WATER RESEARCH COMMISSION

ANNUAL REPORT 2017/18

WATER RESEARCH COMMISSION

WATER TECHNOLOGY AND INNOVATION FOR A BETTER TOMORROW

To have highly informed water decision-making through science and technology at all levels, in all stakeholder groups, and innovative water solutions through research and development for South Africa, Africa and the world.

- A culture of learning and sharing
- Innovation and creativity
- Integrity and fairness
- A spirit of professionalism and service orientation
- Facilitating empowerment and social change
- Good governance

To be a global water knowledge node and South Africa's premier water knowledge hub active across the innovation value chain that:

- informs policy and decision making;
- creates new products, innovation and services for socio-economic development;
- develops human capital in the water science sector;
- empowers communities and reduces poverty;
- supports the national transformation and redress project; and
- develops sustainable solutions and deepens water research and development in South Africa, Africa and the developing world.

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ABBREVIATIONS

AGSA	Auditor-General of South Africa
BBBEE	Broad Based Black Economic Empowerment
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CMA	Catchment Management Agency
DoA	Delegation of Authority
DOF	Department of Finance
DPE	Department of Public Enterprises
DSS	Decision support system
DST	Department of Science and Technology
DWS	Department of Water and Sanitation
EM	Executive Manager
FETWater	Framework Programme for Education and Training in Water
GE	Group Executive
HEI	Higher-education institutions
HDI	Historically disadvantaged institution
IP	Intellectual property
JPI	Joint Programming Initiative
KPA	Key performance area
KSA	Key Strategic Area
MDG	Millennium Development Goal
MEC	Member of Executive Council
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MTEF	Medium Term Expenditure Framework
NATSURV	National Industrial Water and Wastewater Surveys
NDP	National Development Plan

NWA	National Water Act
NWRS 2	National Water Resource Strategy Two
PDI	Previously disadvantaged individual
PDP	Personal development plan
PFMA	Public Finance Management Act
PPC	Parliamentary Portfolio Committee
R&D	Research and development
RDI	Research, development and innovation
RW	Rand Water
SADC	Southern African Development Community
SALGA	South African Local Government Association
SIPS	Strategic Integrated Projects
SMME	Small medium and micro enterprises
SCM	Supply Chain Management
SDG	Sustainable Development Goal
S&T	Science and technology
TIA	Technology Innovation Agency
UN	United Nations
UW	Umgeni Water
WMA	Water management area
WRA	Water Research Act
WRC	Water Research Commission
WRL	Water Research Levy
WRM	Water resource management
WS	Water and sanitation
WSA	Water Services Act

MINISTER'S REPORT

Gugile Nkwinti,
Minister of Water and Sanitation

During 2017/18 South Africans were reminded starkly of the country's semi-arid nature. By 13 March 2018 the drought situation in the Western and Eastern Cape as well as the Northern Cape had been elevated to a national state of disaster, prompting national government to activate the necessary extraordinary measures to keep water flowing to communities and industries in these provinces.

Drought and water scarcity has had a negative impact on all sectors of the economy, including agriculture, industry, tourism, food security and water supply. The latest drought reminds us that South Africa is a water-scarce country. Our climate is changing. Studies indicate that climate change will result in extreme weather patterns resulting in floods and droughts. Notwithstanding the challenges, the Department of Water and Sanitation (DWS) remains steadfast in its resolve to fast-track water sector transformation, delivery of basic water and sanitation services, the regulation of water use and resource management.

The DWS has long since recognised the value of science-based technology in facing the country's water challenges. The National Water and Sanitation Masterplan, which is in its final stages of development, forms part of various initiatives to ensure water and sanitation services are secure and sustainable, so that they contribute towards meeting the national development objectives.

The Masterplan presents a solid affirmation and commitment from DWS to support water-related research, development and innovation. This is with a view to ensuring that there is highly informed water decision-making through science and technology at all levels, in all stakeholder groups, and innovative water solutions through research and development for South Africa, and the African continent. The DWS will thus continue to support efforts that position the country and its institutions as a global water knowledge node across the whole water and sanitation innovation value chain.

South Africa is committed to not only overcoming its own water and sanitation challenges, but also those of the world, including achieving the Sustainable Development Goals related to water. A demonstration of this is the fact that South Africa serves on the High Level Panel on Water that was co-convened by the United Nations and the World Bank following the adoption of the 2030 Agenda for Sustainable Development in 2015. South Africa was represented by former President Jacob Zuma, who was requested to champion the initiatives on water and sanitation services; integrated urban water management; and transboundary and domestic governance. President Cyril Ramaphosa is continuing the championship of this work.

As its main stakeholder, the DWS will continue to work together with the Water Research Commission (WRC) to provide integrated solutions to the complex, inter-disciplinary problems facing the water sector and promote investment in knowledge creation, transfer and dissemination in strategic research areas.

Thanks go to WRC Chief Executive Officer, Dhesigen Naidoo, and his team for their hard work and commitment in ensuring that the Commission remains at the cutting edge of water-related research in South Africa.

Gugile Nkwinti
Minister of Water and Sanitation

“That our government has made significant progress in bringing potable water nearer to so many people than was previously the case, I rate among the most important achievements of democracy in our country. Among the many things I have learnt... was the centrality of water in the social, political and economic affairs of the country, continent and indeed the world.”

– Former South African President, Nelson Mandela, 2002

CHAIRPERSON'S REPORT

Dr Nozibele Mjoli,
Chairperson of the Board

On behalf of the Board of the Water Research Commission (WRC) I am pleased to present an overview of the Commission's 2017/18 performance highlights.

The WRC continues to play its role as the water sector knowledge hub for South Africa through a three-pronged approach, namely, the production of new water and sanitation knowledge, human capital development for the water sector through the funding of the participation of postgraduate students in WRC research projects, and the development and piloting of innovative water and sanitation technologies.

During the year under review, the Western Cape experienced the worst drought in decades. This forced the City of Cape Town to implement extreme measures to restrict water use across the city. The water crisis experienced by the Western Cape has highlighted the important role that the WRC must continue to play in the development of innovative technology solutions for ensuring that water resource managers across the country are well-equipped to implement resilient water-supply systems that are less prone to droughts.

The following WRC performance achievements for 2017/18 are highlighted, in particular:

The WRC income from the water research levy increased by 8.37% compared to 2016/17.

The science, technology and innovation fraternity has a strong role to play to expand services to the entire South African population while ensuring the sustainable management of scarce natural resources. An example of this is the project in which the WRC, in partnership with the Department of Science & Technology, piloted the Earth Auger Sanitation System in Chris Hani District Municipality with funding from Bill & Melinda Gates Foundation. This sanitation system will go a long way towards improving access to basic sanitation services for the poor households in South Africa.

WRC research also contributed to the bridging of the gap between research and operations by building a weather monitoring infrastructure that can provide real-time weather information to the South African community. This was achieved through the acquisition, installation and upgrade of a weather radar which is situated in Lekwena Wildlife Estate near Potchefstroom.

On the knowledge-sharing front, the WRC held its biennial symposium in September 2017 with the theme: 'Adaptation to the new normal'. This symposium attracted a number of international and national experts who shared global experience in addressing water and sanitation challenges.

The WRC further continues to play an important role in the international water research arena. Apart from participating in various international fora the Commission entered into three new partnerships with key international institutions in 2017/18. These were the Kenya Water Institute (East Africa), National Commission on Research, Science and Technology of Namibia (Southern Africa), and the Research Institute of Sweden (RISE).

During the year under review the WRC also became a full member of the Water Joint Programming Initiative (JPI), an initiative where Europe and its strategic partner countries join forces to establish research capacities and mobilize appropriate skills, knowledge and resources to offer solutions for addressing global water challenges. These partnerships provide a structured framework for facilitating better coordination of water and sanitation research, development and innovation collaborations, knowledge sharing and strengthening institutional and individual capabilities between South Africa and partner countries.

The WRC Board continues to monitor the financial performance of the organization to ensure its long-term financial sustainability.

On behalf of the Board of the WRC, I wish to express our sincere gratitude for leadership and support provided to us by the former Minister of Water and Sanitation, Minister Nomvula Mokonyane, and officials of the Department. We wish to extend a warm welcome to the new Minister of Water and Sanitation, Minister Gugile Nkwinti. We look forward to a good working relationship with the Ministry and officials of the Department of Water and Sanitation.

My sincere gratitude goes to the members of the Board, WRC executive management, staff, stakeholders, researchers, international and national partners for their commitment and support for the WRC research and innovation.

Dr Nozibele Mjoli
Chairperson of the Board

“Humans depend on a wide range of ecosystem services for multiple biological, economic, social and cultural needs. Water is essential not only for basic drinking, cooking, hygiene and ecosystem functioning, but for producing food, energy, and indeed all the material products needed for daily life. It also plays a critical role in the spiritual and aesthetic lives of people.”

CEO'S REPORT

Dhesigen Naidoo, WRC CEO

By all accounts 2017/18 was another challenging year for the South African water sector. While the rest of South Africa was recovering from drought conditions, the provinces of the Northern Cape, Western Cape and Eastern Cape were still grappling with the consequences of one of the worst droughts experienced in a century.

Reliable scientific reports indicate that South Africans will have to face up to this 'new normal' of hydrological extremes driven by global climate change. In addition, South Africa's water balance continues to be at risk, with most models predicting a supply deficit of around 1 billion cubic metres by 2035 if our current high demand patterns continue unabated, in spite of a supply increase of more than 16% on current and planned augmentation projects. This, combined with the fact that even in non-drought years South Africa ranks 148 out of 180 countries with respect to water availability per capita, offers a very sobering picture.

Research, development and innovation have a crucial role to play in enhancing our resilience to these water security risks. South Africa already punches well above its weight in the water and sanitation research and development sector, with international recognition and several internationally recognised products. The WRC is the leading funder of water research in South Africa. Thanks to the WRC's four decades of support to the South African water sector, we have a clear scientific understanding of the hydrological processes and the climatological processes that influence them. New scientific endeavour is not only focused on filling the gaps in knowledge in the understanding of basic biological systems and processes that influence the availability of water, but also on social sciences so that human behaviour with respect to water resources is better understood. The aim of this work is to improve the governance and management of water as an underlying element to socio-economic growth in South Africa.

We must recognise that amid a time of water uncertainty we are also sitting on an unprecedented opportunity: We have an ability to revolutionise both water and sanitation in a manner that facilitates the targets of universal access to safe water and dignified sanitation, as expressed in the United Nations' Sustainable Development Goals. In addition, if we fully utilise the boons of recent scientific discovery and innovation, we can do this in a manner that vastly increases local and global water security. Thus, water can be available for economic growth, with increased opportunities for livelihood creation and entrepreneurship, food security, and concomitant health security.

For this reason the WRC brought together some of the best minds in the country and around the world to deliberate on this matter at its biennial Symposium, which took place at Birchwood, Ekurhuleni, from 18 to 20 September 2017. The engagements in the plenaries and the specialist parallel sessions led to detailed exploration of the new normal and its implications. It was important that deliberations were textured by a solution-oriented vector, with a distinct focus on a range of interventions to enable a sustainable development pathway.

"The Water Research Commission (WRC) is the leading funder of water research in South Africa. Thanks to the WRC's four decades of support to the South African water sector, we have a clear scientific understanding of the hydrological processes and the climatological processes that influence them."

Further during 2017/18 the WRC was a keen co-organiser and participant in the Water Infrastructure Investment Summit, held at the Sandton Convention Centre on 5 December 2017. The main aim of the Summit was to facilitate a conversation and programme of action that aims to shift the water and sanitation investment landscape to a space that is open and enabling for investment and inclusive growth opportunities.

Several new innovations were completed under the WRC banner during the year under review. These include, among others, the development of a unique device to assess the condition of bulk water pipelines; new sanitation technologies – some of which were demonstrated successfully in the Eastern Cape; and the finalisation of a web-enabled mine-water management vulnerability assessment tool to facilitate resource protection.

The WRC also continues to contribute to the national transformation plan programmes such as the Woman in Water Empowerment Programme and the Multiple Use of Water Systems Project.

We welcome aboard new Minister for Water and Sanitation, Honourable Gugile Nkwinti. We would also like to emphasise our gratitude to the former Minister and the Deputy Minister for their acute leadership, the WRC Board for their continuous guidance and generous support, and the broader stakeholder base for an incredible partnership during the year. Finally, thanks to the WRC management team and staff for their commitment and hard work as we continue to serve the nation.

Dhesigen Naidoo
WRC CEO

EXECUTIVE SUMMARY

The financial year 2017/18 was another challenging year for the South African water sector. While the rest of South Africa was recovering from drought conditions, the provinces of the Northern Cape, Western Cape and Eastern Cape were still grappling with the consequences of one of the worst droughts experienced in a century.

Research, development and innovation have a crucial role to play in enhancing South Africa's resilience to present and future water security risks. The country already punches well above its weight in the water and sanitation research and development sector. The Water Research Commission (WRC) is the leading funder of water research in South Africa. Thanks to the Commission's four decades of support to the South African water sector, the country has a clear understanding of the hydrological processes and the climatological processes that influence them.

The primary functions of the WRC are to fund and steer the water research agenda in South Africa, and to effectively disseminate and communicate research findings. Administrative activities are undertaken to ensure compliance with regulatory requirements and to provide an enabling environment for research management.

In addition to contributing to several Government Outcomes, the WRC's strategic outcome-oriented goals comprise five impact areas based on the operationalisation of the WRC Knowledge Tree, a fundamental guiding framework and corporate planning tool used by the WRC to define, measure and evaluate research impact.

The Knowledge Tree speaks to an investment in the multiplier effect which aims to inform policy- and decision-making, contribute to sustainable development solutions, develop products and services for the economy, actively contribute to human capital development, directly empower communities, and enable the national transformation project.

Further, the WRC continues to focus on the development of its impact narrative that provides a pathway from research to impact. This entails a continuous review of current actions and activities as well as the identification of new actions that will ensure impact realisation.

The WRC addresses the three dimensions of the water and sanitation challenge, namely new knowledge, human capital and technological solutions. The Commission endeavours in its projects to create a high concentration of activities that support each of these dimensions.

The Commission counted several performance highlights for 2017/18. New tools developed during the year under review included a mobile phone application for the control of Blackfly outbreaks on the Lower Orange River and a device to assess the condition of bulk water pipelines, while several new sanitation technologies were demonstrated in the Eastern Cape. The WRC further developed a web-enabled mine-water management vulnerability assessment tool to facilitate resource protection.

The WRC's National Industrial Water and Wastewater Surveys also gathered steam this year. The surveys measure the water use and effluent generation of specific industries with the aim of identify areas in which industrial water use and effluent management could be improved. During 2017/18 surveys were published for, among others, the cane sugar processing, textile, poultry and tanning and leather finishing industries.

A number of high-profile events were organised by the WRC in 2017/18. The WRC biennial symposium, held from 18 to 20 September 2017, was a highlight on the calendar. Held under the theme 'Adaptation to the new normal' the symposium addressed questions such as what should the new research agenda be amid increasing water scarcity, how to design research programmes in a way so that all stakeholders are included, how to extract information from the pockets of excellence already in existence around the world, and how to organise for increased international collaboration.

> "The primary functions of the WRC are to fund and steer the water research agenda in South Africa, and to effectively disseminate and communicate research findings. Administrative activities are undertaken to ensure compliance with regulatory requirements and to provide an enabling environment for research management."

The Commission was also a keen co-organiser and participant in the Water Infrastructure Investment Summit held at the Sandton Convention Centre on 5 December 2017. The event unpacked the key investment opportunities, constraints and solutions in the areas of bulk water infrastructure, municipal water infrastructure, and emerging innovations and solutions.

The WRC International Cooperation and Partnerships strategy aims to establish new and strengthen existing partnerships that will extend the WRC footprint, especially in Africa, and derive maximum value for the WRC, the South African water sector and the continent. During 2017/18 the WRC entered into three new partnerships with key international institutions, namely the Kenya Water Institute, National Commission on Research, Science and Technology of Namibia and the Research Institute of Sweden.

In terms of the WRC's key performance targets 85 projects were initiated during 2017/18 while 106 were finalised during the same period. Over the past five years the WRC has finalised 532 research projects, indicating a significant contribution to knowledge in the water sector.

Further the WRC has, in the past few years, broadened its research scope to one that actively involves communities in the research project, and engages key partners to upscale and also maintain interventions post-project. Thirty-three of the WRC's projects in 2017/18 had a direct impact on the lives and livelihoods of communities through water-related interventions and capacity building. As a responsible corporate citizen, the WRC has also invested in the environment, employee wellness and reducing its carbon footprint.

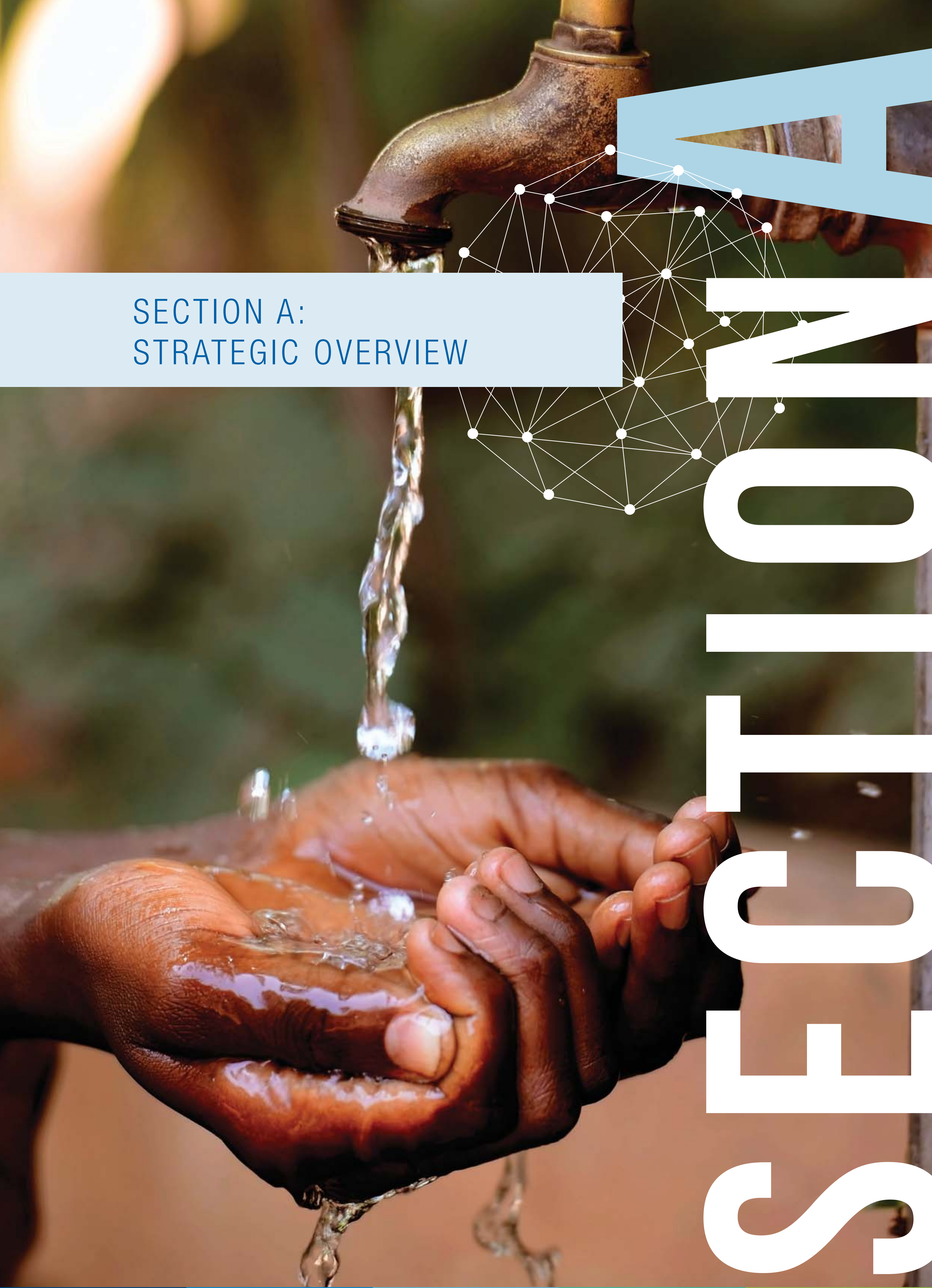
To improve governance of the WRC, a fully operational internal audit unit was created. Further to facilitate the WRC's resilience into the 4th industrial revolution, the WRC has invested in the digitisation of its management systems.

With regards to the WRC's financial performance, the Water Research Levy is the Commission's main source of revenue. The WRC had a total income (including levy and leverage income) of R295 million during 2017/18. The higher than anticipated levy income for 2017/18 was mainly due to higher water consumption volumes than anticipated. This is a favourable position for the WRC. Levies made up 76% of the WRC's income during the past financial year, up from 68% in 2016/17.

The WRC has increased emphasis on leverage or contract income as a key source of funds. Leverage income has developed into a key source of funding with respect to research, innovation and impact. The total leverage income for 2017/18 was R63 million.

The WRC has received an unqualified audit report.

SECTION A: STRATEGIC OVERVIEW



SECTION A: STRATEGIC OVERVIEW

Access to sufficient water and adequate sanitation of an appropriate quality is necessary for life, human dignity, economic growth and for social development. This underpins the wellbeing and prosperity of South Africa and all of its people. For the South African water science community, the challenges are clear – translating research, development and innovation (RDI) into real solutions to address poverty, inequality and unemployment, while applying knowledge solutions to advance opportunities to enable economic growth, improve competitiveness and ensure prosperity.

The WRC's performance environment is created on the premise that the crux of the water and sanitation challenge in South Africa is a capacity and capability challenge. The WRC addresses the three dimensions of this challenge, namely, new knowledge, human capital, and technological solutions. It has endeavoured in its projects to create a high concentration of activities that support each of these dimensions. In so doing, the WRC funds and facilitates research in water-related innovation and disseminates such knowledge for the advancement of national water security. The recipients of this knowledge may be higher-education institutions (HEIs), science councils, or private agencies/contractors, as well as the various tiers of government.

While the Commission's increased efficiencies, innovation and partnerships will continue to maintain knowledge production levels, it has become increasingly difficult to meet two very basic challenges in the South African water and sanitation system. The first is the ability to address the increasingly complex nature of water problems such as non-revenue water and acid mine drainage. The second is the WRC's ability to both transform the South African research and development (R&D) community through the development of researchers from the designated groups as well as to create further avenues for job creation and entrepreneurship development, which are all restricted by the limited availability of R&D funds.

At the same time, technological innovation, improvements in communication, increased collaboration and international partnerships have enhanced our ability as a South African water R&D community to conduct better research, to train students at higher levels, and to organise for better translation of research into products and services for the economy. These improvements, together with new resources, have guaranteed our ability to make a significant difference to South Africa's water fortunes.

The primary functions of the WRC are to fund and steer the water research agenda in South Africa, and to effectively disseminate and communicate research findings. Administrative activities are carried out to ensure compliance with regulatory requirements and to provide an enabling environment for research management.

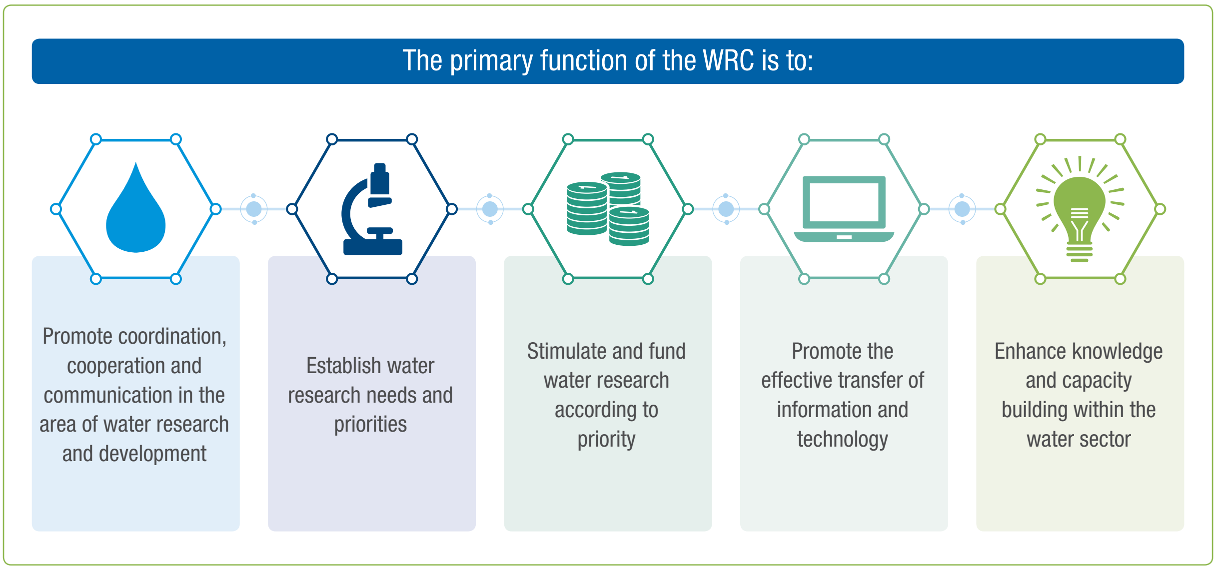


Figure 1. The WRC's primary function

The WRC's actions are further driven by four core principles:

1. Paradigm | **2. Partnership** | **3. Positioning** | **4. People**

PARADIGM

- Impact orientation (Knowledge Tree)
- Development focus (R d <-> r D)
- Narrowing the implementation journey
- Multiplier effect

The WRC has conducted water research for more than 45 years and many research outputs have been produced throughout those years. The WRC model of dissemination was to produce research and transfer knowledge to academics and practitioners, who would then convert the knowledge into solutions. However, this linear approach does not achieve the level of impact that is required in changing sector with severe water, skills and infrastructure challenges. National policies also call for knowledge and solutions to be accelerated to the communities.

A paradigm switch is thus, required to take research outputs into outcomes and impact for the broader society. Hence, the WRC has re-orientated its strategy to focus on impact using the knowledge tree objectives, shifted R&D to a Development focus in order to narrowing the implementation pathway by accelerating solutions to the market and enhancing uptake. The WRC has invested in partnership building to achieve these objectives and the multi-plier effect.

PARTNERSHIP

- Across stakeholder groups
- Public and private
- Local and international
- Funding
- Implementation
- Development
- Research

The WRC is a small lever that turns many big wheels due to its mandate, flexibility and agility in the sector. This is a unique national role which no other organisation in water science and technology sector plays in South Africa.

The WRC continues to develop expert partnerships in the science and development space and has strengthened its efforts to build sustainable and beneficial relationships with strategic traditional and non-traditional partners to complement the WRC mandate on either side of the value chain for strategic water sector and societal impacts.

The WRC strategy is re-enforced with a business development focus to ensure projects can be scaled up with implementation partners for greater uptake and diffusion. Finally, a new emphasis has been placed on enhancing international partnerships.

POSITIONING

- Relationship with Executing Authority and DWS
- Recognition as key development player
- Leadership in Science and Innovation landscape
- Water sector leadership
- Increasingly important partner in the international sphere

The WRC is positioned as the premier water knowledge hub in South Africa, and a strategic water hub partner to Africa and the globe.

As a knowledge hub it positions itself to provide knowledge and technology exchange to as many stakeholders and water sector partners. It is also aligned to national policies and therefore, is a key development partner to the sector and in terms of human capital development within the science and technology space.

Our position as the WRC both nationally and internationally is more meaningful when there is a strong relationship with Executive Authority and the Department of Water and Sanitation.

PEOPLE

- Transforming and expanding the water R&D community
- Growing the new W&S cohort
- Building the youth cadres
- Community practitioners and entrepreneurs
- WRC leadership development
- Gender and youth foci

At the heart of the WRC strategy is people. Three of the 6 knowledge tree objectives are linked to growing and empowering both the science community through the development of students, researchers, entrepreneurs and innovators as well as the sector practitioners and society through the generation of new knowledge, products and services. The WRC will use its programmes and instruments to improve people's lives. This will be advanced by supporting transformation and expanding the water research and innovation community.

The WRC is making stride in growing the new Water and Sanitation cohort working in water and sanitation research and innovation. This will involve having more women and youth leading projects and participating in the WRC projects. To stimulate economic growth and development, the WRC continues to support SMMEs and entrepreneurship that operates in water and sanitation areas and innovation development for the creation of new products and services for new business development and an enhanced competitive edge.

Strategic outcome-oriented goals

In addition to contributing to several Government Outcomes, the WRC's strategic outcome-orientated goals comprise five impact areas based on the operationalisation of the WRC Knowledge Tree, a fundamental guiding framework and corporate planning tool used by the WRC to define, measure and evaluate research impact.

The Knowledge Tree speaks to an investment in the multiplier effect which aims to inform policy and decision-making, contribute to sustainable development solutions, develop products and services for the economy, actively contribute to human capital development, directly empower communities, and enable the national transformation project.

Secondly, it speaks to the continuous improvement of a programmatic approach to choose a significant proportion of new projects in each funding cycle that build on the knowledge base of existing and previous funding cycles.

The WRC strives to achieve as many of the WRC Knowledge Tree impact areas as reasonably possible in the research that it funds. This applies within a research project, to post-project actions, and to follow-on projects. By 2017/18 the Knowledge Tree had been well entrenched in the WRC's activities, with all research proposals articulating objectives of the Knowledge Tree branches.

Table 1. The WRC's strategic outcome-orientated goals (Knowledge Tree)

Strategic Outcome-Oriented Goal

Inform policy and decision-making

The WRC aims to commission appropriate evidence-based knowledge generated to guide decision-making, influencing the development of policy, practice or service provision, shaping legislation, altering behaviour, contributing to the understanding of policy issues, and reframing debates.

Develop new products and services for economic development

The WRC capitalises on those projects that have potential to develop new intellectual property or to introduce innovations which create new or improved technologies, products and services that can be used in the real economy. Effectively, this is the WRC's contribution to job creation and economic development through water science innovations.

Enhance human capital development (HCD) in the water and science sectors

The WRC strives to have high levels of student participation in its projects. Although the emphasis is on post-graduate degrees, inclusion of undergraduates has also been investigated. There is also a particular emphasis on previously-disadvantaged individuals (PDIs) and women. The WRC also aims to support institutional development through mentorship provided to new research leaders.

Drive sustainable development solutions

The WRC prioritises those projects that provide sustainable development solutions that have had positive effects on the environment, economy and society, including: protection of water resources, optimal water use, equity between generations, equitable access, environmental integration and good governance. Additionally, this goal focuses on developing knowledge products that are fit-for-use to ensure the uptake of research.

Promote transformation and redress

This goal focuses on growing PDI involvement/leadership in projects, as well as helping to promote socio-economic development through the reduction of poverty and inequality in South Africa, particularly of marginalised groups such as women and youth.

Empower communities

The WRC places an emphasis on projects that (a) include communities not only as end-users of research but as active participants in the research process from the project design phase; (b) have a direct impact on the livelihoods of communities through water-related interventions; and (c) build sufficient capacity to assist with the post-project sustainability of those interventions.

The WRC, therefore, has continued to focus on the development of its impact narrative that provides a pathway from research to impact. This entails a continuous review of current actions and activities as well as the identification of new actions that will ensure impact realisation.

The Commission also uses other instruments to achieve its goals, most notably driving community involvement in research, promoting the WRC Lighthouses, and leading innovation and impact.

The four core principles of the strategy are implemented through the following instruments:

The WRC Knowledge Tree

This is an investment in the multiplier effect which aims to inform policy and decision-making, contribute to sustainable development solutions, develop products and services for the economy, actively contribute to human capital development, directly empower communities, and enable the national transformation project. Secondly, it speaks to the continuous improvement of a programmatic approach to choose a significant proportion of new projects in each funding cycle that build on the knowledge base of existing and previous funding cycles.

Community involvement in the research which further diversifies the research philosophy

This moves the WRC from the classical independent-observer scientific approach to an action-research paradigm. This entails the broadening of our research scope to one that actively involves communities in the research project, and engages key partners to upscale and also maintain interventions post-project.

The WRC Lighthouses

This is the concentration of research for accelerated knowledge and solution development. These are trans-disciplinary, multi-branch and inter-institutional mega-projects (platforms) that will examine priority water issues across the innovation value chain.

Innovation and impact

The WRC will pursue elevations in several key impact areas through, among others, technology scanning, reverse engineering, and the pursuit of ready-to-use solutions in a plug-and-play mode.

Legislative and other mandates

The WRC serves as the R&D partner of the sector leader, the Department of Water and Sanitation (DWS), and provides the sector with knowledge and capacity to ensure sustainable management of water resources and enhance water services.

Constitutional mandate

The WRC is bound by the Bill of Rights contained within the Constitution that is applicable to all laws. In the execution of its mandate, the WRC upholds several key principles of the Bill of Rights, most notably section 27.1.b that gives everyone the right to have sufficient access to water. The WRC regards the ready availability of water knowledge and understanding as critically important to the adoption of effective and innovative strategies for equitable water service provision, management and use. It also has the pivotal role of being the knowledge partner to the respective implementing agents in the realisation of the Bill of Rights.

Additionally, section 16 of the Constitution, which addresses freedom of expression, including the right to academic freedom and freedom of scientific research, also applies to the work of the WRC.

Legislative mandates

The WRC is governed by the Water Research Act (WRA), Act No. 34 of 1971, which outlines the purpose and mandated objectives of the organisation. The WRC also operates and accounts for its activities in accordance with the Public Finance Management Act (PFMA), Act No. 1 of 1999, and is listed as a national public entity in Schedule 3A of this Act.

The mandated objectives of the WRC are also in accordance with the requirements of the policies of the DWS for the Water Services Act (Act No. 108 of 1997) and the National Water Act (Act No. 36 of 1998). Key legislative frameworks and their applicability to the WRC are highlighted below.

Water Research Act (Act No. 34 of 1971 as amended)

The principal aim of the WRA is to provide for the promotion of research in connection with water affairs. The Act requires the establishment of the WRC and the Water Research Fund, and sets the framework within which the WRC operates. It also provides for the establishment of the WRC as a Schedule 3A public entity, thereby requiring compliance with the PFMA Act (Act No. 1 of 1999) and Treasury Regulations.

The WRC's mandate, as set out in this Act, highlights the following functions to be carried out by the organisation:

- Promote co-ordination, co-operation and communication in the area of water research and development
- Establish water research needs and priorities
- Stimulate and fund water research according to priority
- Promote the effective transfer of information and technology
- Enhance knowledge and capacity building within the water sector

National Water Act (Act No. 36 of 1998)

The objective of the National Water Act (NWA) is to ensure that South Africa's water resources are protected, used, developed, conserved, managed, and controlled in a sustainable and equitable manner, for the benefit of all persons. The NWA also provides for the pricing strategy for water use charges, the primary mechanism for the calculation of a charge, payable by some or all raw water users, that is also set for research purposes by the WRC. The role of the WRC is to align its funding priorities with those key national water challenges articulated in the NWA, and to help solve water-related problems which are critical to South Africa's sustainable development and economic growth.

Water Services Act (Act No. 108 of 1997)

The objective of the Water Services Act (WSA) is to provide for the right of access to basic water supply and basic sanitation by setting national standards and norms. Section 156, read in conjunction with Part B of Schedule 4 of the Constitution of the Republic of South Africa (Act No. 108 of 1996), vests in the Executive Authority the responsibility to support and strengthen the capacity of municipalities to manage their own affairs, to exercise their powers and to perform their functions. Again, the applicability of the WSA to the WRC rests in the WRC's duty to respond to water supply and sanitation needs with research and development that helps to address those needs.

Planned legislative mandates

All three Acts are being revised, and have a strong possibility of being amended in a manner that strengthens the WRC mandate.

Review of the water-related legislation

The DWS is currently reviewing the NWA, the WSA and the WRA.

While the National Water Act provides a legal framework for the progressive realisation of the right to access to sufficient water, the Act is under review to ensure that there is equity in the allocation of water, to improve water resource management and to streamline regulatory processes. In turn, the Water Services Act is being reviewed to improve the provision of water services to ensure alignment with the provisions of the Municipal Systems Act, 2000 (Act No. 32 of 2000) and the Municipal Finance Management Act, 2003 (Act No. 56 of 2003).

The revised policy positions necessitate the consolidation of the NWA and WSA into one piece of legislation that will govern the entire water value chain covering water supply and sanitation services as well as water resource infrastructure. This consolidation will not only allow for managing water across the value chain but will also enhance cooperative governance and set clear institutional roles and responsibilities with commonly agreed targets for water delivery.

Water Research Amendment Bill

Addressing current and future water knowledge gaps and the way in which these are currently prioritised in the South African context demands the evolution of the regulatory and governance structures of research institutions. The purpose of the Water Research Amendment Bill, 2013, is to:

- Amend the WRA so as to insert certain definitions and substitute others;
- Effect certain textual improvements and name changes;
- Provide for the appointment of members of the Board and the CEO in line with other public entities in the water sector and current practice of Corporate Governance;
- Regulate the governance of the Water Research Council (Water Research Commission in the current Act);
- Align the Act with applicable legislation, such as the NWA, WSA and the Public Finance Management Act, 1999; and to
- Provide for matters incidental hereto.

While the new clauses in the Amendment Bill do not legislate for a change in the relationship between the DWS as the shareholder department and the WRC as a public entity, the process of developing the draft Bill has created a discussion space enabling these two public sector partners to draw closer together and iron out the modalities of governance, cooperation and the complementarity of roles.

Policy mandate

The WRC has continued to support DWS in its call for mainstreaming of water and sanitation as the basis to enable and catalyse economic growth and sustainable development. The WRC is therefore actively involved in key DWS initiatives, including the legislative and policy review and the institutional realignment programme, as well as the implementation of the National Water Resource Strategy 2 (NWRS-2).

Specifically, the WRC's strategy is designed to support the further refinement and implementation of NWRS-2, together with DWS and associated departmental plans for water services and sanitation. This is closely followed by the water-related components of the President-led National Infrastructure Plan and its associated 18 Strategic Integrated Projects (SIPS), the Department of Environmental Affairs–led Climate Change Response Strategy and the Department of Science and Technology's 10-year Innovation Plan, as well as the broader South African sustainable development agenda.

A third layer addresses the water-related components of the other core development strategies for these five years, for example, in the areas of local government, agriculture (including forestry), rural development, mineral resource development, the spatial development plans, and water-related enterprise development. The outcomes of our research projects provide scientific knowledge which informs initiatives such as the water pricing strategy and water infrastructure management.

Alignment of WRC activities to NWRS-2

The National Water Resource Strategy 2 (NWRS-2) calls for a much larger contribution from R&D to empower the implementation of the Strategy. In addition, the Strategy also engages the further development of water sciences in South Africa. One of the key deliverables that the NWRS-2 emphasises is the Sector Research and Innovation (R&I) Strategy.

In support of this, it is incumbent upon the WRC to coordinate the development of the National Water R&D Plan, with the latter also emphasised in the Water Research Amendment Bill. Some of the additional research knowledge contributions that the NWRS-2 requires from the WRC include:

- Desalination of seawater
- Job creation
- Mining, energy and manufacturing industries
- Awareness and communication
- Research and development
- Scenarios, climate change modelling and water availability
- Hydraulic fracturing and coal-bed methane extraction

These areas call on the WRC to collaborate with the DWS and other Government departments such as the Department of Trade and Industry, Department of Economic Development, Department of Environmental Affairs, Department of Human Settlements, and Department of Mineral Resources, as well as other sector partners such as Eskom, Rand Water and

Sasol, to develop appropriate technologies and support the development of relevant centres of excellence in several of the fields of research described above.

