water & sanitation
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

WATER RESEARCH COMMISSION

TERMS OF REFERENCE FOR A SOLICITED WRC PROJECT

KEY STRATEGIC AREA	**1&2 (Water resources and ecosystems)**
THRUST	**1 (Governance and institutional arrangements)**
PROGRAMME	**2 (Policy, science and implementation)**
TITLE	**Design of a programme to support the validation and verification of existing lawful water use and compulsory licencing**
TOR NUMBER	

Rationale:
Since 2003, the Department of Water and Sanitation (DWS) has been engaged in a process of validation and verification (V&V) of existing lawful water use in various Water Management Areas. Validation is a technical process to confirm how much water was actually being used in the qualifying period preceding the 1998 National Water Act (NWA) coming into force. Verification is a legal process to determine the lawfulness of this water use.

The primary purpose of V&V is to measure the extent of Existing Lawful Use (ELU) of water, as defined in section 32 of the National Water Act. This information will assist DWS to better manage the country's water resources and maximise the benefits associated with the outcomes of V&V. Among others, these benefits include updating the Water Use Authorisation and Registration Management System (WARMS) database, promoting a balance between supply and demand, providing certainty to ELU water users across the country, identifying unlawful water use, and providing a basis for compulsory licensing and water re-allocation.

Compulsory licensing, as provided for in sections 43-48 of the NWA, is intended to be used in areas which are, or are soon likely to be, stressed in terms of water quantity or quality, or where it is necessary to review prevailing water use to achieve equitable access to water. It requires all ELU entitlement holders and new potential water users in a particular area to apply for water use licences. In this way the country's limited water resources can then be allocated in a way that redresses race and gender inequalities, addresses poverty, generates economic growth, creates jobs, promotes social stability and stimulates investor confidence. The process also helps in the facilitation of efficient water resource management, protection of water resources quality and addressing the problem of over-allocation.

To date, three compulsory licensing processes have been undertaken. DWS has identified the Klein and Middle Letaba in Limpopo Province, and the uMngeni in KwaZulu-Natal as the next catchments where compulsory licensing will be done.

Despite progress that has been made, V&V has not been completed in all catchments, which in turn hinders the wider implementation of compulsory licencing and other processes dependent on V&V. DWS continues to explore ways of undertaking V&V and compulsory licencing such that they achieve the relevant objectives of the NWA, while minimising the time, cost and complexity of these processes. This includes reflecting on and learning from past V&V and compulsory licencing processes, as well as examining relevant good practice nationally and internationally, to refine approaches and tools.

The WRC is working with DWS to expedite the completion of V&V across the country, and to use the Letaba and uMngeni catchments for further developing, applying and refining compulsory licencing approaches that can be used countrywide. This work will be completed over a three-year period, ending in November 2026. The scope of work outlined in these ToR focuses on the preparatory phase for this programme of work, and involves undertaking the research and planning necessary to design and scope the implementation phase.

Objectives:

General:

Design a programme of work, to be implemented by the Water Research Commission, to support the Department of Water and Sanitation in completing the validation and verification of existing lawful water use nationally, and compulsory licencing in the Letaba and uMngeni[1] catchments.

Specific:

V&V

1. Review and, where appropriate, refine or further develop methods and tools for undertaking V&V:
    a. Compile and evaluate experience and learnings from all previous V&V processes to inform practice going forward
    b. Review and, where appropriate, improve the accuracy and efficiency of methods and models used for identifying water use during the qualifying period, including remote sensing and crop water use models
    c. Address any unresolved legal questions about V&V and take stock of all relevant legal documents (regulations, proclamations, Tribunal decisions, court judgements etc). Specific attention must be given to section 33 as well as section 35 processes.

[1] Quaternary catchments U20A-M (uMngeni) and B82A-J (Letaba)

   d. Together with DWS, design a "good enough"[2] set of standardised technical, legal and administrative procedures for undertaking V&V in those catchments where it has not yet been completed. These procedures should consider how V&V can be done in a way that facilitates potential future compulsory licencing processes[3]
   e. Clarify legislated minimum requirements for communicating with water users and, within these parameters, explore the use of novel communication channels and mechanisms (e.g. social media, citizen science) for reaching and contacting users.
2. Quantify the V&V work still to be completed, together with the resources required for completion. For each DWS regional office, take stock of and analyse:
   a. The number of properties where V&V is incomplete and the stage of completion of each
   b. Information relevant to V&V that has previously been compiled (including GIS datasets, proclamations, court orders, dam safety information etc), which will need to be captured into the system described in objective 3 once it has been developed during the implementation phase
   c. HR capacity, IT systems, equipment and infrastructure available for V&V work within each regional office, factoring in the pending establishment of CMAs
   d. Risks to the successful completion of V&V per region
3. Compile the specifications for a digital workflow and document management system that:
   a. Builds wherever possible on work that has already been done e.g. systems developed for V&V processes at catchment scale
   b. Serves the concurrent functions of workflow management and progress tracking over the lifespan of the V&V project, and serves as a repository of all V&V-related documents, spatial data and other information beyond the completion of V&V work
   c. Is compatible and interoperable with other relevant IT systems of DWS, where it will ultimately be hosted, and is accessible from all DWS and CMA offices
   d. Contains a water user interface that allows users to check their details, status of registration etc and submit updates
   e. Identifies and builds the information needs of future compulsory licencing processes into the system
4. Develop an implementation strategy, including:
   a. Implementation modalities (structures etc) within and between WRC and DWS
   b. Descriptions of work packages for the implementation phase
   c. Communication and participation strategy and associated materials, including linking to objectives 1(d) and (e) above, recognising the importance of public participation in achieving the desired outcomes of V&V
   d. Exploration of the potential to involve local universities and young unemployed graduates in the implementation phase
   e. Capacity building plan, building on among others the information generated under objectives 2 and 4(d). The plan should explore the need for, and feasibility of,

