

2018 CALL FOR PROPOSALS ANNOUNCEMENT

WRC Call for Proposals for Projects Commencing on 1st April 2019

The WRC hereby announces its annual call for proposals for the financial year commencing on 1 April 2019. The WRC's financial year extends from 1 April to 31 March. All annual project budgets will be required to coincide with this financial year period although start and end dates of contracts are flexible within a financial year. Proposals in response to the **Open Call** can be submitted on-line from 1 May 2018. Proposals in response to the **Directed Call** and associated terms of reference will be opened on the web as they become available. The on-line submission system for **Directed projects** will open on 1 June 2018.

Please familiarise yourself with the information below and in the WRC **Guidelines for Writing WRC Proposals**, before you start preparing an application.

The following table indicates the anticipated distribution of funds **for all new projects**. **This is important to consider when responding to the 2018 call for proposals.**

Please note that these allocations are only an indication of the proposed distribution. The final amounts may differ and are subject to change at the discretion of the WRC Executive.

Research Projects	KSA 1 & 2	KSA 3	KSA 4	Total (R)
	Water Resources and Ecosystems (R)	Water Use and Waste Management (R)	Water Utilisation in Agriculture (R)	
Directed	0.00	1 125 000.00	0.00	1 125 000.00
Open	R 7 150 000.00	7 875 000.00	4 000 000.00	19 025 000.00
Total	R 7 150 000.00	9 000 000	4 000 000.00	20 150 000.00

The **deadline** for the submission of both **Open and Directed proposals** is **29 June 2018 at 23:30**. Please ensure that proposals are completed well in advance of the deadline as the volume of last minute submissions could affect the efficiency of the system.

An electronic helpdesk fms-support@wrc.org.za (08:00 – 16:00 on week days) is available should you encounter any problems in completing or submitting the proposal submissions online.

OPEN CALL

Please note that the budget allocations listed below for Open Proposals are only for the first-year budget.

KSA 1&2: WATER RESOURCES AND ECOSYSTEMS

The Open Call budget for 2019/20 is **R 7 150 000**

A general request for Open Call proposals addressing the themes in the following programmes: Please contact the Executive Manager, Dr. Shafick Adams (E-mail shaficka@wrc.org.za).

The following Thrusts and Programmes are available for Open Call proposals in KSA 1&2:

THRUST 1: GOVERNANCE AND INSTITUTIONAL ARRANGEMENTS		
	Budget 2019/20 (R)	Total contract budget (R)
<i>Programme 1: Cooperative governance for water resources management</i> Priority will be given to proposals that address any of the following themes: <ul style="list-style-type: none">• Clarifying and consolidating the institutional landscape for water resource management, local water management and economic regulation• What can the water sector learn from the energy and other sectors regarding economic regulation• Understanding water management and averting water crisis from an indigenous knowledge perspective	300 000	
<i>Programme 2: Policy, science and implementation</i> Priority will be given to proposals that address any of the following themes: <ul style="list-style-type: none">• Testing the usefulness of the OECD Water Governance Indicators as tools to promote dialogue, self-assessment and learning	200 000	
<i>Programme 3: Water pricing and financing</i>	0	
<i>Programme 4: Gender and equity</i> Priority will be given to proposals that address any of the following themes: <ul style="list-style-type: none">• Strengthening polycentric governance by exploring traditional approaches to water governance (including the roles of traditional leaders, customary and informal water rights and dispute resolution procedures)• Improving integration between land reform and water reform	300 000	

<ul style="list-style-type: none"> • Addressing barriers to equity and redress in the water sector (including transformation of institutions and re-allocation of water) • Spiritual water users 		
<p>Programme 5: Operation & maintenance</p> <p>Priority will be given to proposals that address any of the following themes:</p> <ul style="list-style-type: none"> • Legal and institutional barriers to community-owned water supply schemes • Legislative allocation of roles and responsibilities for water resource management, water services and economic regulation in theory and in practice • Sustaining water conservation and demand management practices during and beyond a water crisis at all levels of governance 	300 000	
Total	1 100 000	
THRUST 2: HYDROLOGICAL AND ECOSYSTEM PROCESSES		
	Budget 2019/20 (R)	Total contract budget (R)
Programme 1: Eco and socio-hydrology	250 000	
Programme 2: Data and hydroinformatics	450 000	
Programme 3: Hydrology	1000 000	
Programme 4: Water security	300 000	
Total	2 000 000	
THRUST 3: WATER RESOURCE AND ECOSYSTEM PROTECTION AND UTILIZATION		
	Budget 2019/20 (R)	Total contract budget (R)
<p>Programme 1: Resource directed measures</p> <p>Priority will be given to proposals that address:</p> <ul style="list-style-type: none"> • Integrate socio-economics within the approaches 	200 000	
<p>Programme 2: Rehabilitation and conservation</p> <p>Priority will be given to proposals that address:</p> <ul style="list-style-type: none"> • Restoration methods/manuals with regenerative economic approach (job creation). The research must support the implementation of the SDG:14 	250 000	
Programme 3: Water system utilisation and augmentation	300 000	