In this regard, the WRC, together with the DST, has completed a consultative process and developed the Ten-Year Water Research, Development, and Innovation/Deployment (RDI) Roadmap that provides a sector-defined, needs-driven research agenda that caters for the public sector (utilities, municipalities), private industry, agriculture, and environmental protection. The Roadmap is a high-level planning tool that facilities and guides refocusing of research, reprioritisation of funds, synergising of existing initiatives and ring-fencing of new resources in order to facilitate a more optimal water innovation system. The Roadmap has been endorsed by DWS as the implementation plan for the R&D chapter of NWRS-2.

Contributing towards achieving Government Outcomes and National Development Plan (NDP) objectives

As a national public agency, the WRC actively strives to support the Government of South Africa in achieving its strategic outcomes, with particular reference to the NDP objectives as well as the Corporate Plan (Annual Performance Plan) of the DWS and the performance agreement of the Minister of Water and Sanitation.

The WRC also applies the outcome-based approach developed by Government and aims to support all Government Outcomes and Outputs through its research portfolio, with special emphasis given to Government Outcomes 6, 7, 9 and 10 (Table 1). Firstly, Outcome 6 addresses the need for an efficient, competitive and responsible economic infrastructure network. WRC-funded projects support water availability through examining and finding solutions for issues related to bulk water supply, and through supporting the development of appropriate regulations regarding water quantity, quality and usage. A second emphasis is Outcome 7, which focuses on vibrant, equitable and sustainable rural communities and food security for all. This is carried out through a number of projects addressing water utilisation in agriculture as well as projects focusing on informal settlements and peri-urban communities. Thirdly, Outcome 9 aims at establishing a responsive, accountable, effective and efficient local government system. The WRC supports this outcome through research focused on improving services, with special emphasis on the delivery of water and sanitation services. Finally, Outcome 10 addresses the protection and enhancement of the country's environmental assets and natural resources. This outcome is supported through research in aquatic ecosystem connectivity processes, sustainable utilisation, restoration, global change and biodiversity protection. The WRC workplan is geared to the improvement of the quality and quantity of South Africa's water resources through both its research projects as well as its innovation and technology development activities. Examples include technologies and strategies to reduce water loss in distribution systems, better sanitation solutions and improved wastewater treatment.

Alignment of Sustainable Development Goals (SDGs)

From food and energy security to human and environmental health, it is well recognised that water contributes to improvements in social well-being and inclusive growth. As the world grapples with increasing water scarcity, numerous international water bodies have identified water as a priority concern.

While recognising these priorities, the world has moved beyond the Millennium Development Goals (MDGs), towards a post-2015 development agenda. Water-related goals have moved past the mere provision of water supply and sanitation towards a more integrated approach that encompasses the supply of basic services, the sustainable management of water resources, improved water governance, water quality and wastewater management, and mitigation against water-related disasters.

The Rio+20 conference (the United Nations Conference on Sustainable Development), held in Rio de Janeiro in June 2012, galvanized a process to develop a new set of Sustainable Development Goals (SDGs) which will carry on the momentum generated by the MDGs and fit into a global development framework beyond 2015. The WRC has been championing the R&D initiatives, aligning them with the Sustainable Development Goals adopted by the United Nations (UN) in 2015.

Organisational environment

The primary functions of the WRC have always been to fund and steer the water research agenda in South Africa, and to effectively disseminate and communicate research findings. Administrative activities are carried out to ensure compliance with regulatory requirements and to provide an enabling environment for research management. However, in recent years the WRC has been increasingly called upon to not only develop new knowledge in the water and sanitation science and technology domain, but also to support and further develop human capacity and skill as well as lead technology, product and industry development.

This not only necessitated an expanded mandate but also a suitable organisational structure capable of handling these added responsibilities. In 2015, the WRC re-engineered its operations and structure to address challenges faced by the water and science sectors and the country.
As such, four core teams have been developed:

1. **Research and Development** – which focuses on the generation of new knowledge as well as the mechanisms needed to support this, including human capital development and skills development
2. **Impact and Innovation** – which entails a redefined focus on technology, product and industry development, business development and innovation realisation on the one hand, and enabling mechanisms such as knowledge dissemination, communication and marketing on the other.
3. **Finance** – which maintained a focus on financial reporting and compliance.
4. **Corporate Services** – which focuses on the world of work for the WRC. Its portfolio includes Human Resources, Information Technology, Corporate Governance, and Corporate Social Responsibility.

The following structure defines the internal governance framework:

- The Minister of Water and Sanitation is the Executive Authority of the WRC.
- The Department of Water and Sanitation is the shareholder representative.
- The WRC Board is the Accounting Authority of the WRC.
- The Chief Executive Officer (CEO) is the Accounting Officer and a member of the WRC Board.
- The Heads of Branches, namely, the Group Executives, the Chief Financial Officer and the Executive Manager for Corporate Services, report directly to the CEO.

Research and Development

The Research and Development (R&D) branch offers new knowledge in water and sanitation through research and development projects. The knowledge generated results in new or refined technologies and innovations which the WRC provides to the water sector to address specific needs and challenges. The branch is actively involved in human and institutional capacity development using research and development projects, research products and services.

It supports other branches in the WRC with knowledge, innovations and technologies that enable them to fulfil their functions, for instance, Impact and Innovation and Corporate Services (Corporate Social Responsibility) get R&D support when they embark on knowledge dissemination and transfer, screening and evaluation of new technologies, negotiation of new water business development initiatives, assisting schools and needy communities, etc. The R&D branch has three key strategic areas (or departments), which are Water Resources and Ecosystems, Water Use and Wastewater Management, and Water Utilisation in Agriculture.

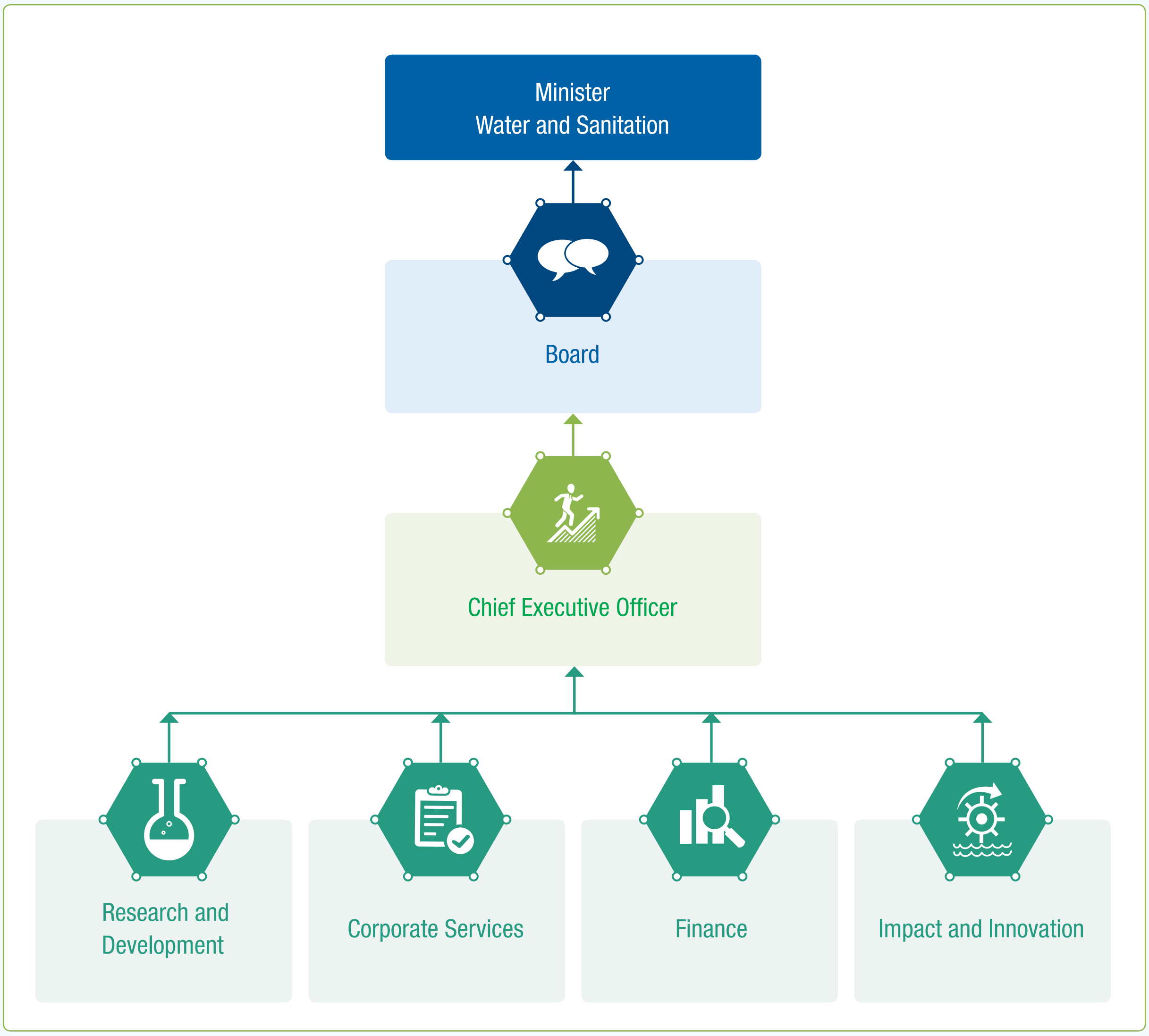


Figure 2: WRC organisational structure

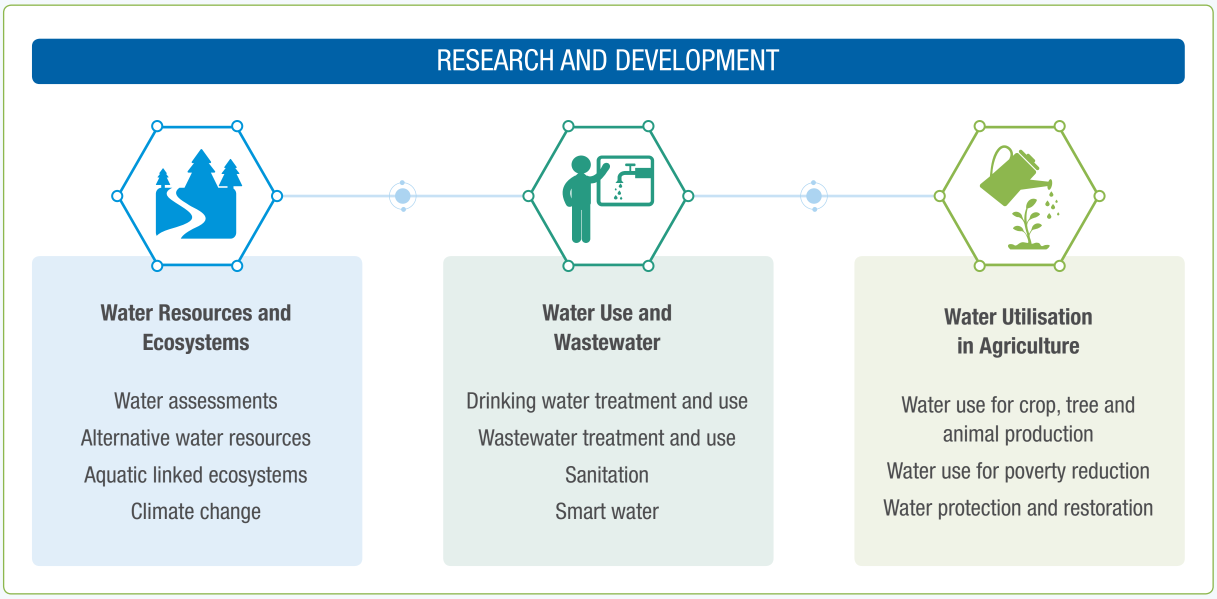


Figure 3: The three strategic areas of the R&D branch

Innovation and Impact

The complexity of water challenges facing the nation means that the water sector needs game changers and needs them urgently. Growth in population and the economy, along with urbanisation and land-use changes, are threatening both water quality and the ability to meet water demand. Looking to the future, climate change is expected to further stress water systems in large parts of the country. Water infrastructure, by some measures the oldest and most fragile part of the country's built environment, has decayed. Current conversations around water challenges are painting a challenging picture for the future of water. Therefore, there is a need to focus more on generating innovative solutions and be able to urgently take those solutions to application. Solutions to the country's growing water challenges lie, in part, with the development and adoption of new innovative technologies, and development of new products and services leading to the creation of new industries.

But current investment in water innovation is extremely low, especially investment by the astute promoters of innovation—such as venture capital and corporate research and development. This low investment may explain the low levels of innovative output, as measured by patent filings and adoption and dissemination of new innovations. The recent drought has further demonstrated to us that unless we take innovations to application, we shall continue to be challenged.

The WRC has taken a strategic decision to address this challenge, and responded by establishing a new branch, Innovation and Impact. This branch seeks to address the above issues by focusing on the following:

- Positioning the WRC as a premier knowledge hub, leading the sector in terms of disseminating appropriately packaged knowledge products including multimedia and interactive solutions;
- Inspiring water conversations, ensuring that water and water-related knowledge permeates though all sectors of our population leading to better understanding of water management issues and hence behavioural changes;
- Creating a robust and vibrant innovation ecosystem that allows the WRC to play a lead and co-ordinating role with strategic sector partners in accelerating technologies to the 'market';
- Creating an environment whereby professionals and non-professionals can contribute and channel their knowledge and innovative skills to solving water problems from a multidisciplinary point of view;
- Encouraging various stakeholders to engage in water conversations and tell their water stories.

Finance

The Finance Branch has maintained its ongoing focus on financial reporting and compliance as this is an important element related to the WRC retaining and building on its clean audit status. This also provides the organisation's partners and key stakeholders further assurance of the entity's financial soundness. As such the Finance Branch has developed into a more strategic unit within WRC operations, evolving from being primarily engaged in administration to being driven by improved efficiencies and effectiveness within the WRC Supply Chain Management (SCM) function and the financial planning and management areas. The Branch is now better geared towards providing the WRC with the required financial planning, structuring and support tools to facilitate and empower the organisation to understand its funding requirements and funding sources that will enable it to realise its research, development and impact vision and strategic objectives.

Corporate Services

The WRC's workplace is defined by technology and the employees that are using it, corporate social responsibility, good governance and the physical work environment.

Information Technology

During the year under review, the Corporate Services Branch continued to position Information Technology in the following areas:

- IT as an enabler of business functions (business intelligence).
- IT as a facilitator to new impact areas.
- IT to provide agility.

In addition, the branch continues to progress in the following critical areas:

- Advancing the WRC – targeted investment in key strategic areas
- Effective information stewardship – recognising the growing importance of capturing, storing and providing secure, effective access to a growing inventory of information
- WRC operational excellence – providing common structural solutions in support of sustainable excellence and the various departmental initiatives
- IT complexity reduction – reducing the burden of maintaining and evolving existing services to release resources that deliver new advances
- IT functional excellence – continuing to build effective processes, approaches and structures in how IT delivers projects and services

Human Resources

Changing employee expectations, new technologies, increasing globalisation and a need for agility in the face of a turbulent business environment mean that tomorrow's workplace will be barely recognisable from today. With the WRC operating in a complex environment, and therefore responding continuously to these challenges to ensure that the WRC has access to the best skills. The WRC has responded well to the challenges below:

- Shortage of technical and leadership skills
- Constant change brought upon by a broader stakeholder economic, political and social environment – this requires ongoing examination of the alignment of WRC priorities with national interests

Corporate Social Responsibility

Corporate Social Responsibility is the commitment by the WRC to behave ethically and contribute to economic development while improving the quality of life of its employees as well as the community and the environment in which it operates. The principal goal of the strategy is to establish the directives necessary to achieve respect for the employees and environment, and to contribute to society.

The specific objectives of the WRC's CSR strategy are to:

- Minimise impact to the environment through waste pollution reduction
- Enhance the wellbeing of employees
- Ensure empowerment and improvement of the communities in which the WRC operates

Facilities

Facilities at the WRC is responsible for creating an optimal environment for the organisation's primary functions, taking an integrated view of the business infrastructure, and using this to deliver satisfaction and best value through support for and enhancement of the core business.

Managing facilities efficiently and effectively was achieved following a robust strategy developed within the context of the WRC's main objectives and space/accommodation strategy. This involved development of strategic objectives and a plan for facilities management, with proper reference to the overall Corporate Plan and space/accommodation strategy within which it is contained, and which considers the needs of the organisation, differentiating between core and non-core business activities.

SECTION B: PERFORMANCE OVERVIEW

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PERFORMANCE ENVIRONMENT

The WRC's performance environment is created on the premise that the crux of the water and sanitation challenge in South Africa is a capacity and capability challenge. The WRC addresses the three dimensions of this challenge, namely new knowledge, human capital, and technological solutions. The Commission endeavours in its projects to create a high concentration of activities that support each of these dimensions.

Technological innovation, improvements in communication, increased collaboration and international partnerships have enhanced the ability of the WRC to conduct better research, to train students at higher levels, and to organise for better translation of research into products and services for the economy. These improvements, together with new resources, will guarantee the ability of the South African water RDI community to make a significant difference to South Africa's water fortunes. The following section provides an overview of the WRC's performance during 2017/18.

Informing policy and decision-making

Water footprint of selected vegetable and fruit crops produced in South Africa

The WRC with its research partners have completed the first of a series of projects on water footprint assessments for different crop types. The completed project focused on vegetable and fruit crops. The research conducted in this project aimed to not only estimate water footprint metrics for important fruit and vegetable crops, but also to explore the use of different water footprint assessment approaches and to interpret the usefulness and applicability of the information generated. To aid in this objective, two catchment case studies were selected, the first being on the Steenkoppies Aquifer located in Tarlton, Krugersdorp, and the second being the Olifants-Doorn water management area. The project resulted in the development of a framework, namely the Catchment Water Footprint Approach, which was successfully used to determine the water footprint of selected fruits and vegetables in South Africa.

Investigating the health risk of emerging contaminants

On 31 August 2017 the WRC held a special workshop to discuss emerging contaminants, particularly microplastics and engineered nanoparticles in the water environment. The presence of a wide range of emerging contaminants, including microplastics, contributes to one of the biggest threats to our water resources and environmental health. Research funded by the WRC has shown that these pollutants ultimately make their way through wastewater treatment plants into fresh and marine water resources where they can enter the food chain, and have the potential to end up in our drinking water. The main aim of this event was to share insights on the emerging threat of microplastics on the environment and explore mechanisms to lessen this impact.

Water Infrastructure Investment Summit

The WRC was a keen co-organiser and participant in the Water Infrastructure Investment Summit, held at the Sandton Convention Centre on 5 December 2017. The main aim of the Summit was to facilitate a conversation and programme of action that aims to shift the water and sanitation sector investment landscape to a space that is open and enabling for investment and inclusive growth opportunities. This event unpacked the key investment opportunities, constraints and solutions in the areas of bulk water infrastructure, municipal water infrastructure, and emerging innovations and solutions. A number of key topics were covered, including, dealing with water availability, ageing infrastructure, ensuring water quality, and energy use reduction challenges through development of cutting edge solutions and innovation; facilitating economic growth through infrastructure investment to enable the private sector to expand capacity, create more jobs and produce more goods and services; and funding infrastructure projects, enabling research, developing and implementing improvements of the investable water and sanitation infrastructure projects.

Improving research around weather and climate

The research community has limited access to real-time weather information. This has severely hampered the development of solutions and research around weather-based decision support systems. Historically, a divide has existed between research, application, development and operational platforms. The result is that much of the research around precipitation estimation and severe storm detection has never made its way to operational use. A WRC project aimed to bridge the divide between research and operations by building real-time weather infrastructure that can provide real-time weather information to the South African community in order to stimulate research and innovation that can have real world socio-economic impacts. Among others the project has seen the acquisition, installation and upgrade of a weather radar, situated on Lekwena Wildlife Estate, outside Potchefstroom. The radar was launched at a special event on 9 March 2018.

Guiding decision-making around drinking water quality

The current series of South African Water Quality Guidelines, originally developed in the 1990s, has been an extremely important contribution to water resource management in South Africa. Against the backdrop of an evolution in water resource management and specifically water quality assessment the WRC started a process to update and expand the guidelines. During 2017/18 the WRC, as part of this process, completed a project to develop 'Risk Based Water Quality Guidelines for Domestic Use' enabled through a user-friendly and practical decision support system (DSS). The purpose of the guidelines is to establish measurable 'targets' that determine different levels of fitness for use, through a risk-based approach. The DSS has been designed to assess the quantitative risk to a domestic user; by producing a numerical result that would produce a fitness-for-use categorisation.

Enhancing the sustainable use of groundwater

Sustainable groundwater use requires a balancing act between pumping water out of the aquifer (discharge) and the water being recharged back into the aquifer. This water balancing act is known as the 'capture principle'. During the year under review the WRC completed a research project whose main aim was the promotion of the capture principle approach to enhance sustainable groundwater use. Among others, the project developed a new tool (a decision framework) to put the capture principle approach into practice. The new framework was tested in two case studies, namely, the West Coast aquifers in the region of Langebaan and Saldanha Bay, Western Cape, and the Maloney's Eye Steenkoppies Compartment in Gauteng. This framework offers an improvement over existing water balance based methods to quantify groundwater resources. Using this tool regulators can now make more informed decisions about the current and future state of sustainable groundwater use.

Developing new products and services for economic development

New App to address blackfly outbreaks along Orange River

New tools developed through a WRC project could potentially save the Northern Cape economy millions of Rand. During the last outbreak along the Lower Orange River in 2011, blackfly caused losses of livestock estimated at some R300 million. Blackfly outbreaks also affect irrigated agriculture and tourism, as people are prevented from going outdoors due to the biting insects. The WRC project, completed in 2017/18, was aimed at improving prediction of blackfly outbreaks – and hence helping to prevent them – by refining a Bayesian network probability model and enabling members of the public to contribute data. The latter has been achieved by developing a mobile phone application, called 'Muggies', which is available for both iOS and Android. The App and associated website (http://muggies.org) allows users to upload photos or video clips of blackly larvae on reeds and rocks in the

Orange River and adjacent irrigation canals. The new tools represents a considerable advancement in making the various aspects of the Blackfly Control Programme available to all stakeholders.

Leakage characterisation of bulk water pipelines

Leakage on bulk pipelines is notoriously difficult to detect. A unique device has been developed by the University of Cape Town through a WRC project that is able to assess the condition of bulk water pipelines. The device is connected to an isolated section of a pipe using a fire hydrant or another access point. It then performs a number of pressure-based tests to identify leaks in the pipe. The results are interpreted based on multi-decadal years of research into the behaviour of leaks in pipes, and allows both the size and type of leaks in the pipe to be identified. The device has the potential to identify very small leaks, as well as non-sealing valves and trapped air in the pipe. This device has the potential to make a real impact on understanding and reducing leakage in water-supply systems. The project team is pursuing commercialisation of the device through a separate collaborative project between the universities of Cape Town and Stellenbosch. A patent application has been submitted.

Determining the fate of toxic metals in wetlands

The Witwatersrand basin has many gold tailing dumps that leach out acid mine drainage. The acid mine drainage contains toxic heavy metals that are deposited in the surrounding wetlands. Wetlands are recognised as sinks for pollutants. In recognition of this water purification role artificial wetlands have been constructed. However, to date there have been few in-situ studies on the fate of pollutants in these wetlands. A WRC project completed during 2017/18 investigated the use of passive samplers for determining the fate of toxic metals in wetlands polluted by mining activities. Originally used to study air pollution, passive samplers offer various benefits over active sampling methods, such as that they can be deployed over a larger area and for longer periods (from 14 to 30 days). Thus, the results provide a more accurate reflection of the situation. It is expected that this new technology will be useful for South African mining companies with constructed wetlands.

Empowering communities

Creating entrepreneurship opportunities for women in water

During August 2017, the WRC and EWSETA hosted a one-day event in Centurion to showcase entrepreneurship opportunities for women in the water and related sectors. The event highlighted case studies of existing enterprises owned and led by women and introduced entrepreneurship as a post-qualification option for female EWSETA learners. The event formed part of the Women in Water Empowerment Programme, which is being steered by the WRC. The goal of the programme is to provide support to women-owned and led enterprises to be effective and efficient in delivering water and sanitation-related services to the public.

Exploring community-driven multiple use of water and rural livelihoods

Multiple use of water systems (MUS) can provide the more vulnerable users with low-cost services for domestic water, water for agriculture (irrigation, rain fed), homestead, garden, water for cattle, habitats for fish and other aquatic resources and rural enterprise water supplies. The action research project ‘Operationalising community-driven multiple use water services’ is being implemented by the WRC in collaboration with the International Water Management Institute and the NGO Tsogang, with the support of the African Development Bank. Among others, the project aims to demonstrate participatory planning for sustainable multi-purpose infrastructure in selected rural villages; enhance the knowledge base of MUS and to upscale the MUS approach at district, provincial and national level. The four-year project is being implemented in Limpopo. On 27 March 2018 a Policy Dialogue was hosted by the WRC and the Department of Water and Sanitation to deepen the debate on policy and appropriate water service delivery models particularly in rural communities where people’s needs for water are for more than single use.

Demonstrating new sanitation technologies in the Eastern Cape

A Memorandum of Understanding (MOU) between the DST and the Bill & Melinda Gates Foundation was signed in March 2014 to demonstrate potential Gates technology innovations of relevance to South Africa. DST appointed the WRC to facilitate and coordinate this programme. One of the first technologies selected for demonstration was the earth auger sanitation system. The earth auger is a hybrid sanitation system: a urine-diverting dry toilet, and a composting toilet. A composting toilet makes use of naturally occurring bacteria that use the solids as an energy source – as food – and, in the process, convert the solids to a more stable form. With the interest and support of the Chris Hani District Municipality, 200 earth auger sanitation units were installed to demonstrate the technology in the field. Construction was completed during the first quarter of 2017/18. The site selected for the demonstration was at Ida Village, Indwe, in Chris Hani District Municipality (Eastern Cape). While user acceptance is a key criterion and any new toilet technology will require some adjustments to be made to be suitable for widespread application, it is anticipated that alternative solutions such as the earth auger will go a long way towards addressing South Africa’s sanitation challenges. User behaviour and acceptance of the technology, as well as creating a value for the by-products, are key aspects to be observed and learned from.

Reducing queues at school restrooms

Urinals are sometimes used to reduce the number of toilets required at a school, which typically reduces the cost per child served. Urinals can also reduce queues for school toilets and the need for small learners to use pit toilets that are not suitable for them. Urinals designed for girls and women have been used with success in some countries. A WRC study demonstrated the potential for acceptance of the introduction of urinals for girls and women in school and public toilets in South Africa. Field trials with a wall-mounted urinal demonstrated that – as long as urinals are kept clean, adequate education is provided, and privacy is provided – adoption and acceptance of the technology in schools is likely. Not only should female urinals be seen as a way to increase the number of toilet seats in a school, they should be considered as a way to improve girls' experience with using the toilet at school. This study highlighted that girls prefer to use urinals if they are available at school, due mostly to their cleanliness and better hygiene.

Building knowledge on reclamation of treated wastewater

In an ongoing attempt to build the knowledge base around the reclamation of wastewater for drinking purposes, the WRC drove a study to investigate and test the major factors that govern people's decisions towards the use of reclaimed water for drinking purposes. The study also developed strategies and tools to inform better information-sharing and public engagement within the institutional decision-making process. Public acceptance of reclaimed water in South Africa remains contentious because of social and institutional factors. The final report recommends that water institutions engage with identified target groups to shift public resistance toward acceptance and promotion. The report proposes an approach that will address public resistance to improve acceptance of water reclamation. It is hoped that its findings will aid municipalities in their quest to improve service delivery through productive engagement with the public.

Driving sustainable development solutions

Web-enabled mine-water management vulnerability assessment tool

The WRC with its research partners completed the development of a web-enabled mine-water management vulnerability assessment tool to facilitate resource protection. The tool is available in two forms, web-based and in Excel format, and is available on the RiskQ website (www.riskq.co.za). The purpose of the mine-water management vulnerability assessment tool is to guide the mining sector in self-assessment to assist with improved mine-water management and associated resource protection. In addition, the tool seeks to support the development of strategies and timely action plans relating to measures that should be put in place to address mine-water management challenges.

Reducing agriculture's vulnerability to climate change

The agricultural sector is physically and economically vulnerable to climate change. In most regions of South Africa, the availability of water is the most limiting factor for agricultural production. The country experiences a high risk climatic environment, with a highly variable and spatially uneven rainfall distribution, as well as climate-related extremes. Any change in rainfall attributes could have wide-ranging implications for commercial and subsistence food and fibre production, as well as for the GDP, employment and foreign exchange earnings. At a special dialogue held on 1 August 2017, the WRC and the University of Cape Town shared results from a research project titled 'Adaptive interventions in agriculture to reduce vulnerability of different farming systems to climate change in South Africa', with relevant stakeholders.

Underlining the importance of Ramsar wetlands

A completed WRC project has contributed important baseline information for aquatic ecosystem monitoring at Ramsar wetlands. Entitled *The aquatic biodiversity and tourism value of selected South African Ramsar wetlands* (**Report No. TT 732/17**), the report collates existing information for nine wetlands around the country, provides baseline data for a number of parameters measured by the research team, and includes a literature review on tourism aspects, such as the potential loss of tourism due to environmental degradation, the environmental impact of tourism activities, and the likely effect of climate change. The nine wetlands selected were Barberspan in the North-West Province, De Hoop Vlei and Heuningnes Estuary near Cape Agulhas in the Western Cape, Kosi Bay and Lake Sibaya on the Zululand coast and Ntsikeni wetlands in the Drakensberg foothills of KwaZulu-Natal, Makuleke wetlands at the northeast boundary of the Kruger National Park in Limpopo, Blesbokspruit in Gauteng and Seekoeivlei in the Free State. At a special event on World Wetlands Day, 2 February 2018, the report was officially launched at Rietvlei Nature Reserve, in Pretoria. The event was held in partnership with the City of Tshwane and the report was handed over to Tshwane MMC: Agriculture and Environment, Mike Mkhari.

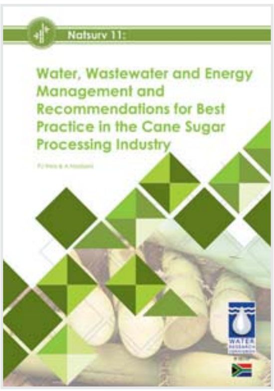
WRC CEO, Dhesigen Naidoo handing over the Ramsar report to Tshwane MMC: Agriculture and Environment, Mike Mkhari.

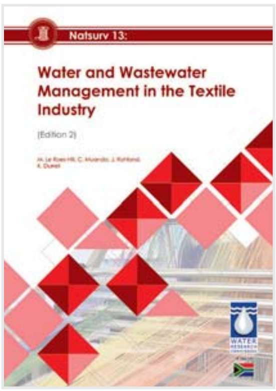
Water science plan for unconventional gas exploration

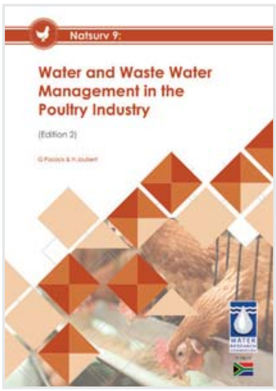
Energy and water security are paramount for South Africa's future. As the country's portfolio of energy sources expands and evolves, it is important to ensure that adequate safeguards are in place to protect South Africa's water resources. Energy systems can pose direct and indirect threats to water resources due to competing demands on water availability, groundwater depletion, and potential water quality impairment. The WRC, with its research partners, developed a water science plan for unconventional gas exploration and production. The plan advocates a well-design and effectively implemented test-bed to provide stakeholders and decision-makers with credible, defensible, statistically sound, and locally-relevant data while cultivating local expertise in well drilling, casing and stimulation; integrity testing; as well as operations and monitoring. The water science plan was developed in anticipation of unconventional gas exploration and production in South Africa. The plan builds on the global experience in unconventional energy systems using a risk characterisation/risk management paradigm. The water science plan is organised around five inter-related guiding principles: water resource protection, data interoperability, innovation, credible governance, and capacity building. Implementation of the water science plan will be through specific projects administered through the Commission.

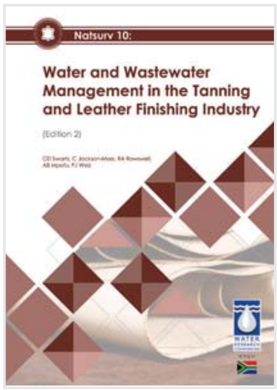
Benchmarking industrial water use and wastewater management

Manufacturing and processing industries consume significant quantities of energy and water, and generate large volumes of wastewater. There is increasing pressure on all industrial sectors to use water more efficiently. The WRC, with its research partners, undertook several National Industrial Water and Wastewater Surveys (known as NATSURVs) to determine the water use and wastewater management of several sectors in South Africa. The current NATSURVs follow on the original surveys undertaken in the 1980s. The original NATSURVs measured the water use and effluent generation in a range of industries aimed at identifying areas in which industrial water use and effluent management could be improved. Much of the information in the original series is now outdated, and the WRC therefore commissioned a new series of NATSURVs, starting in 2014. The current round of surveys are revisiting these industries and are intended to provide a latter-day comparison indicating whether improvements have been made in the area of industrial water management. The objective is for the NATSURV series to serve as guides and benchmark tools for stakeholders, including local governments, industry players, academics, researchers and engineers. During 2017/18, a number of NATSURVs were published for, among others, the cane sugar processing industry, the textile industry, the poultry industry, and the tanning and leather finishing industry.









Promoting transformation and redress

Transforming South Africa's water challenges into enterprise opportunities

The WRC and the Gordon Institute of Business Science Enterprise Development Academy initiated an interactive dialogue on 15 May to discuss whether South Africa's water challenges can be transformed into opportunities for enterprise development and economic growth. The purpose of the discussion forum was to stimulate conversation and to pave a way for new opportunities for the water sector by identifying possible development opportunities and partnerships for supporting water enterprise and entrepreneurship. The forum also investigated the possibility of establishing a 'cross-sectoral water enterprise think tank'. From the discussion it was clear that several opportunities exist but that these need to be made more explicit, and that various enabling players need to be brought on board to unlock and facilitate opportunities.

Improving the plight of environmental refugees

On World Refugee Day, 20 June 2017, the WRC, with the CSIR, launched a new project at a special dialogue titled, 'Taking stock of the impact of environmental refugees and climate-induced migration in southern Africa'. While Dr Harrison Pienaar of the CSIR Natural Resources and the Environment and Dhesigen Naidoo, CEO of the WRC, sketched the background and importance of the new project, Dr Inga Jacobs-Mata of the CSIR provided insight into the objectives of the research. Then the CSIR's Dr Francois Engelbrecht provided an overview of climate induced migration over southern Africa, followed by Dr George Kuchio of the United Nations Refugee Agency, who provided an international perspective. Dr Brilliant Petja of the WRC presented opportunities in light of climate change. Dr Shafick Adams of the WRC then provided some closing remarks.

The dialogue incorporated a range of different perspectives: governance and law, climate change, land-use, as well as national disaster response and international aid perspectives to explore the climate change-environmental degradation-migration nexus. From the discussions it became clear that context-specific evidence needs to be improved to better inform policies related to environmental migration. More efforts should be made to strengthen local research capacity and expertise to improve data at the local level. Understanding the impacts of migration on migrants, on communities of origin and on communities of destination must be improved to better assess whether and how migration can contribute to reducing vulnerability or, on the other hand, to fuelling increased risks.

Speakers at the dialogue included Dhesigen Naidoo (WRC), George Kuchio (United Nations Refugee Agency), Dr Harrison Pienaar (CSIR), Dr Inga Jacobs-Mata (CSIR), Dr Brilliant Petja (WRC) and Dr Francois Engelbrecht (CSIR).

Enhancing human capital development in the water and science sectors

Giving new researchers a leg up through WRC 101 workshops

The WRC has noted an encouraging trend of research groups submitting proposals who have not previously applied for funding for water and sanitation research. In order to further stimulate and assist new and young researchers, the WRC led a series of so-called WRC 101 training workshops during the first quarter of 2017/18. These informative one-day training courses are aimed at assisting aspiring project leaders to understand the WRC research cycle; find the research priorities of the WRC and the fund allocation for each of these priorities; prepare a comprehensive proposal with tips to improve the chances of success; manage the technical, administrative and financial aspects of a WRC project; understand the contractual and financial audit requirements; and know what resources are available to enhance the success of the project. Workshops were held in Gauteng, the Western Cape and the Eastern Cape.

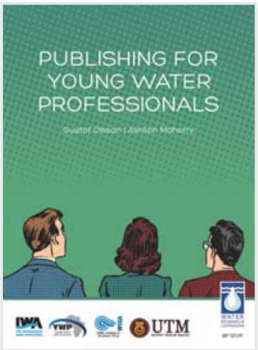
Investing in young entrepreneurs

Imvelisi is a partnership initiative between GreenMatterZA and the South African Young Water Professionals Network. This programme is funded by the Department of Science and Technology with the aim of supporting the business development of young water and biodiversity innovators and their ideas. The Imvelisi Programme is as an ideation/conceptualisation phase training intervention for aspiring enviropreneurs. The purpose of the programme is therefore to ensure a streamlined innovation support system for young people considering careers in the water and biodiversity sectors. To achieve this, Imvelisi brings together a dynamic group of 30-40 energetic young people in the water and environment sector and takes them through a week long bootcamp. Such a bootcamp was held at the WRC during the first quarter of 2017/18. The bootcamp equipped future entrepreneurs with the knowledge necessary to be able to assess market potential, structure a business proposal and partnership, and test the viability of their ideas and concepts with the aim of providing guidance towards successful implementation.

Growing knowledge on intellectual property

In the emerging knowledge economy where intellectual property (IP) is the most valuable asset, creating awareness of the same, especially among persons directly or indirectly involved in R&D is of paramount importance. As such the WRC technology transfer office (TTO), in partnership with the Southern African Research and Innovation Management Association (SARIMA) and the National Intellectual Property Management Office (NIPMO) hosted an IP workshop, titled 'IP Wise' at the Commission's premises on 23 October 2017. The objective of the workshop was to engage WRC research managers and staff at large around the basic principles of IP.

Publishing guide for young water professionals



The WRC published a new guideline, *Publishing for Young Water Professionals*, in 2017/18. The guide, authored by Gustaf Olsson and Ashton Maherry, is the product of the Young Water Professionals (YWP) publications workshop previously conducted in Malaysia and South Africa. The workshops have been organised by the International Water Association (IWA)-YWP National Chapters, in cooperation with IWA and the Water Institute of Southern Africa, supported by the WRC in South Africa and Universiti Teknologi Malaysia. The workshop highlighted a need for publication guidelines for YWPs. The contents of this book aim to advise and guide young people towards successful publication of their papers. The authors have created an easy-to-read guideline. Contents covered in the guideline include language and style, writing the paper, plagiarism and cheating, the submission process, and the review process, among others.

Teaching the benefits of good hand hygiene

Global Handwashing Day is held annually on 15 October. This day is dedicated to raising awareness on the importance of washing hands with soap and water as a key approach to prevent disease. In 2017/18 as part of Global Handwashing Day activities, the WRC, in collaboration with the Department of Health and the City of Tshwane paid a visit to Onverwacht Primary School in Cullinan, Tshwane, to promote good handwashing behaviour. Studies have shown that human hands are chief vehicles of transmission of diarrhoeal and other diseases. Good hand hygiene plays a significant role in preventing and minimising illness.

