

## TERMS OF REFERENCE FOR A DIRECTED WRC PROJECT

<b>THEME</b>	<b>Water Advisory Services</b>
<b>TITLE</b>	<b>A national contaminants of emerging concern (CECs) capacity building programme</b>
<b>TOR NUMBER</b>	1010031

### **Rationale**

Contaminants of Emerging Concern (CECs) represent synthetic or naturally occurring compounds. These compounds can pose a risk to human health and the environment, and their presence in the water, the environment and through water and wastewater treatment processes raises concerns about the safety across the water cycle. Commonly detected CECs include pharmaceuticals and personal care products, pesticides, as well as industrial chemicals. Research has shown that some of these compounds can persist in the environment, bioaccumulate in organisms, and have negative effects on human health and the environment. Several engagements undertaken by the WRC have highlighted the need to create a national capacity building programme for the management of CECs in water aimed understanding the analytical capabilities of laboratories, optimisation, harmonisation, and unified approach to methods of analysis to enable their regulation.

### **Objectives**

This project aims to co-ordinate the research and capacity building activities for the water sector on CECs. This project involves conducting a comprehensive review of existing knowledge and data on CECs in South African water systems, engaging with key stakeholders—such as government agencies, researchers, water utilities, and industry representatives—to incorporate diverse perspectives and practical insights on the presence of CECs in water, current approaches for their management, and transferring knowledge and analytical skills to relevant personnel across the water sector for routine monitoring/surveillance of CECs. The project is also aimed developing a unified approach to manage CECs in water, including decision-making for regulatory purposes.

### **Specific:**

1. Develop and implement a stakeholder plan for the duration of the project.
2. Conduct a review of the CECs in water in South Africa and compile reports and databases for upload onto the existing CECs Knowledge Hub.
3. Using robust prioritization frameworks or methodologies, development of a priority list of CECs in water for South Africa, accompanied by comprehensive fact sheets detailing their characteristics, risks, water quality guideline values (where available) and management solutions.
4. Conduct a comprehensive study on the capacity to monitor, assess risks, regulate, and manage CECs in water in South Africa. Based on this, establish and co-ordinate a network of partners and participating laboratories as part of the project plan.

5. Based on the above, design and implement a water sector capacity building programme on CECs, including development of a compendium of standard methods for routine sampling, analysis and risk assessment of priority CECs, development of skills in advanced monitoring techniques, data management and reporting, and overall management of CECs in water in South Africa.
6. Knowledge dissemination activities: such as hosting stakeholder and partnership workshops; collation of the produced outputs, development of educational materials, such as toolkits, case studies, and best practice guidelines for upload onto a centralised CECs Knowledge Hub
7. Compilation of a comprehensive final report with recommendations to improve the management of CECs in water sources in South Africa

**Expected Deliverables:**

The deliverables below may be sub-divided by the proposers, if desired, into not more than three deliverables per financial year. The first-year deliverables may NOT include an advance – An Inception Report detailing the Project Plan and Management will be accepted. The final deliverable of the print-ready final report, valued at 20% of the Budget is required.

1. Inception report
2. Annual progress report(s)
3. Knowledge Dissemination, Education and Communication products – A budget of approximately 10% of total project budget should be geared towards WP3. This should include stakeholder workshops, targeted events at national conferences, scientific journal outputs, a paper on the project and outcomes, and contribution to a CEC Knowledge Hub
4. Final report

**Total Budget:** R 5 000 000.00 (Including VAT)

**Year 1:** R 700,000.00 (Including VAT)

**Duration:** 5 years