Programme 4: Environmental Economics and resource accounting	0	
Total	750 000	
THRUST 4: ENVIRONMENTAL CHANGE AND ADAPTATION		
	Budget 2019/20 (R)	Total contract budget (R)
Programme 1: Urbanization	200 000	
Programme 2: Climate change and variability	300 000	
Programme 3: Landuse planning and changes	200 000	
Programme 4: Environmental risk and disaster management	200 000	
Total	900 000	
THRUST 5: RESOURCE QUALITY AND MANAGEMENT		
	Budget 2019/20 (R)	Total contract budget (R)
Programme 1: Water pollution, depletion and human health Priority will be given to local and regional (transboundary) projects that harness hydrological information to explore the trends in water quality and its effect on human health during extreme climate events.	500 000	
Programme 2: Emerging contaminants Priority will be given to the development of effective risk assessment models of emerging contaminants in source water as well as the predictive capability of these models to inform the development of novel products. There should also be a focus on current and future regulatory policy product design scenarios and established partnerships between researchers, policy regulators and industry are encouraged.	500 000	
Programme 3: Source water protection	0	
Total	1 000 000	
THRUST 6: WATER RESOURCES INNOVATION AND TECHNOLOGIES		
	Budget 2019/20 (R)	Total contract budget (R)
Programme 1: Apps	200 000	
Programme 2: Remote sensing and telemetry	400 000	
Programme 3: Environmental sensors and detectors	100 000	
Programme 4: Models and early warning systems	300 000	

Programme 5: Treatment technologies	200 000	
Programme 6: Blue-green technologies and infrastructure	200 000	
Total	1 400 000	

KSA 3: WATER USE AND WASTE MANAGEMENT

The Open Call budget for 2019/20 is **R7 875 000**

A general request for Open Call proposals addressing the themes in the following programmes: Please contact the Executive Manager, Mr. Jay Bhagwan (E-mail jayb@wrc.org.za). The following Thrusts and Programmes are available for Open Call proposals in KSA 3:

Programme	Planned new initiatives for investment starting in 2017/18	Directed / Open	Funds 2019/20 (R)	Total funds (R)
THRUST 1: WATER SERVICES – INSTITUTIONAL AND MANAGEMENT ISSUES				
Programme 1 to 4	<ul style="list-style-type: none"> This thrust will only be opened for proposals for programmes 1 to 5. 	Open	1 000 000	
THRUST 2: WATER SUPPLY AND TREATMENT TECHNOLOGY				
Programme 1 to 4	<p>This thrust will be open for proposals in Programmes 1 to 4. Priority will be given to proposals that fall under the following themes:</p> <ul style="list-style-type: none"> Desalination/water reclamation – guidelines for source water characterisation and monitoring Emerging pathogens and microbial water quality issues of concern in drinking water production Development of life cycle metrics for assessing the footprint of emerging contaminants in water environments Development and testing of rapid detection methods for microbial water quality monitoring Big data and water quality management 	Open	2 000 000	

Programme	Planned new initiatives for investment starting in 2017/18	Directed / Open	Funds 2019/20 (R)	Total funds (R)
THRUST 3: SUSTAINABLE MUNICIPAL WASTEWATER MANAGEMENT AND SANITATION				
Programmes 1 to 5	<p>This thrust will be opened for open proposals in programme 1 to 5. Priority will be given to proposals that fall under the following themes:</p> <ul style="list-style-type: none"> • New and emerging low energy treatment options for wastewater • Wastewater biorefinery technologies and innovations • Biomimicry based concepts for wastewater treatment • Water sensitive design concepts for settlement planning • Sanitation: top priority will be given to proposals that: <ol style="list-style-type: none"> 1) Back-end toilet processors for off-grid toilets 2) In-situ treatment of faecal sludge 3) Demonstration of business-linked management models for off-grid solutions specifically linked to the re-use of beneficiated waste streams. 4) Novel management solutions that ensure long-term sustainability of infrastructure development. 	Open	2 000 000	
THRUST 4: SUSTAINABLE AND INTEGRATED INDUSTRIAL WATER MANAGEMENT				
Programmes 1 to 4	These four programmes will be open and prioritised during the open call. Top priority will be given to proposals that fall under the theme: Innovative and appropriate funding and / or institutional models for public/private partnerships	Open	1 500 000	
THRUST 5: MINE WATER TREATMENT AND MANAGEMENT				
	These programmes will be closed for pen call.	closed	0	
THRUST 6: WATERSMART FUND				
No specified programmes	This thrust is open for 2019/20	Open	950 000	

KSA 4: WATER UTILISATION IN AGRICULTURE

The Open Call budget for 2019/20 is **R4 000 000**.

A general request for Open Call proposals addressing the themes in the following programmes: Please contact the Executive Manager, Dr GR Backeberg (E-mail gerhardb@wrc.org.za).