Enabling successful participation of emerging farmers in water resource management

After the successful completion of the research study on 'Approaches for Emerging Farmer Participation in Water Resource Management', which focused on the Breede-Overberg catchment management agency, a dialogue was organised by the project team in 2017/18 to share the project's key findings. The dialogue was attended by representatives from academic and research institutions, provincial government departments, various municipalities, institutions supporting emerging farmers; activities and officials from the catchment management agency. The dialogue created a platform for discussion and possible collaboration among institutions responsible for emerging farmer support as well as an opportunity to devise holistic strategies which address the varying needs of emerging farmers.

Growing leadership and uptake of science

WRC plays leading role in World Water Week in Stockholm, Sweden

The WRC was a key collaborative partner in the 2017 World Water Week which took place in Stockholm, Sweden, from 27 August 2017 to 1 September 2017. Hosted and organised by the Stockholm International Water Institute, World Water Week is a leading annual global event for concretely addressing the planet's water issues and related concerns of international development. The theme of the 2017 event was 'water and waste: reduce and reuse'. WRC senior managers participated in several sessions and discussion, among others a session looking at balancing competing interests and opportunities for better wastewater governance. This session considered the growing interest in harnessing the potential of wastewater, and the growing need to address conflicting interests associated with managing and using this resource.

The WRC also led, with the Centre for Science and Environment, a session on religious jurisprudence related to reuse of water. The Commission also participated in a session on dealing with the sanitation nexus.

WRC Symposium 2017

The WRC biennial symposium is a significant thought leadership event in the water calendar. The WRC hosted its third symposium from 18 to 20 September 2017 in Ekurhuleni with the theme "Adaptation to the new normal." In response to the occurrence and frequency of extreme weather events such as drought and flash floods, that have placed even more stress on an already limited water resource, opinion leaders, industry experts, government officials, public and private sector decision-makers, young water professionals and innovators convened to exchange knowledge and map out bold interventions that will facilitate our adaptation to a new normal. The symposium addressed questions such as what should the new research agenda be, how to design research programmes in a way that all stakeholders are included, how to extract information from the pockets of excellence already in existence around the world, and how to organise for increased international collaboration so that we do not face these challenges in isolation. One of the highlights of the symposium was the third WRC Knowledge Tree Awards. The awards celebrate men and women who have had a major impact in their pursuit for excellence in the water science domain. Recipients were acknowledged based on the impact their research has made in the following categories: transformation and redress, sustainable development solutions, empowering of communities, informing policy- and decision-making, human capital development in the water science sector, new products and services for economic development, and innovation.

Leading water and sanitation discussions at the municipal managers' forum

The WRC participated in the 12th National Municipal Managers' Forum, which took place in Mbombela, Mpumalanga, on 20-21 February 2018. The forum is organised by the South African Local Government Association. Apart from exhibiting its sanitation technologies the WRC, through Executive Manager, Jay Bhagwan, participated in the session on water and sanitation. The session included discussions on key challenges affecting the municipal water and sanitation sector, ways to enhance the delivery of water and sanitation, as well as improving the management of the water value chain.

International partnerships and collaboration

During 2017/18 the WRC entered into three new partnerships with key international institutions namely the Kenya Water Institute (East Africa), National Commission on Research, Science and Technology of Namibia (Southern Africa), and the Research Institute of Sweden respectively. During the year the Commission also became a full member of the Water Joint Programming Initiative (JPI), an initiative where Europe and its strategic partner countries join forces to establish research capacities and mobilise appropriate skills, knowledge and resources to offer solutions that address global water challenges. The WRC participated in the launch of the 2018 Water JPI joint call on 'Closing the water cycle gap – sustainable management of water resources' together wth 19 other funding partners from 18 countries in Africa, Asia, America and Europe. These partnerships provide a structured framework and better coordination to faciliate water and sanitation research, development and innovation collaborations, knowledge sharing and strengthen institutional and individual capacities between South Africa and the partner countries.

The WRC also increased its partnerships with foreign country representatives/embassies through two dedicated ambassadors high-level panels during the 2017 Africa Unity Renaissance Conference and the WRC Symposium. The panels faciliated sharing of the current state of affairs with regards to water and sanitation, lessons learnt and joint forward looking among the participating countries.

KEY PERFORMANCE AREAS

The WRC's key performance areas (KPAs) are based on its strategic context and challenges, as well as specific strategic risk areas as identified by the Board and Executive Management. The performance indicators and targets, which have been developed with output and outcome indicators that incorporate the vision, mission and values, will assist the WRC in serving the country in accordance with its mandate, supporting Government outcomes, and will support the organisation's efforts to achieve excellence. The WRC has three areas of performance as follows:

1. Research portfolio | 2. Financial wellbeing | 3. Human resources

Performance indicators and national targets

Research portfolio

The objective of this KPA is the provision of knowledge that aims to enhance the activities of the water sector in a manner that will support economic growth and sustainable development (including capacity building).

Table 2: Research portfolio performance targets for 2017/18

Objective	Performance indicator	Target	Actual	Variance	Notes on variance
To enhance knowledge through new research	The number of new research projects initiated in 2017/18	80	85	+5	The positive variance arises from accommodating new projects as funds become available either through leverage funding, savings or partnerships. This was also driven by the high knowledge demands associated with managing water resources during the drought.
To complete and finalise research projects scheduled in the financial year	The number of research projects completed in 2017/18	84	106	+22	The target was exceeded due to increased efforts to shorten the finalisation timeline from the final report to Executive approval.
To continuously accommodate students as active participants in WRC Projects	The minimum number of students supported on WRC funded research projects	400	452	+52	The WRC excelled in ensuring increased interests from student in WRC projects.
To increase emphasis on projects that have a direct impact on the lives and livelihoods of communities through water related interventions and build capacity to assist with the post projects sustainability of those interventions	The number of community-based research projects funded by the WRC	24	33	+9	Communities showed interest in a number of WRC projects being implemented. The projects were able to accommodate the community and so develop capacity.
To enhance economic development in communities by supporting Small, Medium and Micro Enterprises (SMME) in the water research and development sector	The number of projects with SMMEs in lead organisation in WRC projects	27	27	0	No variance
To focus on growing the previously disadvantaged individuals by increasing the number of project leaders from the designated groups	The number of project leaders from the designated groups	57	33	-24	This indicator was not achieved as in terms of the Employment Equity Act as amended which excludes foreign-born South Africans who had only been naturalised after 1994, which presented a challenge for the WRC in meeting its target for the year.*

* In the area of project leadership by individuals from the designated groups, the overall intent of this key performance indicator was to measure the success of the strategy of the WRC to move from an overwhelming dominance of project leadership by white males as it has been in the past to one that had a much wider diversity of leadership by black and female South Africans. This has been met on the basis of the fact that the large majority of the WRC's new projects are led by non-white male South Africans. However, this indicator is specific about designated groups and the definition is derived from the Employment Equity Act as amended which excludes foreign born South Africans who had only been naturalised after 1994, which presented a challenge for the WRC in meeting its target for the year.

Objective	Performance indicator	Target	Actual	Variance	Notes on variance
To enhance the Profile of project leadership as part of the national transformation project to promote the ongoing transformation of the water research and development sector	Number of projects with historically disadvantaged institutions as participating organisation in WRC projects	10	17	+7	The WRC excelled in its ability to increase participation from HDI institutions in projects on contract initiation.
To increase the number of new innovations / products and services produced from WRC research	The number of new innovations / products and services produced from WRC Research	23	32	+9	The WRC had more innovations that emanated from its research projects which can be attributed to the inventive and innovative spirit of the WRC research partners.
	The number of innovations, products and services that have been implemented/ demonstrated /piloted	13	16	+3	The WRC excelled in its ability to create opportunities to demonstrate/pilot the innovations, products and services that emanated from its research.
To ensure that the WRC increasingly contributes to sustainable solutions for the water sector by creating knowledge products and events that disseminate knowledge produced from WRC research	The number of dialogues held in 2017/18	18	21	+3	The WRC experienced an increased demand and opportunities for knowledge-sharing events.
	The number of manuals and guidelines published in 2017/18	26	26	0	No variance
	The number of issues of the Water Wheel published in 2017/18	6	6	0	No variance
	The number of issues of Water SA published in 2017/18	4	4	0	No variance
	The number of conferences / workshops / summits held in partnerships with other organizations or exclusively by the WRC	20	29	+9	The WRC experienced an increased demand and opportunities for knowledge-sharing events.
	The number of policy briefs produced and distributed to relevant government departments and other entities	14	14	0	No variance
	The number of ministerial briefs produced by the WRC and received by the Minister's office	14	16	+2	The WRC had increased opportunities to share knowledge generated from WRC research with Ministers.
	The number of WIN-SA publications produced and distributed to relevant institutions and municipalities	30	30	0	No variance

In 2017/18, the WRC initiated 85 new projects and also completed 106 projects. Over the past five years the WRC has finalised 532 research projects (Figure 4) indicating a significant contribution to knowledge in the water sector. An average number of 106 projects were finalised per year, over the past 5 years. Over the same 5-year period 562 new projects were initiated (Figure 5), ensuring the continuous contribution of new knowledge to the sector. The large number of initiated projects was largely as a result of the WRC's new and existing funding partnerships.

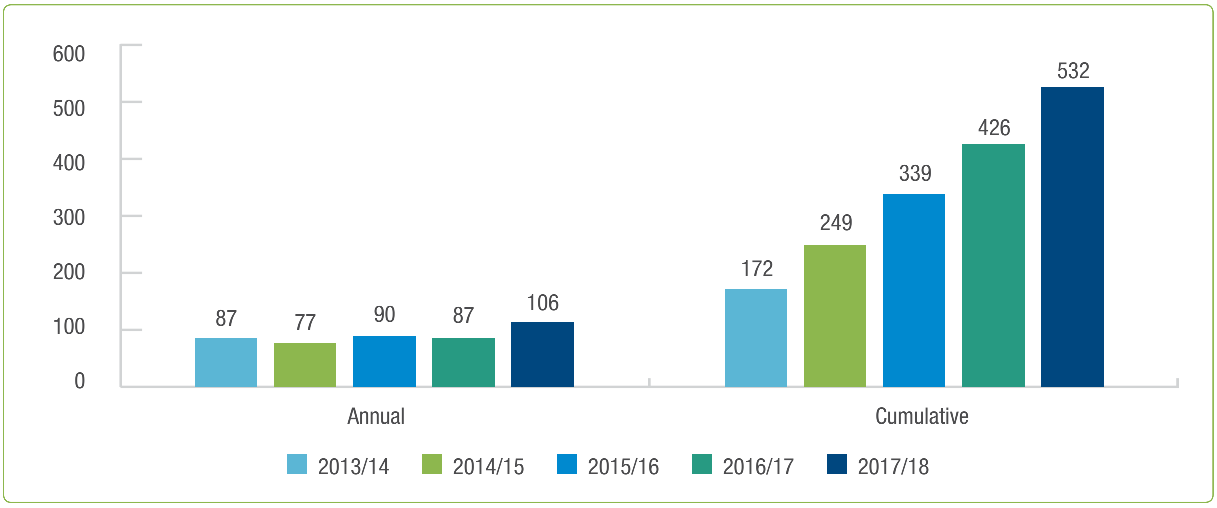


Figure 4. Annual and cumulative number of projects finalised over the past five years

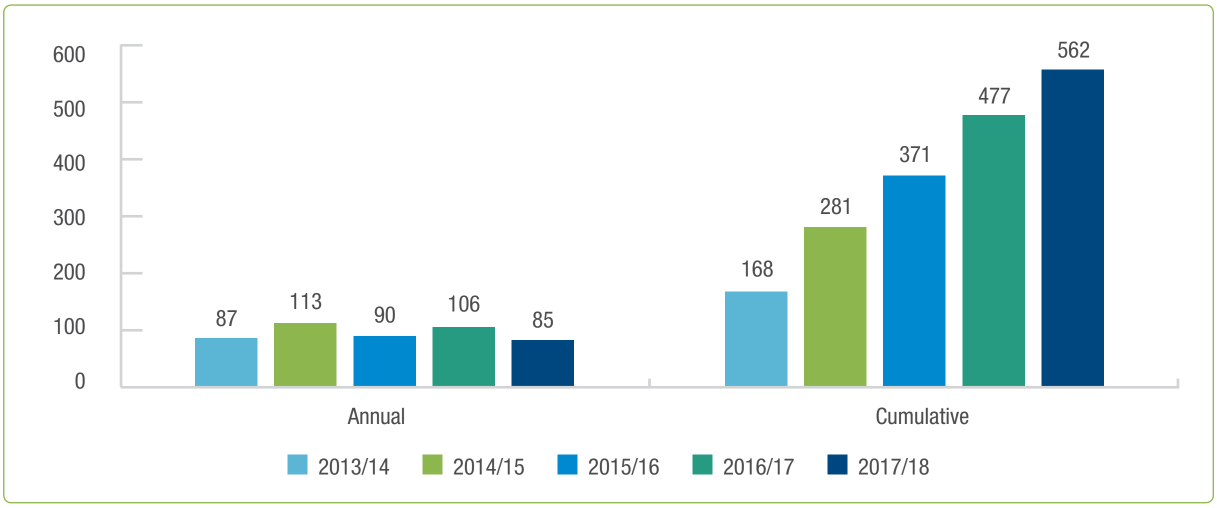


Figure 5. Annual and cumulative number of projects initiated over the past five years

In the last few years the WRC has broadened its research scope to one that actively involves communities in the research project, and engages key partners to upscale and also maintain interventions post-project. Thirty-three of the WRC's projects during 2017/18 had a direct impact on communities.

Figure 6: Number of community-based projects

Building capacity

The WRC aims to provide South Africa with future researchers as well as a source of skilled human capital for other institutions within the water sector. This is done by encouraging project leaders to include students on their projects, enabling them to participate in water research through the various projects supported by the WRC. During the year under review, the WRC continued to place strong emphasis on building research capacity in South Africa as well as supporting a number of related capacity-building initiatives. In many areas of research supported by the WRC, it is evident that students who participated in earlier WRC projects are now leading Commission-funded research projects and/or serving as members of steering committees as well as representatives of new proposals.

In recent years the WRC has adjusted its portfolio to train and mentor new research leaders. More than 60% of research leaders on new projects are now from designated groups and most are younger than 50 years old. This is both assisting with the national transformation project as well as building the next generation of researchers. Historically, most projects lay within universities, however, it is encouraging to note that 27 WRC projects were being led by small, medium and micro enterprises in the past financial year.

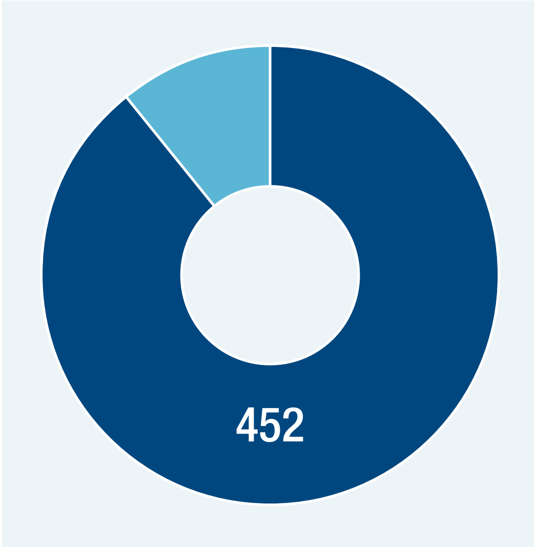


Figure 7: Number of students supported by WRC in 2017/18

Human resources

This KPA addresses organisational transformation and focuses on the enhancement of effective leadership and an improved level of staff performance.

Table 3: Human resources performance targets

Objective	Performance indicator	Target	Actual	Variance	Notes on variance
To maintain a healthy staff diversity profile	The percentage of employees from designated groups	90%	86%	-4%	The target was not achieved due to resignations in the 4th quarter. This gap will be closed through recruitment by the end of Q2 of the 2018/19 financial year
	The percentage employees that are black	75%	83%	+8%	The best appointments for the positions were from the designated group
	The percentage women employees	56%	58%	+2%	
To improve employee development and growth	Completion of personal development plans (PDP)	100% employees to have completed PDPs	100%	100%	No variance
	The number of in-house training courses held	10 courses	11	+1	Increased opportunities for training arose during the year that was accommodated in the training budget
	The number of external training courses attended	20 courses	29	+9	

Financial well-being

The objective of this KPA is to improve financial practices, management and financial performance of the organisation, simultaneously meeting the required accounting and auditing standards and complying with the legislative requirements.

Table 4. Summary of financial performance for 2017/18

Objective		Performance indicator	Target	Actual	Variance	Notes on variance
Financial performance	Maintain income leverage growth	The total amount of leverage income	R 74.0 million	R 63.1 million	R 10.9 million	The budget variance for the 2017/18 financial year directly relates to leverage-funded projects that did not meet the WRC's expectations. This was due to a number of project-related challenges. The key reasons for the shortfall have been detailed below (refer to Table 5 for the related explanations).
Audit response	Improve response to internal audit results	Measured as % of the previous year's internal audit queries fully addressed.	100%	100%	0	No variance
	Improve response to external audit results	Measured as an unqualified vs. qualified audit report	Achieve unqualified audit	Unqualified audit	0	No variance
	% of previous year's external audit queries fully addressed	100% of operational findings fully addressed in specified action timeframes as per the agreed external audit response plan.	100%	100% achieved	0	No variance

Summary of financial information

The Water Research Levy (WRL) is the WRC's main source of revenue. It is receivable in terms of the Water Research Act No. 34 of 1971. The WRC receives its WRL from three sources, namely, Rand Water Board, Umgeni Water Board and the Department of Water and Sanitation (DWS).

Table 5: Revenue collection

Sources of revenue	2017/18 Budget (R'000)	2017/18 Actual amount collected (R'000)	2017/18 (Over)/Under collection (R'000)
Water Research Levies	218,790	224,692	(5,902)
Leverage	74,032	63,116	10,916
Other income	13,805	6,985	6,820
Disinvestment of investments	-	-	-
Total	**306,627**	**294,794**	**11,834**

Explanations for the 2017/18 financial year

Water research levies

The higher than anticipated actual levy income for the 2017/18 financial year resulted in R5,902,320 more levy income than budgeted. This was mainly due to higher water consumption volumes than anticipated from the water boards. This is a favourable position for the WRC.

Leverage income

The total leverage income budget for the 2017/18 financial year amounts to R74,031,823, however, due to a number of project related challenges the WRC's actual leverage income for the year amounted to R63,115,787, resulting in a R 10,916,036 variance.

The main reasons are as follows:

- Restructuring of projects during the 2017/18 financial year required the appointment of resources to engage with commercial partners, which will only be filled in the 2018/19 financial year;
- Delays experienced by the service providers in achieving the deliverables, e.g. unforeseen construction challenges, problems with acquiring equipment in order to do the demonstrations; challenges experienced as a result of the importing of equipment;
- Procurement of equipment and laboratory tests, running costs and workshops which will only materialise in the 2018/19 financial year;
- Problems experienced in respect of the receipt of funds from funders that resulted in delays experienced by the service providers.

Other income

The budget variance amounting to R5,904,361 in respect of other income is mainly as a result of the disposal of the Marumati building situated at Erf 706 Rietfontein (Pty) Ltd. The auction took place on 20 July 2017. The auctioneer received a written bid to the value of R9,750,000. According to GRAP, revenue from the sale of goods is only recognised when the entity has transferred to the purchaser the significant risks and rewards of ownership of the goods; and the entity retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold. As a result, the income associated with the disposal could not be recognised since the transfer of the property and receipt of purchase price has not yet materialised as at the financial year end.

During the 2017/18 financial year the funds received from leverage funded partners were lower than during the previous financial years. Lower interest income was earned as a result of lower than anticipated cash holdings during the year to date, resulting in a budget variance of R921,322.

Table 6. Income indicators for the year under review compared to the previous financial year

Indicator	2017/18 (actual)	2016/17 (actual)
Levies as a percentage of total income	76%	65%
Other sources of income as a percentage of total income*	24%	35%
Leverage income as a percentage of other income	90%	74%

*Other sources of income includes leverage income

Table 6 presents income indicators for the year under review, compared to the previous financial year. As can be seen from the table above, levy income as a percentage of total income has increased from 65% to 76%, due to higher water consumption volumes than anticipated from the Water Boards and the increase in levies paid by the DWS.

Leverage income has developed into a key source of funding with respect to research, innovation and impact within the WRC. This is reflected in leverage income as a percentage of other income increasing from 74% to 90%.

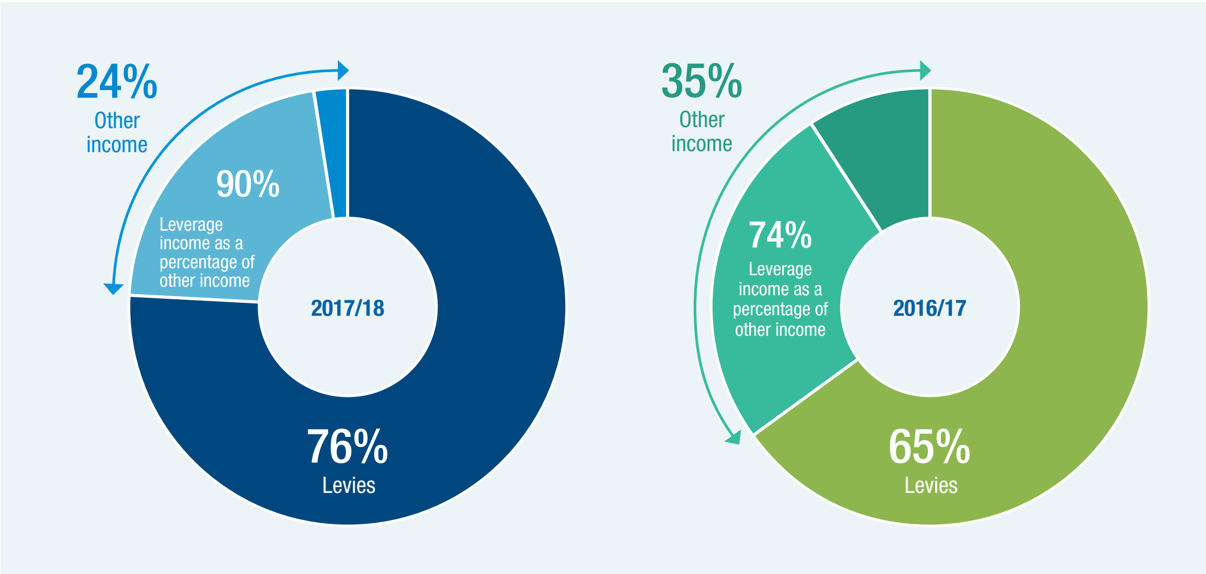


Figure 8: The WRC's sources of income

Table 7: Expenditure: Comparison of Budget versus Actuals

Expenditure	2017/18		
	Budget (R'000)	Actual expenditure (R'000)	(Over)/Under expenditure (R'000)
Fixed costs	11,908	11,924	(16)
Running costs	10,128	10,195	(67)
Human resources	79,082	74,207	4,875
Research and development funding	199,365	188,524	10,841
Corporate expenses	2,978	2,904	74
Capital expenditure	3,167	3,120	47
Total	**306,628**	**290,874**	**15,754**

Explanations for the 2017/18 financial year

Human resources costs

The budget variance of R4,874,659 in respect of human resources cost is mainly as a result of the following:

- New appointments planned to be filled during the 2017/18 year, while many are in the process of being filled the appointments will only materialise in the 2018/19 financial year;
- Terminations during the 2017/18 year resulting in the positions being vacant for a few months whilst the recruitment process is in progress.

Research, development and innovation costs

The budget variance of R10,841,486 for the 2017/18 financial year in respect of research, development and innovation costs directly relates to expenditure incurred in respect of leverage funded projects where expenditure was lower than budgeted. This is also reflected in a lower than budgeted leverage income as explained above.

Table 8. Expenditure indicators for the year under review compared to the previous financial year

Indicator	2017/18 (actual)	2016/17 (actual)
Fixed costs	4.1%	3.6%
Running costs	3.5%	3.2%
Human resources	25.5%	20.5%
Research and development funding	64.8%	67.1%
Corporate expenses	1.0%	0.6%
Capital expenditure	1.1%	5%
Total	**100%**	**100%**

Below are some reflections on the significant WRC expenditure categories. The table above reflects a change in the ratio between the WRC's investment in R&D funding, innovation and impact and other support costs (human resource and infrastructure costs). This is in line with the WRC's commitment to improve its internal processes that supports it core process of knowledge creation, sharing, dissemination and transfer while still maintaining a ratio of 65% for research, development and innovation. The capital expenditure decreased in the 2017/18 financial year as a result of the once off fit-out of the WRC's new premises in the 2016/17 financial year amounting to R15.9 million.

Capital investment, maintenance and asset management plan

Table 9. Summary of capital asset expenditure

	2017/18		
Infrastructure projects	Budget (R'000)	Actual expenditure (R'000)	(Over)/Under expenditure (R'000)
IT Equipment & Software *	2,779	2,815	36
Office Furniture & Equipment **	388	299	(88)
Office fit-out (leasehold improvements)	-	6	(6)
Vehicle	-	-	-
Total	**3,167**	**3,120**	**46**

* Note – IT Equipment & Software includes acquisitions and finance lease payments. The actuals for the 2017/18 financial year consist of acquisitions amounting to R123,731 and finance lease payments amounting to R1,060,219.

** Note – Office Furniture & Equipment includes acquisitions and finance lease payments. The actuals for the 2017/18 financial year consist of acquisitions amounting to R49,850 and finance lease payments amounting to R178,343.

The fixed asset registers are timeously updated with new acquisitions of assets. An asset verification was done at year-end which included a physical verification and the assessment of the condition of each verified asset. All assets on the asset register are in use and in good condition.

Analysis of research and development expenditure

Table 10. Analysis of research, development and innovation (RDI) expenditure

Indicator	2017/18 (actual) (R'000)	2016/17 (actual) (R'000)
Research and Development	145,978	189,472
Innovation and Impact	42,546	23,834
Total	**188,524**	**213,306**

The percentage utilisation of RDI funds clearly shows an increased focus on innovation and impact. During 2017/18 (Figure 9) approximately 23% versus 11% in 2016/17 was invested in projects that focused on innovation and impact, whereas 77% (2016/17: 89%) was invested in research and development.

The WRC has a focus on achieving impact, as a public entity, it forms part of a Government that strives to improve the lives of its citizens. The WRC is increasing the emphasis on the need for evidence of economic and social returns from its investment in research. This has the potential to enhance social and economic wellbeing across all sections of society by means of:

- Improving the effectiveness and sustainability of public, private and third sector organisations
- Improving social welfare and cohesion
- Increasing economic prosperity, wealth, and job creation
- Enhancing cultural enrichment and quality of life

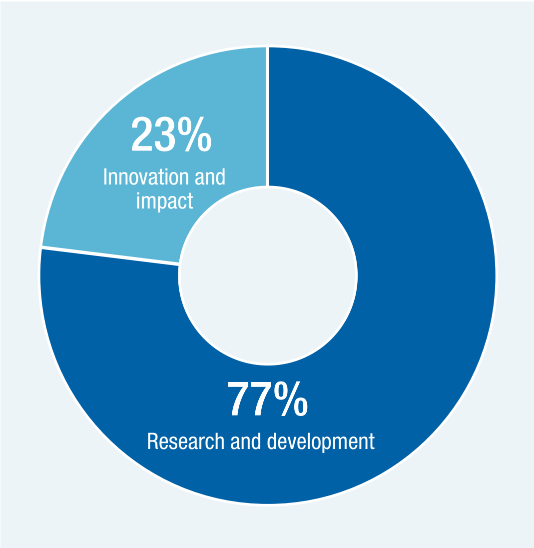


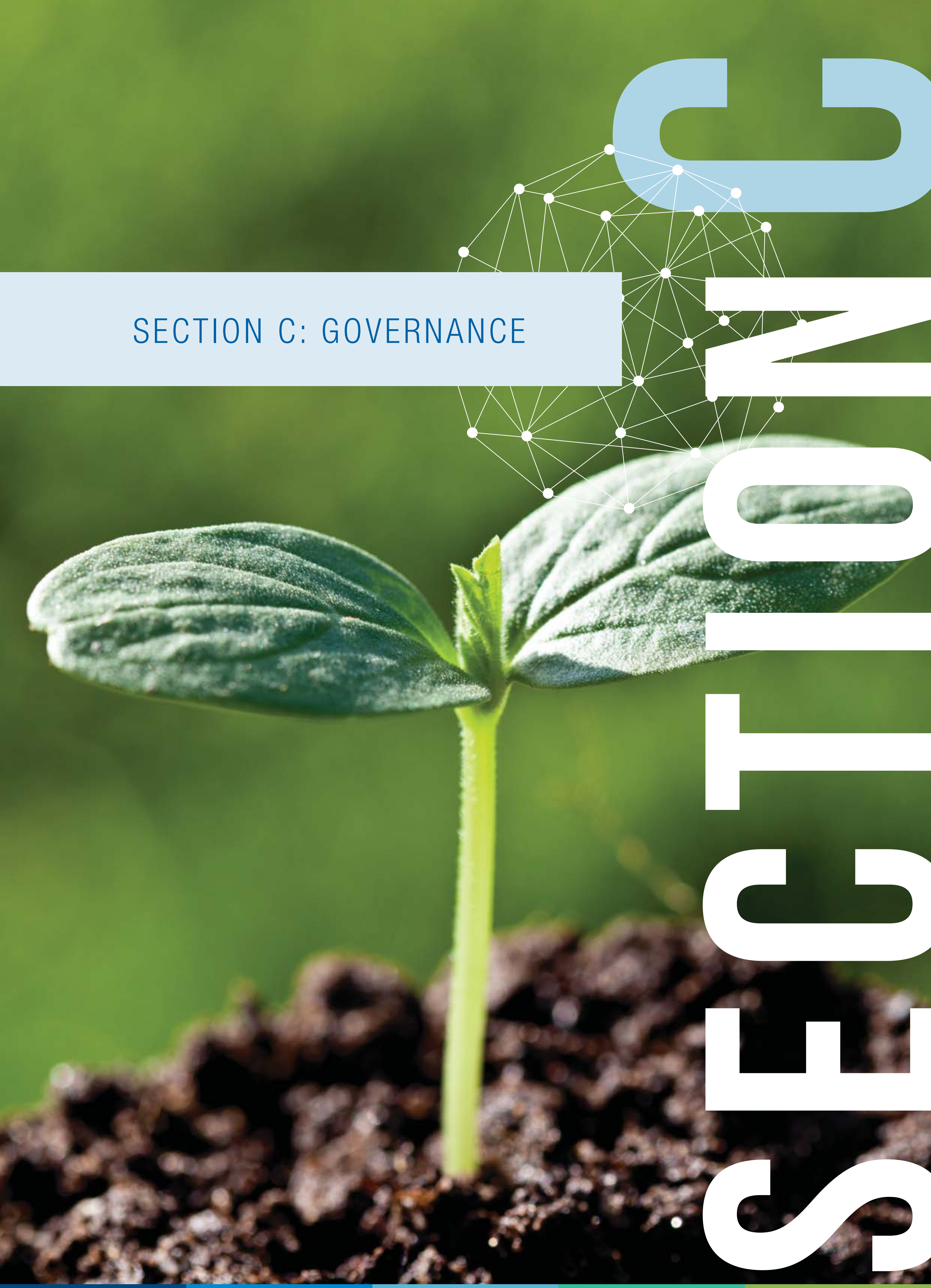
Figure 9: Utilisation of research funds

Moving to an increased impact portfolio means a major change in the investment strategy that involves pilots and demonstrations of new solutions which requires larger scale equipment and technology investments at a much higher cost.

The impact focused projects included:

- FETWater programme has developed an operational framework for capacity building in water resources in South Africa;
- Wader was involved with the establishment of the Water Technology Demonstration Programme;
- ACQUEAU that promotes innovation and market driven solutions to develop new technologies in the water sector with the potential of developing breakthrough innovations;
- The Empowerment project on water resources management contributes to the development of previously disadvantaged socio-economic researchers in water research management and contributes to the developmental agenda of catchment management agencies;
- The Women Empowerment programme that facilitated the design and implementation of a water mentorship and entrepreneurship incubator program;
- The establishment of a portfolio management unit for the co-development and implementation of the water research, development and innovation roadmap;
- The Investment Summit focuses on bringing together in a structured results driven manner three potential funding work streams that covers the full water sector value chain (bulk infrastructure, municipal infrastructure and innovation).

SECTION C: GOVERNANCE



SECTION C: GOVERNANCE

The WRC Board is the accounting authority of the WRC, and is supported by the Company Secretary. The Chief Executive Officer (CEO) is the Accounting Officer and is accountable to the WRC Board. The Chief Financial Officer (CFO) and the Group Executives report directly to the CEO. Further, the governance manuals relating to the activities of the Board and Board committees, the rules of procedure, terms of reference and other relevant governance matters are regularly reviewed and updated to ensure their continued relevance and compliance with legislative and governance requirements.

Members of the WRC Board

Dr Nozibele Mjoli
(Chairperson)

Prof Sibusiso Vil-Nkomo
(Vice Chairperson)

Dr Aldo Stroebel

Dr Ntombifuthi Nala

Mr Imraan Patel

Dr Mosidi Makgae

Ms Mpumi Msezane

Ms Masaccha Khulekelwe Mbonambi

Mr Dhesigen Naidoo
(CEO)

(Not pictured: Mr Anil Singh
(representing the Department of Water and Sanitation))

Members of the WRC Executive

Mr Dhesigen Naidoo
(CEO)

Mr Fazel Ismail
(CFO)

Ms Reshmili Lutchman
(EM: Corporate Services)

Dr Mandla Msibi
(GE: Innovation and Impact)

Dr Stanley Liphadzi
(GE: Research and Development)

Dr Gerhard Backeberg
(EM: Water Utilisation in Agriculture)

Mr Jay Bhagwan (EM: Water Use and Waste Management)

Dr Shafick Adams (EM: Water Resources and Ecosystems)

Dr Valerie Naidoo (EM: Business Development and Innovation)

Portfolio Committees

Table 11. WRC Board Portfolio Committees

Board & Committee	No. of meetings held	No. of members	Name of members
Board	10	10	Dr Nozibele Mjoli (Chair) Prof Sibusiso Vil-Nkomo (Deputy-Chair) Dr Aldo Stroebel Dr Mosidi Makgae Ms Mpumi Msezane Ms Masaccha Mbonambi Mr Imraan Patel Dr Ntombifuthi Nala Mr Dhesigen Naidoo (CEO) Adv Anil Singh (Ex-officio from DWS)
Research and Innovation	3	7	Dr Mosidi Makgae (Chairperson) Dr Aldo Stroebel Mrs Mpumi Msezane Dr Ntombifuthi Nala Mr Imraan Patel Ms Ndileka Mohapi Mr Dhesigen Naidoo (CEO)
HR, Social and Ethics	6	5	Dr Mosidi Makgae (Chairperson) Ms Mpumi Msezane Dr Ntombifuthi Nala Prof Sibusiso Vil-Nkomo Mr Dhesigen Naidoo (CEO)
Remuneration Committee	1	5	Prof Sibusiso Vil-Nkomo (Chairperson) Dr Nozibele Mjoli Dr Mosidi Makgae Dr Mpumi Msezane Mr Dhesigen Naidoo (CEO)
Audit, Risk and Finance Committee	6	6	Ms Khulekelwe Mbonambi (Chairperson) Prof Sibusiso Vil-Nkomo Dr Aldo Stroebel Ms Shelley Thomas Mr Philani Dlamini Mr Dhesigen Naidoo (CEO)

The Accounting Authority/Board

The following section outlines the importance and purpose of the WRC Board as well as the Board's responsibilities.

Role of the Board

The Board is the Accounting Authority of the WRC, and in this respect provides oversight, fiduciary duties and responsibilities to the WRC as required by the PFMA, the Water Research Act, Treasury Regulations for Public Entities (2001, amended 2002) and the King Report on Corporate Governance in South Africa (2009).

During the year under review the WRC operated under the leadership of its Board. The Board members, who are appointed by the Minister of Water and Sanitation, are independent, non-executive directors. The CEO and the DWS representative are ex-officio members of the Board.

The WRC Board provides leadership and governance to the WRC, overseeing that the WRC is true to its mandate and mission by:

- Promoting the creation, dissemination, sharing and application of water-centred knowledge
- Optimally using available resources (achieving the best return on investment)
- Striving to be financially sustainable and viable
- Promoting the relevance and effectiveness of water-centred knowledge, *inter alia*, through feedback from external reviews to be conducted periodically, at least every five years, at the discretion of the Board
- Taking cognisance of the short-, medium- and long-term research needs of the water sector
- Taking into account national and provincial policies, objectives and developments
- Acting in a transparent and fair manner

Board Charter

The Board Charter, which has been developed in alignment with King III, provides a concise overview of the fiduciary duties and responsibilities of the Board of the WRC, as well as the procedures and structures that will govern how the Board is to function in order to discharge its duties.

The Board Charter was last updated on 13 March 2018. The following Board Committees have been established:

1. Audit Risk and Finance Committee (AR&F)
2. Remuneration Committee (RemCom)
3. Human Resources, Social and Ethics Committee (HRS&E)
4. Executive Committee (Exco)
5. Research and Innovation Committee (RIC)

Table 12. The Board Members

Name of Member	Date of Appointment	Board Meetings (Total Meetings held: 10)	Research and Innovation Committee (Total Meetings held: 3)	HR, Social & Ethics Committee (Total Meetings held: 6)	Remuneration Committee (Total Meetings held: 1)	Audit, Risk & Finance Committee (Total Meetings held: 6)
Dr Nozibele Mjoli (Chairperson of the Board)	1 February 2016	9	1	0	1	6
Prof Sibusiso Vil Nkomo (Vice Chairperson of the Board and Chairperson of the Remuneration Committee)	1 February 2016	8	1	5	1	4
Ms Mpumi Msezane	1 February 2016	6	3	4	0	1
Mr Imraan Patel	1 February 2016	3	3	1	0	0
Dr Ntombifuthi Nala	1 February 2016	8	2	5	0	0
Dr Aldo Stroebel	1 February 2016	7	1	0	0	4
Ms Khulekelwe Mbonambi (Chairperson of the AR&F Committee)	1 February 2016	3	0	1	0	5
Dr Mosidi Makgae (Chairperson of the RIC and HRS&E committees)	1 February 2016	7	3	6	1	1
Mr Dhesigen Naidoo (WRC CEO and Ex-officio member)	1 October 2011	10	2	1	1	4
Adv Anil Singh (DWS Deputy-Director and Ex-officio member)	21 April 2016	0	0	0	0	0

Remuneration of Board members

Members of the Board are paid an allowance in respect of the performance of their duties. The allowance is determined by the Minister of Water and Sanitation in consultation with the Minister of Finance. Members that are not remunerated are the CEO and the ex-officio member of DWS. Board members are also paid for travel expenses.

