WATER RESEARCH COMMISSION 2025-26 CALL

2025/26 CALL FOR CONCEPT NOTES / PROPOSALS

RESEARCH, DEVELOPMENT AND INNOVATION

1. INTRODUCTION

The Water Research Commission's (WRC's) main function is to coordinate and promote water research, development, and innovation (RDI) in South Africa. The WRC effectively undertakes its mandate by prioritising water research as informed by the needs of the water sector and related stakeholders. Supported projects are related to the entire water cycle. The RDI agenda and projects of the WRC aim to make a meaningful contribution to addressing water security and socio-economic challenges in South Africa, while enabling the country to have an innovation-driven water and sanitation sector. The WRC has introduced five (5) thematic areas through which new knowledge creation; innovation development and capacity building will be pursued. They are water availability, water use, water quality and health, water advisory support and knowledge services. These thematic areas generate knowledge solutions which contribute to national government and the Department of Water and Sanitation priorities.

The overarching aim of this call for research proposals is to respond to national challenges through research and innovation for the WRC to contribute to water security while assisting the sector to adapt and become more resilient to climate change.

2. STRATEGIC PRIORITIES OF THE WRC

The WRC has five (5) priorities which its strategy is anchored on, namely an informed water society, an innovative water sector, a transformed water sector, a financially sustainable organisation, and an agile organisation As such, the WRC is looking for RDI projects that can make remarkable contributions to all these priorities or outcomes. ***The WRC hereby invites all South Africans from various stakeholder groups, backgrounds, and disciplines to submit concept notes (proposals).***

3. THE WRC IS ENCOURAGING PROPOSALS THAT PROMOTE NOVELTY AND SUPPORT LEADERSHIP, EMPOWERMENT, AND/ OR PARTICIPATION BY:

- Seasoned researchers linked to institutions of higher learning and science councils.
- Emerging researchers
- Postgraduate students seeking funding in the thematic areas of research.
- Women, youth, and people living with disabilities.
- Cooperatives and environmental groups
- Indigenous knowledge systems, non-tech, or social researchers
- Innovation and technology companies (SMMEs and commercial companies)

4. KEY STEPS TO CONSIDER PARTICIPATING IN THIS CALL

- The Call requires a submission of a concept note first on or before the due date (see timelines for the 2025/26 Call for Proposal in Section 4).

- Invitations will then be sent only to those whose concept notes have been approved or accepted.
- However, for the Directed Call with terms of reference (ToRs) in section 3 (Table 4), full proposals (not concept notes) need to be submitted by 28 July 2025.
- Consider your submission not successful if you have not heard from the WRC by 01 November 2025.
- You should visit the WRC BMS Portal website to submit an open or directed concept note. The portal website address is https://wrc.microsoftcrmportals.com/call-for-proposals-info/
- If you are a first-time user of the WRC system, you are required to register to be able to use it.
- Returning users should log in using their details used before.
- For technical assistance relating to submission of the concept note on the WRC BMS Portal, you can contact the BMS Administrator at (012) 761 9304 or by email at bms-support@wrc.org.za.
- For assistance relating to the technical and scientific aspects of your proposal, please contact the Senior Research Manager for the theme as indicated for each theme in Section 1 below.
- No concept note or proposal will be accepted after the due date (and due time). Please avoid last-minute submissions of your concept notes or proposals.

See details of the call below.

5. RESEARCH FOCUS AREAS PER THEME

THEME 1: WATER AVAILABILITY

South Africa faces significant challenges in securing sustainable water resources amid increasing global change pressures. Addressing these challenges requires a holistic approach centred on four key focus areas. First, improving water availability through resilient infrastructure and advanced climate and weather monitoring enhances the reliability and management of existing water resources. Second, exploring and developing diverse new water supply sources broadens the national water portfolio and reduces dependence on vulnerable systems. Third, enhancing sustainable water management through innovative, localised strategies informed by socio-economic research, water conservation knowledge and robust data platforms ensures equitable allocation and supports livelihoods. Finally, promoting ecosystem protection and integrating natural infrastructure safeguards critical water source areas and utilises nature-based approaches to maintain water quality, regulate flows and build resilience. Together, these focus areas form a comprehensive framework to strengthen South Africa's water security, support sustainable development, and protect vital ecosystems for future generations.

Please note that the following focus areas are available to accept project proposals in Theme 1. For more information, please contact the Senior Research Manager: Dr Shafick Adams at shaficka@wrc.org.za.

Focus Area 1: Climate Resilience
Proposals will be considered that aim to answer part or all the following research question.
Building climate resilience in South Africa's water sector requires a focus on climate-resilient water infrastructure alongside advanced climate and weather monitoring and modelling tools. Investing in resilient infrastructure ensures that water systems can better withstand extreme events like droughts and floods, which are becoming more frequent and severe because of climate change. Complementing these physical adaptations, improved climate data collection and predictive modelling play a vital role in supporting proactive and informed decision-making. These tools enable water managers to anticipate risks, forecast water availability, and optimise resource allocation effectively. Integrating climate considerations into water planning and management promotes adaptive strategies that balance human and environmental needs while reducing uncertainty. This approach aligns with South Africa's broader commitment to sustainable development and climate resilience, helping to safeguard water security and protect ecosystems amid increasing climate variability. By combining resilient infrastructure with robust monitoring and modelling, the country can enhance its capacity to manage water resources sustainably in a changing climate. How can advanced monitoring and modelling tools, combined with smart technologies and sustainable water management strategies, improve the assessment of water availability, prediction of water scarcity and flooding, and enhance water conservation practices?

Focus Area 2: Explore and Develop New Supply Sources

Proposals will be considered that aim to answer part or all the following research question.

The focus on exploring and developing new water resources is essential to strengthening South Africa's water security. With most of the country's supply reliant on surface water, which is increasingly affected by climate variability, expanding resource options is critical. This includes tapping into groundwater reserves, enhancing stormwater capture, exploring atmospheric water harvesting, and considering desalination where feasible. Groundwater remains an important and often underutilised resource that supports many regions, especially during dry periods. While challenges such as cost and governance exist, advances in technology and improved resource assessment are enabling more effective identification and development of these alternative sources. Strategic investments in infrastructure to harness and store these resources are vital. By diversifying and sustainably managing water resources, South Africa can reduce dependence on vulnerable sources, improve supply reliability, and build resilience against future water scarcity.

