water & sanitation
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

REPORT TO PARLIAMENT

Budget Vote 2021/22 In Context

Achievements and Progress

FINANCE

Financial Projection

The National Treasury is warning that our country will not be able to sustain inclusive economic growth and economic transformation should severe water constraints occur.

The department does not have the financial resources to build R68 billion infrastructure in five years. Therefore, the department places reliance on one of its entities (TCTA's ability) to access financial markets and implement mega-projects. The sustainability of off-budget funding, on which the State must increasingly rely to fund infrastructure given the limited fiscal space, means that we must strengthen and give support to water sector institutions. We must ensure that water tariffs are cost-reflective, fully implemented and can repay debt. We must address the issue of debt owed to water boards as well as to the department and going forward we must ensure that credit control measures are enforced to arrest increasing debt. We have no choice but to do this because the availability and cost of off-budget funding depends on our ability to overcome these challenges. Until then, funders prepared to support our projects rely heavily on government guarantees, which the fiscus is finding increasingly difficult to accommodate.

DWS 2021/22 Budget Allocation per ENE

The department comprises of 3 programmes with the subprogrammes in line with the new organizational structure.

The department 2021/22 budget allocation as per the Estimates of National Expenditure (ENE) is allocated as follows;

Programmes	2021/22	2022/23	2023/24
	R'000	R'000	R'000
Administration	1 950 914	1 972 498	1 980 973
Water Resources Management	3 538 027	3 567 644	3 662 356
Water Services Management	11 421 139	11 899 446	12 392 070
Total Programmes	**16 910 080**	**17 439 588**	**18 035 399**

Economic Classification	R'000	R'000	R'000
Compesation of employees	1 805 225	1787000	1741701
Goods and services	1 691 190	1755782	1799409
Transfers and Subsidies	9 214 139	9476225	9880730
Payments for Capital Assets	4 199 526	4420581	4613559
Total Economic Classification	**16 910 080**	**17 439 588**	**18 035 399**

DWS Financial Turnaround - Audit improved outcomes

The Department obtained an unqualified audit report for both accounts which is attributed to the improved control environment, effectiveness of the governance structure, improved control systems and monitoring mechanism

The current ratio of the Water Trading Entity (WTE) has increased from 1.64:1 in the 2018/19 financial year to 3.78:1 in the 2019/20 financial year. However, the WTE still does not have sufficient liquid assets to meet short-term financial obligations. The cash flow is tied to the outstanding debts owed by mostly municipalities and water boards.

The revenue from sale of water reflected an increase of 10% when compared to the prior year due to the increase on annual water tariff and to the efforts that the WTE is making to ensure that the billing system is efficient.

The construction revenue reflects an increase of 39% in the 2019/20 financial year due to the allocation of projects to then construction units. Construction sites however experienced numerous delays on the external projects which affected certification of work.

Through vigorous attempts to change the department's perception, there is significant progress made as a result of the implementation of the financial turnaround strategy that was embarked on by the team, this has thus far yielded positive results including but not limited to;

- The Main Account and Trading Account going concern issues that were raised by AGSA in the previous years have been stabilized
- Main Account and Trading Account both received unqualified audit opinions and the sustainability will be maintained

Addressing Corruption

Regular interaction between law enforcement agencies is taking place such as the SIU and SAPS/HAWKS. The Department is also working with Chapter 9 Institutions including the Public Protector and the SAHRC.

Following hard work by DWS forensic and investigations teams, investigations are progressing and Disciplinary Cases are underway.

A number of external Forensic audits have been instated into DWS entities.

DEPARTMENTAL MATTERS

Organisational Structure for the Department of Water and Sanitation

At the start of the 6th Administration in 2019, the Minister directed that the organizational structure of the Department be re-examined, with special emphasis on the alignment of functional outputs of each Branch, Provincial and Cluster Operations to the mandate and strategic direction of the Department.

All prescripts governing the design of organizational structures which the Department is obliged to execute were considered. The process of re-designing the functional organizational structure,

also resulted in the review and development of the service delivery model, the mapping of business processes, standard operating procedures, service standards, a concise service delivery charter and the service delivery improvement plan.

Implementation to date:

a) A revised Macro Organisational Structure has been approved with the concurrence of the Minister for Public Service and Administration;

b) Minister has signed off on the Macro Structure for implementation with effect from 1 April 2021;

c) The Macro Structure, Budget Programme Structure and Annual Performance Plan have been implemented with effect from 1 April 2021.

d) Through a consultative process and communication, all senior managers have temporarily migrated to posts on the revised macro structure to ensure it is fully functional.

The next phase will focus on the alignment of the micro structure to the macro structure and the filling of critical funded posts. Within available budgets, the Department is in the process of recruiting competent individuals to fill vacant senior management posts

Disciplinary Cases in the Department

A Disciplinary Committee has been working with all the competent legal and investigative support to finalise disciplinary cases. A report to Parliament will be made on the outcome of these cases once these are concluded.

The emphasis going forward is clean governance and every effort is put in place to ensure that this bears fruit.

CAPACITY AND SKILLS DEVELOPMENT IN WATER & SANITATION SECTOR

Chapter 15 of the National Water Resources Strategy 2 (NWRS2) encourages Partnerships as one of the workable approaches to be followed in capacity and skills development in the water and sanitation sector.

International Governmental Development Cooperation

Development cooperation support is provided to the department by different International Development Partners. The support will go a long way towards building the department's capacity to deliver water and sanitation to the people of South Africa. The DWS is receiving such support from the Government of Japan, the German Government and the Government of the Kingdom of the Netherlands.

RSA/Cuba Bilateral Relations in the Field of Water Resources Management and Water Supply implemented by Country-to-Country Agreement

Agreement between the Government of the Republic of South Africa and the Government of Cuba in the field of water resources management and water supply was signed in 2001 and first cohort of Cuban Engineers was received in 2002.

The current placement of Cuban Engineers to the Department of Water and Sanitation is per the implementation by the Department of the existing Bi-lateral Agreement between Cuba and South Africa. This is the fifth (5^{th}) Cohort of Cuban specialists in the water sector.

The Minister signed a bilateral Agreement, a renewal of the South Africa-Cuba National Water Resource Management Agreement first entered into in December 2001. The President's Minute of February 2020 delegated the Minister of Human Settlements, Water and Sanitation to sign this Agreement. The DWS is the competent authority responsible for the implementation of the Agreement.

The Cuban engineers are not here to replace our South African engineers, not to take positions, not to compete. Nor are they eligible to tender. The Cuban colleagues are assisting in mentoring rural municipalities.

Strategic Water Partners Network (SWPN)

The department cannot win the war against water losses in this country without engaging the Private sector. It is for that reason that the department will continue to support the role played by the Private Sector in saving water through the Strategic Water Partners Network (SWPN). We therefore call upon other Private sector Partners to play their part in saving water by joining the SWPN as the best platform for the Private Sector engagement recognised nationally and internationally.

Departmental Learning Academy

Through the Departmental Learning Academy, the Department will continue our commitment to develop local engineering talent. Where internal Engineering Services and Construction capacity requires additional specialist services provider support, the private sector will continue to be depended upon.

