TERMS OF REFERENCE FOR A DIRECTED WRC PROJECT

THEMATIC AREA	**Water Quality and Health**
TITLE	**Consolidation of water quality guidelines for ease of access by clients: A one stop shop**

Background and Rationale

The then Department of Water Affairs and Forestry developed a set of conservative water quality guidelines known as the 1996 South African Water Quality Guidelines (SAWQGs). This set remained in force until 2008, when the Department of Water and Sanitation called for a review following the promulgation of the National Water Act (Act 36 of 1998). By this time, not only had the legislative landscape changed, but scientific advancements also warranted an update of the guidelines.

The revised set of water quality guidelines was expected to support site specificity, be risk-based, provide for fitness-for-use assessments, and incorporate a software-based decision support tool. In light of these recommendations, the Water Research Commission (WRC) initiated an overarching project that led to the commissioning of several projects aimed at developing risk-based decision support tools for each water user group.

Unfortunately, the process was uncoordinated, resulting in the development of disparate systems. It is important to note that there are five broad categories of water users: Domestic, Agriculture, Industry, Ecosystem, and Recreation. Currently, these guidelines are spread across various thematic areas, making them difficult for users to access efficiently.

This project aims to consolidate these volumes and house them under a single platform within the Water Research Observatory framework—a one-stop shop where users can, at the click of a button, access an overview of all volumes and be directed to the guideline of their choice. The functionality of the DSS must be demonstrated and tested with users, practitioners, and managers, with the goal of delivering a composite set as originally requested by the DWS in 2008.

Objectives

1. Consolidate all existing water quality guidelines across the five user groups.
2. Standardize as much as possible the format and structure of guidelines for consistency.
3. Test and validate the DSS with stakeholders (users, practitioners, managers).
4. Deploy the DSS under a centralized, user-friendly platform (Water Research Observatory).

Scope of Work

The scope of work may be structured (but not limited) into the following key tasks:

Establish the level and complexity of each guideline set development as per user group, noting the complexity, user friendliness, costs of maintaining the system (DSS or DST OR Spreadsheet model). Ideally, the system should not cost the DWS to operate and maintain or require licensing as this may cause reluctance on uptake and application. To try and work towards uptake by users, training,

documentation and demonstration will be critical. Obtain user feedback and pilot the usability of the DSS to demonstrate effectiveness. Gather feedback for system improvements and refine the platform accordingly. This should help the DWS with future updates.

Deliverables

The deliverables below may be sub-divided by the proposers, into not more than three deliverables per financial year consisting of the following reports:

- Fully functional DSS platform
- All guidelines coordinated and housed under Water Research Observatory framework
- Evidence of trained managers, technicians and practitioners
- Final report for handing over the DSS to the DWS for operation and maintenance as per their request to the WRC

NB: The proposer will have to engage the developers of different sets of guidelines and responsible research managers as well as the WRO managers at WRC

Total Funds Available:

R1 million over 2 years, with a total budget of R300 000,00 available for the first financial year.