How can comprehensive studies on water quantity, quality, and distribution at various scales, combined with innovative technologies and infrastructure, improve and unlock freshwater access for settlements and other users in water-stressed regions?

Focus Area 3: Enhance Sustainable Water Management

Proposals will be considered that aim to answer part or all the following research question.

Enhancing sustainable water management is key to addressing water scarcity in South Africa. Innovative and localised management strategies, grounded in socio-economic research and informed by detailed knowledge of water availability and conservation, can promote equitable water allocation and support sustainable livelihoods. Enhanced data platforms enable real-time monitoring and improved decision-making by integrating hydrological, environmental, and social data. This facilitates adaptive management that balances human needs with ecosystem protection. By involving local communities and stakeholders, these approaches foster ownership and responsiveness to local conditions. Sustainable water management also aligns with national goals to reduce inequality and support economic development through fair and efficient resource use. Ultimately, combining technological innovation, robust data systems, and inclusive governance creates resilient water management frameworks capable of meeting current and future demands while safeguarding South Africa's precious water resources for generations to come.

How can innovative, localised water management strategies, informed by socio-economic studies, knowledge of water availability and conservation, and enhanced data platforms, be developed to address water scarcity, promote equitable water allocation, and support sustainable livelihoods and economic development?

Focus Area 4: Promote Ecosystem Protection & Use

Proposals will be considered that aim to answer part or all the following research question.

Promoting ecosystem protection and use through integrating natural infrastructure is vital for improving water availability and access in South Africa. Natural infrastructure, including rivers, wetlands, forests, grasslands, and other ecosystems, works collectively to regulate water flows, enhance groundwater recharge and improve water quality. Mainstreaming Strategic Water Source Areas (SWSAs) into national and local policies ensures these critical ecosystems receive the protection and sustainable management they require, recognising their essential role in supplying reliable water resources. The adoption of nature-based solutions such as restoring wetlands, rehabilitating riparian zones, and implementing sustainable land use practices supports ecosystem resilience and enhances water retention in the landscape. These approaches not only secure water supply but also provide co-benefits, including biodiversity conservation, climate regulation and flood mitigation. By embedding ecosystem protection into water management frameworks, South Africa can strengthen water security, promote equitable access, and support sustainable livelihoods while safeguarding the environment for future generations.

How can the protection and integration of blue and green infrastructure, along with the mainstreaming of Strategic Water Source Areas in policies and the adoption of nature-based solutions, improve water availability and access?

THEME 2: WATER USE

The water use thematic area focuses on driving and advancing sustainable and optimal water use within the various economic sectors (agriculture, industry and domestic), including pollution mitigation for improved water use in support of water resilience and security of supply.
Please note that the following focus areas are available to accept project proposals in Theme 2. For more information, please contact the Senior Research Manager: Prof Sylvester Mpandeli, at sylvesterm@wrc.org.za.

Focus Area 1: Municipal, Industrial and Mining Influenced Water Management

This focus area seeks to establish new knowledge solutions that enhance sustainable water use by promoting water use efficiency, supporting fit-for-purpose reuse, driving integrated wastewater resource recovery, and supporting sustainable water management by municipalities, mines, and industries. Partnerships with sensitive water users (municipalities, industry, mining companies, farmers, etc. Advisory Services) are encouraged.

Focus Area 2: Water Supply and Sanitation Services

This focus area intends to develop innovative, smart technologies and practices that enhance sustainable water use within water services. This includes both urban and rural water supply management and sanitation use management, including centralised, decentralized, and non-sewered systems.

Focus Area 3: Improving Urban and Rural Water Security

Smart innovations to ensure society or sector water resilience and adaptation. This should include community-initiated, indigenous, and novel approaches. There is a need for community-based water and sanitation projects that address climate adaptation and climate resilience to improve water security in vulnerable communities or sectors. The use of various innovations or approaches to address water use or water management in a specific needy community is encouraged.

Focus Area 4: Reduced Water Use Consumption and Promotion of Water Use Efficiency across Water Sensitive Sectors (Mining, Agriculture, Local Government, Sanitation etc)

South Africa is a water scarce country, the 30th driest in the world, with almost 98% of the available freshwater resources already allocated, leaving little room for future economic growth. The agriculture sector alone uses more than 60% of these available freshwater resources, where, in most cases, there is an overuse and unsustainable use of the resource. Research should develop innovative smart technologies and practices that enhance water use in agriculture that the resource can be availed to other equally important sectors for economic development. These smart innovations should enhance crop-water productivity in both rainfed and irrigated areas. Proposals should showcase and demonstrate some of the tools that have been developed.

Focus Area 5: Effective Solutions to Prevent and Mitigate Agriculture's Contribution to Non-point Source (NPS) Pollution

Research and activities in this focus area will demonstrate agricultural best management practices (technological, economic, and institutional) to prevent or reduce the movement of sediment, nutrients, pesticides, and other pollutants from the land to various waterbodies (groundwater included) given the availability of new tools (earth observation) and improved existing and new models (verified and validated). Infrastructure (grey and nature-based) that will abate non-point source pollution from agricultural activities and involve citizens at different scales (local and national) should also be showcased. Additionally, projects should highlight solutions that are easily acceptable and executable and do not put unnecessary financial strain on especially emerging farmers.

THEME 3: WATER QUALITY AND HEALTH

As global challenges like climate change, population growth, and pollution intensify, the need to ensure that the available water meets the required quality standards for various uses. The deterioration of water quality remains a major challenge in South Africa and across the world. This is a critical concern raised throughout various chapters of the WRC@50 (2021). Several drivers contribute to negative changes in water quality, and these include land cover/use; soil erosion, alien invasive alien plants, industrialisation, urbanization, and population growth; climate change; industrial discharges, urban runoff, inadequate infrastructure and ineffective waste and wastewater treatment systems, as well as compromised natural processes. The main aim of this thematic area is to drive integrated research and innovation activities to generate new knowledge, insights and data aimed at improving water quality to enhance health outcomes, inform the establishment of appropriate health-based targets and thresholds for different water uses, development and deployment of appropriate and innovative water treatment and ecological infrastructure rehabilitation methods, inform adaptive/resilient strategies, and support the development of effective interventions to protect public/aquatic ecosystems health, build resilient communities and contribute to the attainment of water security.