REGULATION AND MANAGEMENT OF THE WATER SECTOR

Water is a public good.
Our most urgent responsibility
is to ensure that this right reaches every citizen of our country.

National Water and Sanitation Master Plan

The Departmental activities are fuelled by the country's Vision 2030, well supported by the National Water and Sanitation Master Plan (NW&SMP) that was launched for consultation by the Minster in November 2019. The Master Plan will direct all our efforts towards 2030 and beyond, in line with the African Union's Vision 2063, as well as the United Nations' Sustainable Development Goals, Goal Number 6 (SDG-6) impacting on the delivery of water and sanitation.

The NW&SMP is a "Call to Action" which seeks to rally all South Africans to work together to address the challenges confronting the Water and Sanitation Sector. The NW&SMP points out five key objectives that define a 'new normal' for water and sanitation development and management in South Africa, which are:

- Resilient and fit-for-use water supply;
- Universal water and sanitation provision;
- Equitable sharing and allocation of water resources;
- Effective infrastructure management, operation and maintenance; and
- Reduction in future water demand.

The key elements of the NW&SMP are illustrated in the figure below. These elements are narrated and expanded on in the four (4) volumes forming the master plan which are as follows:

- Volume 1: Call to Action briefly outlines the milestone challenges and the recommended actions
- Volume 2: Plan to Action provides detailed account and analysis of the rationale for challenges and actions, and addresses the recommendations for future inter-governmental collaboration, Monitoring & Evaluation protocols and continuous stakeholder engagement during implementation.
- Volume 3: Schedule of Actions provides a detailed consolidated and prioritised implementation plan with costs covering all the actions required across the sector to achieve the objectives of the plan.
- Volume 4: An implementation guideline to assist the Water Services Authorities (WSAs) with the development of their own Municipal Action Plans.

The NW&SMP also presents and recommends a number of other important actions that are briefly highlighted below:

- The need to **reduce water usage**, as well as to **increase supply** for a growing population and economy - The following are some key proposed actions to achieve this strategic goal: (a) Implement actions to reduce the average domestic consumption to 175 litres per person per day and optimise the water mix which is currently strongly dominated by surface water, (b) Increase the groundwater use, (c) Re-use of treated

effluent from waste water treatment plants, water reclamation, as well as desalination and treated acid mine drainage, (d) Develop strategic water resources infrastructure as highlighted above, especially the implementation of Lesotho Highland Water Project Phase 2, the Mzimvubu Water Project, and the uMkhomazi Water Project.

- **Regulating the water and sanitation sector** - Strong regulation is critical to achieve water security in South Africa, in terms of water quality (in rivers and taps), balancing demand and supply, ensuring the safety of dams, and achieving resilience to climate change impacts. Critical actions are to: (a) Identify and prosecute big polluters across the country (Polluter Pays Principle), (b) Revitalise the Green, Blue and No Drop programmes and publish results, (c) Revise and establish norms and standards and (d) ensure that there are no prohibiting conditions in water regulations by developing and implementing action plans to streamline water authorisation processes.
- **Improving raw water quality** - Deteriorating water quality in our rivers poses a threat to economic growth, social development, health (both human and animal), hygiene and aquatic ecological functioning exacerbated by the current institutional and regulatory environment. The key actions are to: (a) Develop, implement and maintain integrated water quality management plans for priority catchments and (b) assess and report on resource water quality information.
- **Protecting and restoring ecological infrastructure** - Approximately 50% of South Africa's water resources originate from 10% of the land area. Therefore, these strategic water sources ('water factories') must be protected and maintained through appropriate regulation. Critical actions are: (a) declaring as protected areas the strategic water source areas and critical groundwater recharge areas and aquatic ecosystems recognised as threatened or sensitive, (b) reviewing and promulgating restrictions within the legislation to restore and protect ecological infrastructure and (c) implementing the Resource Directed Measures (RDM) (i.e. classification, resource quality objectives and the ecological Reserve) for prioritised rivers.

The Master Plan been on the DWS website allowing for all to read and understand. All those who have not read it are urged to do so and provide the Department with their comments. The Master Plan is a transformation charter.

Legislative Review

The DWS conducted a legislative review which sought to consolidate the National Water Act, 1998 (NWA) and the Water Services Act, 1997 (WSA) into a single legislation called the National Water and Sanitation Act (the Act). The major outcome for this policy review will be to clarify the legislative framework regarding water management across the water and sanitation value chain. A further outcome will be to obviate the need for cross-reading between the NWA and the WSA.

The development of the National Water and Sanitation Bill, 2018 was prioritised and preliminary certifications of the Bill by the Office of Chief State Law Advisor (OCSLA) and the final Socio-Economic Impact Assessment System (SEIAS) have been obtained. The Conceptual Framework for the National Sanitation Integrated Plan has also been developed.

Policy Matters

The following policies and strategies have already been approved by Clusters and are waiting to be tabled at the Cabinet for approval:

- Draft Mine Water Management policy: seeks to balance the mining sector's economic development with the protection and ensuring sustainable use of water resources in a manner that is beneficial to all.
- Draft Sustainable Hydropower Generation policy: aims to support the long-term energy master plan that pursues hydropower as part of the energy mix.
- Integrated Water Quality Management policy: seeks to develop an intergovernmental water quality management approach which would facilitate an integrated response to address water quality management challenges in the country.
- National Water Resource Strategy -3: to improve on and to identify the impact of the implementation of the NWRS-2 by sector, to respond to remaining challenges, review responding to the National outcomes as set out in the 2019-2024 MTSF and to policy issues and international obligation of the SDGs; to create a linkage between the strategy and the National Water & Sanitation Master Plan.

National Water Resources Infrastructure Agency

The President announced in his February 2021 SONA addresses the establishment of the National Water Resource Infrastructure Agency (NWRIA). The Minister of Human Settlements, Water and Sanitation, in her responding remarks, confirmed that the revised NWRIA Bill will be tabled in Parliament this year (2021/2022 financial year) which sets the timeframe for the current initiative.

The primary objective of the Agency will be to sustain and improve the performance of all strategically important water supply systems in regions where water security is at increasing risk. The Agency will be responsible for, amongst other things:

1. The provision of water for all in the country in the most equitable manner;
2. Making sure that the ordinary South African has access to sufficient clean water;
3. The economy should have sufficient water to ensure that it is functional and continue to expand;
4. Further, support to the vision of universal dignified sanitation.

The Department is updating the Business Case, including the financial model, preparing the revised legislation and engaging with internal and external stakeholders.

To accelerate the process, the Department is receiving the support mobilised through the Operation Vulindlela programme.

Catchment Management Agencies

To date there are two operational Catchment Management Agencies (CMAs), the Inkomati-Usuthu and the Breede-Gouritz CMAs.

Since the establishment of these CMAs, the Department of Water and Sanitation (DWS) has reviewed the appropriateness of having nine (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 (6). In this reduction, new boundaries for the six water management areas will be demarcated through the National Water Resources Strategy (NWRS3) as is required under the National Water Act.

The Minister approved for the amendment of Breede-Gouritz CMA area of operation through the extension of a boundary to include the Berg-Olifants Water Management Area (WMA) on 25 September 2020 and the Government Gazette Notice No 43784 was published on 9 October 2020 in terms of section 78(4) of the National Water Act, 1998 (Act No. 36 of 1998) (NWA) for public comments for a period of 60 days.