[2] The minimally acceptable (legally compliant and technically sound) process that minimises time, cost and complexity while still achieving the objectives this mechanism was designed to achieve in the NWA
[3] For example, can V&V be completed as part of a compulsory licencing process, as was done in the uMhlatuze?

developing training materials and qualifications if appropriate, focusing particularly on licencing. It should also draw on relevant experience from other WRC and DWS work, including Fetwater and NatSilt.

f. Approaches and mechanisms for ongoing learning and improvement

Compulsory licencing

5. Review and, where appropriate, refine or further develop methods and tools for undertaking compulsory licencing:
    a. Review and, where necessary, expand on existing evaluations of the three compulsory licencing processes completed to date
    b. Conduct a legal analysis on compulsory licencing, including relevant statutory and case law, to identify legal questions requiring resolution and propose solutions[4]
    c. Together with DWS, design a "good enough" set of standardised technical, legal and administrative procedures that can be used in any future compulsory licencing processes. This design must consider how best to factor in the uncertainty, variability and change in future water availability due to factors such as climate change.
    d. Clarify legislated minimum requirements for communicating with water users and, within these parameters, explore the use of novel communication channels and mechanisms (e.g. social media, citizen science) for reaching and contacting users.
6. Quantify the likely magnitude of, state of readiness for, and resources required for completion of compulsory licencing in the Letaba and uMngeni catchments:
    a. Determine the extent to which the prerequisites for the initiation of compulsory licencing in a particular catchment, as identified in the standardized procedures developed under objective 5, are in place for the Letaba and uMngeni
    b. HR capacity, IT systems, equipment and infrastructure available to support compulsory licencing in the relevant regional offices, factoring in the pending establishment of CMAs
    c. Risk assessment for the successful completion of compulsory licencing in each of these catchments
7. Identify any further IT system development needs within DWS to accommodate compulsory licencing, including the necessary interfaces with the Electronic Water Use Licence Application and Authorisation System (e-WULAAS)
8. Develop an implementation strategy for compulsory licencing in the Letaba and uMngeni, including:
    a. Implementation modalities (structures etc) within and between WRC and DWS
    b. Descriptions of work packages for the implementation phase

[4] Questions already identified include: (1) Can different types of process be proposed for different categories of users?; (2) Can the compulsory licencing process be designed to accommodate the possibility of appeals that will be lodged with the Tribunal, to avoid such appeals stalling the entire process until they are resolved?; (3) Is the existence of a water allocation plan, as contemplated in section 9(e) of NWA, a prerequisite for compulsory licencing?

   c. Communication and participation strategy and associated materials, including linking to objectives 5(c) and (d) above, recognising the importance of public participation in the successful completion of compulsory licencing
   d. Exploration of the potential to involve local universities and young unemployed graduates in compulsory licencing
   e. Capacity building plan, building on among others the information generated under objectives 6 and 8(d). The plan should explore the need for, and feasibility of, developing training materials and qualifications if appropriate, focusing particularly on licencing. It should also draw on relevant experience from other WRC and DWS work, including Fetwater and NatSilt.
   f. Approaches and mechanisms for ongoing learning and improvement
9. Develop a decision support tool to assist in prioritising catchments for compulsory licencing (beyond Letaba and uMngeni)

Deliverables:

The following deliverables are indicative and may be tailored to suit the proposed approach:

1. Standardised technical, legal and administrative procedures and methods for undertaking V&V, in the form of an updated edition of the existing *Guide to verifying the extent and lawfulness of existing water use*[5] and supplementary reports covering all aspects of objective 1
2. Report quantifying, per DWS regional office, the V&V work still to be completed, available information and required resources
3. Specifications for a digital workflow and document management system for V&V
4. Implementation strategy for V&V, including communication and participation and capacity building sub-strategies
5. Standardised technical, legal and administrative procedures and methods for compulsory licencing, in the form of a good practice guide and supplementary reports covering all aspects of objective 5
6. Report quantifying the likely magnitude of, state of readiness for, and resources required for completion of compulsory licencing in the Letaba and uMngeni catchments
7. Report on state of DWS IT system readiness for compulsory licencing and specifications for any further system development and integration
8. Implementation strategy for compulsory licencing in the Letaba and uMngeni, including communication and participation and capacity building sub-strategies
9. Decision support tool for prioritising catchments for compulsory licencing

Notes:

1. An optional briefing session will be held as follows:
   Date and time: 10:00-11:00, 26 January 2024
   Venue: Online via Microsoft Teams: Click here to join the meeting
   Meeting ID: 388 338 471 741, Passcode: o3SPnC

[5] https://www.dws.gov.za/WAR/documents/VerificationGuide2EdNov06.pdf

2. Addressing this scope of work requires a diverse range of skills and experience. Proposals must include the details of all team members, their experience and expertise relevant to this assignment and their role in the project.
3. Further details on these ToR can be accessed here. Proposals must be submitted online via the WRC Business Management System. Further information on submission of proposals can be accessed here. For technical queries regarding the Business Management System, contact bms-support@wrc.org.za.

Time Frame:
Planned project start date: 1 April 2024, duration 8 months

Total Funds Available:
R1,000,000