Please note that the following focus areas are available to accept project proposals in Theme 3. For more information, please contact the Senior Research Manager: Mr Jay Bhagwan at jayb@wrc.org.za.

Focus Area 1: Contaminants of Emerging Concern and Health

Contaminants of emerging concern (CECs) include a wide range of substances, such as pharmaceuticals, personal care products, endocrine disruptors, microplastics, and industrial chemicals that are not typically regulated. Tracking the emergence of such chemicals, identifying their sources, and assessing their risks is key to ensuring human and animal health, environmental integrity, and water security. Priority research areas of focus look at pathways through which these contaminants enter water ecosystems and their potential impacts on drinking water quality and food safety; application of innovative monitoring technologies and methods, risk communication and data sharing to aid decision making on CECs; toxicity and risk assessment studies to inform water quality management interventions; establishment of protective risk–based water quality guidelines for CECs to guide decisions on the fitness of water for various uses; innovative treatment and management strategies that can mitigate the effects of CECs, ensuring the sustainability of water resources while safeguarding the health of humans, animals, and aquatic organism; actionable insights that inform policy and promote safe water use practices, contributing to enhanced water security and health outcomes.

Focus Area 2: Waterborne Diseases and Health

Findings from several WRC-funded projects show increased levels of water pollution from contamination events, untreated sewage, anthropogenic sources, natural occurrences such as climate change and social drivers. Coupled with reported cases of water-related disease outbreaks, there is now a requirement for new thinking and working around how public health can best be protected from emerging and re-emerging water-related illnesses. Key to this is the need for proper assessment of contaminants in water and regular water quality monitoring as measures for early warning and the prevention of waterborne outbreaks. Priority research areas focus on how contaminated water sources contribute to the spread of diseases like cholera, typhoid, and dysentery; antimicrobial resistance (AMR) and its transmission through water systems; the public health impacts of drinking water contamination with pathogens – research into the links between poor drinking water quality and health outcomes; the role of irrigation water quality in food safety and human health; the impact of waterborne contaminants on livestock health and productivity, and how these affect food systems and human health.

Focus Area 3: Impacts of Water Pollution on Aquatic Ecosystems and Biodiversity

This focus area takes cognisance of the vastness of the One Health concept in reference to water quality in global literature, particularly looking at the suitability of the water body of concern for fitness for use. Priority research areas attend to the fate and eco-toxicological effects of pollutants in water bodies on aquatic species; how water quality impacts ecosystem services, particularly those that support human health (e.g., fisheries, water purification); the value of aquatic ecosystems integrity through green-blue economies and better water resources management (e.g. merging green/grey infrastructures); transitioning from conventional monitoring to real-time data acquisition, archiving, artificial intelligence, and reporting, including cost benefit analysis of this advancement; understanding of the arid ecosystems and their role of ephemeral systems in water demand and conservation; transboundary water quality impacts on ecosystem connectivity, sustainability, and livelihood; water quality for ecosystems, including frameworks, methods, and tools to improve water quality through nature-based solutions; water quality monitoring capacity required to implement the outputs/outcomes leading to making impacts of newly generated knowledge.

Focus Area 4: Climate Change, Water Security, and Health

Climate change poses significant challenges to water quality and health. Research aimed at addressing these interconnected issues requires a comprehensive approach that integrates climate adaptation strategies with water quality and health management initiatives, ensuring resilience in the face of changing climatic conditions. Priority attention will be given to the impact of climate change on water quality (e.g., saltwater intrusion, increased runoff, extreme weather events); the health impacts of declining freshwater quality, particularly in climate-vulnerable regions; Involvement of citizen scientists in diverse water quality monitoring, early warning systems and resilience interventions

Focus Area 5: Digitisation of Water Quality Monitoring and Management

The adoption of digital technologies can revolutionise water quality monitoring and management, as these tools enable real-time monitoring, rapid data processing, and predictive analytics, which are crucial for ensuring water quality and managing contamination risks. Within the context of water quality and One Health, the transition to digital technologies enables continuous monitoring of water quality, allowing for the early detection of pathogens, chemicals, and other pollutants that could harm human, animal, and environmental health; integration of data across various sectors; predictive analytics and water quality risk assessment; enhanced ecosystem health monitoring, as well as increased public transparency on water quality.

THEME 4: WATER ADVISORY

Please note that the following focus areas are available to accept project proposals in this theme 4. For more information, please contact the Senior Research Manager: Dr Valerie Naidoo at valerien@wrc.org.za

Focus Area 1: The National System of Innovation and the Water RDI Enterprise

The call is looking for catalytic research on the state of the water RDI enterprise. Typically, this focus area drives research through directed calls (both open and through developed terms of reference). Research in this area looks at bibliometric analysis and methodologies, tracer studies on the impact of research and graduates to assess their career trajectories, experiences, outcomes, and effectiveness of training for scarce and new workforce skills. Research in this area also looks at catalytic research. Finally, this area will also look at transformational change in water that is needed and the catalytic approaches that may be needed in the national system of innovation.

There is no open call for this focus area, but two directed calls are listed under directed call categories (with ToRs).

Focus Area 2: Demonstration and Deployment of Technologies

This open call is looking to provide various technological innovations to solve water sector challenges. Thus, these focus areas will support demonstrations and deployment of technologies developed to:

- Accelerate water service delivery at the local level.
- Improve the water use efficiency in the water sectors (users)
- Increase resilience to global changes (Climate change, urbanization, population growth, energy, and food shocks) by the communities.
- Accelerate digital transition to improve water and sanitation management.
- Arrest the deterioration of water resources and the increase in associated health risks.
- Promote new, emerging, and frontier innovations relevant to solving water sector challenges.

This focus area aims to grow the pipeline of innovations at technology readiness seven and above, i.e. where a full prototype design is available, and demonstrate in an operational environment with a strategic stakeholder who is the user, buyer, or beneficiary of the innovation. This focus area accelerates technology and increases its readiness for scale-up and adoption.