The Minister approved the establishment of the Breede-Olifants CMA through a Government Gazette Notice on 31 March 2021.

The Minister has also approved the amendment of the Vaal CMA area of operation to include the Orange Water Management Area on 26 March 2021.

Water Use Licensing

The Department has been able to make the necessary changes to its regulatory regime to give effect to the 90-day turnaround time in the processing of applications for Water Use Licences with effect from 1 April 2021.

Parallel to the rollout out of 90 days is work by the Vulindlela initiative of the President, co-led by the National Treasury and Presidency to assist in improving efficiency in water use licensing.

Where existing water resources are already fully used, the National Water Act gives the Minister the power to undertake a compulsory licencing process to reallocate water use licences. The process provided in the National Water Act was designed and certified as constitutionally compliant. This is an important provision in the law to redistribute water licences to ensure equal distribution of our water resources for all. The transformation of the water sector is long overdue and our emphasis is to fast-track this particular process.

Water regulator

The Department is in the process of finalising the water regulator. Considering the lengthy process associated with that, the Department will establish a quasi-regulator in the short term. This quasi-regulator will assist in ensuring that all processes to regulator establishment are smooth and without any hurdles.

Aligned with the economic regulator establishment, the department is finalising the pricing strategy for raw water use charged as well as the norms and standards for tariff setting. These projects have found their way to Operation Vulindlela and are given the attention they deserve.

INFRASTRUCTURE BUILD AND MAINTENANCE

The country needs to invest heavily in water infrastructure to secure our economic and social wellbeing as a country. Water resources must be properly maintained and new sources found and developed for the country's water security.

Projects Completed

In the past year, the projects were completed:

- 1 bulk raw water project under construction
- 106 regional bulk infrastructure project phases under construction
- 10 regional bulk infrastructure project phases completed
- 382 small water services infrastructure projects under construction
- 112 small water services infrastructure projects completed
- Vaal intervention project implemented
- 39% projects (i.e. 474 of 1203) completed as per Maintenance Plan (Planned Maintenance)
- Unscheduled maintenance projects completed as a proportion of planned maintenance projects was kept at 26%
- 25 dam safety projects evaluated
- 1.9518 km conveyance systems rehabilitated
- 1 037 job opportunities created through implementing water infrastructure projects
- 428 non-compliant wastewater systems monitored against the Regulatory Requirements
- 366 non-compliant water supply systems monitored against the Regulatory Requirements

Sewer spillages into the Vaal River and households in Emfuleni Local Municipality

What has got us to where we are in the Vaal crisis can be grouped into three pillars: infrastructure, governance & institutional capacity and finance. The problem will not be solved with infrastructure capacity. There are additional factors, such as other provinces as contributors, resulting in the continued state of pollution of the Vaal river. Because of its geographic position and flat topography, the Vaal has become a collection point for the sewer being pumped, where sewerage is not optimally flowing into the treatment works, and putting excessive strain on operation and maintenance of pumps stations. This confluence has resulted in the environmental crisis we are now trying to fix. Ideally sewer treatment is a municipal service that requires costs recovery as a minimum. However, the high unemployment and dwindling revenue collection in the Vaal area is making it difficult for the Emfuleni Municipality to recover any costs or generate an income to cover operation and maintenance let alone expansion of the treatment plants.

The upgrading of infrastructure to prevent the prolonged sewer spillages into the Vaal River and households in Emfuleni Local Municipality will begin shortly as the Department of Water and Sanitation (DWS) is finalising the evaluation of the tenders that were advertised in November last year.

The tenders were advertised on 27 November 2020 and closed in January 2021 for expertise required to assist with the intervention in the areas of civil engineering, mechanical engineering and consultants to implement the work.

As the evaluation process is at a critical state and on the verge of appointing preferred contractors, the Department wishes to stress that it is working tirelessly to ensure that National Treasury, Public Finance Management act and Supply Chain Management prescripts are meticulously adhered to and that the process has integrity and is beyond reproach.

In the coming weeks, the Department would have finalised the appointment of contractors for them to immediately be on the ground to urgently address the dire situation that requires urgent intervention.

Enhancement of Operations and Maintenance

The department is taking responsibility for the operation of 271 Government Water Schemes which includes 321 large state dams. In addition, the department is sourcing specialist mechanical and electrical engineering maintenance capacity through the advertisement of maintenance term contractors to augment the internal capacity to implement the maintenance plan.

Infrastructure investment Programme

Infrastructure investment is key to the country's economic recovery worsened by the devastation of Covid-19. The water sector institutions have a key role to play in this investment programme. For the coming financial year, the following water infrastructure projects are prioritised:

- Mdloti River Development Project: Raising of Hazelmere Dam
- Great Letaba River Development Project (GLeWAP): Raising of Tzaneen Dam and Nwamitwa Dam
- Olifants-Doorn River Water Resources Project: Raising of Clanwilliam Dam
- Mzimvubu Water Project
- Olifants River Water Resources Development Project
- Cwabeni Off-Channel Storage Dam
- Stephen Dlamini Dam
- Berg River - Voëlvlei Augmentation Scheme
- Lusikisiki Regional Water Supply Scheme: Zalu Dam
- Mokolo and Crocodile River (West) Water Augmentation Project

- Foxwood Dam
- uMkhomazi Water Project
- Algoa Water Supply System

The sustainability of off-budget funding, which the State must increasingly rely on to fund infrastructure given the limited fiscal space, means that support to those water sector institutions that raise funding must be strengthened.

Trans Caledon Tunnel Authority (TCTA)

The TCTA mandate is to access financial markets to raise the funding required to implement mega water infrastructure projects, which are necessary to keep the country water secure.

The TCTA already has a R68 billion pipeline of water resources projects that will start delivering water to South Africans before the end of the decade. These include LHWP-2, uMkhomazi Water Project, Mokolo-Crocodile Water Resources Development Project, and the augmentation of the Western Cape water supply system. Together these projects impact 70% of the economy and our major metropolitan in Gauteng, KZN and the Western Cape.

After obtaining the concurrence of the Minister of Finance for the Guarantee Agreements, the Minister gave consent for the TCTA to conclude loan agreements with and approved the issuance of Government Guarantees to the respective lenders. This allowed the TCTA to raise R15,45 billion in the capital markets from investors to continue construction of the Lesotho Highlands Water Project in relation to the Vaal River System.

The Minister has further directed the TCTA to fund and implement the following projects on behalf of Government.

- **Berg River Voëlvlei Augmentation Scheme (BRVAS)**

The 2012 Water Reconciliation Strategy for the Western Cape Water Supply System (WCWSS) indicated that the system was projected to be in deficit in 2016 and required urgent augmentation, which became evident by the system's inability to cope with the 2017/18 drought situation. BRVAS was identified as the most viable surface water solution to augment the system the soonest. The subsequent WCWSS reconciliation strategy status report indicates required augmentation from BRVAS in 2023 for the average water demand scenario. BRVAS will then augment the yield of the WCWSS by 23 million m3/a through the abstraction of winter flows in the Berg River and transferring it to Voëlvlei Dam. Negotiations with users are currently underway.