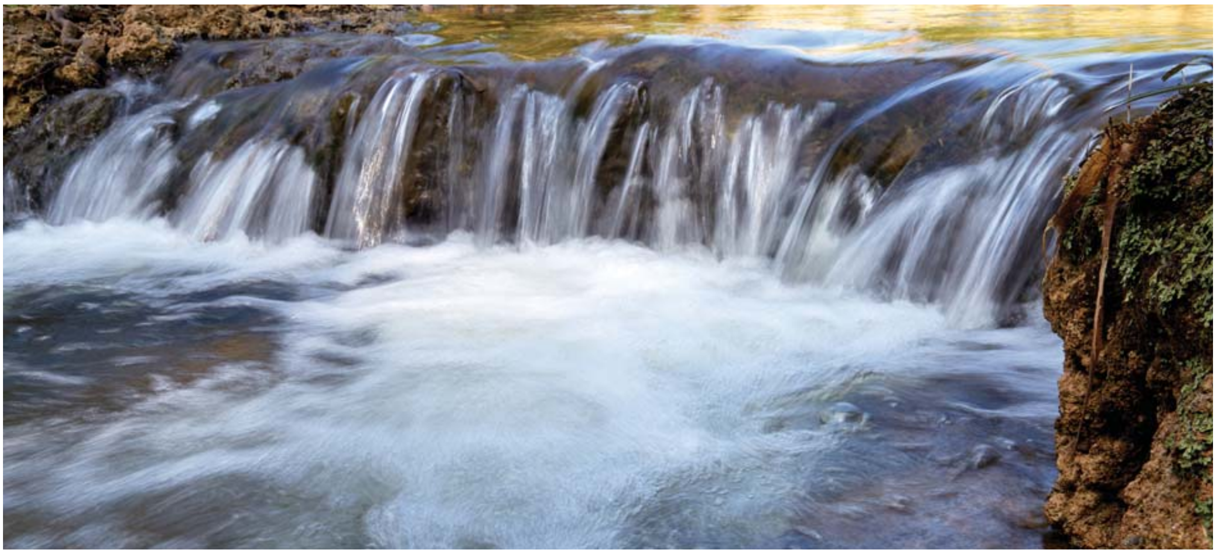
Table 13. Remuneration paid to each Board member in 2017/18 (in respect of preparation for and attendance of meetings)

Name	Total (R)
Dr Nozibele Mjoli (Chairperson)	103,630
Prof Sibusiso Vil-Nkomo (Vice-Chairperson)	77,970
Ms Mpumi Msezane	62,231
Dr Mosidi Elizabeth Makgae	76,145
Dr Ntombifuthi Patience Nala	59,228
Dr Aldo Stroebel	46,312
Mr Mxolisi Adolphus Cassius Ndhlovu	9,064
Ms Masaccha Khulekelwe Mbonambi	45,908
Mr Imraan Patel	N/A
Mr Dhesigen Naidoo (CEO)	N/A
Adv Anil Singh	N/A

Risk management

The WRC Board is accountable for the process of risk management, which is reviewed regularly. Risk management at the WRC is a continuous process. The WRC has established a risk management framework. The risks presented below have each been assessed in terms of impact and likelihood, i.e., inherent risk exposure. The WRC also identified the existing controls (mitigations) which are in place, and assessed the perceived effectiveness of the identified controls. Each risk was allocated to a risk owner. These risks were also linked to the strategic objectives of the WRC. A risk rating was assigned from both an inherent risk and a residual risk exposure perspective.

Executive Management and the Board undertake the risk assessment annually in November, facilitated by the internal auditors. The WRC reviews the risk register on a quarterly basis and reports its progress to the Audit and Risk Committee.



The following risks have been collectively identified and assessed by Executive Management and the Board:

Table 14. Summary of WRC risk register

Risk name	Controls (Business process to manage the risk exposure)
Inadequate availability, continuity and growth of adequate research expertise to deal with complexity in the water sector, both institutionally and externally	• Partnerships and collaboration with other organisations that have the capability • Capacity building as part of research contracts and research prioritisation in particular post-graduate student support to develop skills in the water sector • Engagement and strengthening of relationships with research partners to facilitate implementations • Support publication and exposure of students and training material and marketing research careers (through schools, universities, etc.) • Lobby for increased research funds through DWS, DST and other players • Strengthening of the Lighthouse programme, social sciences inter-disciplinarily programme and other trans-disciplinary research programmes to address complexity in the water sector. • Technical, policy and ministerial briefs to ensure faster exposure to research outcomes • Periodic strategic review of research portfolio • Strengthening and monitoring of the Knowledge Tree objectives
Financial sustainability	• MOA (memorandum of agreement) of monthly payments with DWS • Escalation provisions for funding governed by legislation, Government Gazette • Agreements with levy agencies (Rand Water and Umgeni Water). • Strategy to diversify funding by means of leverage income • Regular interaction with shareholder (DWS) and stakeholders on funding issues • Prioritisation of available funds • Stretching of resources • Regular meetings with funders • Adherence to legislation (collection of income – WRA)
Constraints in keeping up with changes and trends in water research	• Involvement of end users and stakeholders in design and rollout of research projects to enhance knowledge • Engaging partners in cutting-edge technology and research (TIA, SASOL, SALGA) • Packaging of research to various stakeholders • Capacity building as part of research contracts and research prioritisation (including post-docs) • Support publication and exposure of students and training material by means of a development programme for individuals • Innovation and Impact branch created in the WRC to bring business development and innovation into the R&D.
Insufficient uptake of research	• Development of policy and ministerial briefs to influence decision-making and development of manuals, guidelines and support tools, e.g., dialogues, symposiums and conferences for implementation and development • Direct support for IP development and commercialisation • Incorporation of research uptake and interventions into WRC research proposal template and Corporate Plan and periodic strategic review of research portfolio • Innovation and Impact branch created in the WRC to bring business development and innovation into the R&D space • Risk mitigation through demonstrations and standards
Inadequate financial systems supporting operations	• Operating financial system (i.e. Pastel, FMS, etc.) • Improving operating protocols on a continuous basis • Levels of approvals and delegations • Internal audits • Bolstering the monitoring capacity • Updating governance and protocols in respect of SCM and establishment of a SCM unit
The role of the WRC in research, development and innovation within SADC, Africa and Globally	• Establishment of the international unit within the WRC • Improve the implementation of the WRC international strategy • Participation in international conferences and events etc • Involvement in global, African and SADC-level projects • Interaction with stakeholders on SADC, Africa and global involvement • Conducting Southern Africa-wide projects with donor partners and new donor-funded relationships in Southern Africa • Contracts in place with researchers to acknowledge the WRC • Innovation and Impact unit established in the WRC to focus on business development and innovation • Development of region-wide projects

Risk name	Controls (Business process to manage the risk exposure)
Lack of business continuity / disaster	• WRC continuity plan in place for all are areas • Offsite backups of core systems and data, disaster recovery site and plans • Uninterrupted water and power supply • Anti-virus software (renewed annually and daily updates) and firewalls • Insurance • Emergency response teams • Evacuation plans and procedures • Fully functional private network (VAN) • Logical and physical access controls • Fireproof strong room for research contracts (offsite) • Digitisation of documentation • 3G and cellphone enablement • 24-hour security with armed response • Outsource courier service provider • Annual simulation testing
Fraud and corruption	• Financial and management (reconciliatory, supervisory, etc.) controls • Monitoring daily cash balance • Segregation of duties • Audit trails • Delegation of authority • Change controls • Fraud prevention plan implemented and work shopped annually • 24-hour fraud hotline • Whistle blowing policy implemented • Code of ethics • Establishment of a SCM unit • Management of intellectual property
Losing competitive edge	• Environmental scanning • Recruitment policies/practices • External reviews • International engagement processes • Local partnership strategy • WRC staff development and retention • WRC positioning strategy
Uncertainty within the tertiary education environment	• Fair number of project are offsite • Flexibility in projects • Diversified research capacity • Develop a tertiary education support plan

Internal control function

To enable it to meet its responsibility to provide reliable financial information, the WRC maintains accounting systems and practices adequately supported by a system of internal controls. These controls are designed to provide reasonable assurance that transactions are concluded in accordance with management authority and that the assets are adequately safeguarded.

The internal audit function monitors the effectiveness and efficiency of the internal control systems, reports their findings and makes recommendations to management and the Audit Committee of the WRC Board, and monitors whether corrective action has been taken.

Internal audit and audit committees

The WRC has an in-house internal audit function. The WRC in-house function has adopted formal terms of reference as its Internal Audit Charter. The in-house internal audit function prepared a rolling three-year internal audit plan, which on the recommendation of the Audit and Risk Committee was approved by the Board. The in-house internal audit function reports directly to the Audit and Risk Committee. For the 2017/18 financial year it performed the following audits:

- Human Resource review
- Payroll review
- Supply Chain Management review
- Research and Development review
- Financial Control review
- Corporate Governance review
- IT Cloud review
- Performance Information review
- Follow-up reviews on previous internal audit reports issued and the Audit General report
- Ad-hoc: Supply Chain Management – Observation of bids closing and adjudication thereof for above R500,000

Tables 15 discloses relevant information on the Audit Committee Members:

Table 15. Audit Committee Member Details

Name	Qualifications	Internal/ External	Date appointed
Ms Khulekelwe Mbonambi (Chairperson)	B.Com Accounting, B.Com (Hons), a certificate in Board Governance, certificate in Enterprise Risk Management	External	1 February 2016
Ms Shelley Thomas	CA SA	External	1 November 2017
Mr Philani Dlamini	B.Com Accounting (Hons)	External	1 November 2017
Prof Sibusiso Vil-Nkomo	PhD from University of Delaware (USA)	External	1 February 2016
Dr Aldo Stroebel	PhD from UFS and Cornell University (USA), Postdoctoral research at Wageningen University (The Netherlands)	External	1 February 2016
Dhesigen Naidoo	CEO and ex-officio	Internal	1 October 2011

Fraud and corruption

The WRC has a zero-tolerance fraud and corruption policy. All fraud and corruption will be investigated and followed up. The application of all remedies falls within the full extent of the law and the implementation of appropriate prevention and detections controls. The WRC has an approved fraud prevention policy and whistle blowing policy to ensure that the Commission's zero-tolerance to fraud and corruption is integrated into the day-to-day activities of the organisation. Further to that the WRC has a 24-hour ethics hotline hosted by an external service provider.

Code of ethics and business conduct

The integrity of the employees underlies all of the WRC's relationships, including those with customers, suppliers and communities, as well as those between employees. The highest standards of ethical business conduct are required of employees of the WRC in fulfilling their WRC responsibilities, and this has been documented in the WRC's code of ethics and business conduct policy.

Employees may not engage in any activity that could raise questions as to the WRC's integrity, respect for diversity, impartiality or reputation. Ethical business conduct includes workplace relationships between employees in terms of the Constitution and requires respect for Constitutional rights in employment, particularly with regard to human dignity, non-discrimination, and respect for diversity, impartiality and reputation.

Company/Board Secretary

The Company Secretary is responsible for guiding the Board on the execution of their duties and responsibilities, and how such duties and responsibilities should be properly carried out in the best interests of the WRC. The Company Secretary also provides a central source of guidance and advice on matters of good governance and changes in legislation.

Responsibilities of the Company Secretary include:

- Ensuring that the procedures for appointment of the Board are properly carried out
- Assisting with the proper induction, orientation and on-going training and education of directors
- Assessing specific training needs of directors and executive management regarding fiduciary/governance responsibilities
- Ensuring that the Board Charter and sub-committees terms of reference are kept up to date
- The proper compilation and timely circulation of documentation for the Board and committees
- Obtaining appropriate responses and feedback to specific agenda items or matters arising from prior meetings of the Board or committees
- Raising any matters that may warrant Board attention
- The proper recording of minutes of Board and committee meetings and seeing to the approval and timely circulation of the minutes to directors
- Liaising and assisting the Board Chairperson, committee chairs and the CEO with yearly work plans for Board meetings
- Assisting with the annual Board evaluation process (Board, directors and senior management)

SECTION D

Water Research Commission (WRC) and Subsidiary Financial Statements

for the year ended 31 March 2018

Statement of responsibility and confirmation of accuracy for the Annual Report 2017/18

The Accounting Authority is responsible for the preparation of the public entity's Annual Financial Statements and for the judgments made in this information.

The Accounting Authority is responsible for establishing and implementing a system of internal control designed to provide reasonable assurance as to the integrity and reliability of the Annual Financial Statements.

The external auditors are engaged to express an independent opinion on the Annual Financial Statements of the public entity. The Annual Financial Statements for the year ended 31 March 2018 have been audited by the external auditors and their report is presented on pp 63 to 66.

The financial statements set of pp 67 to 121 which have been prepared on the going concern basis, were approved by the Board members on 28 May 2018 and were signed on its behalf by:

Dhesigen Naidoo
Chief Executive Officer

Dr Nozibele Mjoli
Chairperson of the Board

Report of the Audit and Risk Committee

For the year ended 31 March 2018

We are pleased to present the Audit and Risk Committee Report for the Water Research Commission ("WRC") as required by Treasury regulations 27.1.7 and 27.1.10 of the Public Finance Management Act, Act 1 of 1999, as amended by Act 29 of 1999.

Composition

The Committee consists of three independent non-executive board members and two independent external members who have sufficient qualifications and experience to fulfil their duties.

Terms of reference

The Audit and Risk Committee reports that it has adopted formal terms of reference as its Audit and Risk Committee Charter and has discharged all of its responsibilities for the year, in compliance with the charter.

Internal control

The Audit and Risk Committee is satisfied that an adequate system of internal controls was in place to reduce significant risks faced by the organisation to an acceptable level, and that these controls have been effective during the period under review. These controls are consistently being assessed and improved where required. The system is designed to manage, rather than eliminate the risk of failure and to maximise opportunities to achieve business objectives. This can provide reasonable but not absolute assurance.

Internal Audit

The Audit and Risk Committee is satisfied that the internal audit function has addressed the high risks pertinent to the entity in its audit.

Reviews undertaken

The Audit and Risk Committee has:

- Reviewed the audited Annual Financial Statements
- Reviewed accounting policies
- Reviewed the Auditor-General's management letter and management's response thereto and is comfortable that management will address the findings adequately
- Reviewed adjustments resulting from the audit
- The Audit and Risk Committee accepts the Auditor-General's conclusions on the Annual Financial Statements, and is of the opinion that the audited Annual Financial Statements be accepted and read together with the report of the Auditor-General.

Auditor-General

The Audit and Risk Committee met with the Auditor-General and were assured that there were no unresolved issues of concern.

Ms K Mbonambi

Chairperson of the Audit and Risk Committee

Report of the Auditor-General to Parliament on the Water Research Commission

Report on the audit of the Consolidated and Separate Financial Statements

Opinion

1. I have audited the consolidated and separate financial statements of the Water Research Commission (WRC) and its subsidiary (the group) set out on pages 67 to 123, which comprise the consolidated and separate statement of financial position as at 31 March 2018, the consolidated and separate statement of financial performance, statement of changes in net assets, cash flow statement and the statement of comparison of budget and actual amounts for the year then ended, as well as the notes to the consolidated and separate financial statements, including a summary of significant accounting policies.

2. In my opinion, the consolidated and separate financial statements present fairly, in all material respects, the consolidated and separate financial position of the WRC as at 31 March 2018, and its financial performance and cash flows for the year then ended in accordance with the Standards of Generally Recognised Accounting Practice (GRAP) and the requirements of the Public Finance Management Act of South Africa, 1999 (Act 1 of 1999) (PFMA).

Basis for opinion

3. I conducted my audit in accordance with the International Standards on Auditing (ISAs). My responsibilities under those standards are further described in the Auditor-General's responsibilities for the audit of the consolidated and separate financial statements section of this auditor's report.

4. I am independent of public entity in accordance with the International Ethics Standards Board for Accountants' *Code of ethics for professional accountants* (IESBA code) and the ethical requirements that are relevant to my audit in South Africa. I have fulfilled my other ethical responsibilities in accordance with these requirements and the IESBA code.

5. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Emphasis of matters

6. I draw attention to the matters below. My opinion is not modified in respect of these matters.

Comparative figures

7. As disclosed in note 41 to the consolidated and separate financial statements, corresponding figures for 31 March 2017 were restated as a result of an error in the financial statements of the public entity at, and for the year ended, 31 March 2018.

Material impairment loss

8. As disclosed in note 22 and note 40 to the separate financial statement for WRC, the impairment loss recognised is in respect of the loan to the wholly controlled entity to the amount of R19 883 454 and the investment in the wholly controlled entity to the amount of R755 938, which is not part of the ongoing operations of the WRC.

Responsibilities of the accounting authority for the financial statements

9. The board of directors, which constitutes the accounting authority, is responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with the GRAP and the requirements of the PFMA, and for such internal control as the accounting authority determines is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

10. In preparing the consolidated and separate financial statements, the accounting authority is responsible for assessing the WRC's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless the accounting authority either intends to liquidate the public entity or to cease operations, or has no realistic alternative but to do so.

Auditor-General's responsibilities for the audit of the consolidated and separate financial statements

11. My objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements, as a whole, are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error, and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

12. A further description of my responsibilities for the audit of the consolidated and separate financial statements is included in the annexure to this auditor's report.

Report on the audit of the annual performance report

Introduction and scope

13. In accordance with the Public Audit Act of South Africa, 2004 (Act No. 25 of 2004) (PAA) and the general notice issued in terms thereof, I have a responsibility to report material findings on the reported performance information against predetermined objectives for selected portfolio presented in the annual performance report. I performed procedures to identify findings, but not to gather evidence to express assurance.

14. My procedures address the reported performance information, which must be based on the approved performance planning documents of the public entity. I have not evaluated the completeness and appropriateness of the performance indicators included in the planning documents. My procedures also did not extend to any disclosures or assertions relating to planned performance strategies and information in respect of future periods that may be included as part of the reported performance information. Accordingly, my findings do not extend to these matters.

15. I evaluated the usefulness and reliability of the reported performance information in accordance with the criteria developed from the performance management and reporting framework, as defined in the general notice, for the following selected portfolio presented in the annual performance report of the public entity for the year ended 31 March 2018:

Portfolio	Pages in the annual performance report
Research portfolio	41 – 43

16. I performed procedures to determine whether the reported performance information was properly presented and whether performance was consistent with the approved performance planning documents. I performed further procedures to determine whether the indicators and related targets were measurable and relevant, and assessed the reliability of the reported performance information to determine whether it was valid, accurate and complete.

17. I did not raise any material findings on the usefulness and reliability of the reported performance information for the following portfolio:
    - Research portfolio

Other matters

18. I draw attention to the matter below.

Achievement of planned targets

19. Refer to the annual performance report on pages 41 to 49 for information on the achievement of planned targets for the year and explanations provided for the over-achievement of a significant number of targets.

Report on the audit of compliance with legislation

Introduction and scope

20. In accordance with the PAA and the general notice issued in terms thereof, I have a responsibility to report material findings on the compliance of the public entity with specific matters in key legislation. I performed procedures to identify findings, but not to gather evidence to express assurance.

21. I did not raise material findings on compliance with the specific matters in key legislation set out in the general notice issued in terms of the PAA.

Other information

22. The accounting authority is responsible for the other information. The other information comprises the information included in the Annual Report. The other information does not include the consolidated and separate financial statements, the auditor's report and those selected portfolios presented in the annual performance report that have been specifically reported in this auditor's report.

23. My opinion on the financial statements and findings on the reported performance information and compliance with legislation do not cover the other information, and I do not express an audit opinion or any form of assurance conclusion thereon.

24. In connection with my audit, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements and the selected portfolio presented in the annual performance report, or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

25. If, based on the work I have performed, I conclude that there is a material misstatement in this other information, I am required to report that fact. I have nothing to report in this regard.

Internal control deficiencies

26. I considered internal control relevant to my audit of the consolidated and separate financial statements, reported performance information and compliance with applicable legislation; however, my objective was not to express any form of assurance on it. I did not identify any significant deficiencies in internal control.

Other reports

27. I draw attention to the following engagements conducted by various parties that had, or could have, an impact on the matters reported in the public entity's financial statements, reported performance information, compliance with applicable legislation and other related matters. These reports did not form part of my opinion on the financial statements or my findings on the reported performance information or compliance with legislation.

28. An independent consultant investigated an allegation of possible fraudulent disposals of the public entity's assets at the request of the public entity, which covered the period April 2017 to May 2018. The investigation was concluded on 13 June 2018 and required management to institute the recommendations made by the consultant. This process was still in progress at the date of this auditor's report.

Auditor-General

Pretoria

31 July 2018

AUDITOR-GENERAL
SOUTH AFRICA

Auditing to build public confidence

Annexure – Auditor-general's responsibility for the audit

1. As part of an audit in accordance with the ISAs, I exercise professional judgement and maintain professional scepticism throughout my audit of the consolidated and separate financial statements, and the procedures performed on reported performance information for selected portfolio and on the public entity's compliance with respect to the selected subject matters.

Financial statements

2. In addition to my responsibility for the audit of the consolidated and separate financial statements as described in this auditor's report, I also:
   - identify and assess the risks of material misstatement of the consolidated and separate financial statements whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control
   - obtain an understanding of internal control relevant to the audit, in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the public entity's internal control
   - evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the board of directors, which constitutes the accounting authority
   - conclude on the appropriateness of the board of directors, which constitutes the accounting authority's use of the going concern basis of accounting in the preparation of the financial statements. I also conclude, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Water Research Commission and its subsidiaries ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements about the material uncertainty or, if such disclosures are inadequate, to modify the opinion on the financial statements. My conclusions are based on the information available to me at the date of this auditor's report. However, future events or conditions may cause a public entity to cease continuing as a going concern
   - evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation
   - obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion

Communication with those charged with governance

3. I communicate with the accounting authority regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

4. I also confirm to the accounting authority that I have complied with relevant ethical requirements regarding independence, and communicate all relationships and other matters that may reasonably be thought to have a bearing on my independence and, where applicable, related safeguards.

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The financial statements set out on pages 68 to 123, which have been prepared on the going concern basis, were approved by the board of members on 28 May 2018 and were signed on its behalf by:

Mr DP Naidoo
Chief Executive Officer

Dr NP Mjoli
Chairperson of the Board

WATER RESEARCH COMMISSION (WRC) AND SUBSIDIARY
Financial Statements for the year ended 31 March 2018

Statement of Financial Position

		Group		WRC	
		2018	2017	2018	2017
	Notes(s)	R	R	R	R
Assets					
Current assets					
Loans to wholly controlled entity	3	-	-	8,205,561	28,350,951
Receivables	4	43,439,094	37,965,058	43,480,095	37,968,684
VAT receivable		17,778	78,024	-	-
Cash and cash equivalents	5	133,860,609	155,333,825	133,543,035	154,159,500
Property, plant and equipment	6	-	497,955	-	-
		177,317,481	**193,874,862**	**185,228,691**	**220,479,135**
Non-current assets					
Property, plant and equipment	6	15,225,872	19,579,017	15,225,872	19,579,017
Intangible assets	7	2,524,109	1,314,213	2,524,109	1,314,213
Investment in wholly controlled entity	8	-	-	1	755,939
Receivables	4	968,078	902,684	968,078	902,684
		18,718,059	**21,795,914**	**18,718,060**	**22,551,853**
Total assets		**196,035,540**	**215,670,776**	**203,946,751**	**243,030,988**
Liabilities					
Current liabilities					
Finance lease obligation	9	1,061,638	976,247	1,061,638	976,247
Operating lease liability	10	5,412,247	2,933,171	5,412,247	2,933,171
Payables	11	93,253,392	114,035,804	92,746,834	114,012,756
Accruals – leave and bonus	12	6,980,073	5,160,653	6,980,073	5,160,653
Provision	14	637,500	-	637,500	-
		107,344,850	**123,105,875**	**106,838,292**	**123,082,827**
Non-current liabilities					
Finance lease obligation	9	497,179	1,590,082	497,179	1,590,082
Employee benefit obligation	13	6,201,425	5,039,926	6,201,425	5,039,926
		6,698,604	**6,630,008**	**6,698,604**	**6,630,008**
Total liabilities		**114,043,454**	**129,735,883**	**113,536,896**	**129,712,835**
Net assets		**81,992,086**	**85,934,893**	**90,409,855**	**113,318,153**
Accumulated surplus		81,992,086	85,934,893	90,409,855	113,318,153

WATER RESEARCH COMMISSION (WRC) AND SUBSIDIARY
Financial Statements for the year ended 31 March 2018

Statement of Financial Performance

		Group		WRC	
		2018	2017	2018	2017
	Notes(s)	R	R	R	R
Revenue					
Revenue from exchange transactions					
Rental received	15	151,246	247,349	-	-
Recovery of expenditure	15	6,899	25,906	-	14,529
Other income	15	376,871	811,338	376,871	818,200
Interest received – investment	16	6,418,631	8,968,845	7,176,697	13,209,950
Dividends received – investment	16	-	6,603	-	6,603
Total revenue from exchange transactions		**6,953,647**	**10,060,041**	**7,553,568**	**14,049,282**
Revenue from non-exchange transactions					
Water research levies	17	224,692,702	207,322,204	224,692,702	207,322,204
Leverage Income	17	63,115,787	83,481,128	63,115,787	83,481,128
Tenant allowance	17	-	2,120,117	-	2,120,117
Miscellaneous income	17	5,480	-	5,480	-
Total revenue from non-exchange transactions		**287,813,969**	**292,923,449**	**287,813,969**	**292,923,449**
Total revenue		**294,767,616**	**302,983,490**	**295,367,537**	**306,972,731**
Expenditure					
Administration		-	50,015	-	50,015
Depreciation, amortisation and impairment	18	5,523,124	4,409,707	5,025,170	3,911,754
Employee-related costs	19	73,868,994	59,678,311	73,868,994	59,678,311
Finance costs	20	710,167	774,789	710,167	774,789
General expenses	21	17,655,570	15,667,218	17,167,110	15,662,141
Impairment loss on financial assets carried at amortised costs	22	-	-	20,639,392	2,174,563
Lease rentals on operating lease	23	10,964,775	10,634,710	10,964,775	10,634,710
Research, development and innovation costs	24	186,792,800	213,700,449	186,792,800	213,700,449
Repairs and maintenance		1,245,470	1,136,810	1,157,904	1,054,290
Total expenditure		**(296,760,900)**	**(306,052,009)**	**(316,326,312)**	**(307,641,022)**
Operating surplus / (deficit)	25	**(1,993,284)**	**(3,068,519)**	**(20,958,775)**	**(668,291)**
Fair value adjustments	26	-	(300,833)	-	(300,833)
Gain on disposal of assets and liabilities		26,049	9,499	26,049	9,499
Actuarial gains/losses	13	(1,975,571)	(2,751,777)	(1,975,571)	(2,751,777)
		(1,949,522)	**(3,043,111)**	**(1,949,522)**	**(3,043,111)**
Surplus / (deficit) for the year		**(3,942,806)**	**(6,111,630)**	**(22,908,297)**	**(3,711,402)**

WATER RESEARCH COMMISSION (WRC) AND SUBSIDIARY
Financial Statements for the year ended 31 March 2018

Statement of Changes in Net Assets

	Accumulated surplus R	Total net assets R
Group		
Opening balance as previously reported	98,693,320	98,693,320
Correction of errors	(6,646,797)	(6,646,797)
Balance at 1 April 2016 as restated*	**92,046,523**	**92,046,523**
Changes in net assets		
Surplus/(deficit) for the year restated	(6,111,630)	(6,111,630)
Total changes	(6,111,630)	(6,111,630)
Balance at 1 April 2017 restated	**85,934,892**	**85,934,892**
Changes in net assets		
Surplus/(deficit) for the year	(3,942,806)	(3,942,806)
Total changes	(3,942,806)	(3,942,806)
Balance at 31 March 2018	**81,992,086**	**81,992,086**
WRC		
Opening balance as previously reported	123,676,352	123,676,352
Correction of errors	(6,646,797)	(6,646,797)
Balance at 1 April 2016 as restated*	**117,029,555**	**117,029,555**
Changes in net assets		
Surplus/(deficit) for the year restated	(3,711,402)	(3,711,402)
Total changes	(3,711,402)	(3,711,402)
Balance at 1 April 2017	**113,318,152**	**113,318,152**
Changes in net assets		
Surplus/(deficit) for the year	(22,908,297)	(22,908,297)
Total changes	(22,908,297)	(22,908,297)
Balance at 31 March 2018	**90,409,855**	**90,409,855**

* The prior period was restated. Refer to the prior period error note (note 42).

WATER RESEARCH COMMISSION (WRC) AND SUBSIDIARY
Financial Statements for the year ended 31 March 2018

Cash Flow Statement

		Group		WRC	
		2018	2017	2018	2017
	Notes(s)	R	R	R	R
Cash flows from operating activities					
Receipts					
Cash receipts from customers		249,764,416	248,163,630	249,456,786	250,397,116
Interest income		6,859,742	9,516,727	6,859,742	9,516,727
Dividends received		-	6,603	-	6,603
		256,624,158	257,686,960	256,316,528	259,920,446
Payments					
Cash paid to suppliers		(272,667,531)	(307,104,287)	(272,523,150)	(306,993,501)
Net cash flows from operating activities	29	**(16,043,373)**	**(49,417,327)**	**(16,206,622)**	**(47,073,055)**
Cash flows from investing activities					
Purchase of property, plant and equipment	6	(250,990)	(16,415,900)	(250,990)	(16,415,900)
Proceeds from sale of property, plant and equipment	6	20,370	9,499	20,370	9,499
Purchase of other intangible assets	7	(1,630,932)	(19,266)	(1,630,932)	(19,266)
Loans to wholly controlled entity repaid		-	-	1,020,000	1,020,000
Proceeds from disinvestment of investments	15	-	13,794,852	-	13,794,854
Net cash flows from investing activities		**(1,861,552)**	**(2,630,815)**	**(841,552)**	**(1,610,813)**
Cash flows from financing activities					
Employee benefit obligation		(1,277,677)	(4,690,721)	(1,277,677)	(4,690,721)
Finance lease payments		(1,156,215)	(173,366)	(1,156,215)	(173,366)
Net cash flows from financing activities		**(2,433,892)**	**(4,864,087)**	**(2,433,892)**	**(4,864,087)**
Net increase/(decrease) in cash and cash equivalents		**(20,338,817)**	**(56,912,229)**	**(19,482,066)**	**(53,547,955)**
Cash and cash equivalents at the beginning of the year		155,333,825	217,063,754	154,159,500	212,525,155
Effect of exchange rate movement on cash balances		(1,134,399)	(4,817,700)	(1,134,399)	(4,817,700)
Cash and cash equivalents at the end of the year	5	**133,860,609**	**155,333,825**	**133,543,035**	**154,159,500**

WATER RESEARCH COMMISSION (WRC) AND SUBSIDIARY
Financial Statements for the year ended 31 March 2018

Statement of Comparison of Budget and Actual Amounts

	Original budget	Adjustments	Revised budget	Actual amounts on comparable basis	Difference between final budget and actual
	R	R	R	R	R
Statement of Financial Performance					
Revenue					
Revenue from exchange transactions					
Other income	903,627	5,561,798	**6,465,425**	561,064	**(5,904,361)**
Interest received – investment	9,782,759	(2,442,806)	**7,339,953**	6,418,631	**(921,322)**
Total revenue from exchange transactions	**10,686,386**	**3,118,992**	**13,805,378**	**6,979,695**	**(6,825,683)**
Revenue from non-exchange transactions					
Water research levies	219,911,300	(1,120,918)	**218,790,382**	224,692,702	**5,902,320**
Leverage income	74,031,823	-	**74,031,823**	63,115,787	**(10,916,036)**
Other income	-	-	**-**	5,480	**5,480**
Total revenue from non-exchange transactions	**293,943,123**	**(1,120,918)**	**292,822,205**	**287,813,969**	**(5,008,236)**
Total revenue	**304,629,509**	**1,998,074**	**306,627,583**	**294,793,664**	**(11,833,919)**
Expenditure					
Fixed costs	10,647,910	1,260,346	**11,908,256**	11,923,760	**15,504**
Running Costs	10,910,769	(783,013)	**10,127,756**	10,195,138	**67,382**
Human resource costs	79,081,510	-	**79,081,510**	74,206,852	**(4,874,659)**
Research, development and innovation costs	198,178,993	1,186,356	**199,365,349**	188,523,863	**(10,841,486)**
Corporate expenditure	3,196,170	(218,189)	**2,977,981**	2,903,738	**(74,243)**
Capital expenditure	2,614,157	552,574	**3,166,731**	3,120,485	**(46,246)**
Total expenditure	**(304,629,509)**	**(1,998,074)**	**(306,627,583)**	**(290,873,836)**	**15,753,747**
Actual amount on comparable basis as presented in the budget and actual comparative statement	**-**	**-**	**-**	**3,919,828**	**3,919,828**

Refer to note 38 for explanations for material differences between budget and actual amounts and for explanations for the movement from the approved budget to the final budget.

Refer to note 39 for a reconciliation of budget surplus/deficit with the surplus/deficit in the Statement of Financial Performance.

Summary of Significant Accounting Policies

1. Presentation of financial statements

The financial statements have been prepared in accordance with the Standards of Generally Recognised Accounting Practice (GRAP), issued by the Accounting Standards Board (ASB) in accordance with Section 91(1) of the Public Finance Management Act (Act 1 of 1999) (PFMA).

These financial statements have been prepared on an accrual basis of accounting and are in accordance with the historical cost convention as the basis of measurement, unless specified otherwise. They are presented in South African Rand.

A summary of the significant accounting policies, which have been consistently applied in the preparation of these financial statements, are disclosed below.

These accounting policies are consistent with the previous period.

1.1 Consolidation

Basis of consolidation

Consolidated financial statements are the financial statements of the economic entity presented as those of a single entity.

The consolidated financial statements incorporate the financial statements of the controlling entity and the controlled entity, including special purpose entities, which are controlled by the controlling entity.

Consolidated financial statements are prepared using uniform accounting policies for like transactions and other events in similar circumstances.

Control exists when the controlling entity has the power to govern the financial and operating policies of another entity so as to obtain benefits from its activities.

The revenue and expenses of a controlled entity are included in the consolidated financial statements from the transfer date or acquisition date as defined in the Standards of GRAP on Transfer of functions between entities under common control or Transfer of functions between entities not under common control. The revenue and expenses of the controlled entity are based on the values of the assets and liabilities recognised in the controlling entity's financial statements at the acquisition date.

The financial statements of the controlling entity and its controlled entity used in the preparation of the consolidated financial statements are prepared as of the same date.

When the end of the reporting dates of the controlling entity is different from that of a controlled entity, the controlled entity prepares, for consolidation purposes, additional financial statements as of the same date as the financial statements of the controlling entity unless it is impracticable to do so. When the financial statements of a controlled entity used in the preparation of consolidated financial statements are prepared as of a date different from that of the controlling entity, adjustments are made for the effects of significant transactions or events that occur between that date and the date of the controlling entity's financial statements. In any case, the difference between the end of the reporting date of the controlled entity and that of the controlling entity is no more than three months. The length of the reporting periods and any difference between the ends of the reporting dates is the same from period to period.

Adjustments are made when necessary to the financial statements of the controlled entity to bring their accounting policies in line with those of the controlling entity.

All intra-entity transactions, balances, revenues and expenses are eliminated in full on consolidation.

Non-controlling interest in the net assets of the economic entity are identified and recognised separately from the controlling entity's interest therein, and are recognised within net assets.

Changes in a controlling entity's ownership interest in a controlled entity that do not result in a loss of control are accounted for as transactions that affect net assets.

A Special Purpose Entity is consolidated when the substance of the relationship between the economic entity and the Special Purpose Entity indicates that the Special Purpose Entity is controlled by the economic entity.

1.2 Significant judgements and sources of estimation uncertainty

In preparing the financial statements, management is required to make estimates and assumptions that affect the amounts represented in the financial statements and related disclosures. Use of available information and the application of judgement is inherent in the formation of estimates. Actual results in the future could differ from these estimates which may be material to the financial statements. Significant judgements include:

Receivables

The economic entity assesses its receivables for impairment at the end of each reporting period. In determining whether an impairment loss should be recorded in surplus or deficit, management makes judgements as to whether there is observable data indicating a measurable decrease in the estimated future cash flows from a financial asset.

Where impairment indicators arise these receivables are individually assessed for impairment. Accounts outstanding for 120 days and more are fully impaired. Whilst these accounts are being followed up, past experience has indicated that accounts outstanding for such long periods are seldom recovered.

All other receivables which are not individually assessed and do not fall in the category of 120 days and more, are grouped together and assessed.

Fair value estimation

The fair value of financial instruments traded in active markets (such as trading and available for sale securities) is based on quoted market prices at the end of the reporting period.

The carrying value less impairment provision of trade receivables and payables are assumed to approximate their fair values. The fair value of financial liabilities for disclosure purposes is estimated by discounting the future contractual cash flows at the current market interest rate that is available to the economic entity for similar financial instruments.

Impairment testing

The entity assesses its receivables for impairment at the end of each reporting period. In determining whether an impairment loss should be recorded in surplus or deficit, the entity makes judgements as to whether there is any observable data indicating a measurable decrease in the estimated future cash flows from the financial asset.

The economic entity reviews and tests the carrying value of assets when events or changes in circumstances suggest that the carrying amount may not be recoverable. Assets are grouped at the lowest level for which identifiable cash flows are largely independent of cash flows of other assets and liabilities. If there are indications that impairment may have occurred, estimates are prepared of expected future cash flows for each group of assets. Expected future cash flows used to determine the value in use of tangible assets are inherently uncertain and could materially change over time.

Useful lives and residual values

The entity reassesses the useful lives and residual values of property, plant and equipment on an annual basis. In reassessing the useful lives and residual values of property, plant and equipment management considers the condition and uses of the individual assets to determine the remaining period over which the asset can and will be used.

Employee benefit obligations (Medical aid scheme)

The present value of the post-retirement obligation depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost include the discount rate. Any changes in these assumptions will impact on the carrying amount of post-retirement obligations.

The appropriate discount rate is determined at the end of each year. This is the interest rate that should be used to determine the present value of estimated future cash outflows expected to be required to settle the post-retirement obligations. The discount rate that reflects the time value of money is best approximated by reference to market yields at the reporting date on government bonds. Where there is no deep market in government bonds with a sufficiently long maturity to match the estimated maturity of all the benefit payments, the entity uses current market rates of the appropriate term to discount shorter term payments, and estimates the discount rate for longer maturities by extrapolating current market rates along the yield curve.

Other key assumptions for post retirement obligations are based on current market conditions. Additional information is disclosed in Note 13.

Effective interest rate

The economic entity used the prime interest rate to discount future cash flows.

Impairment of receivables

On receivables an impairment loss is recognised in surplus and deficit when there is objective evidence that it is impaired.

The impairment is measured as the difference between the carrying amount and the present value of estimated future cash flows discounted at the effective interest rate, computed at initial recognition.

1.3 Property, plant and equipment

Property, plant and equipment are tangible non-current assets (including infrastructure assets) that are held for use in the production or supply of goods or services, rental to others, or for administrative purposes, and are expected to be used during more than one period.

The cost of an item of property, plant and equipment is recognised as an asset when:

- it is probable that future economic benefits or service potential associated with the item will flow to the economic entity;
- and the cost of the item can be measured reliably.

Property, plant and equipment is initially measured at cost.

The cost of an item of property, plant and equipment is the purchase price and other costs attributable to bring the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Trade discounts and rebates are deducted in arriving at the cost.

Where an asset is acquired through a non-exchange transaction, its cost is its fair value as at date of acquisition. Where an item of property, plant and equipment is acquired in exchange for a non-monetary asset or monetary assets, or a combination of monetary and non-monetary assets, the asset acquired is initially measured at fair value (the cost). If the acquired item's fair value was not determinable, it's deemed cost is the carrying amount of the asset(s) given up.

When significant components of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Costs include costs incurred initially to acquire or construct an item of property, plant and equipment and costs incurred subsequently to add to, replace part of, or service it. If a replacement cost is recognised in the carrying amount of an item of property, plant and equipment, the carrying amount of the replaced part is derecognised.

The initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located is also included in the cost of property, plant and equipment, where the entity is obligated to incur such expenditure, and where the obligation arises as a result of acquiring the asset or using it for purposes other than the production of inventories.