Focus Area 3: Strong Institutions: Effective Governance and Economics of Water

This open call is looking to grow research to improve governance of water sector institutions. It looks at the financial sustainability of water sector institutions. This research aims to guide and advise on effective governance and economics in the water sector by assessing models and demonstrating their effectiveness and coordinating and convening for change. The overall aim is to grow knowledge and expertise in governance and economics. This focus area will also investigate and provide innovative models and tools to evaluate the cost of water, revenue collection, infrastructure (built and ecological), and services that allow South Africa to achieve its sustainable development goals and place the country on a trajectory towards a low-carbon, green and circular economy. It will evaluate the economic, social, and ecological dimensions that are needed to inform decision-making and promote sustainable water management through equitable allocation, productive, and environmentally sustainable water management.

There is one directed call under a research topic and five directed calls with ToRs under this focus area.

6. INVITATION FOR CONCEPT NOTES / PROPOSALS

In consideration of the focus areas and project titles or topics provided, submissions of Research Concept Notes are invited from all stakeholders and individuals.

The 2025/26 Call is directed in one way or another, and it is divided into three (3) parts which are described below:

6.1. Open Research Call for Concept Notes Responding to Focus Areas

Table 1 shows the category of research that the WRC is promoting through this call. However, the Concept Note should be crafted to address the specific water topics (focus area, theme, or field). Take note of the first year's budget and the total budget for each field or area. The concept note should put more emphasis on the outputs and the research methodology and its intended longer-term outcome. Anyone can submit a concept note(s) under this Call.

6.2. Directed Targeted Research Call for Concept Notes Responding to Focus Areas

Table 2 presents the category of research that the WRC is promoting through this call. This call is targeting or open to only the youth and women

who are citizens of South Africa. However, there is a category (in this table) targeting consortium research projects between or among Universities, Science Councils and SMMEs. Take note of the first year's budget and the total budget for each topic. The concept note should put more emphasis on the outputs and the research methodology. Concept notes can only be submitted by those targeted groups stated in the Call (in Table 2).

6.3. Directed Research Call for Concept Notes with only research titles or topics

Table 3 shows specific research titles in which the WRC is directing or guiding researchers to mould their research concept notes. The table is divided into Thematic Tables, such as Table 3.1; Table 3.2. to emphasise the thematic area in which the research title belongs. Take note of the first year's budget and the total budget for each topic. Only the research titles or topics without ToRs are provided. The concept note should put more emphasis on the outputs and the research methodology and its intended outcomes. Anyone can submit a concept note(s) under this Call.

6.4. Directed Research Call for Proposal with terms of references (ToRs)

Table 4 presents the research titles or topics which the WRC is promoting through this directed call. ***The proposal submission for this category will open for submission on the 28 July 2025.*** In this case, the full terms of reference (ToRs) will be published on or before 28 July 2025 on the WRC's business management system (BMS). Researchers should address all the aspects of each ToR.

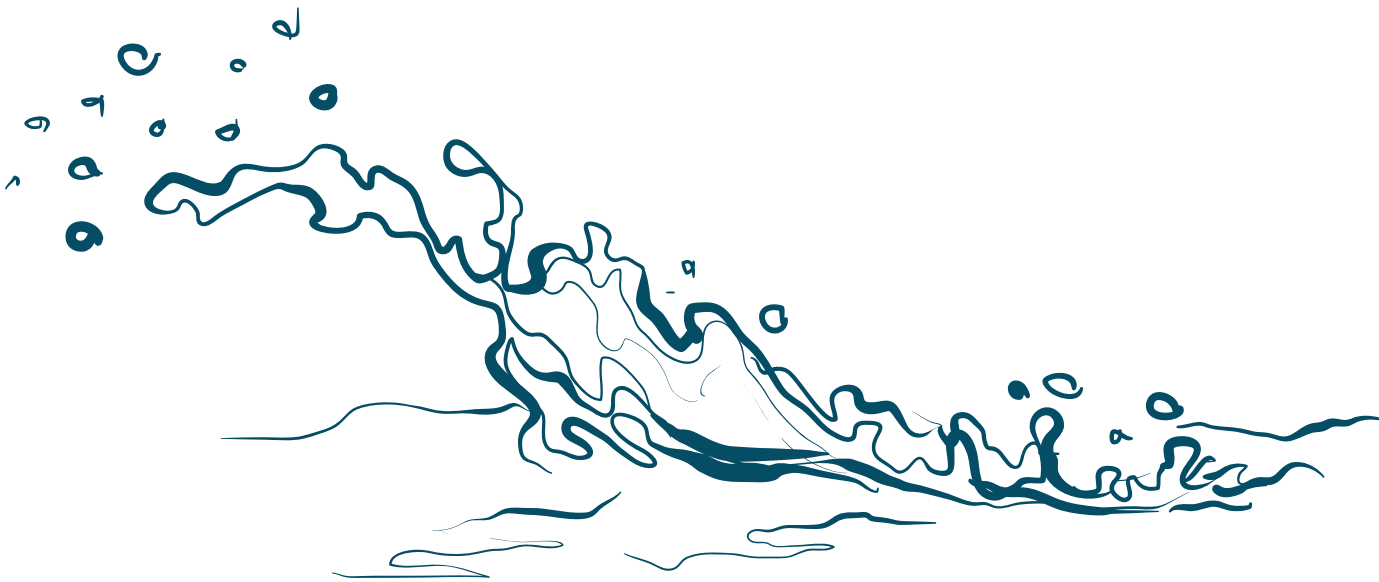


Table 1. Directed Open Research Call Responding to Focus Topic Areas

Please note that the total budget allocations and the allocation for the first year.