- **Umkhomazi Water Project Phase1 (uMWP - 1)**

The departmental Feasibility Study identified uMWP as the most viable solution to sustainably meet the long-term water requirements of domestic and industrial water users in the eThekwini and Pietermaritzburg regions of KwaZulu-Natal. The first phase of the project (uMWP-1) will augment the yield of the integrated Umgeni Water Supply System (MWSS) by 220 million m3 per annum to sustainable supply the anticipated water demands of 600 million m3 per annum in 2040, after which the further phase (uMWP-2) should be commissioned. The MWSS has been in deficit since 2016 and augmentation through uMWP-1 is urgent to prevent a constraint on the development and economy of KZN. A new 81 m high dam at Smithfield on the

uMkhomazi River, conveyance infrastructure (32.5 km tunnel and 5.2 km pipeline) to the new Umgeni Water (UW) water treatment works in the uMlaza River valley (the raw water component and TCTA's responsibility).

The granting of the borrowing limit by National Treasury will enable TCTA to raise funding and to proceed with the implementation of the project without relying on funding from DWS.

- **Mokolo And Crocodile River Water Augmentation Project - PHASE 2A (MCWAP-2A)**

Additional water from MCWAP-2 is required to provide Medupi Power Station with enough water to operate the additional three Flue Gas Desulphurization (FGD) units, Matimba Power station and to operate their six FGD units, which could not be supplied from the MCWAP-1 pipeline. It will also provide the Lephalale Municipality with water for a growing population, who are using above their allocated MCWAP 1 capacity. MCWAP-2A will also unlock the coal resources in the Waterberg region for power generation which consists of Independent Power Producers (IPP's), coal supply to some of the Eskom's power stations, coal for export and other industrial developments. The construction tender for implementation of this project is underway.

- **Lesotho Highlands Water Project (LHWP) Within RSA**

The Lesotho Highlands Water Project (LHWP) is a multi-phased joint water resource development project and is very important for both Lesotho and South Africa's social and economic wellbeing.

South Africa currently receives approximately 780 million cubic meters of water per year from Lesotho into its Integrated Vaal River System (IVRS) which supplies water to Gauteng and the surrounding areas. The IVRS needs to be urgently augmented in order for it to cope with the increasing water requirements

Phases 1A&B of the LHWP which comprises Katse and Mohale Dams, transfer and delivery tunnels from Lesotho Highlands to the Vaal Dam in South Africa, and Muela Hydropower Station continues to deliver measurable and tangible benefits to both parties.

Phase II launched on 13 November 2019 is now underway. Phase II will provide an additional 465 million cubic meters of water per year and thus bringing the total to about 1245 million cubic meters of water per year into the Integrated Vaal River System from Lesotho

TCTA operates and maintains the Delivery Tunnel North of the Lesotho Highlands Water Projects located within South Africa.

A planned outage during October and November 2019 took place to undertake the 5-year inspection of the infrastructure and to conduct necessary maintenance activities.

In the 2021/22 financial year, TCTA will continue to fulfill the obligation to operate and maintain the delivery tunnel to ensure that there are no unplanned outages in the delivery of water to South Africa. The planning and preparation work for the next scheduled outage in 2024 will also commence.

- **Acid Mine Drainage – Short-Term Intervention (AMD-STI)**

TCTA is directed to operate and maintain the AMD water treatment plants in the Western, Central and Eastern basins of the Witwatersrand area. The Western Basin plant is operated and maintained by Sibanye Stillwater in terms of an agreement concluded with TCTA. The costs

are shared on a basis of 1/3:2/3 between Sibanye Stillwater and TCTA. The Central and Eastern Basin plants are operated and maintained in terms of two 5-year contracts entered with external service providers.

In 2021/22, TCTA will continue to operate and maintain the AMD plants in accordance with the water quality specifications issued by the DWS.

Infrastructure South Africa – 2045

The water sector has been directly assisted by the Office of the Presidency through the Sustainable Infrastructure Development Symposium (SIDS) chaired by the Office of the Presidency with the aim to fast track infrastructure projects, especially in the water and sanitation industry.

This has been extended to Infrastructure South Africa – 2045, a programme that will identify national, key and strategic projects that will be a catalyst for increasing investment in infrastructure that is comparable to global benchmarks. This will help to unlock job creation; and economic development and growth that is so crucially needed.

The water and sanitation sector has been identified as a critical catalyst under this programme that identifies projects up to 2045. The multiplier effect from our sector is recognized in the National Development Plan. This is a programme that the department will report regularly on to Parliament.

NATIONAL WATER RESOURCE MONITORING AND MANAGEMENT OF WATER AND SANITATION SERVICES

Digitization of Water and Sanitation monitoring systems

Water resource monitoring space is a priority area for leveraging the transformation and implementation of digital technologies across the entire water resource monitoring value chain. In line with the Fourth Industrial Revolution (4IR) objectives, the department has embarked on a national project aptly titled **"**Digitization of Water & Sanitation Monitoring Systems**".**

The main objective of the digitization project is to design, develop and implement a digitised integrated water monitoring system in line with the country-wide e-government drive. Digitization will ensure dissemination of dynamic and current information in real or near real time which will ultimately reduce the lag time of available validated water data and information. This will assist the department to improve on preparedness to respond timely to hydrological extremes (floods and drought), deteriorating water quality including the spread of waterborne diseases and dam safety issues using satellite remote sensing, Big Data analytics and Internet of Things (IoT).

National Integrated Water Information System (NIWIS)

The DWS continues to develop and maintain information systems including the National Integrated Water Information System (NIWIS) which is the main portal of access for water management information in the water sector and the public locally and internationally.

National Water Resource Monitoring implementation strategies

Monitoring water quality is an important part of determining whether or not, the country is making progress in water management and to ensure that Government, in partnership with private sector and civil society is able to secure good water quality for all.

Although the Department of Water and Sanitation is the Sector Leader in Water Quality Management everyone has a role to play in tackling the water quality challenges facing the country. This will be achieved through a consistent inter-departmental approach to how water quality is managed in the country, which requires cooperative and integrated approaches to water quality management across sectors, including civil society.

The department adopts an adaptive management approach in which co-learning by key players is realized to improvements in key water quality systems. The department continues to implement initiatives to improve water quality monitoring through, for example, ensuring that laboratories get and remain accredited with the South African National Accreditation System (SANAS).

The department is in the process of implementing the National Water Resource Monitoring Strategy to improve coverage over the entire country and ensure compliance with legislative requirements in the monitoring of our water resources both quantity and quality. The water resources monitoring network is also used to provide early warnings to protect human life and loss of infrastructure during flood conditions.

The Liverpool monitoring station in the Oliphant River, in Mpumalanga has been completed in the 2020/2021 financial year.

Groundwater Monitoring and streamlining of groundwater use to communities

The department is continuing to operate and maintain its ground water monitoring programmes aimed at generating information from data collection processes and principles in order to answer various questions such as;

- the Acid Mine Drainage status in the Johannesburg area;
- the status and condition of our groundwater resources throughout the country; and
- the status and condition of our groundwater resources along our shared groundwater resources (trans-boundary aquifers systems) with our neighboring countries.

