While the CMA will initially focus on making recommendations to DWS regarding water use authorisations, promoting and implementing demand management interventions and issuing directives and restrictions on water use during emergencies, ultimately it will take over the licensing function, including compulsory licencing.

- *Resource Protection* includes determining reserves and resource quality objectives, managing the river health programme, and protecting the state of water resources.

7.1.2 Institutional and Stakeholder Coordination

The institutional and stakeholder coordination functional area will focus on

- establishing and fostering credibility within the water management area
- establishing, overseeing and providing support to water user associations,
- ensuring co-ordination between water management institutions and relevant government departments and organs of state in the water management area, and

- establishing and maintaining stakeholder consultation fora and mechanisms, with a particular focus on ensuring the participation of poor and marginalised communities.

Due to the different contexts of the four water management areas under the jurisdiction of the Breede-Olifants CMA, it may be necessary to split this unit in four, with one focusing on the Breede, one on the Gouritz, one on the Berg and one on the Olifants.

The initial focus, after expanding the Breede-Gouritz CMA's WMA to include the Berg-Olifants WMA, should be on coordination and mobilisation of stakeholders, including focusing on building legitimacy and strategic relationships with key partner institutions, and establish and supporting consultative bodies such as forums.

7.1.3 Data Management

Data and information acquisition, management and sharing/dissemination is a key to fulfilling the role of the Breede-Olifants CMA. The information management functional area will focus on providing comprehensive and consistent information at all levels, expand the current information systems to ensure effectiveness, including establishing strategic interfaces with DWS information systems where necessary to improve access to information by stakeholders. The key aspects of this function are set out below:

- *Monitoring systems:* the CMA must expand on the existing monitoring of water use and resource status that they need to perform their functions, over and above the national monitoring conducted by DWS.
- *Data and information systems:* the CMA must put in place the necessary databases and information systems to capture the relevant data to be provided by DWS from the national information system and from their own monitoring systems. These must cover water use (registration and authorisation), and resource status (water quality and quantity). These systems must interface effectively with the DWS systems and with other related CMA systems. DWS will need to put in place appropriate protocols to ensure that this is possible.
- *Information assessment:* The CMA must be in a position to analyse the information to provide trends and evaluation assessment to the planning and management sections so that they are able to respond appropriately to ensuring effective use and management of water resources.

The information manager must be an integrator, facilitating the integration of water resource information to corporate and strategic information systems, in particular keeping up to date information on registrations and water use to support revenue collection and strategic planning process at WMA and National level.

7.1.4 Corporate Services, Finance and Support

The corporate service, finance and support functional area will be responsible for collection and administration of water resource management charges, corporate financial management, corporate

strategic planning, human resource management, and general administration of the organisation. Some of its key areas of focus include:

- *Billing, revenue collection and management:* focusing primarily on the billing and collection of water resource management charges, and the administration of all activities related to revenue collection, including issuing of invoices and managing debt associated with non-payment.
- *Finance:* to ensure general financial sustainability and viability of the CMA through effective financial planning and budgeting and management of accounts for the CMA, including ensuring that financial controls and reporting systems are in place.
- *Administration*: to manage and ensure effective office administration and general logistic / office support is in place, including effective records management
- *Human resource management*: The human resource development and performance management will be oriented towards the broader human capital management and to ensure employee well-being through processes such as:
    - Development and implementation of human resource systems and policies
    - Recruitment and retention of staff
    - Managing staff performance
    - Managing the internal Breede-Olifants CMA change management and transformation process
    - Employee assistance programmes
    - Managing employee occupational safety
    - Awareness and capacity building programmes
    - Coordinated training and skills development interventions

8 ORGANISATIONAL REQUIREMENTS

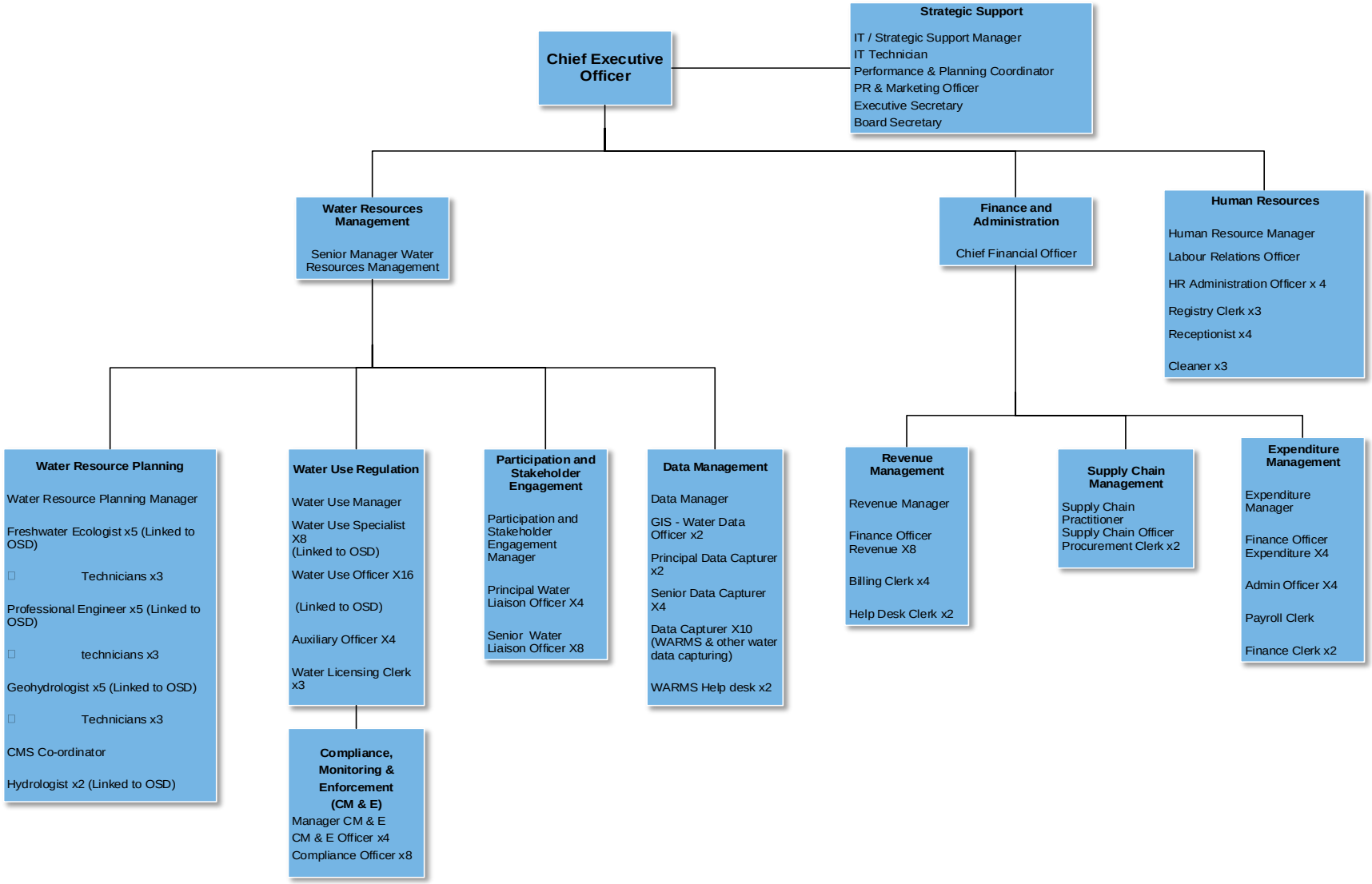
Given the functional analysis and description of key areas of focus discussed above, the proposed organisational structure is discussed below. The organisation is led by a Chief Executive Officer supported by two Executive Managers namely the Senior Manager Water Resources Management and the Chief Financial Officer. The Breede-Olifants CMA Water Resource Management Division requires four management positions consisting of Water Resource Planning Manager, Water Use Regulation Manager, Institutional and Stakeholder Relations Manager and Data Manager, Finance and Administration will be led by the Chief Financial Officer with two managers: Revenue Manager and Expenditure Manager. Human Resources will be led by the Human Resources Manager.

The Board Secretary located in the office of the CEO will perform legal management and administration of the business of the Breede-Olifants CMA. The CEO reports directly to the Board who will also provide support to the CEO and executive management. Below a proposed organisational structure is discussed, together with high level description of posts of senior managers, and a description of responsibilities to be performed by the CEO of the CMA. In addition, this chapter considers remuneration, performance management, conditions of employment, human resource management systems and policies.

It is noted that due to the size and complexity of the WMA, it is envisaged that four offices will be required, one in each of the main catchments within the WMA, being Berg, Breede, Gouritz and Olifants-Doorn. It is proposed to retain the current office locations of the Breede-Gouritz in Worcester for Breede and George for Gouritz, as well as the DWS provincial office locations in Belville for Berg and Clanwilliam for OlifantsDoorn.

The main office should be located where the office of the CEO is located, which is proposed for either Belville or Worcester, with the final decision to be made on logistical reasons and ease of access. Such decision affects relatively few people, being those in the office of the CEO and the board facilities.

The diagram below represents a high-level organisational design indicating the relationship between the Board, the CEO, senior managers and operational personnel responsible for the functional areas. Further unpacking of the organisational structures and detailed descriptions of posts in each functional area will form part of the business planning process to be spearheaded by the CEO as part of the establishment process.