Category	Specific Area/field	Researcher or Institution invited to submit	1st yr Budget (R)	Total Budget (R)	Time Period
1. Knowledge Reviews	1.1 Water availability in South Africa	Everyone or All	700 000	1 500 000	1 yr
	1.2 Water use (across all sectors) in South Africa	Everyone or All	700 000	1 500 000	1 yr
	1.3 Water Quality & Health in South Africa	Everyone or All	700 000	1 500 000	1 yr
	1.4 Undertake a PESTEL or equivalent approach to determine research, development, and innovation areas that should be prioritised in South Africa	Everyone or All	700 000	700 000	6-12 months
	Total		**2 800 000**	**5 200 000**	
2. Blue Sky RDI (fundamental research guided by curiosity of how things work, which could lead to transformative technologies and solutions rather than their immediate practical application)	2.1 What are the advanced and futuristic thinking on re-imagining water availability for all?	Everyone or All	800 000	1 500 000	3-5 yrs
	2.2 What are the blue-sky areas of research that could transform how large water users build security, sustainability, and resilience?	Everyone or All	800 000	1 500 000	3-5 yrs
	2.3 What transformative scientific principles are emerging to deal with water quality and health challenges of the future?	Everyone or All	800 000	1 500 000	3-5 yrs
	Total		**2 400 000**	**4 500 000**	
3. Impact studies of WRC RDI	3.1 Drinking water innovation(s) e.g., NRW policies and how it is moved in the municipal space	Everyone or All	1 500 000	1 500 000	1 yr
	3.2 Irrigations Innovation(s) WEF	Everyone or All	1 500 000	1 500 000	1 yr
	3.3 Sanitation and /or wastewater innovations	Everyone or All	1 500 000	1 500 000	1 yr
	3.4 Catchment management innovations	Everyone or All	1 500 000	1 500 000	1 yr
	Total		**6 000 000**	**6 000 000**	
4. Development of Innovation (e.g., Prototypes or Service models – seeking early to mid-stage innovation development that could solve challenges aligned to the focus areas.)	4.1 Water availability in South Africa	Everyone or All	500 000	1 000 000	2-3 yrs
	4.2 Water use (across all sectors)	Everyone or All	500 000	1 000 000	2-3 yrs
	4.3 Water quality & health in South Africa	Everyone or All	500 000	1 000 000	2-3 yrs
	Total		**1 500 000**	**3 000 000**	

Category	Specific Area/field	Researcher or Institution invited to submit	1st yr Budget (R)	Total Budget (R)	Time Period
5. Economics of Water	5.1 Focus on ways in which water scarcity or poor governance and management could negatively impact economic activity and development. 5.2 Assesses the approaches, tools, and models to evaluate the cost of water, revenue collection, and the valuation of water. 5.3 Consider research that evaluates the financial models and approaches needed for infrastructure (built and ecological) provision and protection, and service delivery models that allow South Africa to achieve its sustainable development goals and place the country on a trajectory towards a low-carbon, green and circular economy	All	500 000	1 500 000	4 yrs
	Total		**500 000**	**1 500 000**	

Table 2. Directed Targeted Research Call

Please note that the total budget allocations and the allocation for the first year.

Open Call Proposals Category	Specific Area/field	Researcher or Institution Invited to submit	1st yr Budget (R)	Total Budget (R)	Time Period
1. Young Researcher Development *(ONLY South African citizens)*	1.1 Water Availability in South Africa	Young researchers (<35yrs and younger)	500 000	3 000 000	2-4 yrs
	1.2 Water Use (across all sectors) in South Africa	Young researchers (<35yrs and younger)	500 000	3 000 000	2-4 yrs
	1.3 Water Quality & Health in South Africa)	Young researchers (<35yrs and younger)	500 000	3 000 000	2-4 yrs
	Total		**1 500 000**	**9 000 000**	

Open Call Proposals Category	Specific Area/field	Researcher or Institution Invited to submit	1st yr Budget (R)	Total Budget (R)	Time Period
2. Female Researchers Development *(ONLY South African citizens)*	2.1 Water Availability in South Africa	Female researchers	2 000 000 [500 000 per project]	4 000 000	2-4 yrs
	2.2 Water Use (across all sectors) in South Africa	Female researchers	2 000 000 [500 000 per project]	4 000 000	2-4 yrs
	2.3 Water Quality & Health in South Africa	Female researchers	2 000 000 [500 000 per project]	4 000 000	2-4 yrs
	Total		**6 000 000**	**12 000 000**	
3. Artificial Intelligence (& Internet of Things)	3.1 Water data and information processing	Universities, Science Councils, and SMME [Consortium is preferred]	400 000	2 000 000	2-4 yrs
	3.2 Data simulation and projections (forecasting)	Universities, Science Councils, and SMME [Consortium is preferred]	400 000	2 000 000	2-4 yrs
	3.3 Automation in the water sector	Universities, Science Councils, and SMME [Consortium is preferred]	400 000	2 000 000	2-4 yrs
	Total		**1 200 000**	**6 000 000**	

TABLE 3. DIRECTED RESEARCH CALL (WITH RESEARCH TITLES)

TABLE 3.1. DIRECTED CALL FOCUS AREA: THEME 1. WATER AVAILABILITY

TITLE	THEME	BUDGET 2026/27 (R)	TOTAL BUDGET (R)	TOTAL YRS
1. Estimating open water evaporation and refining water balances for major dams in South Africa (considering the non-stationarity of the climate)	Water Availability	200 000	500 000	3 years
Total		**200 000**	**500 000**	

TABLE 3.2. DIRECTED CALL FOCUS AREA: THEME 2. WATER USE

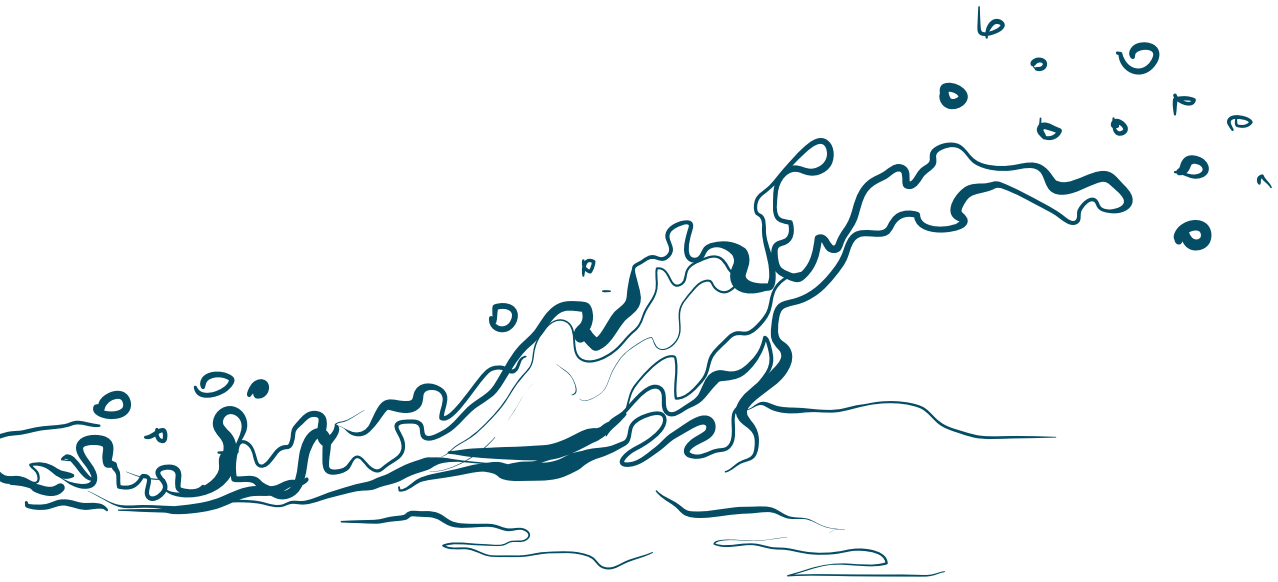
Title	Theme	BUDGET 2026/27 (R)	TOTAL BUDGET (R)	TOTAL YRS
1. Assessing the need for large-scale water reuse, reclamation, and recycling as a regulated activity to be licensed and tariffed	Water Use	400 000	600 000	14 months
2. Development of incentive-based tariffing to promote water reuse and recycling	Water Use	400 000	600 000	14 months