The continuous maintenance, operation and expansion of these programmes are critical to generate knowledge to support groundwater development activities in response to water supply challenges in the country as well as to respond to some extreme events including droughts and potential pollution incidents.

The growing water supply challenges throughout the country have led to more extensive drilling of boreholes by individuals within our communities and, therefore, the department aims to improve policies to better control drilling activities to access groundwater resources within the republic to ensure optimal management and utilization of this precious resource.

National Water Observatory

Through the National Water Observatory, the Water Research Commission (WRC) has provided 11 research and innovation reports that have been used to develop the implementation plan to stop the pollution of the Vaal River System. The WRC's well researched solutions will assist DWS and COGTA to have sustainable solutions to improve water quality of the Vaal and enhance water security in Gauteng in particular.

SANITATION SERVICES

Access to Sanitation

South Africa has made significant progress in addressing access to sanitation. The households with access to improved sanitation increased from 49% in 1996 to 83% in 2018 (STATS SA, 2019). However, there is still approximately 2.8 million which is 17% of households without access to improved sanitation services including 280 791 households which practice open defaecation.

Even though South Africa has progressed in the provision of sanitation services there are challenges facing the country. Some of the challenges are as a result of rapid and unplanned urbanization which is putting a huge strain on infrastructure; and inadequate investment on operation and maintenance. The department is collaborating with the Department of Cooperative Governance and Traditional Affairs (COGTA), Water Services Authorities and other sector partners to address challenges confronting the sector through implementation of the National Water and Sanitation Master Plan.

National Sanitation Integrated Plan

The department will be developing the National Sanitation Integrated Plan that will guide the sector in the implementation and monitoring of sanitation in line with the National Development Plan and Sustainable Development Goal. It will provide a 10-year roadmap for eradicating open defaecation, ensuring access to adequate sanitation services per province, providing innovative solutions, and creating a pathway to generate economic opportunities.

National Faecal Sludge Management Strategy

The department will also be the developing the National Faecal Sludge Management Strategy to ensure safely management sanitation services throughout the sanitation service value chain.

Over the years the focus on sanitation has been to ensure access to the unserved communities and minimum focus was given to operation and maintenance especially of non-sewered sanitation systems such as Ventilated Improved Pit toilets. The first generation of Ventilated Improved Pit toilets are now getting full and the Water Services Authorities have challenges with managing faecal sludge from full pits.

The National Faecal Sludge Management Strategy will therefore guide the sector on safely emptying full pits, transportation, treatment, disposal or beneficial use of faecal sludge.

Each stage of the sanitation service value chain presents economic and job creation opportunities over the short to long term. There are opportunities to generate valuable by-products such as organic compost and biogas.

Alternative Sanitation Solutions

In relation to water demand there is an urgent need to reduce water demand by adopting new technologies that use less water or no water. While waterborne sanitation system is the first preference in most cases, Africa should accept the reality that not every government can afford a flushing toilet for every household. The department is working with Water Research Commission and Department of Science and Technology to find alternatives sanitation solutions.

The Brown Revolution- An economic enabler with a potential worth of R100 billion per annum

The brown revolution is on our doorstep as an economic accelerator. The new sanitation pathway offers the opportunity to turn a local challenge (schools' sanitation, rural sanitation, urban formal and informal sanitation) into an industrial opportunity, which grows the economy, create jobs and provide universal access to equitable sanitation to all, while solving a water security issue. There is an opportunity to grow resource recovery, usage industry, the service industry and operation and maintenance industry through the use of innovative products which result in smart supply chain management. The opportunity opens up for leapfrogging these offgrid sanitation solutions in growing urban cities of the developing world, reducing water consumption and eliminating pollutant pathways.

ENGAGEMENTS ON SHARED WATERCOURSES

Orange-Senqu River Commission (ORASECOM)

The work of the ORASECOM has continued to be done despite the constraints due to the COVID-19 pandemic. South Africa is still committed to the implementation of the various projects of the ORASECOM, particularly the various programmes with our neighbouring States regarding the management and development of the Orange River Basin, in line with the provisions of the Southern African Development Community (SADC) Region's Protocol on the Shared Watercourses.

South Africa is supporting and encouraging all Member States of the ORASECOM to participate in the work of the Commission, so that our communities can get access to clean water which is the basic human right as enshrined in our Constitution. This is with a view to contribute towards the advancement of the African Agenda.

South Africa will host the 2021 Virtual ORASECOM Ministers Meeting during the course of this year.

The Joint Study Management Committee (JSMC)

The Lesotho – Botswana Water Transfer Project (L-BWT) is progressing well. The Feasibility Study on whether the Republic of Botswana can get water from the Kingdom of Lesotho is moving forward as planned.

The Joint Study Management Committee (JSMC) Project is in progress and the consultants are preparing the final report on the study. If approved this project will benefit Farmers and Communities in the Free State, Gauteng and the North West Provinces with access to good quality water.

The department will continue to give support and fully participate in these important Water Supply Projects.

INTERNATIONAL WATER COOPERATION

Globally it is the intention of water stakeholders to draw attention to the water agenda at the various water platforms to create a greater public awareness of the water as a limited resource given that the critical importance of water has yet again been highlighted by the COVID-19 pandemic.

South Africa has actively engaged at global multilateral platforms and will continue to participate to influence the global position and trends on water and sanitation for the benefit of our country.

South Africa has the intention to play an active role at the upcoming Planet Budapest 2021 and 9th edition of the World Water Forum (WWF9) in 2022, both global events aimed at putting water firmly on the international agenda dedicated to sustainability and the future of the world.

United Nations

South Africa's participation at the globally convened High-Level Meeting of the President of the General Assembly (PGA) contributed to furthering acceleration of the 2030 Development Agenda, where major global challenges on water security and water resources management amongst others are addressed.

South Africa was nominated as an international Steering Committee member in the International Decade for Action, Water for Sustainable Development, 2018–2028 a nomination that presents another opportunity for South Africa to be part of the discussion among Member States, stakeholders, and the United Nations system to continue taking appropriate steps, within existing resources, to support and organize the activities of the Decade at the global, regional and country levels.

Global Bilateral engagements

Despite COVID 19 pandemic impacting negatively on bilateral relations, South Africa will continue to participate and be active towards implementation of international obligations with countries and organizations in Asia, Europe and the Middle East on water resources

management. For instance, the continuation of holding virtual technical engagements (Joint Steering Committee (JSC) meetings) towards implementation of the signed agreements with China, Cuba, Denmark, Japan and the Netherlands.

The DWS remain committed to support and participate at the DIRCO led virtual initiatives and platforms e.g. RSA- China / Japan / Islamic Republic of Iran / Russia engagements. These take place through Bi-National Commissions (BNCs), Joint Commissions (JCs), Annual Partnership Fora (APFs), Senior Officials Meetings (SOMs) for existing active engagements. There are also such fora and Foreign Office Consultations (FOCs) towards forging new strategic relationships in support of the national water and sanitation agenda e.g. with Finland, Singapore, Malaysia and Australia.

OPERATION VULINDLELA PROGRAMME

The President is his SONA address announced the drive on the implementation of the Operation Vulindlela with the main focus being to reform the entities. The water sector was one of the sectors that featured on the priority list of the sector reform.