Chief Executive Officer
Strategic Support
IT / Strategic Support Manager
IT Technician
Performance & Planning Coordinator
PR & Marketing Officer
Executive Secretary
Board Secretary
Water Resources Management
Senior Manager Water Resources Management
Finance and Administration
Chief Financial Officer
Human Resources
Human Resource Manager
Labour Relations Officer
HR Administration Officer x 4
Registry Clerk x3
Receptionist x4
Cleaner x3
Water Resource Planning
Water Resource Planning Manager
Freshwater Ecologist x5 (Linked to OSD)
Technicians x3
Professional Engineer x5 (Linked to OSD)
technicians x3
Geohydrologist x5 (Linked to OSD)
Technicians x3
CMS Co-ordinator
Hydrologist x2 (Linked to OSD)
Water Use Regulation
Water Use Manager
Water Use Specialist X8 (Linked to OSD)
Water Use Officer X16
(Linked to OSD)
Auxiliary Officer X4
Water Licensing Clerk x3
Compliance, Monitoring & Enforcement (CM & E)
Manager CM & E
CM & E Officer x4
Compliance Officer x8
Participation and Stakeholder Engagement
Participation and Stakeholder Engagement Manager
Principal Water Liaison Officer X4
Senior Water Liaison Officer X8
Data Management
Data Manager
GIS - Water Data Officer x2
Principal Data Capturer x2
Senior Data Capturer X4
Data Capturer X10 (WARMS & other water data capturing)
WARMS Help desk x2
Revenue Management
Revenue Manager
Finance Officer Revenue X8
Billing Clerk x4
Help Desk Clerk x2
Supply Chain Management
Supply Chain Practitioner
Supply Chain Officer
Procurement Clerk x2
Expenditure Management
Expenditure Manager
Finance Officer Expenditure X4
Admin Officer X4
Payroll Clerk
Finance Clerk x2

8.1 STAFFING REQUIREMENTS

8.1.1 Strategic Support - Office of the CEO

Implementation of the strategy and business plan of the Breede-Olifants CMA will be driven by an executive management team lead by the CEO. The executive management team will consist of the CEO, Company Secretary, and all Executive Managers. The Office of the CEO is the strategic hub – providing strategic guidance and shaping the direction of the Breede-Olifants CMA. Strategic branding and marketing, Performance Planning of the CMA, the Executive Secretary and IT/Strategic Support all fall within the CEO's office. The Board Secretary will play a dual role. The first role is that of providing strategic legal support to the Board. The second role is providing support to the executive management team of the CMA and managing the legal affairs of the CMA. Whilst the Board Secretary reports directly to the Board, he/she will operate at the same grade/ post level as executive managers that report directly to the CEO.

8.1.2 Water Resource Management

The Senior Manager Water Resources Management will lead the following divisions, each division with its own managers and supporting staff/officials. These divisions include: Water Resource Planning; Water Use Regulation including Compliance Monitoring & Enforcement ; Institutional and Stakeholder Relations and Data Management.

8.1.2.1 Water Resources Planning

The Water Resource Planning Manager will lead the water resources planning division of the CMA, who will be supported by Freshwater Ecologists, Professional Engineers, Geohydrologists, Hydrologists and a CMS Coordinator.

8.1.2.2 Water Use Regulation

This is a highly technical division of the CMA led by a Water Use Manager with supporting staff responsible for resource protection and water utilisation. The supporting staff will consist of Water Use Specialists, Water Use Officers and a Compliance, Monitoring and Enforcement Team who have experience relating to water utilisation by various water users and must understand the role of water in socio-economic development and poverty alleviation in the WMA. This technical team with industrial water use, legal /enforcement and environmental acumen will provide operational support to the executive manager.

8.1.2.3 Institutional and Stakeholder Coordination

This division is critical for developing trust, building legitimacy, and publicising the institution as a champion for water resource management in the WMA. This division will be led by an Institutional and Stakeholder Relations Manager who is a water sector institutional coordinator with extensive knowledge of the water sector and related institutional arrangements and their impact must therefore lead the function on water resource management in the WMA. An operational team of coordinators managing localised stakeholder engagement and mobilisation activities in the four sub-areas will support the institutional specialist.

8.1.2.4 Data Management

This is a highly specialised division with technical specialists in GIS and WARMS, led by a Data Manager. The Data Capturers are responsible for managing the WARMS database as well as other water data capturing., Minimum requirements for the GIS Water Data Officer include BSc degree or formal education in GIS; or degree in geography, natural resources, computer science or related field; including professional experience as an advance GIS user will also be considered.

8.2 Finance and Administration

The Finance and Administration component is a support function of the CMA. An executive manager who is a Chief Financial Officer leads the management and staff complement. The senior management team of the unit will consist of a Revenue Manager and Expenditure Manager supported by various administrative/financial clerks. The Revenue Manager and Expenditure Manager will report directly to the CFO with the Revenue Manager responsible for the function of administering the collection and management of activities related to the water use charges. The Expenditure Manager's focus will be on managing and administering the general finances of the CMA.

1.3 HUMAN RESOURCES

8.1.2 Organisational Development

Organisational development, staffing and general human capital management will be the responsibility of the Human Resource Manager, supported by a Labour Relations Officer, HR Administration Officers and supporting staff that include the Registry Clerks, Receptionists and Cleaners.

8.1.3 Transfer of staff

Section 197 of the Labour Relations Act (LRA) allows for staff to be transferred as part of "a going concern" to another organisation provided that the conditions of service are "substantively the same".

1.3.3 Grading and remuneration

The topic on remuneration of staff is a vexed one as it affects the organisation's capacity to attract and build its internal capacity and staff motivation. Clearly, the Breede-Olifants CMA is a technical institution, with a requirement to enable government meets its national obligations while also building a reputable international presence through acceptable IWRM practices. This means that it will depend largely on the availability of high level technical and coordination skills to perform its functions effectively. Such technical skills are required for both strategic and operational management. With these issues in mind, we propose two remuneration models, one for the Board and another for staff of the CMA. Each of these systems has a sound basis and is defensible.

1.3.4 Board remuneration

Where a board consists of members from the public and private sectors the following principles may be applied:

Public Sector Board Members: As these individuals will be employed and paid through public sector funds, the principle is that they do not earn fees for sitting on the Board. In essence, they should spend part of their working day on the Board in an official capacity and, as a result, should not accrue

additional fees. Obviously, expenses would need to be reimbursed at cost. In addition, the risks incurred in terms of fiduciary accountability would not necessarily reflect directly on the individual in his/her personal capacity. Should a breach occur, it is unlikely that the Public Sector Board Members would face direct repercussions from their host Department. The provision would naturally be that the individual would need to act in good faith in terms of the mandate given by their employer. The net effect is that the risk for the individual is minimised directly by the nature of their employment.

Private Sector Board Members: In contrast, those individuals serving in a personal professional capacity on the Board would do so in their own time. As a result, there is a good case for remunerating them for their contribution. In addition, as full members of the Board, their risk exposure is greater than their public sector counterparts are. The rationale is that breaches in governance would have a direct effect on the future employment prospects of such individuals or their credibility to serve on other boards of directors.

For both their time as well as reward for exposure to risk we propose to remunerate these individuals on the basis of a grading system as stipulated by National Treasury.

1.3.5 Remunerating of staff

The CMA is already in operation; therefore, it makes sense to continue implementing the current grading and remuneration system with provision that it has clear links to external benchmarks and salary surveys, particularly DPSA salary scales. Effective implementation of any remuneration system requires a clear definition of job descriptions in preparation for benchmarking and grading.

1.3.6 Performance management

Performance management is a two-way process integrating both the organisation and the individual. This is based on the understanding that the success of both the individual and the organisation are interdependent. However, it is not the scope of this document to suggest a specific approach to performance management by the CMA. That responsibility is vested in the Board.

1.3.7 Organisational systems and policies

Information management systems are critical from a water resource management point of view. Since the CMA is required to collect and manage revenue to ensure its sustainability, a standardised revenue management system has been generated coupled with water resource management systems to capture and management of data. Key among these are:

- Geographical Information Systems
- Hydrological Information Systems
- Standardised Billing System
- WARMS
- Waste Discharge Charge System

1.3.8 Organisational policies

It is important to ensure marketability and stability from the early stage of CMA establishment. From a human capital management perspective, organisational policies are critical. A table of contents for a typical set of policies would include sections on:

- Employment practices
- Performance management
- Salary administration
- Leave
- Employee benefits
- Labour relations
- Discipline and rules
- Training and development

It is our understanding that best practice policies currently utilised within the CMA may continue to be used.

9 FINANCIAL ARRANGEMENTS

The viability of any institution is dependent on a number of aspects that go beyond the purely financial. Whilst very important, some of these aspects can be addressed and developed over time, whereas financial viability has a very direct impact from early on in the institutional development process and remains a key factor in the longer term. It is equally important to note that these financial aspects are not static and shift over time, and this is particularly the case in the establishment and development of new institutions or where there are functional, and financial, transitions from a certain management regime to another.

The CMA's financial arrangements need to support the performance of water resource management functions in the Breede-Olifants WMA.

9.1 SOURCES OF FINANCE

Principally, the establishment costs of the Breede-Olifants CMA are to be funded by the department, from its parliamentary appropriation. Water use charges are to be ring-fenced for implementation of water resources management in the catchment, not for the establishment of new institutional arrangements.

While the intention is that the operations of the CMA should be funded from water use charges, some operational funding from the DWS may be required where subsidy arrangements exist.

Section 84 of the National Water Act (NWA) gives the CMA full authority to raise funds for the purpose of exercising its powers and duties as an original function from the time of establishment. The Act details the possible sources of funding for the CMA as:

- Parliamentary appropriation
- Water use charges
- Money obtained from any other lawful source, including:
    i. recreational concessions,
    ii. license application fees,
    iii. donor support and sponsorship,
    iv. contractual payments,
    v. return on Investment, and
    vi. in-kind contributions.

9.1.1 Water Use Charges and the Pricing Strategy

The primary source of finance for the CMA will come from water use charges. Water uses as defined in the NWA can be broadly grouped under three categories:

- Abstraction related uses
- Waste discharge related uses
- Non-consumptive uses

Over time, the Pricing Strategy, established under the NWA, will allow DWS/CMA to levy charges for most of the water uses defined above, after consultations with stakeholders. Charges are already in place for abstraction related uses and are currently collected by DWS and the CMA. The Waste Discharge Charge, on the other hand, will be piloted in three catchments around the country over the next two years and rolled out more broadly after that. While assumptions can be made about the implication of implementing waste discharge charges, the pilot testing will reveal the real implications of the system.