Recognition of costs in the carrying amount of an item of property, plant and equipment ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management. Property, plant and equipment is carried at cost less accumulated depreciation and any impairment losses. Property, plant and equipment are depreciated on the straight line basis over their expected useful lives to their estimated residual value.

The useful lives of items of property, plant and equipment have been assessed as follows:

Item	Depreciation method	Average useful life
Buildings	Straight line	30 years
Furniture and fixtures	Straight line	3 - 33 years
Motor vehicles	Straight line	5 years
Office equipment	Straight line	3 - 15 years
Computer equipment	Straight line	3 - 13 years
Leasehold improvements	Straight line	Years according to the lease term
Finance lease assets	Straight line	Years according to the lease term

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is depreciated separately.

The residual value, useful life and depreciation method applied to an asset is reviewed at least at the end of each reporting date. If the expectations differ from previous estimates, the change is accounted for as a change in an accounting estimate.

The depreciation charge for each period is recognised in surplus or deficit unless it is included in the carrying amount of another asset.

Items of property, plant and equipment are derecognised when the asset is disposed of or when there are no further economic benefits or service potential expected from the use of the asset.

The gain or loss arising from the derecognition of an item of property, plant and equipment is included in surplus or deficit when the item is derecognised. The gain or loss arising from the derecognition of an item of property, plant and equipment is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item.

1.4 Intangible assets

An asset is identifiable if it either:

- is separable, i.e. is capable of being separated or divided from an entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, identifiable assets or liability, regardless of whether the entity intends to do so; or
- arises from binding arrangements (including rights from contracts), regardless of whether those rights are transferable or separable from the economic entity or from other rights and obligations.

An intangible asset is recognised when:

- it is probable that the expected future economic benefits or service potential that are attributable to the asset will flow to the economic entity; and
- the cost or fair value of the asset can be measured reliably.

Where an intangible asset is acquired through a non-exchange transaction, its initial cost at the date of acquisition is measured at its fair value as at that date. Intangible assets are carried at cost less any accumulated amortisation and any impairment losses.

An intangible asset is regarded as having an indefinite useful life when, based on all relevant factors, there is no foreseeable limit to the period over which the asset is expected to generate net cash inflows or service potential. Amortisation is not provided for these intangible assets, but they are tested for impairment annually and whenever there is an indication that the asset may be impaired. For all other intangible assets amortisation is provided on a straight line basis over their useful life.

The amortisation period and the amortisation method for intangible assets are reviewed at each reporting date.

Reassessing the useful life of an intangible asset with a finite useful life after it was classified as indefinite is an indicator that the asset may be impaired. As a result, the asset is tested for impairment and the remaining carrying amount is amortised over its useful life.

Internally generated brands, mastheads, publishing titles, customer lists and items similar in substance are not recognised as intangible assets.

Internally generated goodwill is not recognised as an intangible asset.

Amortisation is provided to write down the intangible assets, on a straight line basis, to their residual values as follows:

Item	Depreciation method	Average useful life
Computer software, other	Straight line	3 - 10 years

Intangible assets are derecognised:

- on disposal; or
- when no future economic benefits or service potential are expected from its use or disposal.

1.5 Investment in wholly controlled entity

Group financial statements

Investments in the controlled entity are consolidated in the economic entity financial statements. Refer to the accounting policy on consolidations (Note 1.1).

WRC financial statements

In the entity's separate financial statements the investment in the wholly controlled entity are carried at cost less any accumulated impairment in accordance with the Standard of GRAP on Financial instruments.

The cost of an investment in a controlled entity is the aggregate of:

- the fair value, at the date of exchange, of assets given, liabilities incurred or assumed, and equity instruments issued by the entity; plus
- any costs directly attributable to the purchase of the controlled entity

The entity applies the same accounting for each category of investment. The entity recognises a dividend or similar distribution in surplus or deficit in its separate financial statements when its right to receive the dividend or similar distribution is established.

Investments in the controlled entity that are accounted for in accordance with the accounting policy on Financial instruments in the consolidated financial statements, are accounted for in the same way in the controlling entity's separate financial statements.

1.6 Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or a residual interest of another entity.

A financial asset is:

- cash;
- a residual interest of another entity; or
- a contractual right to:
  - receive cash or another financial asset from another entity; or
  - exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the entity.

A financial liability is any liability that is a contractual obligation to:

- deliver cash or another financial asset to another entity; or
- exchange financial assets or financial liabilities under conditions that are potentially unfavourable to the entity.

A residual interest is any contract that manifests an interest in the assets of an entity after deducting all of its liabilities.

Classification

The entity has the following types of financial assets (classes and categories) as reflected on the face of the statement of financial position or in the notes thereto:

Class	Category
Loans to economic entities	Financial asset measured at amortised cost
Receivables	Financial asset measured at amortised cost
Cash and cash equivalent	Financial asset measured at fair value

The entity has the following types of financial liabilities (classes and categories) as reflected on the face of the statement of financial position or in the notes thereto:

Class	Category
Payables	Financial liability measured at amortised cost
Finance lease obligation	Financial liability measured at amortised cost
Accruals	Financial liability measured at amortised cost

Initial recognition

The entity recognises a financial asset or a financial liability in its statement of financial position when the entity becomes a party to the contractual provisions of the instrument. The entity recognises financial assets using trade date accounting.

Initial measurement of financial assets and financial liabilities

The entity measures a financial asset and financial liability initially at its fair value plus transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability.

Subsequent measurement of financial assets and financial liabilities

The entity measures all financial assets and financial liabilities after initial recognition using the following categories:

- Financial instruments at fair value.
- Financial instruments at amortised cost.
- Financial instruments at cost.

All financial assets measured at amortised cost, or cost, are subject to an impairment review.

Financial Instruments at fair value

Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and demand deposits, and other short-term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. These are initially and subsequently recorded at fair value.

Financial instruments at amortised cost

Loans

These include loans to and from wholly controlled entities and loans to employees. It is recognised initially at fair value plus direct transaction costs and subsequently measured at amortised cost.

Receivables

Receivables are measured at initial recognition at fair value, and are subsequently measured at amortised cost using the effective interest rate method.

Payables

Payables are initially measured at fair value, and are subsequently measured at amortised cost, using the effective interest rate method.

Fair value measurement considerations

The fair values of listed investments are based on current bid prices. If the market for a financial asset is not active (and for unlisted securities), the entity establishes fair value by using valuation techniques. These include the use of recent arm's length transactions, reference to other instruments that are substantially the same, discounted cash flow analysis, and option pricing models making maximum use of market inputs and relying as little as possible on entity specific inputs.

Gains and losses

A gain or loss arising from a change in the fair value of a financial asset or financial liability measured at fair value is recognised in surplus or deficit.

For financial assets and financial liabilities measured at amortised cost or cost, a gain or loss is recognised in surplus or deficit when the financial asset or financial liability is derecognised or impaired, or through the amortisation process.

Impairment and uncollectibility of financial assets

The entity assesses at the end of each reporting period whether there is any objective evidence that a financial asset or group of financial assets is impaired.

For amounts due to the entity, significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy and default of payments are all considered indicators of impairment.

If there is objective evidence that an impairment loss on financial assets measured at amortised cost has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced through the use of an allowance account. The amount of the loss is recognised in surplus or deficit.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed by adjusting an allowance account. The reversal does not result in a carrying amount of the financial asset that exceeds what the amortised cost would have been had the impairment not been recognised at the date the impairment is reversed. The amount of the reversal is recognised in surplus or deficit.

Derecognition

Financial assets

The entity derecognises financial assets using trade date accounting.

The entity derecognises a financial asset only when:

- the contractual rights to the cash flows from the financial asset expire, are settled or waived;
- the entity transfers to another party substantially all of the risks and rewards of ownership of the financial asset; or
- the entity, despite having retained some significant risks and rewards of ownership of the financial asset, has transferred control of the asset to another party and the other party has the practical ability to sell the asset in its entirety to an unrelated third party, and is able to exercise that ability unilaterally and without needing to impose additional restrictions on the transfer. In this case, the entity:
  - derecognises the asset; and
  - recognises separately any rights and obligations created or retained in the transfer.

On derecognition of a financial asset in its entirety, the difference between the carrying amount and the sum of the consideration received is recognised in surplus or deficit.

Financial liabilities

The entity removes a financial liability (or a part of a financial liability) from its statement of financial position when it is extinguished — i.e. when the obligation specified in the contract is discharged, cancelled, expires or waived.

The difference between the carrying amount of a financial liability (or part of a financial liability) extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognised in surplus or deficit.

Presentation

Interest relating to a financial instrument or a component that is a financial liability is recognised as revenue or expense in surplus or deficit.

Offsetting of financial instruments

A financial asset and a financial liability are only offset and the net amount presented in the statement of financial position when the entity currently has a legally enforceable right to set off the recognised amounts and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

1.7 Leases

A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership. A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership.

Finance leases – lessee

Finance leases are recognised as assets and liabilities in the statement of financial position at amounts equal to the fair value of the leased property or, if lower, the present value of the minimum lease payments. The corresponding liability to the lessor is included in the statement of financial position as a finance lease obligation.

The discount rate used in calculating the present value of the minimum lease payments is the interest rate on debt owing to the lessor.

Minimum lease payments are apportioned between the finance charge and reduction of the outstanding liability. The finance charge is allocated to each period during the lease term so as to produce a constant periodic interest rate on the remaining balance of the liability.

Any contingent rents are expensed in the period in which they are incurred.

Operating leases – lessee

Operating lease payments are recognised as an expense on a straight line basis over the lease term. The difference between the amounts recognised as an expense and the contractual payments are recognised as an operating lease asset or liability.

1.8 Impairment of assets

Cash-generating assets are assets managed with the objective of generating a commercial return. An asset generates a commercial return when it is deployed in a manner consistent with that adopted by a profit-oriented entity.

Non-cash generating assets are assets other than cash generating assets.

Identification

The economic entity assesses at each reporting date whether there is any indication that an asset may be impaired. If any such indication exists, the economic entity estimates the recoverable amount of the asset (for all cash-generating assets) and recovery service amount (for all non cash-generating assets).

Recognition and measurement (individual asset)

If the recoverable amount of a cash-generating asset is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount. This reduction is an impairment loss. An impairment loss is recognised immediately in surplus or deficit.

If the recoverable service amount of a non-cash-generating asset is less than its carrying amount, the carrying amount of the asset shall be reduced to its recoverable service amount. That reduction is an impairment loss.

After the recognition of an impairment loss, the depreciation (amortisation) charge for the cash-generating asset is adjusted in future periods to allocate the cash-generating asset's revised carrying amount less its residual value (if any), on a systematic basis over its remaining useful life.

1.9 Employee benefits

Employee benefits are all forms of consideration given by the entity in exchange for service rendered by employees.

Short-term employee benefits

Short-term employee benefits are employee benefits (other than termination benefits) that are due to be settled within twelve months after the end of the period in which the employees render the related service.

When an employee has rendered a service to the entity during a reporting period, the entity recognises the cost in the period in which the service was rendered equal to the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service. The expected cost of compensated absences is recognised as an expense as the employees render services that increase their entitlement or, in the case of non-accumulating absences, when the absence occurs. The entity measures the expected cost of accumulating compensated absences as the additional amount that the entity expects to pay as a result of the unused entitlement that has accumulated at the reporting date.

The entity recognises the expected cost of bonus, incentive and performance related payments when the entity has a present legal or constructive obligation to make such payments as a result of past events and a reliable estimate of the obligation can be made. A present obligation exists when the entity has no realistic alternative but to make the payments.

Post-employment benefits

Post-employment benefits are employee benefits (other than termination benefits) which are payable after the completion of employment.

Post-employment benefits: Defined contribution plans

Defined contribution plans are post-employment benefit plans under which the entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

When an employee has rendered a service to the entity during a reporting period, the entity recognises the contribution payable to a defined contribution plan in exchange for that service:

- as a liability (accrued expense), after deducting any contribution already paid. If the contribution already paid exceeds the contribution due for service before the reporting date, the entity recognises that excess as an asset (prepaid expense) to the extent that the prepayment will lead to, for example, a reduction in future payments or a cash refund; and
- as an expense, unless another Standard requires or permits the inclusion of the contribution in the cost of an asset.

Post-employment benefits: Defined benefit plans

Defined benefit plans are post-employment benefit plans other than defined contribution plans.

The present value of a defined benefit obligation is the present value, without deducting any plan assets (if any), of expected future payments required to settle the obligation resulting from employee service in the current and prior periods.

The amount recognised as a defined benefit liability is the net total of the following amounts:

- the present value of the defined benefit obligation at the reporting date;
- minus the fair value at the reporting date of plan assets (if any) out of which the obligations are to be settled directly;
- plus any liability that may arise as a result of a minimum funding requirement

The amount determined as a defined benefit liability may be negative (an asset). The entity measures the resulting asset at the lower of:

- the amount determined above; and
- the present value of any economic benefits available in the form of refunds from the plan (if any) or reductions in future contributions to the plan. The present value of these economic benefits is determined using a discount rate which reflects the time value of money.

Any adjustments arising from the limit above are recognised in surplus or deficit.

The entity determines the present value of defined benefit obligations and the fair value of any plan assets (if any) with sufficient regularity such that the amounts recognised in the financial statements do not differ materially from the amounts that would be determined at the reporting date.

The entity recognises the net total of the following amounts in surplus or deficit, except to the extent that another Standard requires or permits their inclusion in the cost of an asset:

- current service cost;
- interest cost;
- the expected return on any plan assets and on any reimbursement rights;
- actuarial gains and losses;
- past service cost;
- the effect of any curtailments or settlements; and
- the effect of applying the limit on a defined benefit asset (negative defined benefit liability).

Actuarial valuations are conducted on an annual basis by independent actuaries separately for each plan (if any). The results of the valuation are updated for any material transactions and other material changes in circumstances (including changes in market prices and interest rates) up to the reporting date.

The entity recognises gains or losses on the curtailment or settlement of a defined benefit plan when the curtailment or settlement occurs. The gain or loss on a curtailment or settlement comprises:

- any resulting change in the present value of the defined benefit obligation; and
- any resulting change in the fair value of the plan assets (if any).

When it is virtually certain that another party will reimburse some or all of the expenditure required to settle a defined benefit obligation, the right to reimbursement is recognised as a separate asset. The asset is measured at fair value. In all other respects, the asset is treated in the same way as plan assets. In surplus or deficit, the expense relating to a defined benefit plan is presented as the net of the amount recognised for a reimbursement.

Actuarial assumptions

Actuarial assumptions are unbiased and mutually compatible.

Financial assumptions are based on market expectations at the reporting date for the period over which the obligations are to be settled.

The rate used to discount post-employment benefit obligations (both funded and unfunded) reflect the time value of money. The currency and term of the financial instrument selected to reflect the time value of money is consistent with the currency and estimated term of the post employment benefit obligations.

Post-employment benefit obligations are measured on a basis that reflects:

- estimated future salary increases;
- the benefits set out in the terms of the plan (or resulting from any constructive obligation that goes beyond those terms) at the reporting date; and
- estimated future changes in the level of any state benefits that affect the benefits payable under a defined benefit plan, if, and only if, either:
  - those changes were enacted before the reporting date;
  - past history, or other reliable evidence, indicates that those state benefits will change in some predictable manner, for example, in line with future changes in general price levels or general salary levels.

Assumptions about medical costs take account of estimated future changes in the cost of medical services, resulting from both inflation and specific changes in medical costs.

1.10 Provisions and contingencies

Provisions are recognised when:

- the economic entity has a present obligation as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation; and
- a reliable estimate can be made of the obligation.

The amount of a provision is the best estimate of the expenditure expected to be required to settle the present obligation at the reporting date.

Where the effect of time value of money is material, the amount of a provision is the present value of the expenditures expected to be required to settle the obligation.

The discount rate is a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability.

Where some or all of the expenditure required to settle a provision is expected to be reimbursed by another party, the reimbursement is recognised when, and only when, it is virtually certain that reimbursement will be received if the economic entity settles the obligation. The reimbursement is treated as a separate asset. The amount recognised for the reimbursement does not exceed the amount of the provision.

Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate. Provisions are reversed if it is no longer probable that an outflow of resources embodying economic benefits or service potential will be required, to settle the obligation.

Where discounting is used, the carrying amount of a provision increases in each period to reflect the passage of time. This increase is recognised as an interest expense. A provision is used only for expenditures for which the provision was originally recognised.

Provisions are not recognised for future operating deficits. If an entity has a contract that is onerous, the present obligation (net of recoveries) under the contract is recognised and measured as a provision.

Contingent assets and contingent liabilities are not recognised.

1.11 Revenue from exchange transactions

Revenue is the gross inflow of economic benefits or service potential during the reporting period when those inflows result in an increase in net assets, other than increases relating to contributions from owners.

Revenue from exchange transactions refers to revenue that accrued to the entity directly in return for services rendered/ goods sold, the value of which approximates the considerations received or receivable. An exchange transaction is one in which the entity receives assets or services, or has liabilities extinguished, and directly gives approximately equal value (primarily in the form of goods, services or use of assets) to the other party in exchange.

Measurement

Revenue is measured at the fair value of the consideration received or receivable and represents the amounts receivable for goods and services provided in the normal course of business, net trade discounts and volume rebates, and value added tax.

Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

Sale of goods

Revenue from the sale of goods is recognised when all the following conditions have been satisfied:

- the economic entity has transferred to the purchaser the significant risks and rewards of ownership of the goods;
- the economic entity retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- the amount of revenue can be measured reliably;
- it is probable that the economic benefits or service potential associated with the transaction will flow to the economic entity; and
- the costs incurred or to be incurred in respect of the transaction can be measured reliably.

Rendering of services

When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction is recognised by reference to the stage of completion of the transaction at the reporting date. The outcome of a transaction can be estimated reliably when all the following conditions are satisfied:

- the amount of revenue can be measured reliably;
- it is probable that the economic benefits or service potential associated with the transaction will flow to the entity;
- the stage of completion of the transaction at the reporting date can be measured reliably; and
- the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue is recognised only to the extent of the expenses recognised that are recoverable.

Interest, royalties, dividends and rental income

Revenue arising from the use by others of entity assets yielding interest, royalties, dividends and rental income is recognised when:

- It is probable that the economic benefits or service potential associated with the transaction will flow to the entity, and
- The amount of the revenue can be measured reliably.

Interest is recognised, in surplus or deficit, using the effective interest rate method.

Rental income is recognised on the accrual basis in accordance with the substance of the relevant agreements.

1.12 Revenue from non-exchange transactions

Revenue comprises gross inflows of economic benefits or service potential received and receivable by an entity, which represents an increase in net assets, other than increases relating to contributions from owners.

Non-exchange transactions are transactions that are not exchange transactions. In a non-exchange transaction, an entity either receives value from another entity without directly giving approximately equal value in exchange, or gives value to another entity without directly receiving approximately equal value in exchange.

Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable willing parties in an arm's lenght transaction.

The Department of Water and Sanitation, Rand Water and Umgeni Water Boards collect levy income on behalf of the WRC. The rate of the levy is approved by the Minister of Water and Sanitation on an annual basis. Revenue recognition of levy income represents invoiced amounts receivable from the Department of Water and Sanitation, Rand Water and Umgeni Water Boards. Provision is made for estimated uncollectable levies by way of an impairment charge.

The WRC receives leverage income from various sources which is used for research. This revenue is recognised in the accounting period in which the research expenditure is incurred.

1.13 Borrowing costs

Borrowing costs are recognised as an expense in the period in which they are incurred.

1.14 Translation of foreign currencies

Foreign currency transactions

A foreign currency transaction is recorded, on initial recognition in South African Rand, by applying to the foreign currency amount the spot exchange rate between the functional currency and the foreign currency at the date of the transaction.

At each reporting date:

- foreign currency monetary items are translated using the closing rate;
- non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction; and
- non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined.

Exchange differences arising on the settlement of monetary items or on translating monetary items at rates different from those at which they were translated on initial recognition during the period or in previous financial statements are recognised in surplus or deficit in the period in which they arise.

When a gain or loss on a non-monetary item is recognised directly in net assets, any exchange component of that gain or loss is recognised directly in net assets. When a gain or loss on a non-monetary item is recognised in surplus or deficit, any exchange component of that gain or loss is recognised in surplus or deficit.

Cash flows arising from transactions in a foreign currency are recorded in South African Rand by applying to the foreign currency amount the exchange rate between the South African Rand and the foreign currency at the date of the cash flow.

1.15 Research and development expenditure

Expenditure on research and development is recognised as an expense when incurred.

1.16 Fruitless and wasteful expenditure

Fruitless and wasteful expenditure means expenditure which was made in vain and would have been avoided had reasonable care been exercised.

All expenditure relating to fruitless and wasteful expenditure is recognised as an expense in the statement of financial performance in the year that the expenditure is incurred.

1.17 Irregular expenditure

Irregular expenditure as defined in section 1 of the PFMA is expenditure other than unauthorised expenditure, incurred in contravention of or that is not in accordance with a requirement of any applicable legislation, including –

(a) the PFMA; or
(b) WRC supply chain management policy; or
(c) National Treasury Regulations.

Irregular expenditure that was incurred and identified during the current financial year and which was condoned before year end and/or before finalisation of the financial statements must also be recorded appropriately in the irregular expenditure register. In such an instance, no further action is required with the exception of updating the note to the financial statements.

Irregular expenditure that was incurred and identified during the current financial year and for which condonement is being awaited at year end must be recorded in the irregular expenditure register. No further action is required with the exception of updating the note to the financial statements.

Where irregular expenditure was incurred in the previous financial year and is only condoned in the following financial year, the register and the disclosure note to the financial statements must be updated with the amount condoned.

Irregular expenditure that was incurred and identified during the current financial year and which was not condoned by the National Treasury or the relevant authority must be recorded appropriately in the irregular expenditure register. If liability for the irregular expenditure can be attributed to a person, a debt account must be created if such a person is liable in law. Immediate steps must thereafter be taken to recover the amount from the person concerned. If recovery is not possible, the accounting officer or accounting authority may write off the amount as debt impairment and disclose such in the relevant note to the financial statements. The irregular expenditure register must also be updated accordingly. If the irregular expenditure has not been condoned and no person is liable in law, the expenditure related thereto must remain against the relevant programme/expenditure item, be disclosed as such in the note to the financial statements and updated accordingly in the irregular expenditure register.

All expenditure relating to irregular expenditure is recognised as an expense in the statement of financial performance in the year that the expenditure is incurred.

1.18 Conditional grants and receipts

Revenue received from conditional grants, donations and funding are recognised as revenue to the extent that the entity has complied with any of the criteria, conditions or obligations embodied in the agreement. To the extent that the criteria, conditions or obligations have not been met a liability is recognised.

1.19 Income tax expense

WRC is exempt from income tax in terms of section 10(1)(cA)(ii) of the Income Tax Act, 1962 (No 58 of 1962).

1.20 Budget information

The financial statements and the budget are not on the same basis of accounting therefore a reconciliation between the statement of financial performance and the budget has been included in the financial statements. Refer to note 39.

1.21 Related parties

The economic entity operates in an economic sector currently dominated by entities directly or indirectly owned by the South African Government. As a consequence of the constitutional independence of the three spheres of government in South Africa, only entities within the national sphere of government are considered to be related parties.

Key management are those individuals responsible for planning, directing and controlling the activities of the economic entity, including those charged with the governance of the economic entity in accordance with legislation, in instances where they are required to perform such functions.

Close members of the family of a person are considered to be those family members who may be expected to influence, or be influenced by, that management in their dealings with the economic entity.

Only transactions with related parties not at arm's length or not in the ordinary course of business are required to be disclosed.

1.22 Events after reporting date

Events after reporting date are those events, both favourable and unfavourable, that occur between the reporting date and the date when the financial statements are authorised for issue. Two types of events can be identified:

- those that provide evidence of conditions that existed at the reporting date (adjusting events after the reporting date); and
- those that are indicative of conditions that arose after the reporting date (non-adjusting events after the reporting date).

The economic entity will adjust the amount recognised in the financial statements to reflect adjusting events after the reporting date once the event occurred.

The economic entity will disclose the nature of the event and an estimate of its financial effect or a statement that such estimate cannot be made in respect of all material non adjusting events, where non disclosure could influence the economic decisions of users taken on the basis of the financial statements.

Other explanatory notes

2. New standards and interpretations

2.1 Standards and interpretations effective and adopted in the current year

The following standards had amendments that are effective from 1 April 2017:

- GRAP 20: Related parties
- GRAP 21 (as amended 2015): Impairment of Non-cash Generating Assets
- GRAP 26 (as amended 2015): Impairment of Cash-generating assets

These amendments were adopted in the 2016/17 financial year and did not have a material impact on the Annual Financial Statements.

2.2 Standards and Interpretations early adopted

The entity has chosen to early adopt the following standards and interpretations:

- GRAP 34: Separate Financial Statements
- GRAP 35: Consolidated Financial Statements
- GRAP 38: Disclosure of interests in Other Entities

The amendments do not have an effective date as yet. These amendments did not have a material impact on the Annual Financial Statements.

3. Loans to wholly controlled entity

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Controlled entity				
Erf 706 Rietfontein (Pty) Ltd – Loan 1	-	-	27,923,769	27,939,738
The unsecured loan bears interest at 15% (2016 – 15%). The interest on the loan was suspended from 1 June 2017. The loan is repayable in equal monthly installments of not less than R60,000. The capital sum and any interest thereon must be repaid in full subsequent to the disposal of the Marumati building.				
Erf 706 Rietfontein (Pty) Ltd – Loan 2	-	-	2,339,810	2,585,776
The unsecured loans bears interest at prime plus 2%. The interest on the loans was suspended from 1 June 2017. The capital sum and any interest thereon must be repaid in full subsequent to the disposal of the Marumati building.				
	-	-	30,263,579	30,525,514
Allowance for impairment	-	-	(22,058,018)	(2,174,563)
	-	**-**	**8,205,561**	**28,350,951**
Non-current assets	-	-	-	-
Current assets	-	-	8,205,561	28,350,951
	-	**-**	**8,205,561**	**28,350,951**

Credit quality of the loans to wholly controlled entity

The terms and conditions of the loans were renegotiated. The WRC Board members approved the amendment of the loan agreements which allows ERF 706 to repay the loan after the disposal of the Maramuti building, as well as the suspension of any further interest up to the date of the disposal. This amendment was approved and is effective from 1 June 2017.

The auction of the Marumati building, situated at Erf 706 Rietfontein took place on 20 July 2017. The auctioneer received a written bid to the value of R9,750,000. The WRC Board granted approval for the disposal of the Marumati building situated at Erf 706 Rietfontein (Pty) Ltd on 16 August 2017. The bid price obtained is a clear indication that Erf 706 Rietfontein (Pty) Ltd will not be able to settle in full the intercompany loans and therefore was impaired. The carrying amount of the intercompany loan is now reflected at the amount that is expected to be received from ERF 706 Rietfontein (Pty) Ltd after all liabilities, including tax on the disposal, has been settled. The maximum exposure to credit risk at the reporting date is the fair value of the loan mentioned above. The fair value approximates the carrying amount of the loans.

Since the going concern assumption is no longer appropriate for ERF 706 Rietfontein (Pty) Ltd and the expectation exists that the transfer of the Marumati building situated at Erf 706 Rietfontein will be finalised within the next 12 months, all loans are classified as current.

The entity has not reclassified the categories of the above financial assets during the financial year.

Fair value of loans to and from wholly controlled entity

The fair value of the loans are determined as the net amount that is expected to be received from ERF 706 Rietfontein (Pty) Ltd after all liabilities, including tax on the disposal, has been settled.

Loans to controlled entities past due but not impaired

Loans to economic entities were not past due at reporting date.

4. Receivables

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Receivables from non-exchange transactions				
Receivables: Water Research Levies	39,471,813	36,507,111	39,471,813	36,507,111
Receivables from exchange transactions				
Receivables: Other	3,595,199	1,232,422	3,643,505	1,243,353
Deposits	975,383	909,990	968,078	902,685
Prepaid expenses	359,882	213,725	359,882	213,725
Recoverable fruitless and wasteful expenditure	4,895	4,494	4,895	4,494
Provision for impairment loss	-	-	-	-
	44,407,172	**38,867,742**	**44,448,173**	**38,871,368**
Non-current assets	968,078	902,684	968,078	902,684
Current assets	43,439,094	37,965,058	43,480,095	37,968,684
	44,407,172	**38,867,742**	**44,448,173**	**38,871,368**

The comparative year has been restated as a result of a prior period misstatement. Please refer to the correction of error (note 42) for further details.

Receivables pledged as security

No receivables were pledged as security for any financial liability.

Credit quality of receivables

None of the receivables defaulted during the year under review. Management considers that all of the above financial assets are of good credit quality. The maximum exposure to credit risk at the reporting date is the fair value of each class of receivable mentioned above. The fair value approximates the carrying amount of the balances due to their short-term maturity.

Receivables

All the receivables as reflected above represent receivables from exchange transactions, except for Receivables: Water research levies which represents receivables from non-exchange transactions.

Where impairment indicators arise these receivables are individually assessed for impairment. Accounts outstanding for 120 days and more are fully impaired. Whilst these accounts are being followed up, past experience has indicated that accounts outstanding for such long periods are seldom recovered.

All other receivables which are not individually assessed and do not fall in the category of 120 days and more are grouped together and assessed. During the evaluation of recoverability of these amounts receivable it became apparent that the full amount will be recoverable for the respective debtors. The fair value is thus equal to the full amount receivable as at year-end.

The recoverable amount of the debtors is equal to the fair value.

None of the financial assets that are fully performing have been renegotiated in the last year.

The economic entity has not reclassified any financial assets from cost or amortised cost to fair value, or from fair value to cost or amortised cost during the current or prior year.

Receivables past due but not impaired

Receivables are all considered for impairment. At 31 March 2018, R NIL (2017: R NIL) were past due but not impaired, whereas for the economic entity it was R NIL (2017: R NIL).

Receivables impaired

As at 31 March 2018, receivables of R NIL (2017: R NIL) were (reversed) / impaired and provided for in the WRC, whereas for the economic entity it was R NIL (2017: R NIL).

The amount of the provision was NIL as at 31 March 2018 (2017: R NIL) for the WRC, whereas for the economic entity it was NIL (2017: R NIL).

The ageing of receivables is as follows:

	Group		WRC	
	2018	**2017**	**2018**	**2017**
	R	**R**	**R**	**R**
Current – Gross	22,215,109	18,787,212	22,220,586	18,790,738
1 Month – Gross	10,286,280	9,651,031	10,287,174	9,651,031
2 Months – Gross	10,191,683	9,519,609	10,192,103	9,519,609
3 Months – Gross	1,714,100	909,890	1,748,310	909,990
	44,407,172	**38,867,742**	**44,448,173**	**38,871,368**

Reconciliation of provision for impairment losses on receivables

There was no movement in the provision for impaired receivables. Receivables are generally written off when there is no expectation of recovery.

The maximum exposure to credit risk at the reporting date is the fair value of each class of receivables mentioned above. The economic entity does not hold any collateral as security.

GRAP 104 states that a financial asset is past due when a counterparty has failed to make a payment when contractually due. None of the receivables listed above is past due. As a result, no provision has been made for impairment.

5. Cash and cash equivalents

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Cash and cash equivalents consist of:				
Cash on hand	1,384	5,000	1,384	5,000
Bank balances	79,099,616	109,647,047	78,782,041	108,472,722
Short-term deposits	55,032,209	45,681,778	55,032,210	45,681,778
Revolving credit facility	(272,600)	-	(272,600)	-
	133,860,609	**155,333,825**	**133,543,035**	**154,159,500**

Credit quality of bank balances and short term deposits, excluding cash on hand

Management considers that all of the above cash and cash equivalents categories are of good quality by reference to external credit ratings. The maximum exposure to credit risk at the reporting date is the fair value of each class of cash and cash equivalents mentioned above. The fair value approximates the carrying amount of the balances.

All cash and cash equivalents held by the entity are available for use. The cash and cash equivalents are not pledged as security for financial liabilities.

Financial assets at fair value

The entity has not reclassified any financial assets from cost or amortised cost to fair value, or from fair value to cost or amortised cost during the current or prior year.

Fair value hierarchy of financial assets at fair value

For financial assets recognised at fair value, disclosure is required of a fair value hierarchy which reflects the significance of the inputs used to make the measurements. The fair value hierarchy have the following levels:

- Level 1 represents those assets which are measured using unadjusted quoted prices in active markets for identical assets.
- Level 2 applies inputs other than quoted prices that are observable for the assets either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3 applies inputs which are not based on observable market data.

There were no significant transfers into or out of level 1, 2 or 3 for the years presented.

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Level 1				
Cash and cash equivalents	133,860,609	155,333,825	133,543,035	154,159,500

6. Property, plant and equipment

	2018			2017		
	Cost R	Accumulated depreciation and accumulated impairment R	Carrying value R	Cost R	Accumulated depreciation and accumulated impairment R	Carrying value R
Group						
Buildings	8,691,522	(8,691,522)	-	8,691,522	(8,193,567)	497,955
Furniture and fixtures	4,468,378	(1,484,041)	2,984,337	5,727,313	(1,652,343)	4,074,970
Motor vehicles	300,391	(181,174)	119,217	300,391	(141,435)	158,956
Office equipment	1,852,854	(1,316,836)	536,018	1,809,332	(933,441)	875,891
IT equipment	6,658,217	(3,481,840)	3,176,377	6,615,620	(1,600,138)	5,015,482
Leasehold improvements	10,069,526	(1,659,603)	8,409,923	10,063,555	(609,837)	9,453,718
Total	**32,040,888**	**(16,815,016)**	**15,225,872**	**33,207,733**	**(13,130,761)**	**20,076,972**

	2018			2017		
	Cost R	Accumulated depreciation and accumulated impairment R	Carrying value R	Cost R	Accumulated depreciation and accumulated impairment R	Carrying value R
WRC						
Furniture and fixtures	4,468,378	(1,484,041)	2,984,337	5,727,313	(1,652,343)	4,074,970
Motor vehicles	300,391	(181,174)	119,217	300,391	(141,435)	158,956
Office equipment	1,852,854	(1,316,836)	536,018	1,809,332	(933,441)	875,891
IT equipment	6,658,217	(3,481,840)	3,176,377	6,615,620	(1,600,138)	5,015,482
Leasehold improvements	10,069,526	(1,659,603)	8,409,923	10,063,555	(609,837)	9,453,718
Total	**23,349,366**	**(8,123,494)**	**15,225,872**	**24,516,211**	**(4,937,194)**	**19,579,017**

The comparative year has been restated as a result of a prior period misstatement. Please refer to the correction of error (note 42) for further details.

Included in the impairment loss of the prior year (for the economic entity and the WRC) in respect of IT equipment is assets with a cost of R304,611 that could not be found on the premises of the WRC. These assets were written off during the 2016/17 financial year. The WRC has embarked on a process of conducting an investigation into the matter to determine the causes. Thereafter appropriate actions will be taken.

During the 2017/18 financial year, redundant assets located at the Marumati building with a carrying value of zero were disposed of, either through donations to non-profit organisations or auction to staff members, resulting in proceeds amounting to R26,049.

Reconciliation of property, plant and equipment

Group – 2018	Opening balance R	Additions R	Depreciation R	Impairment loss/write-off R	Total R
Buildings	497,955	-	(497,955)	-	-
Furniture and fixtures	4,074,970	71,438	(1,162,071)	-	2,984,337
Motor vehicles	158,956	-	(39,739)	-	119,217
Office equipment	875,891	49,850	(389,723)	-	536,018
IT equipment	5,015,482	123,731	(1,924,424)	(38,412)	3,176,377
Leasehold improvements	9,453,716	5,971	(1,049,764)	-	8,409,923
	20,076,970	**250,990**	**(5,063,676)**	**(38,412)**	**15,225,872**

Group – 2017	Opening balance R	Additions R	Depreciation R	Impairment loss/write-off R	Total R
Buildings	995,908	-	(497,953)	-	497,955
Furniture and fixtures	995,598	4,194,637	(1,091,149)	(24,116)	4,074,970
Motor vehicles	198,695	-	(39,739)	-	158,956
Office equipment	215,287	1,007,634	(338,409)	(8,621)	875,891
IT equipment	2,140,823	4,254,472	(1,151,313)	(228,500)	5,015,482
Leasehold improvements	-	10,063,554	(609,836)	-	9,453,718
	4,546,311	**19,520,297**	**(3,728,399)**	**(261,237)**	**20,076,972**

Reconciliation of property, plant and equipment

WRC – 2018	Opening balance R	Additions R	Depreciation R	Impairment loss/write-off R	Total R
Furniture and fixtures	4,074,970	71,438	(1,162,071)	-	2,984,337
Motor vehicles	158,956	-	(39,739)	-	119,217
Office equipment	875,891	49,850	(389,723)	-	536,018
IT equipment	5,015,482	123,731	(1,924,424)	(38,412)	3,176,377
Leasehold improvements	9,453,716	5,971	(1,049,764)	-	8,409,923
	19,579,015	**250,990**	**(4,565,721)**	**(38,412)**	**15,225,872**

WRC – 2017	Opening balance R	Additions R	Depreciation R	Impairment loss/write-off R	Total R
Furniture and fixtures	995,598	4,194,637	(1,091,149)	(24,116)	4,074,970
Motor vehicles	198,695	-	(39,739)	-	158,956
Office equipment	215,287	1,007,634	(338,409)	(8,621)	875,891
IT equipment	2,140,823	4,254,472	(1,151,313)	(228,500)	5,015,482
Leasehold improvements	-	10,063,554	(609,836)	-	9,453,718
	3,550,403	**19,520,297**	**(3,230,446)**	**(261,237)**	**19,579,017**

Pledged as security

None of the assets were or are pledged as security.

Assets subject to finance lease (net carrying value)

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Office equipment	-	14,632	-	14,632
IT equipment	1,613,414	3,074,972	1,613,414	3,074,972
	1,613,414	**3,089,604**	**1,613,414**	**3,089,604**

Details of valuation of building

In terms of GRAP 16, the fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

The disposal of the Marumati building ("the Property") owned by Erf 706 Rietfontein (Pty) Ltd was approved by the Board and the Minister of Water and Sanitation on 22 February 2016 and 14 May 2016 respectively. Cahi Auctioneers was appointed on 7 April 2017 through a competitive bidding process to dispose of the property by means of an auction. The auction took place on 20 July 2017. The auctioneer received a written bid to the value of R9,750,000. The Board granted approval for the disposal of the Marumati building situated at Erf 706 Rietfontein (Pty) Ltd on 16 August 2017. The fair value of the property as at 31 March 2018 is based on the approved bid of R9,750,000 resulting in the fair value of investment property reflecting the market conditions at the reporting date in accordance with GRAP 16.51.

The effective date of the previous valuation was 31 March 2017. The valuation was performed by an independent valuer, Barry Peter Richardson, of Onyx Valuation Services on 10 April 2017. Barry Peter Richardson is registered as a Professional Valuer with the South African Council for the Property Valuers Profession. Onyx Valuation Services is not connected to the entity and have recent experience in location and category of the property concerned. Barry Peter Richardson has no present or contemplated interest in this entity which would affect the statements or values contained in the valuation report. The valuation was therefore undertaken on a completely independent basis.

The property was valued at R27,200,000 for the 2016/17 financial year. The valuation was based on market related rentals.

The market value of the property was determined by using the income capitalisation method of valuation which essentially uses market related rentals and expense data to calculate net annual income determined at R3.2 million per annum and this was capitalised at a rate of 12% yielding a value of R27.2 million. In determining market related rentals the Valuer considered rentals of offices in close proximity and in comparable areas for similar accommodation including the Pretoria CBD. This valuation basis was appropriate at the time as the property was intended to be sold through auction and it was likely to be acquired as commercial property to be used for its rental income generating ability. These assumptions were based on current market conditions.