The following Themes in the Thrusts and Programmes are available for Open Call proposals in KSA 4:

THRUST 1: WATER UTILISATION FOR FOOD, FORAGE AND FIBRE PRODUCTION		
	Budget 2019/20 (R)	Total contract budget (R)
<i>Programme 1: Water-efficient production methods in relation to soils, crops and technology in rain-fed and irrigated agriculture</i>		
<i>Theme: Consolidation and update of existing crop factors and identification of missing crop factors into a national scale data base using existing field measurement results</i>	300 000	1 200 000
<i>Theme: Water use and water relations of different types of indigenous teas (rooibos, herbal, honey bush, etc) in winter rainfall areas</i>	300 000	1 200 000
<i>Programme 2: Fitness-for-use of water for crop production, livestock watering and aquaculture</i>		
<i>Theme: Ultra-violet (UV) treatment of irrigation water at farm level to reduce contamination for improved food safety</i> <i>Note: Refer to results and recommendations in scoping study (WRC report 2174/1/16) and contact Dr GR Backeberg for details</i>	400 000	2 200 000
Total	1 000 000	4 600 000
THRUST 2: WATER UTILISATION FOR FUELWOOD AND TIMBER PRODUCTION		
	Budget 2019/20 (R)	Total contract budget (R)
<i>Programme 1: Water-efficient production methods and system in agro-forestry, woodlands and forestry plantations</i>		
<i>Theme: The use of national scale remotely sensed evapo-transpiration (ET) estimates to quantify water use and differences between plantations in commercial forestry regions of South Africa</i>	300 000	1 800 000
Total	300 000	1 800 000

THRUST 3: WATER UTILISATION FOR POVERTY REDUCTION AND WEALTH CREATION IN AGRICULTURE		
	Budget 2019/20 (R)	Total contract budget (R)
Programme 1: Sustainable water-based agricultural activities in rural communities		
<i>Theme: Investigation into the factors influencing under-utilisation of existing smallholder irrigation schemes and opportunities for improved future operation as a base for sustainable livelihoods</i>	300 000	1 200 000
<i>Theme: Review and develop guidelines for operating, maintaining and utilising water in small dams on farms in communal areas with macro rainwater harvesting for agricultural production with special attention to drought mitigation</i>	300 000	1 200 000
<i>Theme: Water-energy-food nexus as a sustainable approach for advancing food and nutrition security and achieving SDGs 2, 6 and 7 with specific attention to efficient energy use for food production</i>	300 000	1 200 000
Programme 2: Integrated water management for profitable farming systems		
<i>Theme: Use of drone technology for monitoring the state of crops to improve water use productivity with precision agriculture and improved irrigation scheduling</i>	300 000	1 200 000
<i>Theme: Scoping study regarding technical and financial feasibility of alternative renewable energy sources (solar and wind) for irrigation</i>	300 000	1 200 000
<i>Theme: The state of irrigation water losses and measures for improving efficiency of operating and saving water on selected schemes</i> Note: Refer to requirements of Department of Water and Sanitation and contact Dr GR Backeberg for details	300 000	1 800 000
Total	1 800 000	7 800 000
THRUST 4: WATER RESOURCE PROTECTION, RESTORATION AND RECLAMATION IN AGRICULTURE		
	Budget 2019/20 (R)	Total contract budget (R)
Programme 1: Sustainable water resource use on irrigation schemes and within river catchments		
<i>Theme: Assessment of the impact and control of aquatic weeds and sustainable use of irrigation canals and storage dams</i>	300 000	1 200 000
Programme 2: Impact assessment and environmental management of agricultural production		
<i>Theme: Assessment and compilation of strategies, technologies and practices for coping with significant drought in specific production areas and agro-climatic zones</i>	300 000	1 200 000
<i>Theme: Assessment of the cumulative impact on quality and quantity of water resources of large-scale herbicide application for reducing bush encroachment in rangeland areas</i>	300 000	1 800 000
Total	900 000	4 200 000

DIRECTED CALL

The call for Directed projects and full details such as budget allocations, time frames and terms of reference will be posted on the web as the ToR's become available. The system will open for submissions on 1 June 2018. It is important to take note of the titles of the planned Directed projects in order to avoid preparing and submitting a bid in the Open Call when a similar Directed project is planned.

TITLES FOR PLANNED DIRECTED PROJECTS KSA 1&2: WATER RESOURCES AND ECOSYSTEMS

Planned directed projects for KSA 1&2: Water Resources and Ecosystems will be advertised and opened later during the year.

TITLES FOR PLANNED DIRECTED PROJECTS KSA 3: WATER USE AND WASTE MANAGEMENT

	Budget 2019/20 (R)	Total Contract Budget (R)
THRUST: Three		
<i>Programme: 1, 2 & 4</i>		
Scoping the current status of wastewater as an untapped resource in South Africa	300 000	600 000
THRUST 4		
<i>Programme 3</i>		
Naturv 18: Water and wastewater management in the pelagic fishing and fish processing industry (Edition 1)	425 000	1 185 000
THRUST 5		
<i>Programme 2</i>		
Guidance for attaining regulatory approval of irrigation as a large scale, sustainable use of mine water	400 000	1 000 000

TITLES FOR PLANNED DIRECTED PROJECTS KSA 4: WATER UTILISATION IN AGRICULTURE

NO PLANNED DIRECTED PROJECTS ARE ANTICIPATED FOR KSA 4: WATER UTILISATION IN AGRICULTURE