Lastly, a strategy has been developed for charging for recreational use, as a non-consumptive water use, however, there is some institutional clarity required as to roles and responsibilities in this regard. These will be clarified by DWSs Institutional Reform and Realignment process.

To be clear, there are also a number of water uses that are not subject to charges under the Pricing Strategy. These include:

- water use under Schedule 1 of the NWA,
- basic human needs (Reserve),
- ecological sustainability (Reserve), and
- international obligations.

9.1.2 Financial support

Although the objective is to have water users pay for water resources management, DWS will also need to financially support the CMA for the performance of certain functions, particularly those with national significance. There are a number of reasons that serve as motivation for this financial support, at least in the short-term:

- The Breede-Olifants CMA will be performing water resource management functions that are in the national strategic interest. For example, a large inter-basin transfer between the Breede-Gouritz and the Berg-Olifants is of national and strategic importance, and there are significant responsibilities attached to ensuring this water remains available.
- A need exists for water allocation reform and redress within the WMA, as a national and regional priority, and therefore issues of affordability and equity require careful consideration.
- Although the long-term financial viability of the Breede-Olifants CMA is not a cause for concern, financial support may be required to ensure short to medium term viability until there is adequate cost recovery and the issue of the capping of water use charges has been addressed, which is expected from DWS as per the assumptions of CMA costs. Issues of ability-to-pay and willingness-to-pay are anticipated in the WMA in the short-term and for a young

institution these can be challenging to deal with and hence the DWS support both financially and technically will prove critical. According to the 2018 Annual Report, the CMA collected R21.138 million of R35,147 million billed for water resource management charges, which is 60.2%.

- he Pricing Strategy introduces a cap on water use charges for agriculture (1.5c/kl plus CPI annual increase) and forestry (R10/ha plus CPI annual increase). Where water resource management costs are in excess of this cap, that portion of the charge in excess of the cap should be provided as a subsidy transfer from DWS.

9.2 FLOW OF CAPITAL

Funds flow into the Breede-Olifants CMA from water use charges, and from DWS establishment and operational support grants, in the first instance. As described above, other sources of finance may be identified, but these are unlikely to represent long-term sustainable sources of funding.

Funds from the WRM charge will ultimately flow into the CMA on a regular basis, with some water users billed monthly (characteristically large users) and other users billed six-monthly (characteristically smaller users). The CMA will, in due course, also collect these charges in the Berg-Olifants WMA.

As the establishment of the Breede-Olifants CMA is building on an already functional institution, the establishment grant from DWS will cover any gap for establishment/expansion costs within the Berg and Olifants sub-areas. These funds should be transferred into the CMA account as a lump sum early in the expansion of the institution, to enable it to continue the establishment/expansion process without encountering cash-flow constraints.

A three-year budgetary cycle needs to be put in place for ongoing operational support grants required by the CMA to make effective planning and execution possible. This can be transferred at the beginning of each financial year as a lump sum deposit, after the necessary adjustments for incorrect assumptions about key determinants of the budget e.g. inflation. A lump sum transfer is justified, as the funds are relatively small and interest accruing over the financial cycle will be limited. Significantly, lump-sum transfers will enable the CMA to conduct its operations and undertake its functions without encountering cash-flow constraints.

During the initial institutional expansion period capacity may well be stretched and the use of service providers will be required to assist with key operational matters, particularly within the Berg and Olifants areas. Payments from the Breede-Olifants CMA will be based on contracts between it and service providers.

9.3 FINANCIAL SYSTEMS ARRANGEMENTS

The Breede-Gouritz CMA has demonstrated sound governance and financial management in the process of decentralisation of billing and its financial management system. The Breede-Olifants CMA will therefore:

- Collect revenue and allocate funds within the CMA
- Following the expansion of the current Breede-Gouritz CMA to include the Berg-Olifants WMA, the CMA will need to be focused on stakeholder buy-in and becoming a credible, customer-oriented organization within the Berg-Olifants sub-areas as well as continuing to work towards the revision and implementation of the Catchment Management Strategy within the Breede-Olifants WMA. The CMA must seek to cement its credibility and legitimacy around its role in the new WMA and must be able to respond to queries on water use authorisation and associated billing soon after establishment/expansion. Concurrently, the CMA will encounter a range of establishment costs within the Berg and Olifants sub-areas as area office premises are secured and information systems are developed. At this stage of development of the CMA the billing and collection cycle will be split between the CMA and DWS as follows:
    - the CMA will take over the customer relations responsibility, begin to set water use charges and undertake revenue collection.
    - DWS will ensure that the CMA has access to key systems such as WARMS that assist the CMA with issues regarding registration of water use
    - The centralised DWS SAP system will be used for billing, debt management and financial accounting, with WRM charges submitted to DWS by the CMA. Transfers from the trading account and the DWS main account will be made to the CMA account according to the arrangements agreed to in the CMA business plan. These transfers will include funds generated through WRM charges, establishment support funds from DWS and any requisite operational support.
- During consolidation of the CMA, the financial information and HR systems will have been strengthened and the CMA will have assumed its fiduciary and governance responsibilities, and the billing and debt management function will be decentralised to the CMA:
    - Account payments would be directly to the CMA account and relevant entries would be made by the CMA onto SAP.
    - Limited or no payments would be due to DWS for WRM functions (as these would largely have been taken up by the CMA as legally mandated), but there may be payments for WRC levy and/or Working for Water (WfW) projects if these are included in this invoice.
    - Operational financial support from DWS may be required where a subsidy has been introduced for the agricultural/forestry sectors (i.e. capping of the WRM charge at 1.5c/ kl escalated at CPI per annum) or where the CMA is not able to recover the costs of delivering efficient and effective WRM services through user charges, due to low affordability of charges following redress and allocation reform.

- Accordingly, risk is shared between the CMA and DWS, with the business plan as the key reference for the financial and governance audit.

- After the CMA takes up the responsible authority functions, it assumes full responsibility for cost recovery and is largely financially self-sufficient.
    - DWS will remain responsible for financial support necessary to make the CMA financially viable where reasonable costs of the CMA cannot be covered by water resource management charges.

9.4 FINANCIAL ANALYSIS

The financial analysis presented below is based on a financial model for the CMA for the 5 years 2021/22 to 2025/2026. It is based on calculated expenditure, differentiating salary, overheads, outsourcing and capital repayment costs, with recovery through a combination of water use charges and financial support. It takes account of a number of issues, including possible non-payment by some users. As the expansion of the Breede-Olifants CMA effectively develops from an already operational CMA, the five-year strategic plan developed by the Breede Gouritz CMA is an important starting point for this analysis, noting that this institution is already moving towards a higher level of functionality, with the Minister having delegated a suite of powers and functions.

9.4.1 CMA Expenditure

Based on the assumption that the Breede-Olifants CMA would be fully functional after 5 years, **Error! Reference source not found.** there will be an increase in costs over the five years, based on an extrapolation of the expenditure estimates contained within the Breede-Gouritz CMA annual reports, strategic plan and business plans.

Unlike a newly established institution where one would experience a delay between establishing the governance structures and the development of operating expenditure, the Breede-Olifants CMA will continue to perform functions in the Breede-Gouritz area whilst establishing itself in the Berg-Olifants area. During this period, considerable effort will be applied in engaging stakeholders and some service provider support will be required.

In addition to routine operating expenditure, the process of amending the boundaries of the CMA will incur various once-off costs, to be funded by DWS. These may distinguish between those that are necessary for the CMA organisational establishment and initial WRM costs associated with functions that may also be funded through water use charges (and therefore may not require DWS support after the first few years).

Organisational establishment costs include:

- appointing a governing board and initially building its capacity (additional to the cost of the Board operations and administration covered in the CMA expenditure) as well as including change management processes;

- developing the first revised business plan; and

- initial capital expenditure on communications, computers and obtaining/remodelling premises.

Initial WRM costs (depending upon available funding) may include:

- extending stakeholder participation, initial empowerment/capacity building of disadvantaged communities, and awareness creation around WRM and the CMA establishment; and
- developing the first catchment management strategy for the entire WMA (an initial function of the CMA), bearing in mind that a CMS for the Breede-Gouritz area has already been developed.

Table 9-1: Budget for the Breede-Olifants CMA

BUDGET FOR THE NEW BREEDE-OLIFANTS CMA	BUDGET 2021/22
General Expenses	6,977,023
Hiring and Rentals	8,141,250
Furniture & Office Equipment	166,835
Staff Salaries & Allowances	106,273,662
Staff Training and Developments	1,076,657
Professional Fees	9,462,084
It Equipment – Breede-Olifants CMA	1,017,901
Travelling Agency - Accommodation and Travel - Staff	5,440,821
Public Participation and Engagements	11,040,844
Vehicles and Fuel	714,860
Sub - Committee Meetings	783,022
Projects	24,934,495
Total Operating Expenses	**176,029,454**
Capital Expenditure – Set Up Costs	4,063,339
Total Expenses	**180,092,793**

9.4.2 Projected revenue

Water use charges

The registered water uses for domestic-industrial, irrigation and forestry (streamflow reduction activities) totals 2 880 773 260 billion m^3/ annum.