Other information

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Property, plant and equipment fully depreciated and still in use (Cost)				
Furnitures and fixtures	115,526	15,705	115,526	15,705
Office equipment	750,308	7,757	750,308	7,757
IT equipment	170,057	199,654	170,057	199,654
	1,035,891	**223,116**	**1,035,891**	**223,116**

Classification of Property, plant and equipment into non-current and current

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Property, plant and equipment				
Non-current assets	15,225,872	19,579,017	15,225,872	19,579,017
Current assets	-	497,955	-	-
	15,225,872	**20,076,972**	**15,225,872**	**19,579,017**

The auctioneer received a written bid for the acquisition of the Marumati building situated at ERF 706 Rietfontein to the value of R9,750,000. The Board granted approval for the disposal of the Marumati building situated at Erf 706 Rietfontein (Pty) Ltd on 16 August 2017.

An expecation exists that the transfer of the Marumati building situated at Erf 706 Rietfontein will be finalised within the next 12 months, as a result the building (with a carrying value of R NIL) is classified as a current asset. This building will be utilised for rental to others (tenants) as well as for WRC's administrative purposes untill the finalisation of its disposal.

Details of properties

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Erf 706 Rietfontein				
Purchase price	615,855	615,855	-	-
Additions since purchase or valuation	8,075,667	8,075,667	-	-
	8,691,522	**8,691,522**	**-**	**-**

A register containing the information required by the PFMA is available for inspection at the registered office of the economic entity.

7. Intangible assets

	2018			2017		
	Cost R	Accumulated amortisation and accumulated impairment R	Carrying value R	Cost R	Accumulated amortisation and accumulated impairment R	Carrying value R
Group						
Computer software, other	5,867,500	(3,343,391)	2,524,109	4,236,568	(2,922,355)	1,314,213
WRC						
Computer software, other	5,867,500	(3,343,391)	2,524,109	4,236,568	(2,922,355)	1,314,213

Reconciliation of intangible assets

	Opening balance R	Additions R	Amortisation R	Total R
Group – 2018				
Computer software, other	1,314,213	1,630,932	(421,036)	2,524,109
Group – 2017				
Computer software, other	1,715,018	19,266	(420,071)	1,314,213

	Opening balance R	Additions R	Amortisation R	Total R
WRC – 2018				
Computer software, other	1,314,213	1,630,932	(421,036)	2,524,109
WRC – 2017				
Computer software, other	1,715,018	19,266	(420,071)	1,314,213

Pledged as security

None of the intangible assets are pledged as security.

Amortisation on Intangible Assets is included in Depreciation, Amortisation and Impairment as reflected in the Statement of Financial Performance.

Other information

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Fully amortised intangible assets still in use	26,202	26,202	26,202	26,202

8. Investment in wholly controlled entity

	WRC	
	Carrying amount 2018 R	Carrying amount 2017 R
Name of company		
An ordinary share in ERF 706 Rietfontein (Pty) Ltd (100% holding)	1	755,939

The carrying amounts of controlled entity are shown net of impairment losses.

The WRC holds 100% of the ordinary shares in Erf 706 Rietfontein (Pty) Ltd, a property company. Erf 706 Rietfontein (Pty) Ltd owns one property as disclosed in note 6.

The disposal of the Marumati building (“the Property”) owned by Erf 706 Rietfontein (Pty) Ltd was approved by the Board and the Minister of Water and Sanitation on 22 February 2016 and 14 May 2016 respectively. Cahi Auctioneers was appointed on 7 April 2017 through a competitive bidding process to dispose of the property by means of an auction.

The auction took place on 20 July 2017. The auctioneer received a written bid to the value of R9,750,000. The Board granted approval for the disposal of the Marumati building situated at Erf 706 Rietfontein (Pty) Ltd on 16 August 2017.

The bid price obtained is a clear indication that Erf 706 Rietfontein (Pty) Ltd will not be able to settle in full the intercompany loans and therefore the loans were impaired (See note 3). Similarly the investment in Erf 706 Rietfontein (Pty) Ltd will not be realised since Erf 706 Rietfontein (Pty) Ltd's liabilities exceeds its assets by (R16,562,445) as at 31 March 2018. In line with GRAP an impairment loss has been recognised and the carrying amount of the investments is now reflected at its nominal share capital value of R1.

Controlled entity pledged as security

The investment is not pledged as security.

9. Finance lease obligation

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Minimum lease payments due				
- within one year	1,187,492	1,238,563	1,187,492	1,238,563
- in second to fifth year inclusive	509,652	1,742,721	509,652	1,742,721
	1,697,144	2,981,284	1,697,144	2,981,284
less: future finance charges	(138,327)	(414,955)	(138,327)	(414,955)
Present value of minimum lease payments	**1,558,817**	**2,566,329**	**1,558,817**	**2,566,329**
Present value of minimum lease payments due				
- within one year	1,061,638	976,247	1,061,638	976,247
- in second to fifth year inclusive	497,179	1,590,082	497,179	1,590,082
	1,558,817	**2,566,329**	**1,558,817**	**2,566,329**
Non-current liabilities	497,179	1,590,082	497,179	1,590,082
Current liabilities	1,061,638	976,247	1,061,638	976,247
	1,558,817	**2,566,329**	**1,558,817**	**2,566,329**

Effective from 1 April 2018, VAT levied on services and goods changed from 14% to 15%. This will result in an increase in the finance lease liability amounting to R19,284.88 effective 1 April 2018. The minimum lease payments and interest over the next 12 months will, effective from 1 April, amount to R1,197,908.80 and R123,192.28 respectively and thereafter will amount to R514,121.02 and R10,736.82 for the remainder of the contract.

It is the economic entity's policy to lease certain IT equipment under finance leases. The finance leases is effective for a period of thirty six (36) months.

The average lease term is 3 years and the average effective borrowing rate is 13% (2017: 13%).

Interest rates are fixed at the contract date. All leases have fixed repayments and no arrangements have been entered into for contingent rent.

Defaults and breaches

The entity did not default on any interest or capital portions in respect of any of the finance leases.

During the 2017/18 financial year, two laptops under the Lenova finance lease were lost. The settlement paid by the WRC to the service provider amounted to R81,133.80. This will impact the future monthly instalments as from 1 April 2018. The remaining period of the lease, as well as the interest rate were not re-negotiated. None of the other finance leases were re-negotiated during the year under review.

10. Operating lease liability

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Balance at year end				
Operating lease liability	5,412,247	2,933,171	5,412,247	2,933,171
Minimum operating lease liability payments				
Within 12 months	7,833,746	7,196,166	7,833,746	7,196,166
Between 12 - 60 months	49,110,431	45,228,875	49,110,431	45,228,875
Longer than 60 months	25,297,889	36,298,043	25,297,889	36,298,043
	82,242,066	**88,723,084**	**82,242,066**	**88,723,084**

The WRC entered into a ten-year lease agreement during the 2016/17 financial year with Lynnwood Bridge Office Park (Pty) Ltd whereafter the tenancy is subject to renewal at the landlord's discretion. The monthly lease payments comprise of the following based on area occupied:

- rental of the two (2) floors in the building escalated at 7,5% per annum over the lease period
- rental of ninety (90) parking bays escalated at 7,5% per annum over the lease period
- operating costs escalated at 8.5% per annum over the lease period
- rates and taxes pro-rated according to area occupied

The comparative year has been restated as a result of a prior period misstatement. Please refer to the correction of error (note 42) for further details. The operating lease liability was calculated in the 2016/17 financial year by erroneously including the rates and taxes, which is payable to the landlord in accordance with the contract. GRAP 13 defines minimum lease payments as the payments over the lease term that the lessee is or can be required to make, excluding taxes to be paid by and reimbursed to the lessor.

No contingent rent is payable and there are no restrictions on the leases.

11. Payables

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Payables from non-exchange transactions				
Income received in advance	70,134,839	104,045,077	70,134,839	104,045,077
Payables from exchange transactions				
Payables	15,271,217	6,236,016	15,271,217	6,233,877
Accruals	7,826,427	3,733,801	7,340,778	3,733,801
Deposits received	20,910	20,910	-	-
	93,253,392	**114,035,804**	**92,746,834**	**114,012,756**

Income received in advanced is realised as leverage income to the income statement on the basis of research deliverables being realised in respect of projects funded by leverage funded partners. The comparative figures have been restated by R656,696 as a result of a prior period misstatement. Please refer to the correction of error (note 42) for further details.

All the payables as reflected above represent payables from exchange transactions, except for Income received in advance which represents payables from non-exchange transactions.

The entity did not default on interest or capital on any payables. None of the items attached to the payables were re-negotiated during the period under review.

The maximum exposure to credit risk at the reporting date is the fair value of the payables above. The fair value of the payables approximates the carrying amount of the balances due to their short-term maturity.

12. Accruals – leave and bonus

Reconciliation of accruals – leave and bonus

	Opening balance	Additions	Utilised during the year	Payments during the year	Remeasure-ment	Total
	R	R	R	R	R	R
Group – 2018						
Accruals for leave	5,145,166	6,656,277	(5,129,444)	(1,478,896)	1,769,778	6,962,881
Accruals for bonuses	15,487	17,192	-	(30,982)	15,495	17,192
	5,160,653	**6,673,469**	**(5,129,444)**	**(1,509,878)**	**1,785,273**	**6,980,073**

	Opening balance	Additions	Utilised during the year	Payments during the year	Remeasure-ment	Total
	R	R	R	R	R	R
Group – 2017						
Accruals for leave	4,737,628	5,420,628	(4,204,438)	(1,108,648)	299,996	5,145,166
Accruals for bonuses	13,982	15,487	-	(27,896)	13,914	15,487
	4,751,610	**5,436,115**	**(4,204,438)**	**(1,136,544)**	**313,910**	**5,160,653**

	Opening balance	Additions	Utilised during the year	Payments during the year	Remeasure-ment	Total
	R	R	R	R	R	R
WRC – 2018						
Accruals for leave	5,145,166	6,656,277	(5,129,444)	(1,478,896)	1,769,778	6,962,881
Accruals for bonuses	15,487	17,192	-	(30,982)	15,495	17,192
	5,160,653	**6,673,469**	**(5,129,444)**	**(1,509,878)**	**1,785,273**	**6,980,073**

	Opening balance	Additions	Utilised during the year	Payments during the year	Remeasure-ment	Total
	R	R	R	R	R	R
WRC – 2017						
Accruals for leave	4,737,628	5,420,628	(4,204,438)	(1,108,648)	299,996	5,145,166
Accruals for bonuses	13,982	15,487	-	(27,896)	13,914	15,487
	4,751,610	**5,436,115**	**(4,204,438)**	**(1,136,544)**	**313,910**	**5,160,653**

Accruals are made for possible leave that will be taken or paid out in cash. This is based on the number of days accumulated at the reporting date.

Three (3) employees were appointed on a cost plus benefits basis. These employees are entitled to a service bonus (13th cheque). Accruals are made for the payment of service bonuses which are paid to employees on their respective birthdays.

There are uncertainties regarding the amount and timing of the cash outflows relating to the accrual for leave. Leave days may be accumulated by employees and there are uncertainties related to the amount of leave days that will be taken in the next 12 months and also what the cost of the leave days taken will amount to due to possible increases in salaries in the next 12 months. Accumulated leave days may be paid out in cash in terms of the policy of the WRC. There is, however, uncertainty regarding how many employees would request a leave pay-out (due to resignations or due to accumulated leave reaching the upper limit before capitalisation is required). The cost of the actual payout will further be affected by possible increases in salaries in the next 12 months.

There are no uncertainties regarding the timing of the cash outflows relating to the accrual for bonuses due to the fact that the WRC pays employees a service bonus in the month of their respective birthdays as stipulated in the policy. There are uncertainties regarding the amount of the cash outflows due to possible increases in salaries in the next 12 months.

There is no expected reimbursement in respect of these provisions for leave and bonus.

13. Employee benefit asset/(obligation)

Medical aid scheme

Defined benefit plan:

The WRC has made provision for a medical aid scheme covering retired employees and active employees before 1 April 2008. These funds are actuarially valued at intervals of not more than three years using the projected unit credit method. The scheme was last actuarially valued at 31 March 2018. At that time the reporting actuary certified that the vested liability for continuation members will fluctuate depending on mortality rates of current continuation members and the rate of new retirements over the next few years. The active member liability will be affected by whether the actual withdrawals match those expected and the rate of medical aid inflation. In arriving at his conclusion, the actuary took into account certain assumptions at reporting date (expressed as weighted averages).

The WRC carries the legal and related financial obligation to subsidise (100% subsidy level) the medical aid benefit of certain of its current and its pensioned employees in retirement. As such, the WRC's post retirement medical aid obligation represents a long dated, uncapped and unfunded liability which, if not pro-actively managed represents a significant systematic employee benefit and financial risk to the institution. It is on this basis and in terms of prudent practice that the management of the WRC initiated a formal strategy in 2008 to manage the long dated, uncapped and unfunded costs and risks associated with its post retirement medical aid liability as follows:

- The WRC closed the subsidy/benefit to new recruits to the WRC as of 1 April 2008.
- The WRC employed the professional services of an independent consultant and actuary to value the quantum of the liability fund (i.e. risk ring fencing) and/or buy out (i,e, liability capping) the disclosed liability in order to manage the WRC's exposure to the associated costs and risks. In the 2010/11 financial year, the WRC offered voluntary buy-outs to all in-service members. Members that did not accept the buy-out offer and the pensioners already receiving the benefit have had the liability ringfenced through an insurance cover administered by Momentum Group Limited.

The amounts recognised in the statement of financial position are as follows:

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Carrying value				
Present value of the defined benefit obligation – partly or wholly funded	(40,030,373)	(34,055,937)	(40,030,373)	(34,055,937)
Fair value of plan assets	33,828,948	29,016,011	33,828,948	29,016,011
Employee benefit asset/(obligation) recognised	**(6,201,425)**	**(5,039,926)**	**(6,201,425)**	**(5,039,926)**
The comparative year has been restated as a result of a prior period misstatement. Please refer to the correction of error (note 42) for further details.				
Movement for the year – medical aid fund				
Opening balance	(5,039,926)	(6,860,000)	(5,039,926)	(6,860,000)
Contributions by employer	1,277,677	5,366,851	1,277,677	5,366,851
Net expense recognised in the statement of financial performance	(2,439,176)	(3,546,777)	(2,439,176)	(3,546,777)
	(6,201,425)	**(5,039,926)**	**(6,201,425)**	**(5,039,926)**

Net expense recognised in the statement of financial performance – medical aid fund

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Current service cost	65,621	206,000	65,621	206,000
Interest cost	2,907,359	3,249,000	2,907,359	3,249,000
Actuarial (gains)/losses	1,975,571	2,751,777	1,975,571	2,751,777
Expected return on plan assets	(2,509,375)	(2,660,000)	(2,509,375)	(2,660,000)
	2,439,176	**3,546,777**	**2,439,176**	**3,546,777**

The comparative year has been restated as a result of a prior period misstatement. Please refer to the correction of error (note 42) for further details.

The current service cost represents the cost of one additional year of service for current employees.

The interest cost reflects the reducing discounting period from one year to the next (i.e. the unwinding of the discount rate over time) and allows for actual benefit payments.

The expected return on plan assets is restated for actual benefit payments from the plan assets and contributions from the company.

Actuarial gains and losses arise when actual experience differs from the assumptions made at the previous valuation (e.g. actual medical contribution increases higher than those assumed will lead to an actuarial loss).

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Reconciliation of the defined benefit obligation				
Opening balance	34,055,937	32,854,000	34,055,937	32,854,000
Current service cost	65,621	206,000	65,621	206,000
Interest cost	2,907,359	3,249,000	2,907,359	3,249,000
Benefits paid	(2,982,540)	(2,558,198)	(2,982,540)	(2,558,198)
Net actuarial losses/(gains)	5,983,996	305,135	5,983,996	305,135
	40,030,373	**34,055,937**	**40,030,373**	**34,055,937**

The net actuarial losses/gains consist of:	
- Change in economic assumptions	R1,961,888
- Change in demographic assumptions	R3,085,614
- Exit experience	R936,494
Total	**R5,983,996**

Change in Economic Assumptions
The loss on the economic assumptions is mostly since the previous valuation allowed for an inflation-risk premium of 0.5%, which led to a lower inflation assumption relative to the discount rate.

Change in Demographic Assumptions
The loss on demographic assumptions relates to the updating of the post-retirement mortality assumption.

Exit Experience
Exits different to those expected resulted in an actuarial loss. (Mortality in the year was below expected).

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Reconciliation of the plan assets				
Opening balance	29,016,011	25,994,000	29,016,011	25,994,000
Expected return on plan assets	2,509,375	2,660,000	2,509,375	2,660,000
Actuarial gains (losses) on plan assets	4,008,425	(2,446,642)	4,008,425	(2,446,642)
Contributions by employer	1,277,677	5,366,851	1,277,677	5,366,851
Benefits paid	(2,982,540)	(2,558,198)	(2,982,540)	(2,558,198)
	33,828,948	**29,016,011**	**33,828,948**	**29,016,011**

Key assumptions used

The financial assumptions, which is the same for the economic entity and the WRC, at the current and previous valuation dates are shown below:

	2018	2017
Assumptions		
Discount rates used	8.68%	8.91%
Medical contribution inflation	-7.75%	-7.40%
Net rate for calculating liabilities	0.86%	1.41%
Expected return on assets	8.68%	8.91%
Inflation	6.25%	5.90%
Net rate for calculating assets	2.29%	2.84%

Basis for assumptions used in the 2017/18 financial year

Liabilities

The defined benefit obligation has been calculated using a valuation method known as the Projected Unit Credit method using the data as at 31 March 2018. This methodology considers the past service of an employee and the service expected over the next year. This is the required method in terms of GRAP25.

The past service liability (the liability which has accrued in respect of service to the valuation date for the current employees) for the in-service employees is calculated by projecting all expected future cash flows based on service to the valuation date and discounting these at the assumed discount rate allowing for possible reasons of exit from the Company, such as retirement, resignation and death.

Under the Projected Unit Credit method, the present value of benefits that will accrue to employees in respect of the next year of service after the valuation date is calculated and this is called the Current Service Cost.

Assets

The Company holds an annuity insurance policy in respect of the benefits, which guarantees CPI increases to benefits in payment under the policy.

This policy meets the definition of a "qualifying insurance policy" stated in paragraph 115 of GRAP 25, which sets out that the fair value of the policy is deemed to be the present value of the related obligations.

We have therefore valued the asset using the same methodology as the liabilities for continuation members, but assuming increases equal to inflation only, as this represents the obligation that is covered by the policy.

Valuation assumptions

Valuation assumptions can be considered as financial and demographic assumptions.

The key financial assumptions are the discount rate and the rate of medical contribution increases.

Medical contribution increases
The total average contribution increase was higher than that previously expected based on long-term assumptions resulting in an actuarial loss.

Discount rate
GRAP 25 requires that the discount rate be set based on the yields of appropriate term high quality corporate bonds. If no deep market in such bonds is available, accounting standards require that the yield on government bonds of appropriate term be applied in the setting of this assumption.

In setting a reasonable discount rate, we therefore applied the 31 March 2018 yield from the zero-coupon government bond yield curve in South Africa for the duration of the liabilities.

Inflation rate
To determine an estimate of long-term future inflation consistent with the discount rate, we have considered the implied future inflation in South Africa based on the yield at the same duration as the discount rate on the South African real yield curve.

Expected return on assets
For the valuation of the insurance policy asset, we have applied an expected return on assets consistent with the discount rate.

Medical contribution inflation
Future medical aid contribution increases are usually linked with a long-term future inflation assumption, plus a margin, since medical inflation has historically outstripped price inflation.

We have allowed for long-term medical contribution inflation of 1.5% higher than the assumed long-term inflation rate on average, as was applied previously.

Withdrawals/Resignations
The only remaining active member is over age 55 and we have therefore not applied any resignation rates in the calculation, as was done previously.

Mortality
The SA85-90 ultimate standard tables, with female lives rated down by three years was applied for pre-retirement mortality, which was the same as per the prior year valuation.

The post-retirement mortality assumption previously applied was the PA(90) ultimate tables. This was updated in the current valuation to allow for a two year age adjustment to reflect mortality improvements, which is more in line with expectations.

Family statistics and plan options
It was assumed, as previously, that the active employee will be married at retirement. Actual spouses dates of birth were applied.

The two eligible children were over age 21 and were only taken into account for one year as it appears that the Company contribution to the insurer allows for this, it is presumed that their benefits will cease thereafter.

It was assumed that the take-up rate would be 100%, i.e. the eligible employee will take the benefit at retirement.

Information on the benefits and risks
The liabilities are in respect of a partially-funded defined benefit promise, providing promised proportions of medical aid contributions to employees and their dependants on retirement or on death.

The risk to the Company in respect of the benefits is if actual medical contribution increases are significantly higher than assumed, if mortality is lower than assumed and if the data provided in respect of the employees or benefits is incomplete or incorrect.

Sensitivity of the results
The assumption made in the liability calculations are best estimates of future levels of the various factors. These factors in reality may turn out to be different than the assumed values. There are various factors that influence WRC's post-employment health care liability. The sensitivity of the main results to changes in the medical inflation rate, discount rate and post-retirement mortality rate have been calculated.

In order to illustrate the sensitivity of the results to the changes in certain key variables, the liability figure has been recalculated to show the effect of:

(i) A 1% increase and decrease in the the assumed rate of medical care inflation;
(ii) A 1% increase and decrease in the discount rate;
(iii) A one-year age reduction in the assumed rates of post-retirement mortality

Previously, the sensitivity of the results to a reduction in the retirement age and to the continuation of membership were further included. The active employee has less than a year to retirement though, so a one year retirement age sensitivity would not be suitable. Furthermore, given that the benefit is full medical aid premium cover, it would be extremely unlikely that the active employee would opt-out, so in our opinion, a continuation rate sensitivity is not relevant.

The sensitivity analysis is the same for the economic entity and the WRC.

		Liability Impact	Service cost & interest cost impact	Asset Impact
Sensitivity				
Medical contribution inflation	1%	3,765,471	335,154	-
Medical contribution inflation	(1%)	(3,278,640)	(291,660)	-
Discount rate	1%	(3,294,242)	58,777	(2,630,981)
Discount rate	(1%)	3,851,544	(80,536)	2,804,866
Post-retirement mortality	(1year)	1,733,798	152,893	1,217,998

Employee Statistics

	31 March 2018 R	31 March 2017 R
Total liability split into active and continuation member		
Active employees	1,844,984	1,427,277
Continuation	38,185,389	32,628,660
	40,030,373	**34,055,937**

	31 March 2018	31 March 2017	Change
Active employees			
Number	1	1	
Average age	64.2	63.2	1
Average service	23.2	22.2	1
Continuation members			
Number	40	40	
Average age	71.2	70.2	1

Amounts for the current and previous four years for the economic entity and the WRC are as follows:

	2018 R	2017 R	2016 R	2015 R	2014 R
Defined benefit obligation	(40,030,373)	(34,055,937)	(32,854,000)	(33,968,815)	(31,511,745)
Plan assets	33,828,948	29,016,011	25,994,000	29,466,200	27,503,639
Net employee benefit asset/(liability)	(6,201,425)	(5,039,936)	(6,860,000)	(4,502,615)	(4,008,106)
Net expense recognised in the statement of financial performance	2,439,176	3,546,777	4,683,164	494,509	795,634

14. Provision

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Legal proceedings	637,500	-	637,500	-

For more details regarding this provision please refer to Events After The Reporting Date (note 45).

15. Revenue from exchange transactions

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Other income	376,871	811,338	376,871	818,200
Rental received	151,246	247,349	-	-
Recovery of expenditure	6,899	25,906	-	14,529
	535,016	**1,084,593**	**376,871**	**832,729**

Investment revenue is disclosed seperately in note 16.

16. Investment revenue

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Dividend revenue				
Listed financial assets	-	6,603	-	6,603
Interest revenue				
Listed financial assets	-	15,182	-	15,182
Bank and fixed deposits	6,418,631	8,953,663	6,418,631	8,948,245
Loans to wholly controlled entity	-	-	758,066	4,246,523
	6,418,631	**8,968,845**	**7,176,697**	**13,209,950**
	6,418,631	**8,975,448**	**7,176,697**	**13,216,553**

The comparative figures relating to interest received have been restated as a result of a prior period misstatement. Please refer to the correction of error (note 42) for further details.

17. Revenue from non-exchange transactions

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Leverage income	63,115,787	83,481,128	63,115,787	83,481,128
Water research levies	224,692,702	207,322,204	224,692,702	207,322,204
Tenant allowance	-	2,120,117	-	2,120,117
Miscellaneous income	5,480	-	5,480	-
	287,813,969	**292,923,449**	**287,813,969**	**292,923,449**

The actual levy income for the 2017/18 financial year is higher than the levy income projections. This was due to higher consumption volumes during the 2017/18 financial year.

Leverage income is recognised on the basis of research deliverables being realised in respect of projects funded by leverage funded partners. The comparative figures have been restated by R686,121 from R82,795,007 to R83,481,128 as a result of a prior period misstatement. Please refer to the correction of error note 42 for further details.

A tenant installation allowance was granted by the landlord in the 2016/17 financial year in order to contribute towards the refurbishment of the premises. This amount was granted solely to compensate the WRC for monies spent relating to the refurbishing or altering of the leased premises to suit its needs. This allowance was limited to items such as partitioning, finishes, flooring, ceilings, electrical installations, kitchens, shopfronts, air-conditioning and pre-cleaning.

18. Depreciation, amortisation and impairment

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Property, plant and equipment – Depreciation	5,063,677	3,728,399	4,565,723	3,230,446
Property, plant and equipment – Impairment loss	38,412	261,237	38,412	261,237
Intangible assets – Amortisation	421,036	420,071	421,036	420,071
	5,523,125	**4,409,707**	**5,025,171**	**3,911,754**

The comparative figures have been restated as a result of a prior period misstatement. Please refer to the correction of error (note 42) for further details.

19. Employee related costs

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Basic salary	63,133,730	53,614,792	63,133,730	53,614,792
Merit bonus	5,213,875	3,301,477	5,213,875	3,301,477
Directors emoluments	482,944	404,992	482,944	404,992
Workmen's compensation- Department of Labour	373,882	327,209	373,882	327,209
Skills Development Levies	661,962	566,254	661,962	566,254
Company contributions – UIF	146,793	138,548	146,793	138,548
Company contributions – other	172,508	155,758	172,508	155,758
Post-employment medical aid	65,621	(470,130)	65,621	(470,130)
Leave and bonus provision	3,329,299	1,545,585	3,329,299	1,545,585
Staff bursaries	288,380	93,826	288,380	93,826
	73,868,994	**59,678,311**	**73,868,994**	**59,678,311**

The comparative post employee medical aid figures have been restated by (R4,966,755) from R4,496,625 to (R470,130) as a result of a prior period misstatement. Please refer to the correction of error (note 42) for further details.

20. Finance costs

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Finance leases	312,183	181,855	312,183	181,855
Late payment	-	3,934	-	3,934
Employee benefit obligations	397,984	589,000	397,984	589,000
	710,167	**774,789**	**710,167**	**774,789**

The comparative figures relating to finance costs in respect of employee benefit obligations have been restated as a result of a prior period misstatement. Please refer to the correction of error (note 42) for further details.

21. General expenses

		Group		WRC	
		2018	2017	2018	2017
		R	R	R	R
Auditors remuneration	28	1,554,085	1,428,395	1,554,085	1,428,395
Bank charges		78,865	92,881	76,624	89,944
Commission paid		485,649	-	-	-
Catering costs (including costs associated with reference group meetings)		674,713	391,253	674,713	391,253
Consumables		34,392	44,833	34,392	44,833
Corporate social responsibility		73,625	68,276	73,625	68,276
Insurance		337,770	207,063	337,770	207,063
IT expenses		2,275,894	1,701,407	2,275,894	1,701,407
Leadership development, including training		945,222	403,440	945,222	403,440
Motor vehicle expenses		10,631	17,560	10,631	17,560
Postage and courier		183,298	219,967	183,298	219,967
Professional fees		1,085,665	1,337,731	1,085,095	1,335,591
Promotions		717,227	740,379	717,227	740,379
Recruitment costs		61,561	351,947	61,561	351,947
Staff welfare		37,838	47,952	37,838	47,952
Stationery and other purchases		262,558	302,976	262,558	302,976
Subscriptions and membership fees		354,161	703,935	354,161	703,935
Telephone and fax		845,462	923,732	845,462	923,732
Travel – local (including costs associated with reference group meetings)		3,636,991	3,854,925	3,636,991	3,854,925
Travel – overseas		2,198,632	1,447,888	2,198,632	1,447,888
Utilities		1,163,831	1,380,678	1,163,831	1,380,678
Settlement fees		637,500	-	637,500	-
		17,655,570	**15,667,218**	**17,167,110**	**15,662,141**

22. Impairment of assets

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Impairments				
Investment in wholly controlled entity	-	-	755,938	-
Loans to wholly controlled entity	-	-	19,883,454	2,174,563
	-	**-**	**20,639,392**	**2,174,563**

23. Lease rentals on operating lease

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Rent payable under operating lease	8,404,895	7,461,295	8,404,895	7,461,295
Operating lease liability – Straight-lining of lease	2,479,076	2,933,171	2,479,076	2,933,171
Rental of Equipment	80,804	240,244	80,804	240,244
	10,964,775	**10,634,710**	**10,964,775**	**10,634,710**

The comparative year has been restated by (R490,951) from R11,125,660 to R10,634,709, as a result of a prior period misstatement. Please refer to the correction of error (note 42) for further details. The operating lease liability was calculated in the 2016/17 financial year by erroneuosly including the rates and taxes, which is payable to the landlord in accordance with the contract. GRAP 13 defines minimum lease payments as the payments over the lease term that the lessee is or can be required to make, excluding taxes to be paid by and reimbursed to the lessor.

24. Research, development and innovation

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Research, development and innovation costs	165,037,203	196,371,607	165,037,203	196,371,607
Media and marketing (printing and publishing)	6,106,064	8,762,735	6,106,064	8,762,735
Workshops and conferences	13,460,695	7,623,715	13,460,695	7,623,715
Other research related costs	2,091,285	525,063	2,091,285	525,063
Patent registrations	97,553	417,329	97,553	417,329
	186,792,800	**213,700,449**	**186,792,800**	**213,700,449**

25. Operating surplus

Operating surplus for the year is stated after accounting for the following:

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Operating lease charges				
Premises				
- Contractual amounts	10,883,971	10,394,465	10,883,971	10,394,465
Equipment				
- Contractual amounts	80,804	240,244	80,804	240,244
	10,964,775	**10,634,709**	**10,964,775**	**10,634,709**
Gain on sale of property, plant and equipment	26,049	9,499	26,049	9,499
Impairment on investment in wholly controlled entity	-	-	755,938	-
Impairment on loans to economic entities	-	-	19,883,454	2,174,563
Amortisation on intangible assets	421,037	420,071	421,037	420,071
Depreciation and impairment losses on property, plant and equipment	5,102,089	3,989,637	4,604,134	3,491,684
Employee costs	73,868,994	59,678,311	73,868,994	59,678,311
Research, development and innovation costs	186,792,800	213,700,449	186,792,800	213,700,449

26. Fair value adjustments

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Other financial assets	-	(300,833)	-	(300,833)

27. Taxation

No provision has been made for taxation as the economic entity is exempt from income tax in terms of Section 10(1)(cA)(i) of the Income Tax Act.

28. Auditors' remuneration

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Fees – external auditors	1,177,774	1,026,356	1,177,774	1,026,356
Fees – internal auditors	376,311	402,039	376,311	402,039
	1,554,085	**1,428,395**	**1,554,085**	**1,428,395**

29. Cash used in operations

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Deficit	(3,942,806)	(6,111,630)	(22,908,297)	(3,711,402)
Adjustments for:				
Depreciation, amortisation and impairment	5,523,124	4,409,707	5,025,170	3,911,755
Loss on sale of assets and liabilities	(26,049)	(9,499)	(26,049)	(9,499)
Fair value adjustments	-	300,833	-	300,833
Finance costs – Finance leases	312,183	181,855	312,183	181,855
Finance costs – retirement benefit	397,984	589,000	397,984	589,000
Impairment on wholly controlled entity loans and investment	-	-	20,639,392	2,174,563
Movements in operating lease assets and accruals	2,479,077	2,935,223	2,479,077	2,933,170
Other movements in retirement benefit assets and liabilities	65,621	(470,131)	65,621	(470,131)
Movements in provisions	1,819,420	409,043	1,819,420	409,043
Interest on intercompany loans	-	-	(758,066)	(4,246,523)
Non-cash movement of finance lease	(163,482)	(696,609)	(163,482)	(696,609)
Actuarial gains and losses	1,975,571	2,751,777	1,975,571	2,751,777
Foreign exchange loss on foreign bank accounts	1,134,399	4,817,702	1,134,399	4,817,700
Other non-cash items	-	28,230	-	28,230
Changes in working capital:				
Receivables	(5,533,750)	2,841,727	(5,571,127)	5,303,549
Payables	(20,782,411)	(61,335,355)	(21,265,918)	(61,340,366)
VAT	60,246	(59,200)	-	-
Provision	637,500	-	637,500	-
	(16,043,373)	**(49,417,327)**	**(16,206,622)**	**(47,073,055)**

30. Commitments

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Commitments				
- General	8,947,051	7,912,594	8,947,051	7,912,594
Commitments				
- Research projects	295,249,153	373,792,760	295,249,153	373,792,760
Total commitments				
General commitments	8,947,051	7,912,594	8,947,051	7,912,594
Research projects commitments	295,249,153	373,792,760	295,249,153	373,792,760
	304,196,204	**381,705,354**	**304,196,204**	**381,705,354**

General commitments relate to contractual obligations that the WRC entered into before 31 March 2018.

General commitments for the comparative year has been restated with an amount of (R98,609,577), which includes the following:

- In the 2016/17 financial year the future commitment of the operating lease amounting to (R101,204,071) relating to the Lynnwood Bridge Office park was disclosed in Operating lease liability (note 10), as well as in this note. The Lynwood Bridge Office Park commitment has been removed from this note to enhance fair presentation. The details of the Lynwood Bridge Office Park commitment is included under Operating lease liability (note 10).
- Various other general commitments have been adjusted by an amount of R2,594,494.

At year end research project commitments comprise of projects approved by the executive management and include those for which contracts have been signed at year end and those that at year end are in the process of being signed by all contracting parties.

As at 31 March 2018 commitments relating to research projects with signed contracts amounted to R266,167,926 (2017: R359,616,183) and projects for which contracts are in the process of signing amount to R 29,081,228 (2017: R14,176,577). The commitment in respect of research projects for the comparative year has been restated with the amount of R1,116,183.

31. Related parties

Relationships

Controlled entity

- Erf 706 Rietfontein (Pty) Ltd — Refer to note 8

	WRC 2018 R	WRC 2017 R
Related party balances		
Loan accounts – Owing (to) by related parties		
Erf 706 Rietfontein (Pty) Ltd	8,205,561	28,350,951
Amounts included in Trade receivable (Trade Payable) regarding related parties		
Erf 706 Rietfontein (Pty) Ltd	48,305	10,829
Related party transactions		
Interest paid to (received from) related parties		
Erf 706 Rietfontein (Pty) Ltd	(758,066)	(4,246,523)
Levy income		
Department of Water and Sanitation	107,440,081	95,125,187
Rand Water Board	92,770,166	88,819,990
Umgeni Water Board	24,482,456	23,377,028
Outstanding levy income (Debtor at year end)		
Department of Water and Sanitation	9,097,958	8,037,250
Rand Water Board	24,132,457	22,548,613
Umgeni Water Board	6,241,393	5,921,243

WRC derives its main source of income (Water research levy) from the Department of Water and Sanitation and the two Water Boards in terms of the Water Research Act. The Department of Water and Sanitation, Rand Water and Umgeni Water Board collect levy income on behalf of the WRC. The rate of the levy is approved by the Minister of Water and Sanitation on an annual basis.

The Department of Water and Sanitation pays the WRC the water research levy on a monthly basis in accordance with the agreement. The two Waterboards are invoiced bi-annually upon which they pay the WRC. WRC and Department of Water and Sanitation reports to the Minister of Water and Sanitation as their Executive Authority. Compensation to directors and other key management are disclosed seperately in note 32.

32. Emoluments of Executive management, Board of Directors (non-executive) and External Audit Committee members

The emoluments are the same for the economic entity and the WRC.

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Total Emoluments				
Fees for services as non-executive directors	480,488	428,740	480,488	428,740
Fees for external audit commitee members	36,400	-	36,400	-
Basic salary	17,561,474	16,005,780	17,561,474	16,005,780
Bonuses and performance payments	2,288,819	1,101,401	2,288,819	1,101,401
Travel allowance	780,000	688,000	780,000	688,000
	21,147,181	**18,223,921**	**21,147,181**	**18,223,921**

	Basic salary	Bonuses and performance payments	Travel allowance	Total
	R	R	R	R
Executive – 2018				
Mr DP Naidoo – CEO	3,034,003	410,893	-	3,444,896
Mr F Ismail – CFO	1,742,565	289,228	420,000	2,451,793
Dr MS Liphadzi	2,042,200	285,969	96,000	2,424,169
Ms R Lutchman	1,941,837	259,707	-	2,201,544
Dr M Msibi	1,921,785	174,326	84,000	2,180,111
Dr S Adams	1,779,070	237,938	-	2,017,008
Dr G Backeberg	1,610,173	139,943	-	1,750,116
Mr JN Bhagwan	1,797,212	264,438	180,000	2,241,650
Dr V Naidoo	1,692,629	226,377	-	1,919,006
	17,561,474	**2,288,819**	**780,000**	**20,630,293**

	Basic salary	Bonuses and performance payments	Travel allowance	Total
	R	R	R	R
Executive – 2017				
Mr DP Naidoo – CEO	2,745,399	208,557	-	2,953,956
Mr F Ismail – CFO	1,507,477	149,911	420,000	2,077,388
Dr MS Liphadzi	1,809,761	148,222	96,000	2,053,983
Ms R Lutchman	1,730,744	134,610	-	1,865,354
Dr M Msibi	1,840,175	-	7,000	1,847,175
Dr S Adams	1,620,780	128,877	-	1,749,657
Dr G Backeberg	1,461,121	71,547	-	1,532,668
Mr JN Bhagwan	1,604,273	137,062	158,000	1,899,335
Ms E Karar – Resigned in April 2016	144,021	-	7,000	151,021
Dr V Naidoo	1,542,029	122,615	-	1,664,644
	16,005,780	**1,101,401**	**688,000**	**17,795,181**

	Members' fees R	Other fees R	Total R
Non-executive directors – 2018			
Dr NP Mjoli – Chairperson	101,024	2,606	103,630
Prof SV Nkomo – Deputy Chairperson	74,648	3,322	77,970
Dr ME Makgae	71,176	4,969	76,145
Ms MK Mbonambi	38,192	7,716	45,908
Ms N Msezane	59,024	3,207	62,231
Dr NP Nala	53,816	5,412	59,228
Mr M Ndhlovu	8,680	384	9,064
Dr A Stroebel	43,400	2,912	46,312
	449,960	**30,528**	**480,488**

	Members' fees R	Other fees R	Total R
Non-executive directors – 2017			
Dr NP Mjoli – Chairperson	71,176	1,803	72,979
Prof SV Nkomo – Deputy Chairperson	69,440	2,439	71,879
Dr M Makgae	31,248	758	32,006
Ms MK Mbonambi	62,496	7,951	70,447
Mr AN Mhlongo	13,888	3,651	17,539
Ms N Msezane	31,248	1,832	33,080
Dr NP Nala	34,720	2,740	37,460
Mr M Ndhlovu	52,584	1,802	54,386
Dr A Stroebel	38,192	772	38,964
	404,992	**23,748**	**428,740**

	Members' fees R	Other fees R	Total R
External audit committee members – 2018			
Mr P Dlamini	17,360	2,017	19,377
Ms S Thomas	15,624	1,399	17,023
	32,984	**3,416**	**36,400**

In the 2016/17 financial year there were no external audit committee members.