Title	Theme	BUDGET 2026/27 (R)	TOTAL BUDGET (R)	TOTAL YRS
3. A scoping study investigating alternative and innovative municipal sewerage tariffs	Water Use	300 000	500 000	14 months
4. Water use of underutilised crops in semi-arid areas	Water Use	400 000	2 000 000	36 months
5. Water footprint for strategic fruit crops	Water Use	400 000	3 000 000	36 months
6. The role of bridging the gap between science, policy, and implementation through the WEF nexus	Water Use	400 000	3 000 000	36 months
7. Incorporating WRC guidelines and manuals into agriculture colleges	Water Use	300 000	1 500 000	24 months
8. Application of the Water Research Observatory (WRO) big data platform in water science and conservation	Water Use	400 000	2 000 000	24 months
9. Impact of smart water metering and use and revenue collection	Water Use	300 000	1 500 000	24 months
10. Remote sensing and monitoring systems for water and wastewater treatment	Water Use	500 000	2 000 000	36 months
11. Financial models/ system for water re-use, non-revenue water management, rainwater harvesting, etc.	Water Use	400 000	1 500 000	24 months
Total		**4 200 000**	**18 200 000**	

TABLE 3.2. DIRECTED CALL FOR FOCUS AREA: THEME 3. WATER QUALITY AND HEALTH

Title	Theme	BUDGET 2026/27 (R)	TOTAL BUDGET (R)	TOTAL YRS
1. Design and pilot test the citizen science water resource quality monitoring network for SA/transboundary catchments. South Africa, like many developing nations, is battling with a rapid decline in quality assured data critical in resource development and management. There are community groups, though not strategically spread across the country, actively collecting some data which may be relevant to addressing local challenges. A standardised approach is required for the country. Trained citizen scientists are required to collect quality and reliable data for use in policy decisions and reversing the extent of aquatic ecosystem degradation status through active citizenry, working in partnership with law enforcement. The aim is to produce citizen science training material, and trained citizens based on selected case studies in SA/ transboundary catchments	Water Quality & Health	400 000	2 000 000	3yrs

Title	Theme	BUDGET 2026/27 (R)	TOTAL BUDGET (R)	TOTAL YRS
2. Enhance the Basic Education curriculum with the latest environmental knowledge from Citizen Science. WRC produced lesson plans for inclusion in the school curriculum, from Grade 3 –12 more than 15 years ago. The advancements in scientific knowledge gained over these years and which continue to be generated need to be captured in schools, particularly at the basic education levels. Implementing nature conservation at an early stage is critical for future managers. Citizen science presents such an opportunity by offering simplified and easy-to-grasp scientific concepts and language. The aim is to produce SAQA-accredited modules for inclusion in the basic education curriculum in partnership with the Department of Basic Education.	Water Quality & Health	350 000	1 500 000	2yrs
3. Develop and test a catchment-level nature-based solution framework for selected high-risk estuaries in SA: Balancing conservation and food security needs Eco-tourism contributes extensively to job creation in SA, particularly in areas along the coastline, such as estuaries. However, these iconic and revenue-generating areas are not adequately protected, as the current management plans focus on the complete exclusion of communities from these areas, leaving neighbouring societies and feeder catchments highly vulnerable. The unplanned land uses by communities pose serious threats to biodiversity services and conservation, hence threatening the future of tourism. This is a balancing act or a tourism-agricultural nexus where both parties co-exist with minimal harm to either. A tested framework on balancing food security with conservation objectives is urgently required.	Water Quality & Health	300 000	1 000 000	2yrs



Title	Theme	BUDGET 2026/27 (R)	TOTAL BUDGET (R)	TOTAL YRS
4. Protecting aquatic ecosystems through beneficiation: Green-Blue economic focus Innovations that generate evidence-based value of aquatic plants in support of the green-blue economy are required. Youth or game changers are central in driving the research that takes aspects of biota from wild to market products that proves the bankability of natural resources while protecting the environment, without compromising the biodiversity services, such as water purification potential (phytoremediation), be it in wetlands, rivers, estuaries or riparian zones. The value chain must be clearly generated, and timeframes towards market, business partners' interests, community benefits/or royalties, barriers, and enablers from concept to full-scale market value chain must be generated as evidence of practicality. Innovations are opened, such as rehabilitation, phytoremediation, medicinal, business (e.g. clothing, furniture, renewables) aspects. The aim is to explore candidate plant(s) that have proven potential in facilitating green jobs based on converting ecosystem challenges into opportunities.	Water Quality & Health	400 000	800 000	2yr
5. Sources, transport, and fate of microplastics within the drinking water value chain Previous research has established the presence of microplastics (MPs) in both raw water resources and the final treated drinking water reaching consumers. This study aims to investigate pathways for entry, transport, partitioning, and fate of MPs within the drinking water value chain. Furthermore, the study aims to establish the performance of different treatment technologies for their removal. This should be done by means of a cross-sectional analysis of different drinking water treatment plant configurations. Outputs from this study must include a science brief, factsheets, and guidance on risk communication for water service institutions.	Water Quality & Health	500 000	1 000 000	2 yrs
6. Brine and brine management – what do we have to be concerned about in industrial/mining/municipal water reuse This study serves as an update to previous WRC guidelines and manuals on brine management. This update is necessitated by the growing implementation of water reuse and desalination in various sectors, such as industrial, mining, and municipal. This study aims to audit or scope the practices used in brine management, which is a critical component of the viability of such processes. Based on the current practices, challenges identified, as well as international best practices, this study must develop a revised version of the WRC guidelines on brine and brine management that promote holistic approaches that minimise waste generation, recover valuable resources, and ensure the safe and sustainable reuse or disposal of brine in alignment with water security and environmental protection goals.	Water Quality & Health	300 000	700 000	1.5 yr