POTENTIAL INCOME BERG					
	DOMESTIC & INDUSTRUAL	**AGRICULTURE**	**FORESTRY**	**TOTAL**	**AUGUMENT-ATION**
Volumes	541,401,324.4	819,871,933.5	4,249,076	1,365,522,334	
Tariffs	5.79	2.34	2.59		
Income	31,347,136.69	19,185,003.24	110,051.0684	50,642,191	48,725,127.11
65% Collection Income	20,375,638.85	12,470,252.11	71,533.19	32,917,424.15	66,449,893.96
POTENTIAL INCOME BGCMA					
	DOMESTIC & INDUSTRUAL	**AGRICULTURE**	**FORESTRY**	**TOTAL**	**AUGUMENTA-TION**
Volumes	165,865,961	1,333,520,674	15,864,292	1,515,250,927	
Tariffs	5.48	2.49	1.27		
Income	9,089,454.66	33,204,664.78	201,476.51	42,495,595.95	34,166,539.99
65% Collection Income	5,908,145.53	21,583,032.11	130,959.73	27,622,137.37	49,039,998.57
TOTAL BGCMA AND BERG					
	DOMESTIC & INDUSTRUAL	**AGRICULTURE**	**FORESTRY**	**TOTAL**	**AUGUMENTA-TION**

INCOME	40,436,591.35	52,389,668.03	311,527.5768	93,137,786.95	82,891,667.10
65% COLLECTION	26,283,784.38	34,053,284.22	202,492.92	60,539,561.52	115,489,892.50

Table 9-2: Projected Revenue

9.4.3 Financial support to the CMA

In addition to the establishment and commissioning grants implied there will be a need for operational support to the CMA based on capping of the agriculture/ forestry charge as well as due to the current under-recovery of charges. PPI (%) related increases have not been considered in calculating the operational support. What is apparent from the above analysis is that the establishment costs will need to be supported by DWS.

Critically, due to the cap on the irrigation charges, operating support will be required until such time as the water use charges can be adjusted to meet the operating expenditure of the CMA. An increase in charges to full cost recovery and improved collection can close the funding gap within five years. This increase, in addition to annual CPI increase, is within the financial viability of users in the catchment to pay. The Breede Olifants CMA will require extensive and prolonged financial support from DWS until such time as full cost recovery can be collected. This could be funded from the public interest grant, which fund functions that are collective in nature, required to attain government's social and economic goals and cannot be achieved without collective effort and more effectively and efficiently delivered by collective effort. The public interest grant recognises that some CMA functions are in the public interest and should be funded from the fiscus.

Table 9-3: Water Use Charges

APPROVED WATER USE CHARGES – 2021/2022			
Description	**Domestic & Industrial**	**Irrigation**	**Forestry**
Breede-Gouritz	5.48	2.49	1.27
Berg-Olifants	5.79	2.34	2.59

The CMA has been collecting just over 60% of billed charges and aims to improve this over time, which is similar to the other existing CMA (Inkomati – uSuthu).

9.4.4 Asset transfers

There is unlikely to be much in the way of asset transfers from DWS to the CMA, other than the possibility of the transfer of some monitoring assets in due course, if it is deemed that they are not

part of the national monitoring system to be operated and maintained by DWS. Such assets have not yet been identified or their value calculated.

9.5 FINANCIAL VIABILITY CONSTRAINTS

In order to consider a CMA financially viable, one might need to consider whether the CMA can operate sustainably by covering its expenditure with its own revenue over the foreseeable future. As such, there are several critical risk areas for the financing of the CMA, any one of which may result in the need for a change in the CMA expenditure or sources of funding, thereby making the CMA less financially viable or sustainable. From understanding the context within which the proposed CMA shall be operating (and of course with lessons from the BGCMA and IUCMA operational period), the following issues should be considered, and management solutions need to be explored to mitigate their impact in order to ensure the financial viability of the CMA

- Dependence of the CMA on government financial support due to lower water use charges – the current capping of water charges means that CMAs cannot generate revenue that meets the cost of operating the institution.
- Incomplete validation and verification and registration of water users, thereby limiting the possible revenue and potentially damaging the credibility of the CMA for the registered users.
- Reductions in water use due to improved authorization & enforcement of license conditions (or compulsory licensing), particularly in water-stressed parts of the WMA.
- Non-payment of charges by registered water users, either due to unaffordable charges and/or non-acceptance of the legitimacy of the charges (willingness to pay).
- Inability to efficiently implement the administrative components of the billing and collection system by the CMA either due to inadequate capacity or system inefficiencies
- Poor cash-flow management of the billing and collection process, resulting in delayed payment by water users mainly due to legacy issues from the Water Trading Entity.
- The inability of the CMA to raise capital loans at low-interest rates, due to lack of a financial history.

10 INSTITUTIONAL AND GOVERNANCE ARRANGEMENTS

10.1 CORPORATE GOVERNANCE PRINCIPLES

Although targeted at private sector institutions, the King II and III reports on corporate governance are increasingly recognised as important guides to the good governance of public entities. The King II report lists seven characteristics that constitute good corporate governance: discipline, transparency, independence, accountability, responsibility, fairness and social responsibility. Further the report refers to triple-bottom-line accounting which embraces the economic, environmental and social aspects of a corporation's activities. These are elements that are critical for good corporate governance, and are characteristics and elements that should, broadly, be reflected in the governance of the Breede-Olifants CMA.

While corporate governance in the public sector must reflect these broad principles and good corporate governance, it is also required that public sector institutions in the water sector:

- Contribute to achieving government's objectives as outlined in the twelve outcomes, the State of the Nation Address (SONA) and the Minister's performance agreement with the President.
- Achieve government's transformation objectives, relating to service delivery (Batho Pele), employment equity and preferential procurement.

The CMA as a service delivery entity must reflect and achieve the principles and elements indicated above.

10.2 CMA GOVERNING BOARD

10.2.1 Role of the CMA Board

Based on the nature of the CMA as a public entity with service delivery and stakeholder participation elements, the board will have to have strong integrated management, financial management, legal, human resource and participatory management capabilities.

The role of CMA board will be as set out in the Act as well as the service level agreement between the Executive Authority (Minister and Department) and the Accounting Authority (CMA Board). The agreement will require a board charter that will outline the roles, functions and conduct for board members. The charter will be tailored to meet conditions in the Breede-Olifants CMA. Among a number of roles for the board the following will be included:

- Ensure that CMA contributes to the achievement of national development objectives and the strategic objectives of DWS;
- Provide financial management oversight on the CMA
- Review and monitor the CMA's performance and service delivery objectives.
- Review the performance of the CEO and senior management.

- Ensure effective stakeholder participation.
- Ensure internal systems and controls that will ensure effective decision making within the CMA.

10.3 BOARD MEMBERSHIP

The National Water Act sets out certain provisions regarding the membership of the governing board of a CMA:

S81(1) states that: "The members of a governing board of a catchment management agency must be appointed by the Minister who, in making such appointment, must do so with the object of achieving a balance among the interests of water users, potential water users, local and provincial government and environmental interest groups."

Two issues need to be addressed in the appointment of the new Board for the Breede-Olifants CMA. To reflect the larger WMA boundaries, a new board should be considered keeping in mind that the size of the board should be financially feasible. The issue of size of the Board should thus be addressed. The DWS guideline is that the Board should consist of between 9 and 14 members. A bigger board is better representative of users, especially in the larger WMA, but obviously also has a bigger cost.

The second issue is that the current board is strong on stakeholder representation but weak on some of the critical skills required for exercising proper fiduciary responsibility. This is a critical matter to address to ensure the board is able to carry out its fiduciary responsibilities appropriately.

It is therefore recommended that the advisory committee, in considering the membership of the Board, should take into account:

- The DWS guideline on the proposed size of the Board and the intention to appoint a small and efficient Board; and
- The need to have specific legal, financial and human resources skills represented on the Board, in addition to the "object of achieving a balance among the interests of water users, potential water users, local and provincial government and environmental interest groups".

10.4 PROCESS FOR APPOINTMENT OF BOARD

While the Act specifies the process to be followed in terms of the establishment of a CMA board, the appointment of a Board for the Breede-Olifants CMA must engage with the fact that there is an existing Breede-Gouritz CMA Board already in place. The question then becomes how to move from this existing Board to the appointment of a Board that is appropriate to the larger WMA boundaries.
The process set out in the National Water Act for the appointment of the Board is that the Minister must establish an advisory committee to advise her on "which organs of state and bodies representing different sectors and other interests within the water management area of the catchment management agency should be represented or reflected on the governing board; and the number of persons which each of them should be invited to nominate".

The Minister may also then appoint additional members selected by herself in order to-

- represent or reflect the interests identified by the advisory committee
- achieve sufficient gender representation
- achieve sufficient demographic representation
- achieve representation of the Department
- achieve representation of disadvantaged persons or communities which have been prejudiced by past racial and gender discrimination in relation to access to water; and
- obtain the expertise necessary for the efficient exercise of the board's, powers and performance of its duties.

Under the provisions of the National Water Act, the existing BGCMA Board may continue to function until such time as a new Board has its first meeting. It is therefore recommended that:

- The current Board is allowed to continue to function until such time as the amendments to the name and boundaries of the CMA have been completed, at which time a new Board should be appointed
- In order to ensure a smooth and swift transition, the process to nominate and appoint the new Board should begin as soon as the new WMA boundaries have been gazetted for comment, so that the new Board can be appointed as soon as the required legal procedures have been completed to amend the boundaries of the WMA and to change the name of the CMA
- The Minister appoint one national Advisory Committee to advise on the Board membership of all nine CMAs to be established.

10.5 GOVERNANCE COMMITTEE STRUCTURES

As a new institution the BGCMA will have a number of institutional development tasks that may require professional support to the board, although the experience of the BOCMA will provide an excellent platform for these institutional development tasks.

It is proposed that the CMA board establish the necessary committees to support its effective functioning, in line with corporate good practice. The committees will not have powers to make decisions but to make recommendations to the board for decision making, unless they have been granted powers to make decisions in writing, by the Board. The following Board committees are recommended:

10.5.1 Finance and Audit & Risk Committee

Sometimes these are separate committees, however since the CMA is in its infant stage it is recommended that these committee be combined. The Board can decide in due course if it is appropriate to separate them. This committee will be chaired by a professional to be appointed to support the Board or by a Board member with the appropriate training and skills. The role of the audit commit will be to ensure the integrity of financial recording, management, policies and reporting of

the CMA. In performing its functions, it will work closely with internal and external auditors (possibly DWS) on how best to manage auditing related challenges of the CMA.

