



TERMS OF REFERENCE FOR A DIRECTED WRC PROJECT

KEY STRATEGIC AREA	Water Resource Management and Ecosystems
THRUST	
PROGRAMME	
TITLE	Guidance document on Management of Groundwater Schemes
TOR ID	1009865

General Objectives:

The Strategic Water Sector Cooperation (SSC) between Denmark and South Africa (DWS) is a long-term bilateral cooperation, which amongst others are contributing to the South African water sector by sharing practical experience and providing expert input into the gaps in the South African groundwater guideline municipal sphere in order to add long term value to the South African work on optimizing the utilization of groundwater. A Table of Contents (ToC) for 5 guidance documents has been developed, with special focus on the optimal use of groundwater in the current water supply mix as outlined below:

1. Conjunctive Use (identified as Integrated water use management)
2. Groundwater Scheme Development (identified as Installing groundwater schemes)
3. Management of Groundwater Schemes
4. Data collection
5. Protection Zones (Delineation and Protection)

One key aspect is to develop a South African groundwater management (SAGM), based on the detailed Danish methodology, international knowledge and South African specialized knowledge of the South African hydrogeology. The SAGM will be developed in an iterative approach, initially based on existing experience of both countries (and international experiences, where relevant), and afterwards further expanded and developed, based on experience from a number of case studies

Specific Aims:

The main aim of this project is to manage a groundwater scheme in a sustainable and environmentally responsible manner at local, regional and national level. The main focus of this guideline however, is aimed at the local municipality level, both formal and informal and should include protection of the resource. This intervention will consider:

1. To look at how groundwater management differs from surface water management. Include link to guidance document on conjunctive use;
2. To define the elements, and include who should be responsible for what and at which level, e.g. monitoring should/could be done at all levels, but District Municipality / local municipality / water institution should monitor at local scale, especially at higher density around wellfields; CMAs should do monitoring at catchment scale, and DWS should be responsible for national scale monitoring;
3. To assess the types of monitoring to be carried out and what data needs to be captured;
4. Develop a protocol for effective operations and maintenance of a groundwater scheme;
5. Skills needs analysis and scoping for groundwater scheme management;
6. Compliance to relevant regulations;
7. Institutional and Regulatory review on groundwater scheme management;
8. Stakeholder engagement workshop to look at roles of responsibilities;
9. Conduct a training workshop on the basics of groundwater scheme management

Rationale:

Note:

Deliverables:

1. Desktop and primary research on local and international groundwater scheme management practices;
2. Develop a management plan for optimized monitoring for groundwater scheme management;
3. Develop a O&M protocol for managing a groundwater scheme;
4. Governance structure
5. Skills gap analysis report
6. Stakeholder engagement report;
7. Guidance document on Management of Groundwater Schemes as print-ready final report

Expected Outputs

Lighthouse:

Knowledge Tree

Time Frame: 9 Months

Total Funds Available: (VAT Inclusive)

Year	2021/2022	R300 000,00
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