33. Financial instruments disclosure

Categories of financial instruments

	At fair value	At amortised cost	Total
	R	R	R
Group – 2018			
Financial assets			
Receivables	-	44,047,290	44,047,290
Cash and cash equivalents	133,860,609	-	133,860,609
	133,860,609	**44,047,290**	**177,907,899**

	At amortised cost	Total
	R	R
Financial liabilities		
Payables	93,253,392	93,253,392
Finance lease obligation	1,558,817	1,558,817
Accruals – leave and bonus	6,980,073	6,980,073
	101,792,282	**101,792,282**

	At fair value	At amortised cost	Total
	R	R	R
Group – 2017			
Financial assets			
Receivables	-	38,654,017	38,654,017
Cash and cash equivalents	155,333,825	-	155,333,825
	155,333,825	**38,654,017**	**193,987,842**

	At amortised cost	Total
	R	R
Financial liabilities		
Payables	114,035,804	114,035,804
Finance lease obligation	2,566,329	2,566,329
Accruals – leave and bonus	5,160,653	5,160,653
	121,762,786	**121,762,786**

	At fair value R	At amortised cost R	Total R
WRC – 2018			
Financial assets			
Loans to wholly controlled entities	-	8,205,561	8,205,561
Receivables	-	44,088,291	44,088,291
Cash and cash equivalents	133,543,035	-	133,543,035
	133,543,035	**52,293,852**	**185,836,887**

	At amortised cost R	Total R
Financial liabilities		
Payables	92,746,834	92,746,834
Finance lease obligation	1,558,817	1,558,817
Accruals – leave and bonus	6,980,073	6,980,073
	101,285,724	**101,285,724**

	At fair value R	At amortised cost R	Total R
WRC – 2017			
Financial assets			
Loans to wholly controlled entity	-	28,350,951	28,350,951
Receivables	-	38,657,643	38,657,643
Cash and cash equivalents	154,159,500	-	154,159,500
	154,159,500	**67,008,594**	**221,168,094**

	At amortised cost R	Total R
Financial liabilities		
Payables	114,012,756	114,012,756
Finance lease obligation	2,566,329	2,566,329
Accruals – leave and bonus	5,160,653	5,160,653
	121,739,738	**121,739,738**

Receivables above do not include prepayments due to the fact that it is not a financial asset.

34. Risk management

Liquidity risk

The economic entity's risk to liquidity is a result of the funds available to cover future commitments. The economic entity manages liquidity risk through an ongoing review of future commitments and credit facilities. The table below analyses the economic entity's financial liabilities and net-settled derivative financial liabilities into relevant maturity groupings based on the remaining period at the statement of financial position to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows.

	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
	R	R	R	R
Group				
At 31 March 2018				
Trade and other payables	93,253,392	-	-	-
Finance lease obligation	1,061,638	497,179	-	-
At 31 March 2017				
Trade and other payables	114,035,804	-	-	-
Finance lease obligation	976,247	1,083,146	506,936	-
WRC				
At 31 March 2018				
Trade and other payables	92,746,834	-	-	-
Finance lease obligation	1,061,638	497,179	-	-
At 31 March 2017				
Trade and other payables	114,012,756	-	-	-
Finance lease obligation	976,247	1,083,146	506,936	-

Interest rate risk

Due to the nature and extent of the economic entity's investments, the economic entity is not unduly exposed to interest rate risks.

Deposits attract interest at rates that vary with prime. The entity's policy is to manage interest rate risk so that fluctuations in variable rates do not have a material impact on the financial results.

At year end, financial instruments exposed to interest rate risk were as follows:
Balances with banks and deposits with the Corporation for Public Deposits.

Credit risk

Credit risk consists mainly of cash deposits, cash equivalents and trade debtors. The entity only deposits cash with major banks with high quality credit standing and limits exposure to any one counter-party.

Financial assets exposed to credit risk at year end were as follows:

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Financial instrument				
Corporation for Public Deposits	55,032,209	45,681,778	55,032,210	45,681,778
Bank balances	79,099,616	109,647,047	78,782,041	108,472,722

These balances represent the maximum exposure to credit risk.

Foreign exchange risk

The economic entity does not hedge foreign accounts receivables, foreign accounts payables or derivative market instruments.

The bank accounts below denominated in foreign currency is held on behalf of leverage funded partners who assumes any foreign currency risk. The WRC is therefore not exposed to any foreign currency risk as at the reporting date.

Foreign currency exposure at statement of financial position date

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Current assets				
Cash and cash equivalents, USD 1,059,452.91 (2017:1,386,921)	12,337,329	18,295,295	12,337,329	18,295,295
Cash and cash equivalents, Euro 250,777.06 (2017: 834,152)	3,596,845	11,725,089	3,596,845	11,725,089

Price risk

Due to the nature and extent of the economic entity's investments, the economic entity is not unduly exposed to price risks as investments are held in trusts, cash and deposits.

35. Defined contribution plans

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Medical fund scheme				
Contributions	3,549,656	3,172,262	3,549,656	3,172,262

Defined contribution plan – Medical fund:

All eligible employees are members of the defined contribution scheme. The funds are governed by the Medical Schemes Act, 1998 (Act No 131 of 1998). No plan assets are held by the entity to fund this obligation. The above contributions have been included as part of the personnel cost expense.

Included in the contributions above is an amount of R111,628.80 (2017: R100,891.20) that was contributed by the Water Research Commission (employer) to the medical fund scheme. These contributions are in respect of the employees that have been appointed on the cost plus benefits basis.

	Group		WRC	
	2018 R	2017 R	2018 R	2017 R
Pension and provident fund scheme				
Contributions	6,353,881	5,684,463	6,353,881	5,684,463

Defined contribution plan – Pension and providend fund:

The WRC has pension and provident fund schemes covering all employees. Until 31 March 2005 all eligible employees were members of the defined benefit funds administered by ABSA Consultants and Actuaries. As at 1 April 2005 both the pension fund and provident fund converted to a defined contribution fund for current employees. The effect of this is that the WRC has no liability other than the defined contributions payable to the fund on a monthly basis. No liability can arise due to any adverse market conditions. However, all pensioners remained entitled to their benefits in terms of the old dispensation. This aforementioned liability was outsourced to Old Mutual during the 2012/13 financial year. The above contributions have been included as part of the personnel cost expense.

Included in the contributions above is an amount of R57,944.03 (2017: R52,228.21) that was contributed by the Water Research Commission (employer) to the pension and provident fund scheme. These contributions are in respect of the employees that have been appointed on the cost plus benefits basis.

36. Irregular expenditure

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Opening balance	534,289	4,472,317	534,289	4,472,317
Add: Irregular expenditure – current year	655,427	-	655,427	-
Less: Amounts written off	-	(3,938,028)	-	(3,938,028)
	1,189,716	**534,289**	**1,189,716**	**534,289**

Analysis of expenditure awaiting condonation per age classification

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Current year	655,427	-	655,427	-
Prior years	534,289	534,289	534,289	534,289
	1,189,716	**534,289**	**1,189,716**	**534,289**

Details of irregular expenditure for the year

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Incident				
Payments in respect of expired contracts	655,427	-	655,427	-

Prior to the expiry of the contracts, supply chain management processes were followed to obtain competitive bids. However, during the evaluation and adjudication process it was found that the pricing, in many instances, were significantly higher than the WRC's available budget allocated, which was based on historical trends of these contracts and available funds. As a result, no contracts could be awarded and it was essential for the services to continue whilst the WRC's needs (specifications) were being revisited and redefined.

Condonation was sought from National Treasury in the 2013/14 financial year in respect of irregular expenditure for the prior years. National Treasury condoned some of the irregular expenditure in respect of the prior years. The Updated Guideline on Irregular Expenditure issued by the National Treasury states that where the relevant authority does not condone the irregular expenditure, the Accounting Authority may authorise the write- off and subsequent de-recognision of the irregular expenditure if:

(a) reasonable steps have been taken to confirm that such irregular expenditure did not result in any loss or damages to the state and that the state did obtain value from such a transaction, condition or event;
(b) the non-compliance that led to the irregular expenditure has been addressed; and
(c) transactions, conditions or events of a similar nature are regularly reviewed to ensure that there are no possible future non-compliance cases reported.

In line with the guideline on Irregular Expenditure an investigation was undertaken in respect of the irregular expenditure incurred in prior years that was not condoned by National Treasury to identify whether any official could be held liable and if the expenditure is recoverable and whether the necessary controls are in place.

The balance of R534,289 pertaining to the prior financial years was investigated and is awaiting condonation. The 2017/18 irregular expenditure will be fully investigated. Following the investigation, the appropriate steps will be taken.

37. Fruitless and wasteful expenditure

	Group		WRC	
	2018	2017	2018	2017
	R	R	R	R
Opening balance	12,084	1,706	12,084	1,706
Add: Fruitless and wasteful expenditure – current year	17,675	21,689	4,499	21,689
Less: Amounts transferred to receivables due to recoverability	(4,214)	(4,494)	(4,214)	(4,494)
Less: Amounts already recovered	(12,369)	(4,451)	(12,369)	(4,451)
Less: Amounts not recovered	-	3,686	-	3,686
Less: Amounts written off	-	(6,052)	-	(6,052)
	13,176	**12,084**	**-**	**12,084**
Interest and penalties	13,176	-	-	-
Interest on overdue payments	-	249	-	249
Expenditure incurred forfeited	4,499	9,356	4,499	9,356
Assets lost not insured	-	12,084	-	12,084
	17,675	**21,689**	**4,499**	**21,689**

During the 2016/17 financial year, an asset amounting to R12,084 was lost and not insured. The amount of R12,084 (as per the opening balance) was further investigated during the year. Following discussions it was agreed by the service provider to absorb the costs in respect of the stolen notebook that was used by the WRC and they issued the WRC with the necessary credit note for the claim of R12,084.

The WRC incurred fruitless and wasteful expenditure amounting to R4,499 in respect of travel in the 2017/18 financial year. The fruitless and wasteful expenditure emanated from the employee information being wrongly captured when booking the flight, resulting in admin charges to correct it amounting to R285 and a flight that was missed, amounting to R4,214. The officials in the WRC that were responsible for this fruitless and wasteful expenditure agreed to reimburse the WRC the full amount.

The South African Revenue Services (SARS) performed an audit on the VAT matters of ERF 706 Rietfontein (Pty) Ltd and determined that the entity is claiming input VAT on invoices from the City of Tshwane which does not reflect the ERF 706 Rietfontein (Pty) Ltd VAT number. The invoice does not fully meet the VAT Act requirements. SARS initially disallowed the claims and levied penalties and interest. ERF 706 Rietfontein (Pty) Ltd objected and the claims were refunded, but the interest and penalties were not reversed. ERF has engaged City of Tshwane to include the ERF 706 Rietfontein (Pty) Ltd Vat number on their invoices but without success. ERF is also not able to discontinue the service as electricty and water are critical. ERF 706 Rietfontein (Pty) Ltd submitted an objection to SARS to have the interest and penalties refunded. The objection was denied. ERF 706 Rietfontein (Pty) Ltd has submitted an appeal to the rejected objection and is currently awaiting an outcome.

38. Budget differences

Material differences between budget and actual amounts

Income

Other income

The budget variance amounting to R5,904,361 in respect of other income is as a result of the disposal of the Marumati building situated at Erf 706 Rietfontein (Pty) Ltd. The auction took place on 20 July 2017. The auctioneer received a written bid to the value of R9,750,000. According to GRAP, revenue from the sale of goods is only recognised when the entity has transferred to the purchaser the significant risks and rewards of ownership of the goods; and the entity retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold. As a result, the income associated with the disposal could not be recognised since the transfer of the property and receipt of purchase price has not yet materialised as at the financial year end.

Interest income

During the 2017/18 financial year the funds received from leverage funded partners were lower than during the previous financial years. Lower interest income was earned as a result of lower than anticipated cash holdings during the year to date, resulting in a budget variance of R921,322.

Levy income

The higher than anticipated actual levy income for the 2017/18 financial year resulted in R5,902,320 more levy income than budgeted. This was mainly due to higher water consumption volumes than anticipated from the Water Boards. This is a favourable position for the WRC.

Leverage income

The total leverage income budget for the 2017/18 financial year amounted to R74,031,823, however, due to a number of project related challenges the WRC's actual leverage income for the year amounted to R63,115,787, resulting in a R10,916,036 variance.

The main reasons are as follow:

- Restructuring of projects during the 2017/18 financial year required the appointment of resources to engage with commercial partners, which will only be filled in the 2018/19 financial year.
- Delays experienced by the service providers in achieving the deliverables, e.g. problems in respect of drilling through the mountain resulting in the pipes not being able to be connected; problems with acquiring of equipment in order to do the demonstrations; problems experienced as a result of the importing of equipment.
- Procurement of equipment and lab tests, running costs and workshops, which will only materialise in the 2018/19 financial year.
- Problems experienced in respect of the receipt of funds from funders that resulted in delays experienced by the service providers.

Expenditure

Human resources costs

The budget variance of R4,874,659 in respect of human resources cost is mainly as a result of the following:

- New appointments planned to be filled during the 2017/18 year, whilst many are in the process of being filled the appointments will only materialize in the 2018/19 financial year;
- Terminations during the 2017/18 year resulting in the positions being vacant for a few months whilst the recruitment process is in progress.

Research, development and innovation costs

The budget variance of R10,841,486 for the 2017/18 financial year in respect of research, development and innovation costs directly relates to expenditure incurred in respect of leverage funded projects that exceeded the WRC's expectations.

Except for the above, there were no other material differences between the final budget and the actual amounts.

Changes from the approved budget to the final budget

The changes between the approved and final budget are a consequence of reallocations within the approved budget parameters.

39. Reconciliation between budget and statement of financial performance

Reconciliation of budget surplus/deficit with the surplus/deficit in the statement of financial performance:

Net deficit per the statement of financial performance	(3,942,808)
Adjusted for:	
Depreciation, amortisation and impairment	5,523,124
Actuarial gains and losses	1,975,571
Employee benefit obligation	65,621
Employee benefit obligation – interest	397,984
Employee benefit payments	(1,277,677)
Accrual – leave and bonus	3,329,299
Actual leave pay-out	(1,509,878)
Operating lease: Movement in straight-lining of operating leases	2,479,076
Capital expenditure incurred	(3,120,485)
	3,919,828

The budget is approved on a cash basis by nature classification. The approved budget covers the fiscal period from 1 April 2017 to 31 March 2018 and is in respect of the Water Research Commission and its subsidiary.

The above reconciling items is as a result of the financial statements being prepared on an accrual basis, whilst the budget is prepared on a cash basis.

A reconciliation between the actual amounts on a comparable basis as presented in the Statement of Budget and Actual Amounts and the actual amounts in the Statement of Financial Performance for the period ended 31 March 2018 is presented above. The Financial Statements and budget documents are prepared for the same reporting period.

40. Going concern

We draw attention to the fact that at 31 March 2018, the economic entity had an accumulated surplus and that the entity's total assets exceed its liabilities by R81,992,086.

We draw attention to the fact that at 31 March 2018, the WRC had an accumulated surplus and that the entity's total assets exceed its liabilities by R90,409,885. Whilst the Statement of Financial Performance reflects a deficit of (R22,908,297), it results mainly from the impairment loss recognised in respect of the Loan to the wholly controlled entity (R19,883,454) and the Investment in the wholly controlled entity (R755,938), which is not part of the ongoing operations of the Water Research Commission.

The financial statements have been prepared on the basis of accounting policies applicable to a going concern. This basis presumes that funds will be available to finance future operations and that the realisation of assets and settlement of liabilities, contingent obligations and commitments will occur in the ordinary course of business.

41. Comparative figures

Certain comparative figures have been restated as a result of prior period errors.

42. Prior period errors

Presented below are those items contained in the statement of financial position, statement of financial performance and cash flow statement that have been affected by prior-year adjustments:

Statement of financial position

	Note	As previously reported	Correction of error	Restated
Group – 2017				
Employee benefit obligation	13	74,830	(5,114,756)	(5,039,926)
Receivables	4	38,798,279	69,463	38,867,742
Operating lease liability	10	(3,424,121)	490,950	(2,933,171)
Payables	11	(114,692,500)	656,696	(114,035,804)
Accumulated funds		98,693,320	(6,646,797)	92,046,523
Property, plant and equipment	6	20,074,580	2,392	20,076,972
WRC – 2017				
Employee benefit obligation	13	74,830	(5,114,756)	(5,039,926)
Receivables	4	38,801,905	69,463	38,871,368
Operating lease liability	10	(3,424,121)	490,950	(2,933,171)
Payables	11	(114,669,452)	656,696	(114,012,756)
Accumulated funds		123,676,352	(6,646,797)	117,029,555
Property, plant and equipment	6	19,576,625	2,392	19,579,017

Statement of financial performance

	Note	As previously reported	Correction of error	Restated
Group – 2017				
Interest received from investments	16	(8,993,319)	24,474	(8,968,845)
Employee related costs	19	64,645,066	(4,966,755)	59,678,311
Leverage Income	17	(82,795,007)	(686,121)	(83,481,128)
Lease rentals on operating lease	23	11,125,660	(490,950)	10,634,710
Depreciation	18	4,382,674	27,033	4,409,707
Finance costs	20	185,789	589,000	774,789
Actuarial gains and losses		-	2,751,777	2,751,777
WRC – 2017				
Interest received from investments	16	(13,234,424)	24,474	(13,209,950)
Employee related costs	19	64,645,066	(4,966,755)	59,678,311
Leverage Income	17	(82,795,007)	(686,121)	(83,481,128)
Lease rentals on operating lease	23	11,125,660	(490,950)	10,634,710
Depreciation	18	3,884,721	27,033	3,911,754
Finance costs	20	185,789	589,000	774,789
Actuarial gains and losses		-	2,751,777	2,751,777

Errors

The details of the prior period errors are summarised below:

Employee benefit

During the 2017/18 financial year, the outcome of the actuarial valuation indicated a change in the valuation method in respect of plan assets. Historically, the fair value of the plan assets were determined in accordance with GRAP 25 paragraph 113, i.e. the fair value of plan assets is estimated; for example, by discounting expected future cash flows using a discount rate that reflects both the risk associated with the plan assets and the maturity or expected disposal date of those assets (or, if they have no maturity, the expected period until the settlement of the related obligation).

The policy of the WRC guarantees inflation (CPI) increases annually in respect of the post-retirement medical aid benefits for each pensioner, with the WRC paying in the difference between the benefit from the annuity and the actual medical aid subsidy the insurer. A qualifying insurance policy is an insurance policy where the proceeds of the policy can be used only to pay or fund employee benefits under a defined benefit plan; and are not available to the reporting entity's own creditors (even in liquidation). The nature of the policy of the WRC therefore meets the definition of a "qualifying insurance policy" in accordance with GRAP 25 paragraph 115 since it guarantees a portion of the benefits. GRAP 25 paragraph 115 requires that where the definition of a qualifying insurance policy is met, the fair value of the policy is deemed to be the present value of the related obligations, i.e. fair value of the asset is determined using the same methodology as the liabilities for continuation members, but assuming increases equal to inflation (CPI) only, as this represents the obligation that is covered by the policy.

The prior period error is in respect of the correction of the valuation of plan assets in the prior financial years. The revised information was provided by the previous actuaries.

The impact of the above can be summarised as folllows:

Statement of Financial Position items:	R
Accumulated Funds	6,649,734
Employee benefit obligation	(5,114,756)
Statement of Financial Performance items:	
Employee costs	(4,966,755)
Finance cost	589,000
Interest received – Investment	91,000
Actuarial gains and losses	2,751,777

Receivables

The WRC Lynwood Bridge lease agreement stipulates that the rental deposit held by the landlord must be deposited into a 32-day call account. During the 2016/17 financial year the interest earned on this call account was erroneously not recognised in the Annual Financial Statements. During the 2017/18 financial year, we requested a bank confirmation letter as well as a transaction history report from the tenants in order to recognise interest accrued in respect of the rental deposit for both the prior and current financial years.

During the previous financial years, no interest was received on the foreign bank accounts. Interest amounting to R1,684.17, received during April 2018 in respect of bank accounts denominated in foreign currency relate to the previous financial year.

The impact of the above can be summarised as folllows:

Statement of Financial Position items:	R
Deposits (Receivables-other)	67,779
Accrued Debtor (Receivables-other)	1,684
Accumulated Funds	(2,937)
Statement of Financial Performance items:	
Interest received – Investment	(66,526)

Operating Lease

The operating lease liability was calculated in the 2016/17 financial year by erroneously including the rates and taxes, which is payable to the Landlord in accordance with the contract. GRAP 13 defines minimum lease payments as the payments over the lease term that the lessee is or can be required to make, excluding taxes to be paid by and reimbursed to the lessor.

The impact of the above can be summarised as folllows:

Statement of Financial Position items:	R
Operating Lease Liability	490,950
Statement of Financial Performance items:	
Lease rentals on operating lease	(490,950)

Leverage Income

During the current financial year transactions were identified that related to the 2016/17 financial year for which leverage income was erroneously not recognised. The processes and controls in place in respect of the management of leverage funded projects, and the recognition of the associated leverage income, have been improved since the previous financial year. Regular discussions are held in respect of leverage funded projects to establish variances between budgeted and actual expenditure for the year. This also contributes to completeness of the recognition of leverage income.

The impact of the above can be summarised as folllows:

Statement of Financial Position items:	R
Income received in advance (Payables)	686,121
Statement of Financial Performance items:	
Leverage Income	(686,121)

Property, plant and equipment

During the 2017/18 financial year a final reconciliation was performed in respect of the goods and services delivered by Platynum Interiors in respect of the fit-out of the premises. This reconciliation was performed after the service provider delivered all outstanding assets and resolving any remaining issues to determine the final amount due to the service provider. This reconciliation identified transactions that needed to be recognised in the 2016/17 financial year.

The impact of the above can be summarised as folllows:

Statement of Financial Position items:	R
Property, plant and equipment	27,716
Payables	(29,425)
Statement of Financial Performance items:	
Depreciation	1,709

During the 2017/18 financial year, it was identified that in the 2016/17 financial year leasehold improvements had been erroneously calculated over a useful life period that was greater than the actual leasehold period. An adjustment has been made to the 2016/17 financial year to correctly account for deprectaion using the leasehold period.

The impact of the above can be summarised as folllows:

Statement of Financial Position items:	R
Accumulated Depreciation	(R25,324)
Statement of Financial Performance items:	
Depreciation	R25,324

43. Change in estimate

Property, plant and equipment

The WRC has reassessed the useful lives of property, plant and equipment which resulted in changes to certain assets' remaining useful lives as follows:

- Computer equipment from 3 - 12 years to 3 - 13 years
- Office Equipment from 3 - 13 years to 3 - 15 years
- Furniture and fittings reassessment of useful lives within the category of 3 to 33 years.

The effect of the change in accounting estimate is a decrease in depreciation amounting to R281,939 for the current and future periods.

This change in estimate is the same for the economic entity as for the WRC.

Class	Previously assessed useful life	Reassessed useful life	Financial impact on current and future depreciation
Computer equipment	3 - 12 years	3 - 13 years	271,581
Office equipment	3 - 13 years	3 - 15 years	1,822
Furniture and Fittings	3 - 33 years	3 - 33 years	8,536
			281,939

44. Contingent liability

The WRC conditions of employment states: "The WRC may, at its discretion, encourage and reward performance bonuses. The performance bonus will be payable to all employees in terms of a specific performance bonus policy approved by the Board of the WRC."

In line with this policy and conditions of employment the Board approved all bonuses on 16 August 2016. In line with the Ministerial instruction, Executive bonuses were referred to the Minister of Water and Sanitation for her approval. On 10 September 2016 the Minister reduced the Executive bonuses from 14% to 8% and 9% to 5% for bonus category A and B respectively. The result was that Executive bonuses were reduced by R829 627,76. This matter was referred back to the Minister to consider all legal aspects related to the matter and the WRC is still awaiting the Minister's response, which may confirm that either an obligation exist or not.

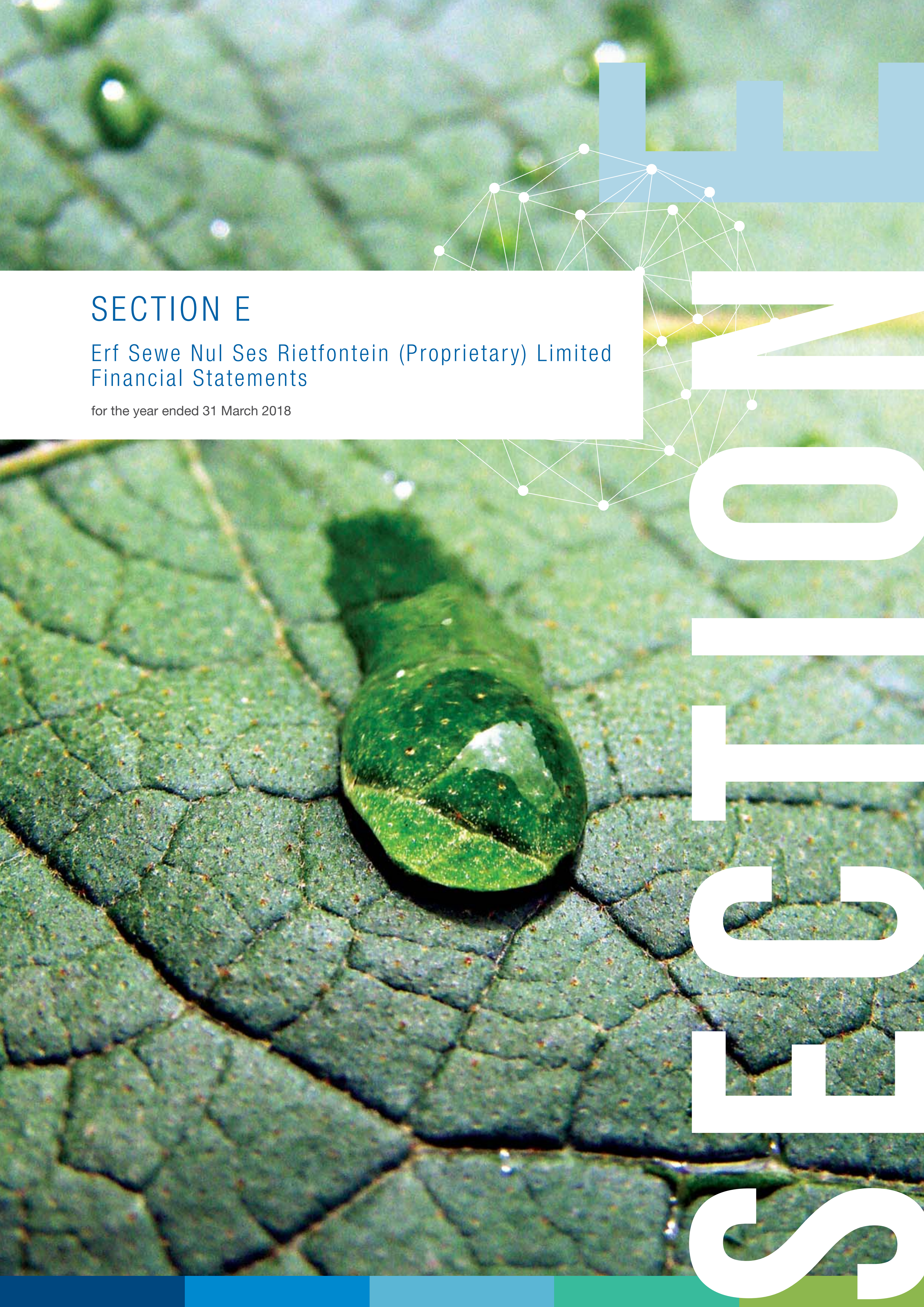
The WRC conditions of employment states: "Employees of the WRC will receive an annual cost-of-living increase. The increase will be determined by the applicable market-related salary package obtained from an independent service provider that has been approved by Executive Management and the Body/Bodies representing the employees" In line with the Ministerial instruction, the cost of living increase for the 2016/17 and 2017/18 financial years for the Chief Executive Officer was submitted to the Minister for approval. The cost of living increase, as per the independent service provider, was 2% for the 2016/17 financial year and 5.5% for the 2017/18 financial year. No response has been received from the Minister and is a matter that is being followed up with the Department of Water and Sanitation. Should the cost of living increase be approved by the Minister, the impact thereof would amount to R381,219.58.

45. Events after the reporting date

A former employee of Water Research Commision that was dismissed on 30 June 2017 took the Entity to the Commission for Conciliation, Mediation and Arbitration(CCMA) on the grounds of unfair dismissal. Subsequent to year end on the 23rd April 2018 the CCMA issued an award of R637,500 in favour of the ex employee. The 2017/18 financial statements for the 2017/18 financial year has been adjusted to make provision for the R637,500, please refer to Provisions (note 14).

The Water Research Commission has appealed the decision and it is currently pending a review process in the Labour Court. The review process should likely conclude during the 2018/19 financial year.

No further events after the reporting date were identified that require adjustment or disclosure in the financial statements.



SECTION E

Erf Sewe Nul Ses Rietfontein (Proprietary) Limited Financial Statements

for the year ended 31 March 2018

SECTION E: ERF SEWE NUL SES RIETFONTEIN (PROPRIETARY) LIMITED FINANCIAL STATEMENTS for the year ended 31 March 2018

General Information

Country of incorporation and domicile

South Africa

Nature of business and principal activities

The main business of the company is to own the immovable property known as Erf 706 Rietfontein and supplementary to the aim of the Water Research Commission to place the property at the disposal of the WRC as their main place of business.

Members

Mr DP Naidoo
Dr N Mjoli – Chairperson

Registered Office

Marumati building
491 18th Avenue
Rietfontein
Pretoria
0084

Controlling Entity

Water Research Commission

Auditors

Auditor-General of South Africa

Company Registration Number

1984/003566/07

Report of the Auditor-General to the accounting authority on ERF Sewe Nul Ses Rietfontein (Proprietary) Limited

Report on the audit of the financial statements

Opinion

1. I have audited the financial statements of Erf Sewe Nul Ses Rietfontein (Proprietary) Limited set out on pages 123 to 150, which comprise the statement of financial position as at 31 March 2018, the statement of financial performance, statement of changes in net assets, and cash flow statement for the year then ended, as well as the notes to the financial statements, including a summary of significant accounting policies.

2. In my opinion, the financial statements present fairly, in all material respects, the financial position of ERF 706 as at 31 March 2018, and its financial performance and cash flows for the year then ended in accordance with Generally Recognised Accounting Practise (GRAP) and the requirements of the Public Finance Management Act of South Africa, 1999 (Act 1 of 1999) (PFMA).

Basis for opinion

3. I conducted my audit in accordance with the International Standards on Auditing (ISAs). My responsibilities under those standards are further described in the Auditor-General's responsibilities for the audit of the financial statements section of this auditor's report.

4. I am independent of the public entity in accordance with the International Ethics Standards Board for Accountants' Code of ethics for professional accountants (IESBA code) and the ethical requirements that are relevant to my audit in South Africa. I have fulfilled my other ethical responsibilities in accordance with these requirements and the IESBA code.

5. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my [qualified/ adverse] opinion.

Emphasis of matter

6. I draw attention to the matter below. My opinion is not modified in respect of this matter

Disposal of ERF 706 Rietfontein (Pty) Ltd

7. The disposal of the Marumati Building (major asset) owned by Erf 706 Rietfontein (Pty) Ltd was approved by the Board of the Water Research Commission (WRC) and the Minister of Water and Sanitation on 22 February 2016 and 14 May 2016 respectively. The property was to be disposed of by means of an auction. The auction took place on 20 July 2017 and the auctioneer received a written bid to the value of R9,750,000. The fair value of the property as at 31 March 2018 is based on the approved bid of R9,750,000. The financial statements have therefore been prepared on liquidation basis of accounting.

Responsibilities of the accounting authority for the financial statements

8. The board of directors, which constitutes the accounting authority, is responsible for the preparation and fair presentation of the financial statements in accordance with the GRAP and the requirements of the PFMA, and for such internal control as the accounting authority determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

9. In preparing the financial statements, the accounting authority is responsible for assessing the Erf Sewe Nul Ses Rietfontein (Proprietary) Limited's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless the accounting authority either intends to liquidate the public entity or to cease operations, or has no realistic alternative but to do so.

Auditor-General's responsibilities for the audit of the financial statements

10. My objectives are to obtain reasonable assurance about whether the financial statements, as a whole, are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

11. A further description of my responsibilities for the audit of the financial statements is included in the annexure to this auditor's report.

Report on the audit of the annual performance report

12. In terms of section 55(2)(a) of the PFMA, the company is required to prepare an annual performance report. The performance information of the company was reported in the annual performance report of the WRC. The usefulness and reliability of the reported performance information was tested as part of the audit of the WRC and any audit findings are included in the management and auditor's report of WRC.

Report on the audit of compliance with legislation

Introduction and scope

13. In accordance with the PAA and the general notice issued in terms thereof, I have a responsibility to report material findings on the compliance of the company with specific matters in key legislation. I performed procedures to identify findings but not to gather evidence to express assurance.
14. I did not raise material findings on compliance with the specific matters in key legislation set out in the general notice issued in terms of the PAA.

Other information

15. The accounting authority is responsible for the other information. The other information comprises the information included in the annual report, which include the audit committee's report. The other information does not include the financial statements, the auditor's report and those selected portfolios presented in the annual performance report that have been specifically reported in this auditor's report.
16. My opinion on the financial statements and findings on the reported performance information and compliance with legislation do not cover the other information and I do not express an audit opinion or any form of assurance conclusion thereon.
17. In connection with my audit, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements and the selected portfolio presented in the annual performance report, or my knowledge obtained in the audit, or otherwise appears to be materially misstated.
18. If, based on the work I have performed, I conclude that there is a material misstatement in this other information, I am required to report that fact. I have nothing to report in this regard.

Internal control deficiencies

19. I considered internal control relevant to my audit of the financial statements, reported performance information and compliance with applicable legislation; however, my objective was not to express any form of assurance on it. I did not identify any significant deficiencies in internal control.

Auditor-General

Pretoria

July 2018

AUDITOR-GENERAL
SOUTH AFRICA

Auditing to build public confidence

Annexure – Auditor-general's responsibility for the audit

1. As part of an audit in accordance with the ISAs, I exercise professional judgement and maintain professional scepticism throughout my audit of the financial statements, and the procedures performed on reported performance information for selected portfolio and on the company's compliance with respect to the selected subject matters.

Financial statements

2. In addition to my responsibility for the audit of the financial statements as described in this auditor's report, I also:
   - identify and assess the risks of material misstatement of the financial statements whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control
   - obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control
   - evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the board of directors, which constitutes the accounting authority
   - conclude on the appropriateness of the board of directors, which constitutes the accounting authority use of the going concern basis of accounting in the preparation of the financial statements. I also conclude, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Erf Sewe Nul Ses Rietfontein (Pty) Ltd's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements about the material uncertainty or, if such disclosures are inadequate, to modify the opinion on the financial statements. My conclusions are based on the information available to me at the date of this auditor's report. However, future events or conditions may cause a company to cease continuing as a going concern
   - evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation

Communication with those charged with governance

3. I communicate with the accounting authority regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.
4. I also confirm to the accounting authority that I have complied with relevant ethical requirements regarding independence, and communicate all relationships and other matters that may reasonably be thought to have a bearing on my independence and, where applicable, related safeguards.

Index

The reports and statements set out below comprise the financial statements presented to the shareholders:

The financial statements set out on pages 132 to 152, which have been prepared on the liquidation basis, were approved by the Board of Directors on 28 May 2018 and were signed on its behalf by:

Mr DP Naidoo
Chief Executive Officer

Dr NP Mjoli
Chairperson of the Board

Directors' report

1. General review

In order for Stakeholders to review the business and operations of the company for the reporting period in general, the Directors draw attention to the statements of financial position, financial performance, changes in net assets and cash flows attached. These statements clearly reflect the business of the company, its results and state of affairs.

The Companies Act, 71 of 2008 requires that the Directors report on any material facts or circumstances which occurred between the reporting date and the date of their report. The material matters and circumstances that occurred during the period under review are contained in the specific matters below.

2. Specific matters

The main aim of the company is that of owning the immovable property known as Erf 706 Rietfontein, including all permanent improvements, and to use the property for the purpose of promoting the operations of the Water Research Commission (WRC).

The Board of the WRC approved its relocation to new premises on 28 September 2015 whereafter a letter was submitted to the Minister of Water and Sanitation for the approval of the relocation. On 2 January 2016 the WRC obtained official written approval from the Minister of Water and Sanitation to relocate to new premises in the Pretoria East vicinity within the Science precinct. Following Ministerial approval to relocate to the new premises, the disposal of the Marumati building ("the Property") owned by Erf 706 Rietfontein (Pty) Ltd was approved by the Board and the Minister of Water and Sanitation on 22 February 2016 and 14 May 2016 respectively.

Cahi Auctioneers was appointed on 7 April 2017 through a competitive bidding process to dispose of the property by means of an auction. The auction took place on the 20 July 2017. The auctioneer received a written bid to the value of R9,750,000. The Board granted approval for the disposal of the Marumati building situated at Erf 706 Rietfontein (Pty) Ltd on 16 August 2017. This disposal of the property effectively means that the company is not able to continue its main business of renting property for use by the WRC.

No shares were allotted or issued by the company during the period under review. The entity is wholly-owned by the WRC.

No dividends were paid or declared during the period under review and there are no recommendation to make in respect of dividends.

3. Directors

Directors and certain members of staff of the WRC managed the business of the company. No third person was involved in managing the entity.

The names of the directors are shown below:

- Mr DP Naidoo
- Dr N Mjoli

There were no changes in Directors during the period under review.

4. Company secretary

The company's secretary is Rene Vorster.