The finance committee will be responsible for the overall financial management and financial performance of the CMA. It will be the role of the committee to provide support that will ensure CMA is in a sound financial footing. This will be done by ensuring that financial challenges are identified, measured and rectified, secondly helping in developing financial strategies that will ensure the CMA's financial viability.

10.5.2 HR and Remuneration Committee

The Human Resources Committee will provide support on organisational structure issues, conditions of employment, employment equity and staff transfer from DWS. It will help develop appropriate policies and procedures that will govern human resource related issues. Sub committees may be established to look at specific issues, such as staff contracts, job grading, remuneration, if necessary.

10.5.3 Technical Committee

The Technical Committee will be tasked with supporting the CMA Board to address technical issues relating to water resource management. The WMA is made up of a number of sub-catchments; a catchment management (CMC) for each sub-catchment with at least one Board member, will be established to assist the Technical Committee to consult with and involve the stakeholders on strategic and water resources related issues.

10.6 APPOINTMENT OF CEO

With the increase in the size of the area falling under the CMA, the Board will need to consider the current salary level and job description of the CEO, as well as the administrative, technical and financial support provided to the CEO. The BGCMA does not currently have an appointed CEO. The Board will need to consider advertising the post of CEO in line with the expanded mandate of the CMA

It is proposed that the remuneration of the CEO should not exceed that of a Chief Director in the government service, except with the express written permission of the Minister of Water and Environmental Affairs.

11 MECHANISMS FOR REGULATION AND OVERSIGHT

Regulation and oversight of the CMA will be facilitated through a number of mechanisms which include the following:

- Ministerial and DWS oversight based on the legislation, policy as well as a service level agreement that will be entered into between the Minister and the CMA Board.
- The Board will be subject to an annual audit of performance, including a review of individual members' performance against clear criteria.
- Accordance with the requirements of the PFMA
- Approval of annual tariffs and the catchment management strategy as being in line with the Raw Water Pricing Strategy and the National Water Resources Strategy;
- Regulation of tariffs by an economic regulator to be established within DWS
- Approval of annual business plans by the Minister

11.1 CMA BUSINESS PLANNING

In terms of the NWA, section 21 schedule 3, the CMA Governing Board must prepare its first business plan for not less three years within a period of 6 months of its establishment. While this has already been done by the Breede-Gouritz CMA, the development of a new business plan will need to be done for the Breede-Olifants CMA. In doing so, the new CMA can build on the experience and work done by BGCMA in this regard.

Schedule 4 section 22 of the NWA indicates the contents of the business plan (in addition to the requirements of the PFMA). The business plan must:

- set out the objectives of the institution;
- outline the overall strategies and policies that the institution is to follow to achieve the objectives;
- include a statement of the services which the institution expects to provide and the standards expected to be achieved in providing those services;
- include the financial and performance indicators and targets considered by the board to be appropriate;
- may include any other information which the board considers appropriate
- may include any other information determined by the Minister.

In relation to financial matters the business plan must:

- outline the overall financial strategies for the institution including the setting of charges, borrowing, investment and purchasing and disposal strategies

- include a forecast of the revenue and expenditure of the institution, including a forecast of capital expenditure and borrowings
- provide for capacity building amongst its board members and officials
- include any other financial information which the board considers appropriate; and
- include any other financial information determined by the Minister.

11.2 FINANCIAL CONTROL

The CMA as a public entity under schedule 3 of the PFMA will, 6 months before the start of the financial year, submit to the Executive Authority (Minister) through the DG a budget of estimated revenue and expenditure for approval. The Minister, through the department, will ensure that the submitted budget for the CMA is appropriate. DWS will be responsible for submitting the information to the Auditor General or National Treasury as and when required.

12 CHANGE MANAGEMENT

In times of uncertainty, collective processes of change are utilized to interact and engage with people to involve them in the process of change in ways that create understanding, generate the necessary insights required for new neural pathways to be formed and create a sense of employee ownership and commitment to the change process. Change management or enablement is all about purposefully and intentionally accelerating and sustaining the adoption and appropriate utilisation of desired behaviours, in order to achieve intended outcomes or results. It is important to remember that change is experienced at three different levels, the individual, the team and the organization. For the purposes of this intervention to support the CMA transition, these levels will be simplified and described as individual and collective change. It may appear that these two levels of change are separate but, in reality, they are highly interconnected. What happens at an individual level impacts the collective and what happens at a collective level impacts the individual.

In this context, managing individual change will require effective communication and direct interaction and engagement with individual employees. The change process will be designed to uncover and anticipate the types of information that will need to be communicated and the types of interaction or engagement required to bring about the necessary changes. This will require structured processes to be designed and implemented, usually by employees' line managers supported by a change specialist.

Collective change however has a different set of dynamics. It is likely that trade unions will work to protect their member's interests and job security through processes of consultation and negotiation, initiated by DWS, whose employees are those most impacted by the intended changes. It is the nature of those consultations and negotiations that will serve to influence what happens from a change perspective at CMA workplaces. If these consultations and negotiations are highly conflictual, it is likely that this will impact employees' perceptions of the overall change process. If there are low levels of trust and respect between the parties to the consultations and negotiations, it is likely that this too will impact the nature of the change to be experienced at a CMA level. It is for this reason that any intentional processes of change will need to take account of what is transpiring at a collective level so that the consequences may be mitigated at a CMA level, as far as this is practically possible.

12.1 KEY ELEMENTS OF THE CHANGE MANAGEMENT PROCESS

To have a successful change management process, the following key elements shall need to be considered

- An honest, detailed assessment and understanding of different stakeholders' reality, their perceptions and expectations. This will be achieved by structured scoping processes that enable this information to be uncovered and gathered.
- Structured processes of communication, engagement, coaching & counselling if required. The messaging behind communication needs to be well thought out with the appropriate content delivered to fill any potential vacuum that would otherwise have existed if nothing had been communicated

- **Focused interventions designed to pro-actively and timeously address potential areas of resistance to change** at both an individual and a group level. Resistance can be either a force that accelerates and guides change, or it can be a force that hinders and retards intended change

In the establishment of the Breede-Olifants CMA, the change management issues pertain particularly to the internal aspects of the organisation, but also relate to the perceptions of stakeholders of the organisation.

12.2 INTERNAL CHANGE MANAGEMENT

In terms of internal change management, the key challenge is that the BGCMA has already been in existence for some years and has built an identity and internal culture of its own. The structure and staffing of the organisation will now change in order to incorporate staff and responsibilities relating to the Berg-Olifants water management area.

While the staff of BGCMA have been operating in an agency environment for some time, the staff from the Western Cape DWS Regional Office who are responsible for the Berg-Olifants will bring with them the experience and habits of working in government.

The challenge to the new Board and management of the Breede-Olifants CMA will be to:

- Ensure the building of a common identity and culture amongst staff of the Breede-Olifants CMA, and that, within this, all staff feel a commitment to and identify with the new institution. It will be important to ensure that no invisible lines exist between the original BGCMA staff and the new staff from the DWS regional office that join the new entity;
- Ensure equal commitment to and attention to the different sub-catchments within the Breede-Olifants water management area, not only within business plans and budgets, with through implementation as well;
- Manage staff concerns and fears regarding change and possible resistance to change.

To achieve this, the Breede-Olifants CMA Board and management will need to develop and ensure the implementation of a proper change management strategy. Key elements of this strategy might include:

- Understanding the assumptions, risks, dependencies, and organisational cultural issues that might affect the change, and how best to address these;

- Effective communication with staff on the need for the change, the nature of the change, and the benefits of successful implementation. Such communication should also contain information on the details of the change, such as timeframes, activities, who will be involved and how it will affect them. The communication should enable a two-way communication process so that employees are able to contribute suggestions and ask questions about the process. The people affected by the change need to agree with, or at least understand, the need for change, and have a chance to influence how the change will be implemented. Face-to-face communications for sensitive elements of the change process, particularly those affecting employees' careers should be used. Email and written reports written are very poor tools in the context of major organisational change.

- A training or capacity building programme for relevant staff so that they can benefit from the change and see it in a positive light;
- Identification and countering of resistance from staff and the alignment of the staff with the new mandate of the organization;
- The provision of personal counselling (where required) to reduce and manage any change related fears;
- Monitoring of implementation and adjustment of the strategy as needed.

12.3 IMPLEMENTATION OF CHANGE MANAGEMENT

The first phase of work will involve **scoping change possibilities**. This will require use of the appropriate diagnostic tools such as a survey or structured interview process to uncover and make sense of the reality on the ground at the CMA.

The second phase of work will be directed towards **building the capacity of leaders to lead change.** This will involve a workshopping of what has been uncovered and made visible during the initial scoping phase as well as the establishment of a common change language and skillset

The third phase of work will encompass the **direct engagement and interaction with employees in accordance with the change-related issues, strategy and plan** developed in the second phase of work. These interactions will include:

- The implementation of an aligned **identity, brand and communication programme** designed to increase the visibility and understanding of the role and functioning of the CMA. This will extend to all stakeholders, not just employees. This may also include structure processes of interaction and engagement with a cross-section of important stakeholders.
- **One on one discussions between CMA leaders and their people** in accordance with a structured coaching framework that will have been taught in the leadership change training conducted during the second phase of work
- **Mitigation of change risks** through interactions and engagement, as informed by the change risk register developed during the second phase of work
- **Collective engagement** through a **structured workshop/s** with employees to align them behind the strategy of the CMA, it's intended culture, values and behavioural norms as well as its new institutional arrangements.