Top on the list is the fast tracking of the issuing of water licenses within 90 days as the reduced timeline targets. The department is participating on the development of the Business Process Engineering (BPR) supported by the National Treasury support team. A specialised team in business re-engineering has been dispatched and commenced to make recommendations on interventions that will lead to improved efficiency.

Further tasks the team are seized with are the revival of the Green Drop water supply quality monitoring programme, Blue Drop Programme wastewater quality monitoring programme and No Drop water use efficiency monitoring programme.

One of the key milestones in the Green Drop is to do the assessment of wastewater systems focusing on process control, maintenance and management skills, wastewater monitoring, effluent compliance, wastewater quality risk management, local regulations and bylaws, wastewater treatment capacity as well as wastewater asset management.

The key milestones of the Blue Drop will be to do the assessment of water supply systems focusing on; drinking water quality compliance, water safety planning and implementation, asset management and ensuring the technical skills available to operate the water treatment works.

The key milestones for the No Drop is to conduct a differentiated assessment of the Municipal Water Use Efficiency performance against the WCWDM strategy, planning and implementation, asset management, technical skills, compliance and performance as well as local regulation.

The sector is forging ahead with the establishment of an economic regulator and the establishment of the National Water Infrastructure Agency. Lastly is to finalize and implement the revised raw water pricing strategy and the revised norms and standards.

ESTABLISHMENT OF THE NATIONAL COMMAND CENTRE AND EMERGENCY WATER SUPPLY - CURBING THE SPREAD OF COVID-19

The Water Sector was on the frontlines in the fight against the COVID-19 pandemic from day one when it hit our shores. The pandemic has tested the resiliency of our water supply systems in unprecedented and unanticipated ways. It has concentrated our focus on provision of water security as well as access to dignified sanitation services.

No one can question the success of the Department's interventions to address, prevent and combat the spread of COVID-19. While many in government and business worked remotely during the hard lockdown the DWS officials and its entities' officials had to operate on the ground 24X7. Schools and higher education institutions could not open until the National Command Centre had made certain there was provision of water to schools and these we did in collaboration with the Department of Basic Education.

Once the President had declared a State of National Disaster in terms of the National Disaster Act **t**he Department immediately responded by establishing a National Command Centre at Rand Water to coordinate the efforts of the sector and to respond with urgency as this crisis demanded. This allowed the department to coordinate all efforts across the country in an orderly, professional, and structured manner. The successful response saw emergency water facilities brought to the most remote parts across the country.

The Department responded by dispatching thousands of water tanks and water tankers including to the most inaccessible parts of the country to assist our most vulnerable communities. This mammoth task was coordinated by the National Water and Sanitation Command Centre in close partnership with our nine water boards throughout the country

President Ramaphosa took time out of his busy schedule at that difficult time to visit the National Command Centre on the 7th April 2020. His message of encouragement was warmly received and emboldened officials to complete the daunting task that was before them.

The intervention by the nine Water Boards was done in two phases. Phase 1 was the Installation of water tankers and Jo-Jo tanks across the Municipalities. Phase 2 consisted of the connection of Jo-Jo tanks to reticulation network of Municipalities. For example:

- Rand Water

  Pre-COVID-19 pandemic, Rand Water was confined to its mandated areas of service: the provinces of Gauteng, North West, parts of the Free State, and Mpumalanga. As part of Government's national response to this crisis, Rand Water was able to extend their reach across the country, as an implementing agent on behalf of the DWS.

- Amatola Water

  A number of water harvesting tanks were distributed throughout the Province to ensure access to water. A structure within the entity was also established that looks at the development of the virus to enable protection of employees.

- Bloem Water

  In Phase 1 Bloem Water was assigned by the Command Centre the construction and installation of the 220 Jo-Jo Tanks in the Free State Municipalities. The project was completed in July 2020. Phase 2 consisted of the connection of Jo-Jo tanks to

reticulation network for the 13 Municipalities in the Free State and this work is still in progress.

- Overberg Water

  The entity had distributed and installed more than 461 water tanks. These tanks were distributed and installed in all the districts except in the Cape Metropolitan Area.

WATER SECTOR ENTITIES

The Water Boards play a critical role within the water value chain. These entities are mandated to take forward the strategic priorities of the water sector and service delivery.

Seven out of nine Water Boards have received unqualified audit opinions

Status of water boards

Governance of the Water Boards has been improved. There are permanent boards for the Amatola Water, Bloem Water, Mhlathuze Water, Overberg Water and Rand Water.

The Minister has finalized the process of appointing boards for Lepelle Northern Water, Magalies Water, Sedibeng Water and Umgeni Water to run for a period of four years from the date of Cabinet concurrence in order to improve, stabilize and improve the governance operations of these entities.

Financial Viability of Water Boards Threatened by Debt incurred by Municipalities

Municipal debt continues to hamper the viability of the institutions. The zero percent tariff increment has further strained the financial sustainability of water boards and entities.

In the previous budget vote, the Minister noted with concern the growing threat to financial viability and sustainability of water boards. This situation has gotten progressively worse. Water boards are owed by the municipalities almost R12,6 billion as at March 2021 and this includes R2,4 billion under current account.

Water Boards debtors Age Analysis as at 31 March 2021 is as follows

Name of Water Board	TOTAL BALANCE	CURRENT	DAYS 30	DAYS 60	DAYS 90	DAYS 120+
	R'000	R'000	R'000	R'000	R'000	R'000
Amatola Water	284 306	35 325	18 595	13 708	13 609	203 069
Bloem Water	1 140 317	81 525	85 751	6 832	546 251	419 957
Lepelle Northern Water	480 890	70 551	24 916	8 776	12 039	364 608
Magalies Water	206 966	55 277	20 490	14 928	10 443	105 827
Mhlathuze Water	42 205	19 999	1 428	1 431	1 408	17 938
Overberg Water	1 852	1 852	0	0	0	0
Sedibeng Water	5 275 500	83 766	68 158	93 325	72 879	4 957 372
Rand Water	3 945 578	1 559 545	407 920	185 038	179 956	1 613 120
Umgeni Water	1 287 169	499 899	83 665	32 671	51 299	619 640
TOTAL	**12 664 783**	**2 407 740**	**710 923**	**356 709**	**887 884**	**8 301 532**

Corrective steps have been established to improve the financial viability of the water boards:

- The DWS have been working together with the Joint MINMEC (COGTA; SALGA) and National Treasury to provide sustainable solutions.
- The strategy to deal with defaulting municipalities in an integrated approach which includes sector stakeholders whereby there is a need to resolve Municipal Councils that adopt unfunded budgets which assumes that they plan to spend more than their revenue intake.
- The Water Leg Multi-Disciplinary Revenue Committee (MDRC) on non-payment of bulk water which is chaired by the National Treasury similar to Eskom to address areas of shortcoming with the revenue value chain that primarily contributes to increased inefficiencies in the municipality. This Committee will report to the Deputy President who chairs the Political Task Team (PTT).

Should this matter of non-payment by municipalities for services rendered not be attended to earnestly it may result in some of the water boards ceasing to operate. Four (4) water boards are already facing financial crises, namely Amatola Water, Bloem Water, Lepelle Northen Water and Sedibeng Water.

