

## TERMS OF REFERENCE FOR A SOLICITED WRC PROJECT

<b>KEY STRATEGIC AREA</b>	Water Use, Wastewater Resources and Sanitation Futures
<b>THRUST</b>	3. WATER SENSITIVE AND RESILIENT SETTLEMENTS
<b>PROGRAMME</b>	<i>Programme 4: Water services institutional and management programme</i> <b>Development of Regulations for enabling application of Smart Sanitation solutions</b>
<b>TITLE</b>	

### Objectives

- Undertake a detailed investigation towards developing regulations under water legislation which will enable DWS and the sector to accelerate the uptake of smart sanitation solutions.
- Undertake detailed legal review and conditions to check that they are aligned to all Water, Municipal and Treasury legislation and regulations.
- Develop position paper on the regulations.

### Background and rationale

Water and sanitation services in municipalities are in serious decline across South Africa and citizens cannot rely on a safe and secure water services in many municipalities. When it comes to sanitation/wastewater the recent green drop trends in, and performance indicators show a very concerning situation where nearly sixty percent of wastewater systems not meeting compliance requirements for a variety of factors and challenges.

Furthermore, growing challenges in many Municipalities due to growth in water demand is putting severe pressure on existing infrastructure (sewers/wwts), as well as water resources. The situation is further exacerbated by climatic effects and many catchments are reaching their limits in terms of meeting the demands for the growth.

Current programs and interventions at a Municipal level (housing and services) do not factor these factors in the planning and implementation and the consequences are severe. Further, the lack of resources, both water and capital, many times inhibit the development of new housing schemes, both low and high income. This is because there are no regulations which enable smart water and sanitation solutions which can respond to these constraints.

In many of the formal municipal settlements schemes, the norm is to put in conventional waterborne systems. These systems account for 60% of water demand at a household level. Thus, the introduction of smart sanitation solutions which can overcome this problem might be the solution to deal with overloaded systems or unlocking the pathway for new housing development initiatives.

Thus, the scope of this study is to create a set of water and sanitation regulations which will enable the uptake and acceleration of smart sanitation solutions that offer the incentives to solving the challenges and opportunities. Smart sanitation solutions are systems which require low to no water, completely off-grid/non-sewered or are decentralized. The regulations should look at opportunities within the water use license, water conservation and demand management and wastewater regulation environment to allow seamless implementation and incentives.

### **Specific objectives**

The specific objectives are:

- Capture global lessons and processes and the regulation of relevance to South Africa.
- Development of a framework the regulation and its application
- Undertake a legal review of the regulations and its implications, as well as how it will interact with other regulations.

### **Expected outcomes and impacts:**

- Promotion of universal access to safe and dignified sanitation
- Improving public health, environmental protection and socioeconomic conditions
- Improved performance and professionalisation of water services.
- SA has a regulatory framework in place which facilitates incremental adoption of smart sanitation technologies as alternatives to sewerred waterborne systems
- Supply Market is responsive to increasing demand for smart sanitation solutions and services emerging from the regulatory framework.
- Demonstration projects are in place to provide practical examples of smart technologies in use which in turn are required to counter resistance to change.
- Solutions space for :
  - Bucket eradication
  - Informal settlement upgrading
  - New housing development – low income and high income
- Increase stream or acceleration of smart sanitation uptake
- Smart technologies accepted and resistance overcome

### **Outputs:**

- Inception report clearly demonstrating the requirements of the objectives and outputs.
- Proposed outline and structure of the proposed regulations
- All legal reviews and positions.
- Final report covering the scope of work
- High level regulations position paper.

### **Principles which must underpin the smart sanitation regulations.**

- must be as simple as possible and not result in an excessive additional administrative burden for municipalities and DWS – the simpler the better
- Consideration should be given to incremental introduction.
- Must offer incentive to enable the use and application of smart sanitation solutions for new and existing developments.
- Aligned to other regulations.

#### **Lighthouse:**

- Water-Energy-Food Nexus
- Climate Change
- Circular economy
- Inclusive and sustainable socioeconomic development

#### **Impact Areas:**

- Water and the Economy; Water and the Environment; Water and Society

#### **Knowledge Tree**

- Sustainable Development Solutions

**Time Frame:** 3 months

**Total Funds Available:** R 350 000.00 inclusive of VAT.

#### **Additional requirements**

- The applicant must build in time for availability and frequent engagements with the DWS, other partners and dissemination. We expect a highly interactive engagement process.
- Applications must demonstrate the competency and capacity to undertake this research assignment, and having a track record on establishing regulatory platforms will be welcome.
- The team must have sufficient expertise and experience in sanitation services.
- The team must have sufficient knowledge of local government in South Africa
- The teams must be multi-disciplinary and include legal, regulation, systems and performance assessment expertise.
- The work should capture key aspects related to the following as an example:
  - PRELIMINARY PROVISIONS
    - Citation
    - Application
    - Interpretation
    - Objective
    - Scope of the Regulations

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