12.4 REBRANDING AND STAKEHOLDER ENGAGEMENT STRATEGY

It will be important to ensure that stakeholders in the water management area are fully informed about the proposed changes and about the establishment, purpose and functions of the Breede-Olifants CMA. This will require a good communication and rebranding strategy which reaches all stakeholders, particularly the marginalised and disadvantaged. Amongst other things, the rebranding

strategy should ensure that stakeholders understand the functions of the CMA, the purpose of the CMA, and how to contact the CMA.

In this process, there is an opportunity to engage with stakeholders about how they view the existing and future CMAs, what services they are expecting, what their requirements are etc so that the new CMA and the rebranding strategy can address these needs and expectations.

13 RISK

13.1 IMPLEMENTATION RISKS

Given an understanding of the nature of the initiative and the purpose of establishment of the Breede-Olifants CMA, it is useful to articulate some of the key implementation risks. Managing these risks becomes a central function of the CMA and of DWS in its oversight and regulatory role.

13.1.1 Complexity of the project

This water management area is complex and is already under water stress. Management of the area will require balancing the needs of highly vocal and well-resourced sectors with poor, marginalized and water deprived communities. Management will require a high level of technical skills and understanding, as well as social and economic analysis capacity, and the ability to drive transformation in the water sector in the catchment with a particular focus on redress and meeting the needs of poor communities. The issue of capacity is dealt with below.

13.1.2 Spheres of Government

Both Local and Provincial Government have a key role to play in ensuring effective water management in the water management area. The boundaries of the water management area do not coincide with the political boundaries of provincial and local government, and the CMA will need to expend considerable effort to ensure effective relationships with relevant local authorities and provincial departments, and to ensure a proper understanding of the role, boundaries and purpose of the CMA. Buy-in, coordination and cooperation between the three spheres of government are pre-requisites for achieving optimal water management in the area. This has already been achieved to quite a large extent in the Breede-Gouritz area but will need to be addressed in the Berg-Olifants area.

13.1.3 Stakeholder acceptability

The CMA establishment puts forward a new “business model” based on a public entity for water resources management in the Berg-Olifants area, while building on the success of this model in the Breede-Gouritz area. In addition to government, it is key that this new model is accepted by stakeholders, both current water users and would-be water users across the area of jurisdiction.

13.1.4 Delegation of powers and functions

The service delivery relates to the rate at which water resources management functions are delegated to the CMA. A number of functions have already been delegated to the BGCMA. Once the boundaries of BGCMA are changed and the institution is transformed into the Breede-Olifants CMA, these delegations will automatically apply across the entire new WMA. The risk is that the capacity may not be in place to implement these delegations across the whole WMA, and so the transfer and recruitment of staff and building of capacity must be done in a way that aligns with the need to implement these delegations.

However, there is a further risk that the delegation of the final functions to the CMA may take too long, particularly the delegation of the power to authorise water use and for billing and revenue

collection. An agreement should be put in place between DWS and the Breede-Olifants CMA regarding the timeframes and requirements for the final delegation of functions to the Breede-Olifants CMA.

13.1.5 Financial management

There are a number of dimensions associated with the financial viability risk. The most critical include the inability to collect water use charges as a result of either poor legitimacy of the CMA, inadequate systems and capability on the part of DWS prior to this function being delegated, or the CMA after delegation. The willingness to pay by stakeholders is a critical risk. The issue of affordability is also pertinent, in relation to user groups such as resource poor farmers. Poor revenue collection will mean that the operating costs of the CMA will need to be recovered from a small base of users and as such there is the potential for higher charges that could worsen the cycle of affordability and debt collection.

13.1.6 Climate change and natural disasters

Climate change and disasters such as droughts and floods are significant risks that could impact on the water availability and safety within the WMA. In particular the effect of climate change could lead to changing water use patterns, reduced availability and allocation of the resource, and lower ability-to-pay amongst users as enterprises become marginal. Mitigation of this risk through augmentation is limited and accordingly this risk should be quantified and considered carefully in the strategic planning of the Agency.

13.1.7 Human Resources

The human resources risk is fairly critical and has a major impact on the CMA's ability to undertake its functions effectively. A key concern is that the market for appropriately skilled WRM staff will become more competitive as other CMAs are established.

13.1.8 Organisational Technologies

The technology risks relate to the integrity of the data to be handed over by DWS. Data of poor integrity may impact on the CMA's ability to undertake its WRM functions effectively, on its financial viability and on the credibility of the CMA. Other concerns around organisational technology relate to the adoption of DWS systems, by the CMA, and the suitability or appropriateness of this technology to the CMA, given its smaller scale.

13.2 RISK MANAGEMENT

It is critical that the Breede-Olifants CMA builds its relationship with relevant institutions and stakeholder bodies in the WMA, particularly in the Berg-Olifants area where there has not been an active CMA to date. Strong stakeholder relationships, participatory planning and management, and strong governance will go a long way to reducing a number of the risks raised above.

The complex nature of the work of the CMA, including managing complex financial arrangements, requires good strategic, organisational and financial management. Such management will be achieved through appropriate staffing of the CMA and may require moving beyond the human resource and remuneration policies and approaches of government.

Ultimately, the management of risk will be dependent on strong governance arrangements for the CMA. The role of DWS in regulating and overseeing the performance of the CMA will also be important in this regard. DWS has considerable experience in the oversight of 9 Water Boards, the WRC and the TCTA, and will draw on this experience to ensure effective oversight and regulation of the CMA.

14 IMPLEMENTATION CONSIDERATIONS

The table below sets out some considerations for the implementation of the Breede - Olifants CMA. In this process, it is important to note that the BGCMA is already in place and functioning well, and that the activities will build off this base, rather than starting from scratch.

Process	Key Milestones	Actions	Considerations	Timeframes
Institutional establishment				
Finalise WMA boundaries and institutional route map	Gazetting of the NWRS 3	Understand institutional and legal implications Develop priorities and route map	Differences between water management areas because of previous progress	
Amend boundaries and name of CMA (S78(4))	Gazetting of amendment of boundaries and name	Amend boundaries and name of CMA (S78(4)) by publishing such in the Government Gazette		
Ring-fencing of WRMC revenue per WMA (for the Berg - Olifants sub area)	Revenue ring-fenced	Ring-fence revenue per WMA in the Water Trading Entity and ensure systems are in place for easy transfer of funds to CMA	Timely transfer of funds to the CMA is critical for its effective functioning.	
Submit business case for approval	Approval of business case by Minister / NT/DPSA JEP	Initial meetings with NT/DPSA towards alignment Develop and submit business case List as Public Entity	Need to ensure close working relationship with NT/DPSA	
Stakeholder engagement		Engagement with stakeholders on the changes to the WMA boundaries and the establishment of the Breede – Olifants CMA	Careful management of stakeholder engagement in the Berg - Olifants area is required to	Ongoing – on various matters including WMA boundary amendment,

Process	Key Milestones	Actions	Considerations	Timeframes
			ensure that they do not feel marginalised by the more advanced processes in the Inkomati area	role of CMA, consolidation of area of operation of BGCMA to include Berg-Olifants sub-area, process outcomes and timelines.
Establishment of Breede - Olifants CMA	Establishment of CMA via Govt Gazette	Gazette for public comment Take comments on Board Gazette for establishment	Stakeholder awareness of processes critical	
Organisational development				
Appoint Governing Board (Additional member of the Board)	Inaugural meeting of the Governing Board held Board Committees established	Appoint Advisory Committee Advisory Committee submits recommendation to Minister Ministerial approval of Board structure Call for nominations in parallel with Advisory Committee work Minister appoints Governing Board Inaugural meeting of the Board Initial Governing Board training Board charter developed, based on generic Board charter	No need for a new Board but rather a new member to be added to the Board.	

Process	Key Milestones	Actions	Considerations	Timeframes
		Board Committees established		
Appoint CEO	CEO appointed	Job description finalised and post advertised Obtain approval of CEO salary (DPSA and Minister: DWS) Interview candidates and appoint	Consider getting blanket approval for CEO posts against a range of packages for large , medium and small CMAs	
Transfer and appoint staff	DWS staff transferred New staff appointed	Functional development plan developed in conjunction with the WC Regional Office Organisational structure developed and job descriptions developed and approved Identification of staff to be seconded and transferred. Staff transfer committee established and process to transfer staff fully monitored Equipment / asset plan developed Offices acquired Posts that cannot be filled by DWS staff advertised and filled.	Buy-in of organised labour essential Regional Office alignment with functional development of CMA critical Transfer or purchase of equipment for new staff important	Not applicable.
Operationalisation				
Revise existing Business Plan	Business plan submitted to DWS	CEO drives BP development process	Needs to be completed within 6 months of the appointment of the Board	

Process	Key Milestones	Actions	Considerations	Timeframes
		Submit first business plan to Minister for approval Ministerial approval of business plan		
Transfer of funds	Funding transferred to CMA	Obtain NT approval for transfers Transfer funds to support BP development and initial functions Transfer funds upon approval of the revised business plan	Ensure NT aligned with financial transfers and institutional development plan	
Delegations of functions	Functions delegated by Minister	Initial delegations to support initial functions Second round of delegations to support expanded mandate and implementation of Business Plan	Plan for the phased delegation of powers and duties to be developed and approved by Minister in order to streamline all processes	
Oversight and monitoring	DWS overseeing and monitoring CMAs	DWS provides support to institutional establishment and development DWS provides Governance support to Board DWS supports organisational development After receiving business plan DWS establishes monitoring routine	Monitoring schedule for all milestones for CMAs to be developed includes NWA and PFMA requirements	Ongoing once Breede – Olifants CMA has been established.
Stakeholder Engagement and Capacity Building				

Process	Key Milestones	Actions	Considerations	Timeframes
Establish and implement engagement plan	Stakeholder Reference Group functional	Develop stakeholder engagement framework and implementation plan. Establish stakeholder database Establish new Reference groups	Some areas have long history of participation that needs to be carefully considered in order for DWS to regain lost ground	
Establish and implement capacity building and support regime	Support and capacity building programme implemented	Identify key groups requiring support Identify needs and develop appropriate support plan Provide ongoing support and guidance.	The need to support marginalised groups must not be underestimated	Ongoing

15 ANNEXURE A

Powers and functions under the National Water Act to be performed by CMAs as initial, inherent or delegated/assigned functions, and functions to remain with DWS**.** Functions highlighted in yellow are likely to be transferred to the CMA within phase 1 of its existence, highlighted in orange for phase 2, and in red for phase 3.