Title	Theme	BUDGET 2026/27 (R)	TOTAL BUDGET (R)	TOTAL YRS
7. Scoping study to assess effluent water quality challenges and issues associated with green hydrogen initiatives Green hydrogen production, while a promising pathway to decarbonise various sectors, raises concerns about its impact on water resources. While green hydrogen requires less water than some other hydrogen production methods or energy generation processes, its growing scale could still strain water supplies, especially in water-stressed regions. Very little information is available on the water quality issues from processes of hydrogen generation, such as brines etc.	Water Quality & Health	200 000	500 000	1.5 yr
8. Establishing the contribution of pollution from failing sewer and wastewater systems on the Vaal River system The scope of this study is to establish the contribution of poor water quality and volumes affecting the Vaal River system. This is to support and consolidate several pieces of assessments undertaken in the catchment and new assessments to provide the latest status on the system. The focus will be on sewer systems and wastewater plants from domestic settlements, industry, agriculture, and mining, which release effluents into the system. The outcome is a comprehensive understanding of the scale of issues and challenges, presented on a digital platform which allows for detailed scrutiny.	Water Quality & Health	800 000	2 000 000	2 yrs
9. Building a water quality surveillance programme It is becoming increasingly evident that the current state of water quality in our resources continues to deteriorate. The infrequent monitoring of our resources puts us at a great disadvantage, and we are getting to a stage where we are dealing with a crisis rather than managing quality timeously. Based on the successful establishment of the Wastewater Surveillance for SARS-CoV-19 programme under the leadership of the NCID, the opportunity exists to extend this logistic platform to monitor and establish the changing state of key water resource systems. The proposal for this study is to adopt at least three or four key water resource systems and monitor water quality at different points in its topography or flow, frequently, and measure all the known elements of concern (chemicals, contaminants, pathogen, BOD, etc) to establish changing water quality patterns. This will give us a good understanding of the status quo but allow us to establish a water quality surveillance programme based on the same logistics established for the COVID surveillance programme. We can build on the NCID platform or expand this reporting on the IRIS platform. Proposed systems are the Vaal River, Tugela River, Olifants MP), and a section of the Orange River. The proposed 15-month programme will see sampling and testing once a month on50 points on the river. This translates to 600 samples a year per river system, or 2400 samples or more for all the river systems. Tests will cover many parameters to be determined.	Water Quality & Health	2 000 000	4 000 000	2 yrs
Total		**5 250 000**	**18 000 000**	

TABLE 3.3. DIRECTED CALL FOR FOCUS AREA: THEME 4. WATER ADVISORY

Title	Theme	BUDGET 2026/27 (R)	TOTAL BUDGET (R)	TOTAL YRS
1. The financial, socio-economic and policy implementation impacts of theft and vandalism of water and sanitation infrastructure. Theft and vandalism have significant effects on essential services. It can cause disruptions in water and sanitation service delivery due to loss or damage to infrastructure, and loss of essential equipment. It leads to an increased cost to consumers and increased cost to the state to replace infrastructure and equipment as well as an increased need for policing and enforcement. This may lead to direct financial losses to utilities and municipalities and has longer-term socio-economic impacts, such as a lower quality of life, business closures, and reduced economic growth. Concept notes are sought that measure the full financial impact on the water sector and the sectors that rely on water and sanitation service delivery using primary and secondary data sources and/ or assessing the social, economic and psychological factors that drive behaviours and the strategies to counter them.	Water Advisory	500 000	1 000 000	2 yr
Total		**500 000**	**1 000 000**	

DIRECTED RESEARCH CALL WITH TERMS OF REFERENCE (TORS)

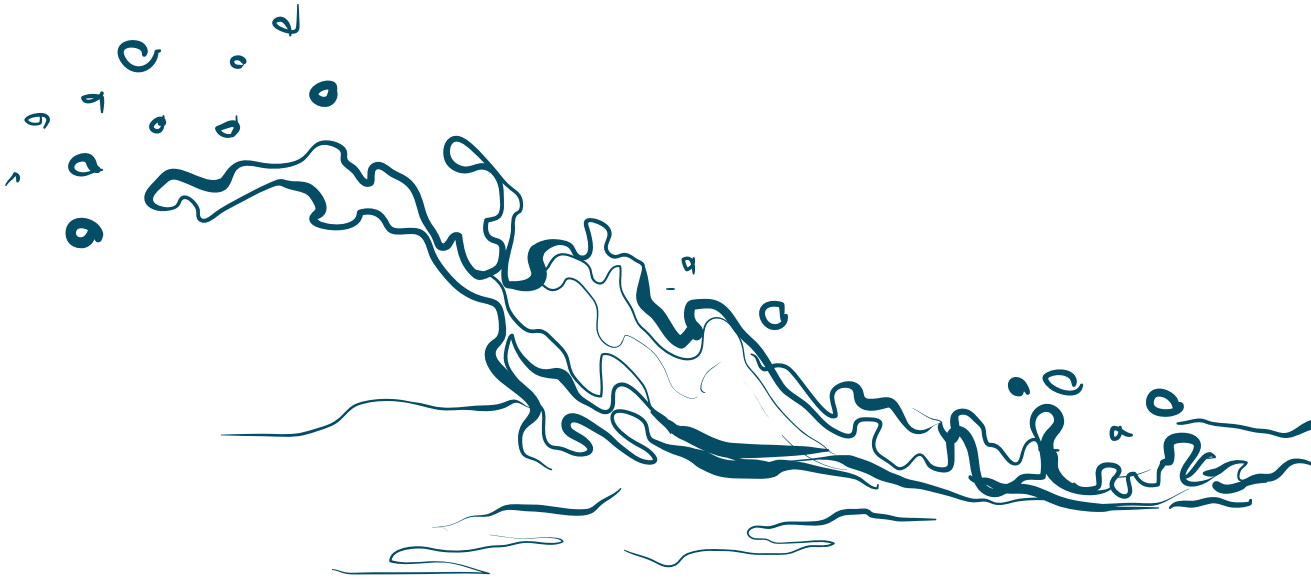
NOTE: No concept notes are required. The WRC will start accepting proposals on 28 July 2025. The TORs will be uploaded on or before 27 July 2025 for your reference.