More stringent measures are being applied to ensure debt is paid to institutions in order to make them able to maintain infrastructure and ensure that the service delivery is not interrupted.

NB: *Detailed information on the operational performance and financial position of the TCTA, the nine Water Boards, the two Catchment Management Areas and the Water Research Commission can be found in the respective Annual Reports. Further information is available in the respective Strategic and Business Plans.*

AMATOLA WATER

The Amatola Water Infrastructure Master Plan presents various strategic means to sustain the existence of Amatola Water (AW) as a business and it unpacks a cascading framework from Project Conception to Project Decommissioning through a Project Life Cycle.

To improve service delivery of both quantity and quality of water to communities, while realising economies of scale to reduce bulk water tariffs for water services authorities, the upgrade of water supply scheme infrastructure is planned for Peddie, Sandile, Debe Nek, Masincedane, Binfield and Nahoon.

Drought Intervention Plan

The Premier of the Eastern Cape declared a state of provincial disaster related to drought in the province in terms of section 41 of the Disaster Management Act No. 57 of 2002. In response to that declaration, the Department of Water and Sanitation (DWS) appointed Amatola Water (AW) as an implementing agent for the Eastern Cape Drought Intervention Programme.

The overall progress on this programme has been broken down into the various phases as detailed below;

- Rain Water Harvesting Tanks – 75% Complete

- Water Tanker Rental – 98% Complete
- Water Tanker Purchase – 87% Complete
- Rapid Response – 35% Complete
- Borehole Drilling and Bulk Water Supply – 5% Complete
- Sand Water Abstraction – 0% Complete

It is anticipated that the programme will run for a period of three years (2020 – 2023).

Projects been overseen by Amatola Water

King Sabata Dalindyebo Municipality Presidential Intervention (KSD PI)

The primary focus of this project is to expand the existing Mthatha Town Bulk Water Supply System operated by the OR Tambo District Municipality to create a regional scheme along five development "corridors" and serving over one million people.

The overall scope of work for the KSD PI programme for both MIG and RBIG was broken into packages that form corridors. The progress achieved to date for current funded contracts:

- Thornhill Raw Water pipes & WTW and Mthatha South and Central: Construction 100% complete
- Upgrading of clear water pump station: Construction 92% complete.
- Airport Corridor and Mqanduli Corridor: Construction 99% complete
- Libode Corridor and Ngqeleni Corridor: Construction 98% complete
- Rosedale / Mthatha North: Construction 90% complete
- Mthatha wastewater treatment works upgrade: Construction 100% complete
- Northern and Southern Outfall Sewers: Construction 100% complete

It is anticipated that the programme will be completed in 2025.

James Kleynhans Bulk Water Supply

James Kleynhans Bulk Water supply project aim is to ensure that Grahamstown has an adequate water supply during peak and drought conditions, because of the augmentation of the James Kleynhans WTW from 10Mℓ/day to 20Mℓ/day. Due to the nature of the project and funding the project has been distributed into four phases.

Ndlambe Regional Bulk Water Supply

Safe, sustainable and acceptable quality water will be supplied to consumers in Seafield/Kleinemonde, Port Alfred, Bathurst, Alexandria, Cannon Rocks, Boknes, Kenton on Sea and Bushman's River in the Ndlambe Local Municipality.

Nooitgedagt/Coega Low-Level Scheme

The Nooitgedagt/Coega Low-Level Scheme [NCLLS] project entails the augmentation scheme for the bulk water supply system of NMBM to increase present water supply from the Orange River System from 70 Mℓ/d to 160 Mℓ/d. The project also entails construction of a 45 Mℓ balancing reservoir at Olifantskop reservoir site, inclusive of inlet/ outlet control valves and valve chambers, supply and installation of cathodic protection, and the rehabilitation of the Missionvale 7km pipeline.

The anticipated completion timeframes of this project has been revised to 13th July 2021. The progress to date is at 93% complete.

BLOEM WATER

The entity received unqualified reports with findings. There has been no mismanagement of funds stemming from these audits or specific investigations.

The 0% increase during the 2020/21 period impacted the planning and functioning of the entity. The debtors' payment environment and contractual challenges on the Bulk Supply Agreements further strained the sustainability of the entity.

Challenges of non-payment by municipalities

The entity followed various intervention and legislative processes to curb the non-payment. It ranged from the Board and Council engagements, IGR processes with legal challenges, and implementation of arbitration processes in relation to Bulk Supply Agreements.

Mangaung Metro Municipality

There have been several non-payment periods by Mangaung Metro Municipality. Several processes were followed between the parties to remedy the status. Interventions were embarked upon with Inter-Governmental processes, such as Free State Provincial Government, SALGA, COGTA, Treasury, etc.

The entity followed a process to make the Settlement Agreement an Order of the Court for Mangaung Metropolitan Municipality. Bloem Water's Attorneys submitted Mangaung Metropolitan Municipality's Notice to oppose the Application to have the Arbitration award made an Order of the Court, the Court ruled in favour of the entity.

Kopanong LM

After several engagements and legal action taken by the parties, Kopanong Local Municipality Council resolved to enter into a 5-year agreement with the Entity. A new Service Level Agreement was signed between Bloem Water and Kopanong Local Municipality. Bloem Water will continue to provide bulk water services to the Municipality for a period of 5 (five) years effective from 25 February 2021.

Mantsopa LM

The Municipality defaulted on payment and on settlement arrangements. Legislative processes are continuing to manage the services and non-payment process.

LEPELLE NORTHERN WATER

Following on announcements arising from the Budget Votes of 2019 and 2020, investigations into the affairs of the Lepelle Northern Water (LNW) Board were concluded and recommendations of the outcome of the investigations are implemented.

Polokwane Intervention

Giyani Water Services

The project is currently implemented by DWS Construction North and the overall progress is at 57% after the assessment of Construction North and PSP. The works implemented by DWS construction which only focused on functionalizing the pipeline is anticipated to be completed by March 2022.

Giyani drought relieve (Nandoni to Nsami pipeline)

The project experienced number of challenges including delays in completion of the designs, termination of the Professional Services Provider (PSP) and restricted access to construct in parts of the area under tribal authority and the revised completion date is August 2022. The project is in progress with current construction progress sitting at 35%.

MAGALIES WATER

Magalies Water is a self-funding entity and has no reliance on National Government Grants or Subsidies. The entity must maintain financial sustainability to ensure recovery of operations and maintenance costs, and adequate reserves to continue as a going concern.

The actual operating expenditure cost was 17% below the budgeted for 2020/2021 financial year due to COVID 19 impact.

As with other water boards, the entity is facing the challenges of having to implement water restrictions because of local municipalities defaulting on their debt to Magalies Water.

Several major capital projects are planned to either start or continue in the next year.

Chemical cost

The average annual increase of 10% on cost of chemicals is based on the volume to be treated, dosage required to produce compliant quality and percentage price increase as proposed by the chemical service providers.

The raw water quality from highly polluted rivers, Crocodile West River (Hartbeespoort Dam) and Pienaars River (Roodeplaat Dam), are the two catchments where Magalies Water abstract raw water to be treated. The two catchments are infested with high level of algae (blue-green algae) due to high nutrient loads emanating from, among others, the Wastewater Treatment Plants operated by the Municipalities in Gauteng and Northwest provinces.