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
Chapter 2: Water Management Strategies				
	Part 2: Establishment of a Catchment Management Strategy			Part 1: National water resource strategy Development of the National Water Resource Strategy
Chapter 3: Protection of Water Resources				
Part 1: Classification system for water resources				
				12. Prescription of classification system
Part 2: Classification of water resources and resource quality objectives				

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			13. Determination of reserve and resource quality objectives for those resources that do not have a high protection class or are not of national significance	13 Determination of water resources and resource quality objectives
				14. Preliminary determination of class or resource quality objectives
		15. Giving effect to any determination of a class of a water resources and the resource quality objectives *This is premised on the CMA having the powers to take any action that will impact on the class of a resource*		
Part 3: The Reserve				
			16. In some cases, DWS may delegate the determination of the Reserve in those resources that do	

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			not have a high protection class (eg. Class I).	
				17. Preliminary determinations of Reserve
		18. A CMA must give effect to the Reserve as determined in terms of this Part when exercising any power or performing any duty in terms of this Act *This is premised on the CMA having the powers to take any action that will impact on the class of a reserve*		
		19. Prevention and remedying effects of pollution		
Part 5: Emergency incidents				
		S20(4)(d) The CMA may give verbal or written instructions to a responsible person on measures to be taken regarding an		

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
		emergency incident. A verbal directive must be confirmed in writing within 14 days.		
		S20(6) – (9): The CMA may take remedial action and claim for the costs of that remedial action.		
Chapter 4: Use of Water				
			S22(3) Once the CMA has been delegated the responsible authority functions in relation to authorising water use it may use S22(3) to dispense with the requirement for a licence if it is satisfied that the purpose of this Act will be met by the grant of a licence, permit or other authorisation under any other law. *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			S22(3) Once the CMA is the responsible authority it may choose to combine licence requirements into a single licence requirement with other government departments. *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	
			S22(4): a responsible authority may promote arrangements with other organs of state to combine their respective licence requirements into a single licence requirement *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	
			S22(5):	

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			A responsible authority may, subject to section 17, authorise the use of water before - (a) a national water resource strategy has been established; (b) a catchment management strategy in respect of the water resource in question has been established; (c) a classification system for water resources has been established; (d) the class and resource quality objectives for the water resource in question have been determined; or (e) the Reserve for the water resource in question has been finally determined. *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
				S(23): Determination of quantity of water which may be allocated by responsible authority
			S24: Licences for use of water found underground on property of another person	
			S(25): Transfer of water use authorisations *On condition that the transfer takes place within national regulations and within the boundaries of the CMA*	S(25): Transfer of water use authorisations *Where the transfer occurs between WMAs*
		S25(3): Preparation of an annual report containing details of transfers of water entitlements under S25 (1) or (2)		
			S30: A responsible authority may, if it is necessary for the protection of the water resource or property, require the applicant to give security in respect of any obligation or	S26: Making of regulations on use of water

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			potential obligation arising from a licence to be issued under this Act. *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	
				S33: Declaration of water use as an existing lawful use *It is recommended that this clause should not be delegated and should not be utilised in future as it was intended as a transitional clause which is now out of date.*
			S35: Verification of existing water uses *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	
Part 4: Stream flow reduction activities				

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			S36(2): The Minister may, by notice in the Gazette, in relation to a particular area specified in that notice, declare any activity (including the cultivation of any particular crop or other vegetation) to be a stream flow reduction activity if that activity is likely to reduce the availability of water in a watercourse to the Reserve, to meet international obligations, or to other water users significantly.	
Part 5: Controlled activities				
			S38: Declaration of certain activities as controlled activities *Within the boundaries of the WMA only*	S38: Declaration of certain activities as controlled activities *At a national level where appropriate*
Part 6: General Authorisations				
			S39: General authorisations to use water	S39: General authorisations to use water

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			Within the WMA boundaries only	*At a national level*
Part 7: Individual applications for licences				
			S40(3): A responsible authority may charge a reasonable fee for processing a license application which may be waived in deserving cases *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	S40(3): A responsible authority may charge a reasonable fee for processing a license application which may be waived in deserving cases *For strategic water use only*
			S40(4): A responsible authority may decline to consider a licence application for the use of water to which the applicant is already entitled by way of an existing lawful water use or under a general authorisation. *This function does not need to be delegated to a CMA but is automatic*	S40(4): A responsible authority may decline to consider a licence application for the use of water to which the applicant is already entitled by way of an existing lawful water use or under a general authorisation. *For strategic water use only*

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			along with the delegation of the water use authorisation function	
			S41 Procedure for licence applications: *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	
			S42: Reasons for decisions *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	
Part 8: Compulsory licences for water use in respect of specific users				
			S43: Compulsory licence applications *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			S44: Late applications *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	
			S45: Proposed allocation schedules *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	
			S46: Preliminary allocation schedules *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	
			S47: Final allocation schedule *This function does not need to be delegated to a CMA but is automatic*	

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			along with the delegation of the water use authorisation function	
Part 9: Review and renewal of licences, and amendment and substitution of conditions of licences				
			S49: Review and amendment of licences *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	S49: Review and amendment of licences *For strategic water use only*
			S50: Formal amendment of licences *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	S50: Formal amendment of licences *For strategic water use only*
			S51(1): Successors in title *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	S51(1): Successors in title *For strategic water use only*

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			S52 (2), (3), (4): Procedure for earlier renewal or amendment of licences *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	S52 (2), (3), (4): Procedure for earlier renewal or amendment of licences *For strategic water use only*
Part 10: Contravention of or failure to comply with authorisations				
			S52: Rectification of contraventions *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	S52: Rectification of contraventions *For strategic water use only*
			S54: Suspension or withdrawal of entitlements to use water *This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function*	S54: Suspension or withdrawal of entitlements to use water *For strategic water use only*
			S55: Surrender of licence	S55: Surrender of licence

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			This function does not need to be delegated to a CMA but is automatic along with the delegation of the water use authorisation function	*For strategic water use only*
Chapter 5: Financial provisions				
				S56: Pricing strategy for water use charges
		S57(2): Application of pricing strategy: making of charges within a specific water management area and payable directly to the CMA		
				S57(3) Charges made on a national or regional basis and payable to DWS
				S58 (1): Recovery of water use charges – directive to a WMI to recover charges made by the Minister under S57(1)

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
				S59(3)(a): Determination of interest rate on unpaid water use charges, with the concurrence of the Minister of Finance
			S59(3)(b): Restriction of the supply of water to the water user from a waterwork or the restriction or suspension of the authorisation to use water until charges have been paid *For charges made under S57(2)*	S59(3)(b): Restriction of the supply of water to the water user from a waterwork or the restriction or suspension of the authorisation to use water until charges have been paid *For charges made under S57(3)*
			S60(2): issuing of a certificate stating the amount of unpaid water charges and any interest due *For charges made under S57(2)*	S60(2): issuing of a certificate stating the amount of unpaid water charges and any interest due *For charges made under S57(3)*
Part 2: Financial assistance				
			S61: Financial assistance	
				S62: Regulations on financial assistance

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
Chapter 6: General powers and duties of Minister and Director General				
Part 1: Delegations, directives, expropriation, condonation and additional powers				
			S63(3) Delegation of a delegated power and function to another person where the delegation by the Minister allows this	S63: Delegation of powers and functions by Minister
			S64: Expropriation of property *Where authorised by the Minister in writing*	S64: Expropriation of property
			S65: Expropriation for rehabilitation and other remedial work *For functions that fall under the CMA*	S65: Expropriation for rehabilitation and other remedial work *For functions that remain with DWS*
			S66: Condonation of failure to comply with time period *For functions falling under the CMA*	S66: Condonation of failure to comply with time period *For functions that remain with DWS*

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			S67: Dispensing with certain requirements of the Act *Where this has been authorised under S67(1)(c)*	S67: Dispensing with certain requirements of the Act
			S68: Intervention in litigation	
Part 2: General provisions regarding regulations				
				S69: Making of regulations
				S70: Consideration of regulations
				S71(1): Rejected regulations
Part 3: Powers relating to catchment management agencies				
				S72: Powers and duties of catchment management agencies vest in Minister in certain circumstances
				S73: Assignment of powers and duties to catchment management agencies

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
				S74: Directives to water management institutions
Part 4: Powers of Director-General				
				S75: Delegation of powers by Director-General
Chapter 7: Catchment Management Agencies				
				S76: Appointment of persons on contract
				S78 Procedure for the establishment of CMAs
		S79: General powers and duties of CMAs		
	S80: Initial functions of CMAs (a) to investigate and advise interested persons on the protection, use, development, conservation, management and control of			

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
	the water resources in its water management area; (b) to develop a catchment management strategy; (c) to co-ordinate the related activities of water users and of the water management institutions within its water management area; (d) to promote the co-ordination of its implementation with the implementation of any applicable development plan established in terms of the Water Services Act, 1997 (Act No. 108 of 1997); and (e) to promote community participation in the protection, use, development, conservation, management and control of			