Table 4. DIRECTED CALL FOR PROPOSALS (TORs to be published later- on or before 27 July 2025 on the WRC business management system -BMS)

#	TITLE	THEME	2025/2026 TOR BUDGET (R) 2025/2026	2025/2026 TOR TOTAL BUDGET (R)	TOR TERM (YEARS)
1	National atlas of community-led water supply schemes	Water Availability	1 200 000	600 000	2 years
2	Developing of business case for a regional hydrological modelling centre.	Water Availability	800 000	600 000	2 years
3	Enhancing water security through mapping and remotely sensed monitoring of the riparian vegetation and associated buffer zones.	Water Availability	2 000 000	500 000	3 years
4	Review, develop and test comprehensive training material focused on resource-directed measure (RDM) determination methods.	Water Availability	1 400 000	400 000	2 years
5	Updating of climate change projections for South Africa: Resilience and water security implications	Water Availability	3 000 000	900 000	3 years
6	Carbon sequestration in South Africa's basement aquifers: Implications for groundwater protection and water security	Water Availability	8 000 000	1 500 000	5 years

#	TITLE	THEME	2025/2026 TOR BUDGET (R) 2025/2026	2025/2026 TOR TOTAL BUDGET (R)	TOR TERM (YEARS)
7	Development of groundwater management plans for priority aquifer systems in South Africa	Water Availability	1 500 000	800 000	2 years
8	Decision support tool for prioritising catchments for compulsory licensing.	Water Availability	1 000 000	600 000	2 years
9	Securing South Africa's water future: Integrated Assessment of sectoral competition and socioeconomic vulnerability for equitable resource planning	Water Availability	2 500 000	500 000	3 years
10	Reimagining the feasibility of the future of water resources monitoring in SA and transboundary using the latest technology: Accelerate digital transition	Water Quality And Health	300 000	800 000	1 year
11	Development and implementation of a robust framework for the management of Contaminants of Emerging Concern (CECs) in South Africa	Water Quality And Health	800 000	5 000 000	5 years
12	Establishment of an independent water quality advisory committee	Water Quality And Health	200 000	500 000	3 years
13	Consolidate all water quality guidelines into a DSS for easy access by clients- a one-stop shop	Water Quality And Health	800 000	2 000 000	2 years
14	The impact of water quality degradation on the economy of SA	Water Quality And Health	500 000	5 000 000	4 years
15	Predicting and Preventing Epidemic Threats at the Human-Water-Environment Interface: An Interdisciplinary Approach to Solidify Preparedness against Cholera, Enteric Fever and Plague	Water Quality And Health	800 000	4 000 000	4 years
16	State of Water RDI Enterprise	Water Advisory	500 000	800 000	2 years
17	Impact Assessment of Water Sensitive Design: Review, Assessment and Way Forward	Water Advisory	300 000	400 000	1 year
18	Innovative greywater treatment technologies for schools, informal settlements, urban commercial and communal settings (seeking at least 4 technologies to demonstrate on existing operational sites)	Water Advisory	4 000 000	4 000 000	2 years
19	Research support for the implementation of the new Pricing Strategy for Raw Water Use Charges: Methods for determination of multi-year charges	Water Advisory	500 000	1 000 000	2 years
20	Development of standardised approaches for calculating compensation for harm, loss, or damage arising from offences under the National Water Act	Water Advisory	300 000	600 000	2 years

#	TITLE	THEME	2025/2026 TOR BUDGET (R) 2025/2026	2025/2026 TOR TOTAL BUDGET (R)	TOR TERM (YEARS)
21	Analysis of factors influencing the successful prosecution of water-related criminal cases	Water Advisory	750 000	1 500 000	2 years
22	Exploring mechanisms for monitoring the water resource to support CMAs (e.g., technologies, partnerships and citizen science options)	Water Advisory	500 000	800 000	1.5 years
23	National sludge quality survey to determine changes in sludge quality since the 2000s	Water Use	600 000	3 000 000	36 months
24	Optimising water services in informal settlements: Cost analysis and savings potential of decentralised reuses	Water Use	400 000	1 000 000	36 months
25	Towards safe and regulated municipal back-up water supply systems in South Africa	Water Use	400 000	2 200 000	48 months



ESTIMATED TIMELINE

The stages, dates, and activities of receiving and reviewing CONCEPT NOTES and project proposals during the Call are presented below.

START OF CALL FOR PROJECT PROPOSALS	
06 June 2025	• Launch and advertise the Call on various platforms
18 June 2025	• BMS enabled to receive Concept notes
18 – 19 June 2025	• WRC 101 online workshop
11 July 2025 (15H00)	• Submission deadline of Concept Notes (date and time)
SCREENING AND PRE-SELECTION OF SUBMITTED PROJECT PROPOSALS/CONCEPT NOTES	
12 – 21 July 2025	• Initial screening and review of concept notes • Concept notes for approval. • Review Panel members identified per Theme
22 – 25 July 2025	• Project leaders / institutions informed of the successful (approved) Concept Notes.
28 July 2025	• BMS enabled to receive full proposal of Approved Concept Notes only.
15 August 2025 (15H00)	• Submission of the proposal due date and time
EVALUATION, SELECTION AND MEMORANDUM OF AGREEMENT	
25 – 29 August 2025	• Proposal review panel meetings
01 – 05 September 2025	• Recommendation to EXCO for Approval
16 September 2025	• Executive Approval for funding
18 – 25 September 2025	• Decision letters to Institutions/Contractors
18 – 26 September 2025	• BMS is enabled to receive proposal amendments
01 October 2025	• Project MoAs signing to start