ERF SEWE NUL SES RIETFONTEIN (PROPRIETARY) LIMITED
Financial Statements for the year ended 31 March 2018

Statement of Financial Position

	Notes(s)	2018 R	2017 R
Assets			
Current assets			
Investment property	3	9,750,000	27,200,000
Receivables from exchange transactions	4	7,305	7,205
VAT receivable	5	17,778	78,024
Cash and cash equivalents	6	317,574	1,174,324
		10,092,657	**28,459,553**
Non-current assets			
Deferred tax	7	5,495,573	5,044,627
Total assets		**15,588,230**	**33,504,180**
Liabilities			
Current liabilities			
Other financial liabilities	8	30,263,580	30,525,514
Payables from exchange transactions	9	554,864	33,879
		30,818,444	**30,559,393**
Non-current liabilities			
Deferred tax	7	1,332,231	5,119,350
Total liabilities		**32,150,675**	**35,678,743**
Net assets		**(16,562,445)**	**(2,174,563)**
Share capital	10	1	1
Accumulated surplus/(deficit)		(16,562,446)	(2,174,564)
Total net assets		**(16,562,445)**	**(2,174,563)**

ERF SEWE NUL SES RIETFONTEIN (PROPRIETARY) LIMITED
Financial Statements for the year ended 31 March 2018

Statement of Financial Performance

	Notes(s)	2018 R	2017 R
Revenue			
Revenue from exchange transactions			
Other income	11	158,145	251,864
Interest received	12	-	5,418
Total revenue from exchange transactions		**158,145**	**257,282**
Expenditure			
Finance costs	13	(758,066)	(4,246,523)
General expenses	14	(488,460)	(5,077)
Repairs and maintenance		(87,566)	(82,520)
Total expenditure		**(1,334,092)**	**(4,334,120)**
Operating deficit		**(1,175,947)**	**(4,076,838)**
Fair value adjustments	15	(17,450,000)	(2,600,000)
Deficit before taxation		**(18,625,947)**	**(6,676,838)**
Taxation	16	(4,238,065)	(891,761)
(Deficit)/Surplus for the year		**(14,387,882)**	**(5,785,077)**

ERF SEWE NUL SES RIETFONTEIN (PROPRIETARY) LIMITED
Financial Statements for the year ended 31 March 2018

Statement of Changes in Net Assets

	Share capital	Accumulated Surplus / (Deficit)	Total net assets
	R	R	R
Balance at 1 April 2016	**1**	**3,610,513**	**3,610,514**
Changes in net liabilities			
Surplus / (Deficit) for the year	-	(5,785,078)	(5,785,078)
Total changes	-	(5,785,078)	(5,785,078)
Balance at 1 April 2017	**1**	**(2,174,564)**	**(2,174,563)**
Changes in net liabilities			
Surplus / (Deficit) for the year	-	(14,387,882)	(14,387,882)
Total changes	-	(14,387,882)	(14,387,882)
Balance at 31 March 2018	**1**	**(16,562,446)**	**(16,562,445)**
Note	10		

ERF SEWE NUL SES RIETFONTEIN (PROPRIETARY) LIMITED
Financial Statements for the year ended 31 March 2018

Cash Flow Statement

	Notes(s)	2018 R	2017 R
Cash flows from operating activities			
Receipts			
Cash receipts from customers		270,153	319,364
Payments			
Cash paid to suppliers		(106,903)	(2,663,639)
Net cash flows from operating activities	17	**163,250**	**(2,344,275)**
Cash flows from financing activities			
Repayments of other financial liabilities		(1,020,000)	(1,020,000)
Net cash flows from financing activities		**(1,020,000)**	**(1,020,000)**
Net increase/(decrease) in cash and cash equivalents		**(856,750)**	**(3,364,275)**
Cash and cash equivalents at the beginning of the year		1,174,324	4,538,599
Cash and cash equivalents at the end of the year	6	**317,574**	**1,174,324**

Summary of Significant Accounting Policies

1. Presentation of financial statements

The financial statements have been prepared in accordance with the accounting policies below which considers the Standards of Generally Recognised Accounting Practice (GRAP), issued by the Accounting Standards Board (ASB) with regard to the basic recognition, measurement and disclosure requirements, taking into account the circumstances that will impact the amounts that will be recovered or settled, where relevant.

The company is in the process of disposing of its immovable property and, as a result, will not be able to continue as a going concern. The auction took place on 20 July 2017. The auctioneer received a written bid to the value of R9,750,000. The Board granted approval for the disposal of the Marumati building situated at Erf 706 Rietfontein (Pty) Ltd on 16 August 2017. These financial statements have therefore been prepared on a liquidation basis of accounting and are in accordance with the historical cost convention as the basis of measurement, unless specified otherwise. They are presented in South African Rand.

A summary of the significant accounting policies, which have been consistently applied in the preparation of these financial statements, are disclosed below.

1.1 Going concern assumption

These financial statements were prepared based on the expectation that the entity will not be able to continue to operate as a going concern for at least the next 12 months. Accordingly, assets are measured at their liquidation values (representing the impaired values thereof) and liabilities are measured at their exit values. The going concern difficulties faced by the entity are further explained in note 23.

Judgement is required in determining whether a change in the carrying value of assets and liabilities is needed. When the going concern assumption is no longer appropriate, it is also necessary to consider whether the change in circumstances leads to the creation of additional liabilities or triggers clauses in debt contracts leading to the reclassification of certain debts as current liabilities.

The financial statements are prepared on a basis that takes into account the circumstances that will impact the amount that will be recovered or settled upon disposal of the property. It was determined that no adjustments will be required to the carrying values of the assets and liabilities.

1.2 Significant judgements and sources of estimation uncertainty

In preparing the financial statements, management is required to make estimates and assumptions that affect the amounts represented in the financial statements and related disclosures. Use of available information and the application of judgement is inherent in the formation of estimates. Actual results in the future could differ from these estimates which may be material to the financial statements. Significant judgements include:

Receivables / Held to maturity investments and/or loans and receivables

The entity assesses its receivables for impairment at the end of each reporting period. In determining whether an impairment loss should be recorded in surplus or deficit, the surplus makes judgements as to whether there is observable data indicating a measurable decrease in the estimated future cash flows from a financial asset.

The impairment for receivables is calculated on a portfolio basis, based on historical loss ratios, adjusted for national and industry-specific economic conditions and other indicators present at the reporting date that correlate with defaults on the portfolio. These annual loss ratios are applied to loan balances in the portfolio and scaled to the estimated loss emergence period.

Fair value estimation

The fair value of financial instruments traded in active markets (such as trading and available for sale securities) is based on quoted market prices at the end of the reporting period.

The carrying value less impairment provision of trade receivables and payables are assumed to approximate their fair values. The fair value of financial liabilities for disclosure purposes is estimated by discounting the future contractual cash flows at the current market interest rate that is available to the entity for similar financial instruments.

Impairment testing

The entity assesses its receivables for impairment at the end of each reporting period. In determining whether an impairment loss should be recorded in surplus or deficit, the entity makes judgements as to whether there is observable data indicating a measurable decrease in estimated future cash flows from financial assets.

The recoverable amounts of individual assets have been determined based on the higher of value-in-use calculations and fair values less costs to sell. These calculations require the use of estimates and assumptions. It is reasonably possible that the assumptions may change which may then impact our estimations and may then require a material adjustment to the carrying value of tangible assets.

The entity reviews and tests the carrying value of assets when events or changes in circumstances suggest that the carrying amount may not be recoverable. Assets are grouped at the lowest level for which identifiable cash flows are largely independent of cash flows of other assets and liabilities. If there are indications that impairment may have occurred, estimates are prepared of expected future cash flows for each group of assets. Expected future cash flows used to determine the value in use of tangible assets are inherently uncertain and could materially change over time.

Expected manner of realisation for deferred tax

Deferred tax is provided for on the fair value and depreciation of investment properties based on the expected manner of recovery, i.e. sale or use. This manner of recovery affects the rate used to determine the deferred tax asset/ liability. Refer to note 7 – Deferred tax.

1.3 Investment property

Investment property is property (land or a building – or part of a building – or both) held to earn rentals or for capital appreciation or both, rather than for:

- use in the production or supply of goods or services or for
- administrative purposes, or
- sale in the ordinary course of operations.

Owner-occupied property is property held for use in the production or supply of goods or services or for administrative purposes.

Investment property is recognised as an asset when it is probable that the future economic benefits or service potential that are associated with the investment property will flow to the entity, and the cost or fair value of the investment property can be measured reliably.

Investment property is initially recognised at cost. Transaction costs are included in the initial measurement. Where investment property is acquired through a non-exchange transaction, its cost is its fair value as at the date of acquisition.

Costs include costs incurred initially and costs incurred subsequently to add to, or to replace a part of, or service a property. If a replacement part is recognised in the carrying amount of the investment property, the carrying amount of the replaced part is derecognised.

Fair value

Subsequent to initial measurement investment property is measured at fair value. The fair value of investment property reflects market conditions at the reporting date. A gain or loss arising from a change in fair value is included in net surplus or deficit for the period in which it arises.

1.4 Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or a residual interest of another entity.

A financial asset is:

- cash;
- a residual interest of another entity; or
- a contractual right to:
    - receive cash or another financial asset from another entity; or
    - exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the entity.

A financial liability is any liability that is a contractual obligation to:

- deliver cash or another financial asset to another entity; or
- exchange financial assets or financial liabilities under conditions that are potentially unfavourable to the entity.

Classification

The entity has the following types of financial assets (classes and category) as reflected on the face of the statement of financial position or in the notes thereto:

Class	Category
Receivables from exchange transactions	Financial asset measured at amortised cost
Cash and cash equivalents	Financial asset measured at fair value

The entity has the following types of financial liabilities (classes and category) as reflected on the face of the statement of financial position or in the notes thereto:

Class	Category
Payables from exchange transactions	Financial liability measured at amortised cost
Other financial liabilities	Financial liability measured at amortised cost

Initial recognition

The entity recognises a financial asset or a financial liability in its statement of financial position when the entity becomes a party to the contractual provisions of the instrument.

The entity recognises financial assets using trade date accounting.

Initial measurement of financial assets and financial liabilities

The entity measures a financial asset and financial liability initially at its fair value plus transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability.

Subsequent measurement of financial assets and financial liabilities

The entity measures all financial assets and financial liabilities after initial recognition using the following categories:

- Financial instruments at fair value.
- Financial instruments at amortised cost.
- Financial instruments at cost.

Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and demand deposits, and other short-term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. These are initially and subsequently recorded at fair value.

Financial instruments at amortised cost

Receivables

Receivables are measured at initial recognition at fair value, and are subsequently measured at amortised cost using the effective interest rate method.

Payables

Payables are initially measured at fair value, and are subsequently measured at amortised cost, using the effective interest rate method.

Fair value measurement considerations

The fair values of listed investments are based on current bid prices. If the market for a financial asset is not active (and for unlisted securities), the entity establishes fair value by using valuation techniques. These include the use of recent arm's length transactions, reference to other instruments that are substantially the same, discounted cash flow analysis, and option pricing models making maximum use of market inputs and relying as little as possible on entity specific inputs.

Impairment and uncollectibility of financial assets

The entity assesses at the end of each reporting period whether there is any objective evidence that a financial asset or group of financial assets is impaired.

All financial assets measured at amortised cost, or cost, are subject to an impairment review. Appropriate allowances for estimated irrecoverable amounts are recognised in surplus or deficit when there is objective evidence that the asset is impaired. Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy or financial reorganisation, and default or delinquency in payments are considered indicators that the trade receivable is impaired. The allowance recognised is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the effective interest rate computed at initial recognition.

The carrying amount of the asset is reduced through the use of an allowance account, and the amount of the deficit is recognised in surplus or deficit within operating expenses. When a trade receivable is uncollectible, it is written off against the allowance account for trade receivables. Subsequent recoveries of amounts previously written off are credited against operating expenses in surplus or deficit.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed by adjusting an allowance account. The reversal does not result in a carrying amount of the financial asset that exceeds what the amortised cost would have been had the impairment not been recognised at the date the impairment is reversed. The amount of the reversal is recognised in surplus or deficit.

Derecognition

Financial assets

The entity derecognises financial assets using trade date accounting.

The entity derecognises a financial asset only when:

- the contractual rights to the cash flows from the financial asset expire, are settled or waived;
- the entity transfers to another party substantially all of the risks and rewards of ownership of the financial asset; or
- the entity, despite having retained some significant risks and rewards of ownership of the financial asset, has transferred control of the asset to another party and the other party has the practical ability to sell the asset in its entirety to an unrelated third party, and is able to exercise that ability unilaterally and without needing to impose additional restrictions on the transfer. In this case, the entity :
  - derecognises the asset; and
  - recognises separately any rights and obligations created or retained in the transfer.

On derecognition of a financial asset in its entirety, the difference between the carrying amount and the sum of the consideration received is recognised in surplus or deficit.

Financial liabilities

The entity removes a financial liability (or a part of a financial liability) from its statement of financial position when it is extinguished — i.e. when the obligation specified in the contract is discharged, cancelled, expires or waived.
The difference between the carrying amount of a financial liability (or part of a financial liability) extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognised in surplus or deficit.

1.5 Tax

Current tax assets and liabilities

Current tax for current and prior periods is, to the extent unpaid, recognised as a liability. If the amount already paid in respect of current and prior periods exceeds the amount due for those periods, the excess is recognised as an asset.

Current tax liabilities (assets) for the current and prior periods are measured at the amount expected to be paid to (recovered from) the tax authorities, using the tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and liabilities

A deferred tax liability is recognised for all taxable temporary differences, except to the extent that the deferred tax liability arises from the initial recognition of an asset or liability in a transaction which at the time of the transaction, affects neither accounting surplus nor taxable profit (tax loss).

A deferred tax asset is recognised for all deductible temporary differences to the extent that it is probable that a taxable surplus will be available against which the deductible temporary difference can be utilised. A deferred tax asset is not recognised when it arises from the initial recognition of an asset or liability in a transaction and at the time of the transaction, affects neither accounting surplus nor taxable profit (tax loss).

A deferred tax asset is recognised for the carry forward of unused tax losses and unused STC credits to the extent that it is probable that future taxable surplus will be available against which the unused tax losses and unused STC credits can be utilised.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Tax expenses

Current tax and deferred taxes are charged or credited to net assets if the tax relates to items that are credited or charged, in the same or a different period, to net assets.

1.6 Leases

A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership. A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership.

Operating leases – lessor

Operating lease revenue is recognised as revenue on a straight-line basis over the lease term.

Initial direct costs incurred in negotiating and arranging operating leases are added to the carrying amount of the leased asset and recognised as an expense over the lease term on the same basis as the lease revenue.

The aggregate cost of incentives is recognised as a reduction of rental revenue over the lease term on a straight-line basis.

Income for leases is disclosed under revenue in the statement of financial performance.

1.7 Share capital

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities.

1.8 Contingencies

Contingent assets and contingent liabilities are not recognised. Contingencies are disclosed in note 20.

1.9 Revenue from exchange transactions

Revenue is the gross inflow of economic benefits or service potential during the reporting period when those inflows result in an increase in net assets, other than increases relating to contributions from owners.

Revenue from exchange transactions refers to revenue that accrued to the entity directly in return for services rendered/ goods sold, the value of which approximates the considerations received or receivable. An exchange transaction is one in which the entity receives assets or services, or has liabilities extinguished, and directly gives approximately equal value (primarily in the form of goods, services or use of assets) to the other party in exchange.

Measurement

Revenue is measured at the fair value of the consideration received or receivable and represents the amounts receivable for goods and services provided in the normal course of business, net trade discounts and volume rebates, and value added tax.

Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

Sale of goods

Revenue from the sale of goods is recognised when all the following conditions have been satisfied:

- the entity has transferred to the purchaser the significant risks and rewards of ownership of the goods;
- the entity retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- the amount of revenue can be measured reliably;
- it is probable that the economic benefits or service potential associated with the transaction will flow to the entity; and
- the costs incurred or to be incurred in respect of the transaction can be measured reliably.

Rendering of services

When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction is recognised by reference to the stage of completion of the transaction at the reporting date. The outcome of a transaction can be estimated reliably when all the following conditions are satisfied:

- the amount of revenue can be measured reliably;
- it is probable that the economic benefits or service potential associated with the transaction will flow to the entity;
- the stage of completion of the transaction at the reporting date can be measured reliably; and
- the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue is recognised only to the extent of the expenses recognised that are recoverable.

Interest, rental income, royalties and dividends

Revenue arising from the use by others of entity assets yielding interest, royalties and dividends is recognised when:

- It is probable that the economic benefits or service potential associated with the transaction will flow to the entity, and
- The amount of the revenue can be measured reliably.

Interest is recognised, in surplus or deficit, using the effective interest rate method.

Rental income is recognised on the accrual basis in accordance with the substance of the relevant agreements.

1.10 Borrowing costs

Borrowing costs are interest and other expenses incurred by an entity in connection with the borrowing of funds.

Borrowing costs are recognised as an expense in the period in which they are incurred.

1.11 Comparative figures

Where necessary, comparative figures have been reclassified to conform to changes in presentation in the current year.

1.12 Related parties

A related party is a person or an entity with the ability to control or jointly control the other party, or exercise significant influence over the other party, or vice versa, or an entity that is subject to common control, or joint control.

The entitiy follows the guidance of GRAP 20 to identify related party relationships, transactions and balances and the disclosures on those identified.

The entity is exempt from disclosure requirements in relation to related party transactions if that transaction occurs within normal supplier and/or client/recipient relationships on terms and conditions no more or less favourable than those which it is reasonable to expect the entity to have adopted if dealing with that individual entity or person in the same circumstances and terms and conditions are within the normal operating parameters established by that reporting entity's legal mandate.

1.13 Events after reporting date

Events after reporting date are those events, both favourable and unfavourable, that occur between the reporting date and the date when the financial statements are authorised for issue. Two types of events can be identified:

- those that provide evidence of conditions that existed at the reporting date (adjusting events after the reporting date); and
- those that are indicative of conditions that arose after the reporting date (non adjusting events after the reporting date).

The entity will adjust the amount recognised in the financial statements to reflect adjusting events after the reporting date once the event occurred.

The entity will disclose the nature of the event and an estimate of its financial effect or a statement that such estimate cannot be made in respect of all material non-adjusting events, where non-disclosure could influence the economic decisions of users taken on the basis of the financial statements.

Other explanatory notes

2. New standards and interpretations

2.1 Standards and interpretations effective and adopted in the current year

The following standards had amendments that are effective from 1 April 2017:

- GRAP 20: Related parties
- GRAP 21 (as amended 2015): Impairment of Non-cash Generating Assets
- GRAP 26 (as amended 2015): Impairment of Cash-generating assets

These amendments were early adopted in the 2016/17 financial year and did not have a material impact on the Annual Financial Statements.

2.2 Standards and Interpretations early adopted

The entity has chosen to early adopt the following standards and interpretations:

- GRAP 34: Separate Financial Statements

The amendments do not have an effective date as yet. These amendments did not have a material impact on the Annual Financial Statements.

3. Investment property

	2018			2017		
	Valuation	Accumulated depreciation and accumulated impairment	Carrying value	Valuation	Accumulated depreciation and accumulated impairment	Carrying value
	R	R	R	R	R	R
Investment property	9,750,000	-	9,750,000	27,200,000	-	27,200,000

	Opening balance	Fair value adjustments	Total
	R	R	R
Reconciliation of investment property – 2018			
Investment property	27,200,000	(17,450,000)	9,750,000

	Opening balance	Fair value adjustments	Total
	R	R	R
Reconciliation of investment property – 2017			
Investment property	29,800,000	(2,600,000)	27,200,000

Fair value of investment properties	9,750,000	27,200,000

	2018 R	2017 R
Details of property		
ERF 706 RIETFONTEIN, PRETORIA		
- Purchase price	615,855	615,855
- Additions since purchase	8,075,667	8,075,667
- Fair value adjustments	1,058,478	18,508,478
	9,750,000	**27,200,000**

A register containing the information required by the PFMA is available for inspection at the registered office of the entity.

Details of valuation

In terms of GRAP 16, the fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

The disposal of the Marumati building ("the Property") owned by Erf 706 Rietfontein (Pty) Ltd was approved by the Board and the Minister of Water and Sanitation on 22 February 2016 and 14 May 2016 respectively. Cahi Auctioneers was appointed on 7 April 2017 through a competitive bidding process to dispose of the property by means of an auction. The auction took place on 20 July 2017. The auctioneer received a written bid to the value of R9,750,000. The Board granted approval for the disposal of the Marumati building situated at Erf 706 Rietfontein (Pty) Ltd on 16 August 2017. The fair value of the property as at 31 March 2018 is based on the approved bid of R9,750,000 resulting in the fair value of investment property reflecting the market conditions at the reporting date in accordance with GRAP 16.51.

The effective date of the previous valuation was 31 March 2017. The valuation was performed by an independent valuer, Barry Peter Richardson, of Onyx Valuation Services on 10 April 2017 upon physical inspection of the property. Barry Peter Richardson is registered as a Professional Valuer with the South African Council for the Property Valuers Profession. Onyx Valuation Services is not connected to the entity and have recent experience in location and category of the property concerned. Barry Peter Richardson has no present or contemplated interest in this entity which would affect the statements or values contained in the valuation report. The valuation was therefore undertaken on a completely independent basis.

The property was valued at R27,200,000 for the 2016/17 financial year.

The market value of the property was determined by using the income capitalisation method of valuation which essentially uses market-related rentals and expense data to calculate net annual income determined at R3.2 million per annum. This was capitalised at a rate of 12% yielding a value of R27.2 million. In determining market-related rentals the Valuer considered rentals of offices in close proximity and in comparable areas for similar accommodation, including the Pretoria CBD. This valuation basis was appropriate at the time as the property was intended to be sold through auction and it was likely to be acquired as commercial property to be used for its rental income-generating ability. These assumptions were based on current market conditions.

Amounts recognised in surplus and deficit for the year.

	2018 R	2017 R
Rental revenue from investment property (including recovery of expenditure)	158,145	251,864
Current assets	9,750,000	27,200,000

4. Receivables from exchange transactions

	2018 R	2017 R
Deposits	7,305	7,305
Receivables	-	(100)
	7,305	**7,205**

Receivables pledged as security

No receivables were pledged as security for any financial liability.

Credit quality of receivables

Management considers that all the above financial assets are of good credit quality. The maximum exposure to credit risk at the reporting date is the fair value of each class of receivables mentioned above.

The fair value of the receivables approximates the carrying amount of the balances due to their short-term maturity. The receivables represent deposits that will become due and receivable on demand and therefore no change is required in the carrying value of the assets.

None of the receivables that are fully performing have been renegotiated in the last year.

Receivables past due but not impaired

Receivables are all considered for impairment. At 31 March 2018, R NIL (2017: R NIL) were past due but not impaired.

Receivables impaired

As of 31 March 2018, receivables of R NIL (2017: R NIL) were impaired and provided for. The amount of the provision was R NIL as of 31 March 2018 (2017: R NIL). The ageing of receivables is as follows:

	2018 R	2017 R
Current – Gross	-	-
1 Month – Gross	-	-
2 Months – Gross	-	-
3 Months – Gross	7,305	7,205
	7,305	**7,205**

GRAP 104 states that a financial asset is past due when a counterparty has failed to make a payment when contractually due. None of the receivables listed above is past due. As a result no provision has been made for impairment.

5. VAT receivable

	2018 R	2017 R
SARS: VAT	17,778	78,024

Management considers that all the above financial assets are of good credit quality. The maximum exposure to credit risk at the reporting date is the fair value of each class of receivables mentioned above.

The fair value of the receivables approximates the carrying amount of the balances due to their short-term maturity. There is no indication of any circumstances that will result in this amount not being received by the company and, as a result, no change is required in the carrying value of the assets.

6. Cash and cash equivalents

	2018 R	2017 R
Cash and cash equivalents consist of:		
Bank balances	317,574	1,174,324

Fair value hierarchy of financial assets at fair value

For financial assets recognised at fair value, disclosure is required of a fair value hierarchy which reflects the significance of the inputs used to make the measurements.

The fair value hierarchy has the following levels:

- Level 1 represents those assets which are measured using unadjusted quoted prices in active markets for identical assets.
- Level 2 applies inputs other than quoted prices that are observable for the assets either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3 applies inputs which are not based on observable market data.

	2018 R	2017 R
Level 1		
Cash and cash equivalents	317,574	1,174,324

Credit quality of bank balances and short term deposits, excluding cash on hand

Management considers that the above cash and cash equivalents category is of good credit quality. The maximum exposure to credit risk at the reporting date is the fair value of the cash and cash equivalents mentioned above.

The fair value of the cash and cash equivalents approximates the carrying amount of the balances. This balance represents highly liquid funds that is available for use by the entity at any point in time. The entire cash and cash equivalents balance held by the entity is available for use.

The entity has not reclassified any financial assets from cost or amortised cost to fair value, or from fair value to cost or amortised cost during the current or prior year.

Cash and cash equivalents pledged as collateral

The cash and cash equivalents are not pledged as security for any financial liabilities.

7. Deferred tax

	2018 R	2017 R
Deferred tax liability		
Investment Property	(1,332,231)	(5,119,350)
Deferred tax asset		
Tax losses available for set off against future taxable income	5,495,573	5,044,627
Deferred tax liability	(1,332,231)	(5,119,350)
Deferred tax asset	5,495,573	5,044,627
Total net deferred tax asset (liability)	**4,163,342**	**(74,723)**
Reconciliation of deferred tax asset \ (liability)		
At beginning of year	(74,723)	(966,483)
Increase (decrease) in tax loss available for set off against future taxable income – gross of valuation allowance	450,947	1,222,610
Deferred tax on fair value adjustments on Investment Property	3,787,118	(330,850)
	4,163,342	**(74,723)**

Use and sales rate

The deferred tax rate applied to the fair value adjustments is determined by the expected manner of recovery. Where the expected recovery is through sale the capital gains tax rate of 22,40% (2017: 22,40%) is used. If the expected manner of recovery is through indefinite use the normal tax rate of 28% (2017: 28%) is applied. If the manner of recovery is partly through use and partly through sale, a combination of capital gains rate and normal tax rate is used.

The deferred tax on the fair value adjustments comprises of:
R1,058,478 (2017: R18,508,478) at the capital gains tax rate
R3,911,185 (2017: R3,476,609) at the normal tax rate.

8. Other financial liabilities

	2018 R	2017 R
At amortised cost		
Loan Nr. 1 – Water Research Commission	27,923,769	27,939,738
The unsecured loan bears interest at 15% (2016 – 15%). The interest on the loan was suspended from 1 June 2017. The loan is repayable in equal monthly installments of not less than R60,000. The capital sum and any interest thereon must be repaid in full subsequent to the disposal of the Marumati building.		
Loan Nr. 2 – Water Research Commission	2,339,811	2,585,776
The unsecured loan bears interest at prime plus 2%. The interest on the loan was suspended from 1 June 2017. The capital sum and any interest thereon must be repaid in full subsequent to the disposal of the Marumati building.		
	30,263,580	**30,525,514**
Total other financial liabilities	**30,263,580**	**30,525,514**
Current liabilities		
At amortised cost	30,263,580	30,525,514

The maximum exposure to credit risk at the reporting date is the fair value of the loan mentioned above. The fair value of the loan approximates the carrying amount. The fair value of the loan is determined by calculating the present value of future payments by using a discount rate of 15% and prime rate plus 2%.

The entity did not default on interest or capital on loans during the year under review. The terms and conditions of the loans were renegotiated during the period under review. The Board members approved the amendment of the loan agreements which allows ERF 706 to repay the loan after the disposal of the Marumati building, as well as the suspension of any further interest up to the date of disposal. This amendment was approved and is effective from 1 June 2017.

Since the going concern assumption is no longer appropriate and the expectation exists that the transfer of the Marumati building situated at Erf 706 Rietfontein will be finalised within the next 12 months, certain debts are classified as current liabilities.

9. Payables from exchange transactions

	2018 R	2017 R
Trade payables	48,305	12,968
Accrued expenses	485,648	-
Deposits received	20,911	20,911
	554,864	**33,879**

The maximum exposure to credit risk at the reporting date is the fair value of the payables above. The fair value of the payables approximates the carrying amount of the balances due to their short-term maturity.

The entity did not default on interest or capital on any payables.

None of the terms attached to the payables were renegotiated in the period under review. The entity has not reclassified the categories of any financial liabilities during the financial year.

10. Share capital

	2018 R	2017 R
Authorised		
4,000 Ordinary shares of R1 each	4,000	4,000
Issued		
1 Ordinary share of R1 each	1	1

100% of the shares are owned by the Water Research Commission.

11. Revenue

	2018 R	2017 R
Rental received	151,246	247,349
Recovery of expenditure	6,899	4,515
	158,145	**251,864**

There was a decline in rental revenue in the 2017/18 financial year, as one of the two tenants cancelled their lease, effective from 31 March 2017. There is an agreement in place that the remaining tenant will occupy the building and continue to pay lease rentals up untill disposal of the building.

12. Investment revenue

	2018 R	2017 R
Interest revenue		
Bank	-	5,418

13. Finance costs

	2018 R	2017 R
Current borrowings	758,066	4,246,523

The significant decline in the finance charges is due to the suspension of the interest on the other financial liabilities. The Board members approved the amendment of the loan agreements which allows ERF 706 to repay the loan after the disposal of the Marumati building, as well as the suspension of any further interest up to the date of disposal. This amendment was approved and is effective from 1 June 2017. No further interest was charged from 1 June 2017.

14. General expenses

	2018 R	2017 R
Bank charges	2,241	2,937
Commission and marketing related costs	485,649	-
Professional fees	570	2,140
	488,460	**5,077**

The commission and marketing-related costs were incurred in respect of Cahi Auctioneers. Cahi Auctioneers was appointed on 7 April 2017 through a competitive bidding process to dispose of the property by means of an auction. The auction took place on 20 July 2017.

15. Fair value adjustments

	2018 R	2017 R
Investment property (Fair value model)	(17,450,000)	(2,600,000)

16. Taxation

	2018 R	2017 R
Major components of taxation		
Deferred		
Originating and reversing temporary differences	(4,238,065)	(891,761)

No provision has been made for 2018 tax as the entity has no taxable income.

17. Cash generated from (used in) operation

	2018 R	2017 R
Surplus/ (deficit)	(14,387,882)	(5,785,077)
Adjustments for:		
Fair value adjustments	17,450,000	2,600,000
Movements in operating lease assets and accruals	-	2,053
Annual charge for deferred tax	(4,238,065)	(891,761)
Finance cost on other financial liabilities	758,066	4,246,523
Changes in working capital:		
Receivables from exchange transactions	(100)	91,028
Payables from exchange transactions	520,985	5,008
VAT	60,246	(59,200)
Other payables – non-exchange transactions	-	(2,552,849)
	163,250	**(2,344,275)**

18. Operating lease asset

The minimum lease receipts due disclosed in the comparative year was in respect of the operating lease that was effective as at 31 March 2017. The R45,991 represents the monthly lease payments for a period of four months which was the remainder of the period for which the contract was effective. Thereafter, the company entered into a lease agreement where the tenancy is continued on a monthly basis on the same terms and conditions.

	2018 R	2017 R
Minimum lease receipts due		
Within 12 months	-	45,991
	-	**45,991**

No contingent rent is receivable and there are no restrictions on the leases.

19. Related parties

	2018 R	2017 R
Relationships		
Holding company: Water Research Commission		
Related party balances		
Loan accounts – Owing (to) by related parties		
Water Research Commission	(30,263,580)	(30,525,514)
Amounts included in Receivables (Payables) regarding related parties		
Water Research Commission: Payable	(48,305)	(10,829)
Related party transactions		
Interest paid to (received from) related parties		
Water Research Commission	758,066	4,246,523

The Board members approved the amendment of the loan agreements which allows ERF 706 to repay the loan after the disposal of the Marumati building, as well as the suspension of any further interest up to the date of disposal. This amendment was approved and is effective from 1 June 2017. The interest on the loans were suspended from 1 June 2017.

20. Contingencies

No contingencies existed at year end of which management were aware.

21. Financial instruments disclosure

Categories of financial instruments

	At fair value	At amortised cost	Total
	R	R	R
2018			
Financial assets			
Receivables from exchange transactions	-	7,305	7,305
Cash and cash equivalents	317,574	-	317,574
	317,574	**7,305**	**324,879**

	At amortised cost	Total
	R	R
Financial liabilities		
Other financial liabilities	30,263,580	30,263,580
Payables from exchange transactions	554,864	554,864
	30,818,444	**30,818,444**

	At fair value	At amortised cost	Total
	R	R	R
2017			
Financial assets			
Receivables from exchange transactions	-	7,205	7,205
Cash and cash equivalents	1,174,324	-	1,174,324
	1,174,324	**7,205**	**1,181,529**

	At amortised cost	Total
	R	R
Financial liabilities		
Other financial liabilities	30,525,514	30,525,514
Payables from exchange transactions	33,879	33,879
	30,559,393	**30,559,393**

The entity has not reclassified any financial assets from cost or amortised cost to fair value, or from fair value to cost or amortised cost during the current or prior year.

Payables from exchange transactions above do not include VAT payable/receivable due to the fact that it is not a financial liability.

22. Risk management

Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, the availability of funding through an adequate amount of committed credit facilities and the ability to close out market positions. Due to the dynamic nature of the underlying businesses, entity treasury maintains flexibility in funding by maintaining availability under committed credit lines.

The entity's risk to liquidity is a result of the funds available to cover future commitments. The entity manages liquidity risk through an ongoing review of future commitments and credit facilities.

Cash flow forecasts are prepared and adequate utilisation of borrowing facilities are monitored.

The table below analyses the entity's financial liabilities into relevant maturity groupings based on the remaining period at the date of statement of financial position to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows.

	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
	R	R	R	R
At 31 March 2018				
Payables	554,864	-	-	-
Loan 1: Water Research Commission	27,923,769	-	-	-
Loan 2: Water Research Commission	2,339,811	-	-	-
At 31 March 2017				
Payables	33,879	-	-	-
Loan 1: Water Research Commission	27,939,738	-	-	-
Loan 2: Water Research Commission	2,585,776	-	-	-

In the prior period the loans were classified as current, as there was an expectation that the ERF building would be auctioned, disposed of and the loan repaid, within a period of 12 months after year end. The auction of the building took place on 20 July 2017. The auctioneer received a written bid to the value of R9,750,000. The Board granted approval for the disposal of the Marumati building situated at Erf 706 Rietfontein (Pty) Ltd on 16 August 2017.

The loan is classified as current in the 2017/18 finacial year, as there is an expecation that the building will be transferred within the next 12 months.

Interest rate risk

As the entity has no significant interest-bearing assets, the entity's income and operating cash flows are substantially independent of changes in market interest rates.

At 31 March 2018, if interest rates on Rand-denominated borrowings had been 2% higher with all other variables held constant, post-tax surplus for the year would have been R7,918 (2017: R54,234) lower and if the interest rate was 2% lower the post-tax surplus for the year would have been higher with R9,247 (2017: R53,385.05), mainly as a result of higher/lower interest expense on floating rate borrowings.

Credit risk

Credit risk consists mainly of cash deposits, cash equivalents and trade debtors. The entity only deposits cash with major banks with high quality credit standing and limits exposure to any one counter-party.

Financial assets exposed to credit risk at year end were as follows:

	2018 R	2017 R
Financial instrument		
ABSA Bank	317,574	1,174,324
Trade receivable	7,305	7,205

23. Going concern

We draw attention to the fact that at 31 March 2018, the entity had an accumulated surplus (deficit) of R(16,562,446) and that the entity's total liabilities exceed its assets by R(16,562,445).

These financial statements were not prepared based on the expectation that the entity will be able to continue to operate as a going concern. The company is in the process of disposing of its primary source of income, the immovable property known as ERF 706 Rietfontein and, as a result, the going concern assumption is no longer appropriate. Accordingly, assets are measured at their liquidation values (representing the impaired values thereof) and liabilities are measured at their exit values.

24. Fruitless and wasteful expenditure

	2018 R	2017 R
Interest and penalties - SARS	13,176	-

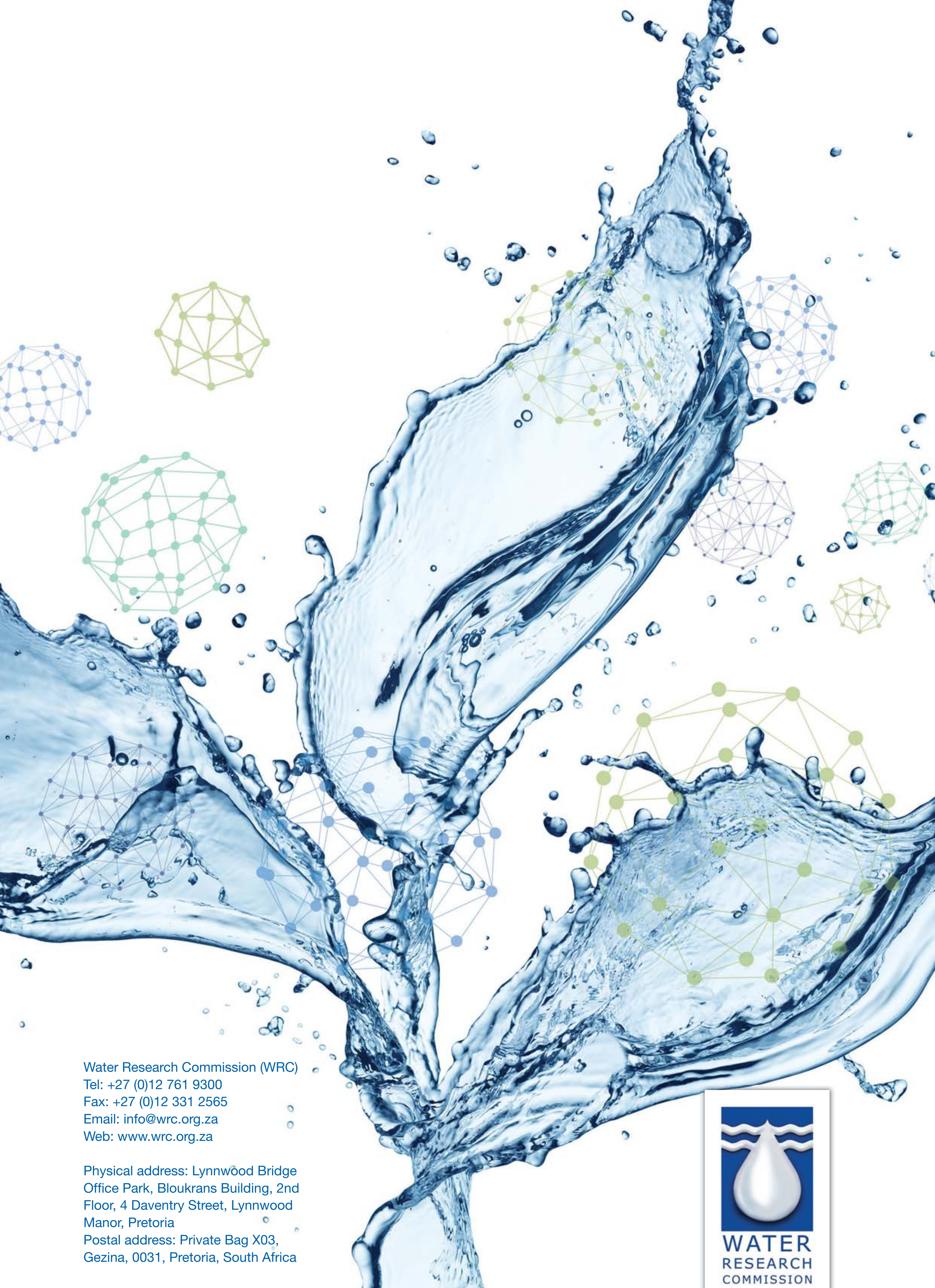
The South African Revenue Services (SARS) performed an audit on the VAT matters of ERF 706 Rietfontein (Pty) Ltd and determined that the entity is claiming input VAT on invoices from City of Tshwane which does not reflect ERF 706 Rietfontein (Pty) Ltd VAT number. The invoice does not fully meet the VAT Act requirements. SARS initially disallowed the claims and levied penalties and interest. ERF 706 Rietfontein (Pty) Ltd objected and the claims were refunded but the interest and penalties were not reversed. We have engaged City of Tshwane to include the ERF 706 Rietfontein (Pty) Ltd Vat number on their invoices but without success. We are also not able to discontinue the service as electricty and water is critical.

ERF 706 Rietfontein (Pty) Ltd submitted an objection to SARS to have the interest and penalties refunded. The objection was denied.

ERF 706 Rietfontein (Pty) Ltd has submitted an appeal to the rejected objection and is currently pending an outcome.

Tax Computation

	R
Net loss per income statement	(18,625,947)
Temporary differences	
Fair value adjustment on Investment Property	17,450,000
Section 13 quin allowance	(434,576)
	17,015,424
Tax loss carried forward	**(1,610,523)**
Tax thereon @ 28%	-



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