Magalies Water implemented an advance water treatment process in all Water Treatment Plants to produce water that is compliant to SANS 241:2015 Portable Water standard, resulting in high chemical cost.

MHLATHUZE WATER

The focus of the entity is on prioritizing the Augmentation of the Nsezi Water Treatment Plant to ensure the ability to meet the water demand from potential clients. The project is anticipated to be completed in 2023.

The Skhemelele Water scheme has been constructed to improve and extend access to water with the Skhemelele community.

In addition, there are key projects planned over a period 2022/23 to 2026/27 in support of the shareholder priority programs. The main focus of these projects will be on rural water infrastructure.

OVERBERG WATER

Overberg Water is assisting the Department of Public Works and Infrastructure to ensure water services management in thirteen sites including the Navy and Army bases. This arrangement is intended to assist service delivery whilst Overberg Water builds its geographical footprint as a partner in service delivery.

One of the challenges facing Overberg Water is aging infrastructure which at times affect water supply.

Overberg Water will play a major role as a main water service hub within the now reconfigured Breede-Olifants Water Management Area.

The entity has been consistent in retaining an unqualified audit for the past three consecutive years.

RAND WATER

The efforts of Rand Water in hosting and managing the National Water Command Centre and supervising the National Emergency Water Supply demonstrated to the rest of the water and sanitation family that it is possible to come out of a national crisis with a stronger name and reputation.

Regional Sewer Scheme

Various engagements have occurred between water boards; and local and provincial government on the Regional Sewer Scheme.

These are efforts that require innovative solutions in an area with obsolete infrastructure, a significant portion of distressed and indigent households, and a local municipality facing significant human resource and systemic challenges.

The Minister has engaged Emfuleni Local Municipality and Rand Water with a view to find ways to alleviate challenges of sanitation. Working together in intergovernmental structures, a lasting solution will be found and funded.

SEDIBENG WATER

Progress in the Drought Relief Programme in the Northern Cape Province

Sedibeng Water was appointed as Implementing Agent by the Department of Water and Sanitation to implement an emergency Drought Relief Programme in various District and Local Municipalities in the Northern Cape Province.

This sub-programme consisted of 24 water infrastructure projects that would provide over 50 borehole systems and supply infrastructure and the refurbishment of several water treatment works and infrastructure systems across 5 municipalities, including:

- Kamiesberg Local Municipality (11 water infrastructure projects)
- Joe Morolong Local Municipality (5 water infrastructure projects)
- Richtersveld Local Municipality (2 water infrastructure projects)
- Hantam Local Municipality (3 water infrastructure projects)
- Kareeberg Local Municipality (2 water infrastructure projects)
- Thembelihle Local Municipality (1 major water infrastructure project)

The drought intervention also focused on the domestic and stock agriculture consisted of the following phases;

- Phase 1: 159 farmers with zero functional boreholes (no access to water)
- Phase 2: 203 farmers with one functional borehole (little water)
- Phase 3: 372 farmers with two or more functional boreholes

Part of the drought intervention involved water tankering and tank installation thorough out the Northern Cape Province in selected municipalities

UMGENI WATER

During 2019/2020 Umgeni Water completed the construction and successfully commissioned the uMshwathi Regional Bulk Water Supply Scheme and the Nungwane Raw Water Aqueduct. The uMshwathi Regional Bulk Water Supply Scheme was funded by both the Department and Umgeni Water. This is a key regional bulk water supply scheme in support of water security in, uMgungundlovu and iLembe District Municipalities.

Umgeni Water continued with its efforts to provide access to water services to the communities and citizens that were previously unserved through infrastructure development. Key infrastructure projects that were at advanced stages during this reporting period, included:

- The construction of the Maphumulo Bulk Water Supply Scheme Phase 3
- Detailed design of the Lower uMkhomazi Bulk Water Supply Scheme

  The Lower uMkhomazi scheme will ultimately secure water supply for approximately 500 000 consumers in eThekwini and UGu, from Amanzimtoti to Hibberdene, while the larger uMkhomazi is needed for eThekwini Metro's Western Aqueduct. When constructed and fully operational, it will result in water in the Upper Mgeni System being freed for additional supply to Msunduzi LM and uMgungundlovu DM.

Key water resources projects of relevance that are currently underway include;

- The raising of the Hazelmere Dam
- Detailed feasibility for the uMkhomazi Water Project, a critical project for the long term needs of the economic hub of the Province of KwaZulu-Natal.

Water resource development is an important solution to close the water gap projected for South Africa between supply and demand, and the Department will continue to forge partnerships in this regard.

Pollution by sewage and trade effluent remains a big problem in our catchments countrywide. During this reporting period, Umgeni Water encountered significant delays with the upgrade of the Darvill Wastewater Treatment Works. The construction of the Mpophomeni and Trust Feeds wastewater treatment works is in progress. All three wastewater treatments works are located within the Umgeni catchment. When complete, the upgraded Wastewater Treatment Works will sustainably serve the Msunduzi Municipality and uMgungundlovu District Municipality respectively as part of a strategy to ensure there is sustainable bulk sanitation into the future, whilst ensuring integrity of the water value chain.

Umgeni Water has contributed to job creation and economic transformation during this reporting period, through its successful capital infrastructure development programme and implementation of several other programmes that are developing young professionals and women employees.

The work Umgeni Water is doing in supporting socio-economic development, alleviating inequality in basic water services provision and reducing the impact of poverty has not gone unnoticed: in November 2019 the Nedbank-Pietermaritzburg-Midlands Chamber of Business award for a high performing State-Owned Business Enterprise was made to the Umgeni Water in recognition of its catalytic role.

WATER RESEARCH COMMISSION (WRC)

The year 2021 marks an important milestone for not only the Water Research Commission (WRC) but for the entire water sector at large. Founded in 1971, the WRC has played a constantly growing role in terms of shifting paradigms from stagnation to innovation and driving key conversations around policy change with the view of realising an informed, transformed and thought-leading sector more than capable of accelerating efforts to meeting the UN Sustainable Development Goals through technologies and innovations thus placing South Arica firmly on the pathway to sustainable development in the long term.

Over the upcoming months, the WRC will be hosting several activities that will consider new and complex challenges, such as reaching remaining unserved communities with safe water and sanitation, unprecedented climate change and of late, the COVID-19 pandemic.

Climate change and International Partnerships

In response to increasing pressure and pronouncements regarding climate change and its resulting water security challenges, the WRC are scaling its existing and potential work through international partnerships. The Global Environment Facility's Ecological Infrastructure for Water Security Programme, GIZ Climate Support Programme and the International Climate Initiative (IKI) are examples of innovative and multi-levelled partnership driven action that addresses these challenges.

WRC are seeking funds jointly through South African national and international partnerships to scale integrated green innovation across the water value-chain, while strengthening citizen

based water monitoring and management, private and public sector partnerships and blended investment examples.

The work of the Ecological Infrastructure for Water Security Programme is providing a case of the potential value of partnerships for sustainable investment in citizen based water quality monitoring and ecological infrastructure restoration in the Umgeni and Berg and Breede catchments, creating jobs for youth and building in the efforts of the Presidential Economic Stimulus.

ENDS/