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
	the water resources in its water management area.			
				S81: Appointment of governing board of CMA
				S82(1) Convening of the first meeting of the CMA
		S82(2): Recommendation by members of the governing board of members to be appointed as chairperson and deputy chairperson		
				S82(3): Appointment of the Chairperson and deputy Chairperson
		S82(5): Establishment of committees, including an executive committee and consultative bodies		
				S83: Removal of members from the governing board

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
Part 3: Operation of CMAs				
		S84(1): Funding of CMAs: A CMA may raise any funds required by it for the purpose of exercising any of its powers and carrying out any of its duties in terms of this Act.		
		S85: Documents relating to litigation: A CMA must provide to the Director General copes of all pleadings, affidavits and other documents in possession of the CMA relating to any proceedings instituted against the CMA		
		S86: Delegation of powers by CMA		
Part 4: Intervention, disestablishment or change of water management areas of catchment management agencies				
				S87: Intervention by Minister
				S88: Disestablishment of CMA
				S89: Transfer of assets and liabilities after change of water

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
				management area or disestablishment
				S90: Regulations on CMAs
Chapter 8: Water User Associations				
			S92: Procedure for establishment of water user associations *Where the WUA does not have government owned infrastructure or government guaranteed loans*	S92: Procedure for establishment of water use associations *Where the WUA has government owned infrastructure or government guaranteed loans*
			S95: Directives to water user associations *Where the WUA does not have government owned infrastructure or government guaranteed loans*	S95: Directives to water user associations *Where the WUA has government owned infrastructure or government guaranteed loans*
			Section 96: Disestablishment of water user association *Where the WUA does not have government owned infrastructure or government guaranteed loans*	Section 96: Disestablishment of water user association *Where the WUA has government owned infrastructure or government guaranteed loans*

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			S97(1)(b); (4) Winding up affairs of disestablishment water user association *Where the WUA does not have government owned infrastructure or government guaranteed loans*	S97(1)(b); (4) Winding up affairs of disestablishment water user association *Where the WUA has government owned infrastructure or government guaranteed loans*
				S98 (5), (6), Transitional provisions for certain existing organisations – acceptance of proposal to transform an irrigation board into a water user association and declaration of such water user association
Chapter 9: Advisory Committees				
				S99: Establishment of advisory committees
				S100: Regulations regarding advisory committees
Chapter 10: International Water Management				

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
				S102: Establishment of bodies to implement international agreements
				S103: Governance and functions of bodies
				S106(4) The Director General must send a copy of the report to the Secretary to Parliament
				S107: Investigation of affairs or financial position of bodies
Chapter 11: Government Water Works				
			S109: Acquisition, construction, alteration, repair, operation and control of government waterworks *In relation to government waterworks pertaining to monitoring infrastructure for CMA requirements only*	S109: Acquisition, construction, alteration, repair, operation and control of government waterworks *For all government waterworks excluding CMA waterworks for monitoring purposes*

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			S110: Consultation and environmental impact assessment *In relation to government waterworks pertaining to monitoring infrastructure for CMA requirements only*	S110: Consultation and environmental impact assessment *For all government waterworks excluding CMA waterworks for monitoring purposes*
			S111: Financing of government waterworks *In relation to government waterworks pertaining to monitoring infrastructure for CMA requirements only*	S111: Financing of government waterworks *For all government waterworks excluding CMA waterworks for monitoring purposes*
			S112: Water from government waterworks *For all water use other than strategic water use within the WMA*	S112: Water from government waterworks *For strategic water use, and transfers between WMAs*
				S113: Access to and use of government waterworks for recreational purposes

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			S115: Disposal of government waterworks *In relation to government waterworks pertaining to monitoring infrastructure for CMA requirements only*	S115: Disposal of government waterworks *For all government waterworks excluding CMA waterworks for monitoring purposes*
				S116: Regulations regarding government waterworks
Chapter 12: Safety of dams				
				S118(2), (3), (4), (5): Declaration of a dams to be dams with a safety risk, issuing of directives and intervention where directive is not complied with
				S122: Exemptions from compliance with provisions of this chapter or regulations made under this chapter
				S123: Making of regulations regarding dam safety

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
Chapter 13: Access to and rights over land				
Part 1: Entry and inspection				
		S124: Appointment of authorised person		S124: Appointment of authorised person
Part 2: Servitudes				
		S135: Ownership of waterworks on land belonging to another		S135: Ownership of waterworks on land belonging to another
		S136: Transfer of personal servitudes		S136: Transfer of personal servitudes
Chapter 14: Monitoring, assessment and information				
Part 1: National monitoring systems				
				S137: Establishment of national monitoring systems
				S138: Establishment of mechanisms to co-ordinate monitoring of water resources
Part 2: National information systems on water resources				

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
				S139: Establishment of national information systems
			S141(b): Provision of information	S141: Provision of information
				S142: Access to information
				S143: Making of regulations for monitoring, assessment and information
Part 3: Information on floodlines, floods and droughts				
		S145(1): Duty to make information available to the public		S145(1): Duty to make information available to the public
			S145(2) Establishment of an early warning system *In relation to issue pertaining within the WMA only*	S145(2) Establishment of an early warning system *In relation to issues with an impact or cause spanning two or more WMAs.*
Chapter 15: Appeals and dispute resolution				
				S146: Appointment of members of the Tribunal, determination of

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
				conditions of employment of members of Tribunal and termination of membership of Tribunal
				S147: Operation of Tribunal – provision of support to the Tribunal by the Department
				S150: Mediation: directives by the Minister for persons to settle disputes by mediation
Chapter 16: Offences and remedies				
		S155: Interdict or other order by High Court – CMA may apply to the High Court for an interdict against a person who has contravened the Act		S155: Interdict or other order by High Court – the Minister may apply to the High Court for an interdict against a person who has contravened the Act
Chapter 17: General and transitional provisions				
		S159: Effect of delegation: Delegation of a power does not prevent the exercise of that		S159: Effect of delegation: Delegation of a power does not prevent the exercise of that power

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
		power by the person who made the delegation; delegation may be made subject to conditions;		by the person who made the delegation; delegation may be made subject to conditions;
Schedule 3: Powers which may be exercised and duties to be performed by CMAs on assignment or delegation (Sections 72, 73 and 151(1)(l))				
			Schedule 3(2): Power to manage, monitor, conserve and protect water resources and to implement catchment management strategies. A catchment management agency may (a) manage and monitor permitted water use within its water management area; (b) conserve and protect the water resources and resource quality within its water management area; (c) subject to the provisions of the Act, develop and operate a waterwork in furtherance of its	

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			catchment management strategy; (d) do anything necessary to implement catchment management strategies within its water management area; and (e) by notice to a person taking water, and after having given that person a reasonable opportunity to be heard, limit the taking of water in terms of Schedule 1.	
			Schedule 3(3): Catchment management agencies may make rules to regulate water use	
			Schedule 3(4): CMA may require establishment of management systems	
			Schedule 3(5): CMA may require alterations to waterworks	

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
			Schedule 3(6): CMA may temporarily control, limit or prohibit use of water during periods of water shortage	
Schedule 4: Management and planning of water management institutions				
Part 1: Governing Board				
		Schedule 4(1): Functions and powers of governing board		
		Schedule 4(3): Appointment of CEO by Board		
		Schedule 4(3): Removal of CEO by Board		Schedule 4(3): Directive to Board to remove CEO
				Schedule 4(8): Recovery of improper profits
		Schedule 4(9): Convening meetings of the Board		
		Schedule 4(10): Notices of meetings.		

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
		Schedule 4(15): Minutes of Board meetings		
		Schedule 4(16) Participation in meetings		
		Schedule 4(17): Resolutions without meetings		
		Schedule 4(18): Execution of documents		
		Schedule 4(19): Appointment of committees by the Board		
		Schedule 4(20): Power to regulate its own proceedings subject to Part 3 of Schedule 4		
Part 4: Institutional Planning				
		Schedule 4(21): Preparation of business plans by the Board		
				Schedule 4(21): Power of Minister to issue directive to Board to review and revise a business plan

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
				Schedule 4(22): Determination of form of the business plan of a CMA
		Schedule 4(25): Submission of business plan to Minister		
				Schedule 4(25): Minister may make comments on the business plan
		Schedule 4(25)(3): Board to consult with Minister and revise business plan according to changes agreed between it and the Minister		
				Schedule 4(25)(4): Minister may direct the Board to include or omit any matter from a business plan
		Schedule 4(26): Board to inform Minister of significant events that might prevent or materially affect achievement of the objectives of the institution		

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
				Schedule 4(28): Minister may require information from the Board
Part 5: Monitoring and Intervention				
				Schedule 4(29)(2): Minister may appoint a person to investigate the affairs or financial position of an institution
				Schedule 4(30): The Minister or a person authorised by the Minister may enter premises of an institution and take any book, record or asset of the institution where this is necessary to obtain information
Part 6: Records and reporting				
		Schedule 4(32): Board must ensure proper financial records and accountability		

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
		Schedule 4(33): Preparation and submission of annual report to Minister and tabling in Parliament		
Schedule 6: Water Tribunal				
Part 1: Water Tribunal Members				
				Schedule 6(3): Nominations for appointment to the Water Tribunal
Part 2: Lodging and hearing of appeals and applications				
		Schedule 6(5)(3): A CMA against whose decision or offer an appeal or application is lodged must within a reasonable time - (a) send to the Tribunal all documents relating to the matter, together with the reasons for its decision; and (b) allow the appellant or applicant and every party opposing the appeal or		Schedule 6(5)(3): A responsible authority against whose decision or offer an appeal or application is lodged must within a reasonable time - (a) send to the Tribunal all documents relating to the matter, together with the reasons for its decision; and (b) allow the appellant or applicant and every party opposing the appeal or application to make

	Initial Function of CMA	Inherent function of CMA under the NWA	Function of CMA to be assigned or delegated by Minister	Ongoing Function of DWS
		application to make copies of the documents and reasons.		copies of the documents and reasons.