CONSULTING SERVICES FOR PROVISION OF GENERAL MODELLING AND WATER RESOURCE EVALUATION SERVICES FOR ALLOCABLE WATER QUANTIFICATION AND TO SUPPORT INTEGRATED WATER RESOURCE PLANNING OF NWAMITWA DAM

Compulsory Briefing Session 7 NOVEMBER 2025

12:00 PM



D1282



Agenda

Welcome, Introduction and Purpose	Godfrey
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Project History and Background	Craig
Scope of work	Craig
Bid Requirements: Procurement Process, General, Functionality	Godfrey
Discussion, Questions and Answers	All
Closing Remarks	Godfrey





Attendance Register

Please provide the following in the chat box:

- Name & Surname
- Company Name
- Email address
- Contact number





BACKGROUND





- The study area comprises of the water resources of the catchment of the Letaba River.
- The Letaba River Catchment is located in the north-eastern corner of South Africa, where it borders on Mozambique along the eastern side.
 It falls entirely within the Northern Province, and adjoins the Olifants to the south
- The Letaba catchment forms part of the Limpopo River Basin, an international river shared by South Africa, Botswana, Zimbabwe and Mozambique
- Approximately 35% of the land area of the catchment along the eastern boundary falls within the Kruger National Park.
- The three main branches of the Middle Letaba River, the Klein and Groot Letaba, have their confluence on the western boundary of the Kruger National Park

A new word for water



- The topography is marked by the northern extremity of the Drakensberg range and the eastern Soutpansberg, which both extend to the western parts of the catchment, and the characteristic wide expanse of the Lowveld to the east of the escarpment.
- Climate over the water management area is generally sub-tropical, although mostly semiarid to arid.
- Along the western escarpment rainfall can be well over 1 000 mm per year, while in the Lowveld region in the eastern parts of the water management area rainfall decreases to less than 300 mm per year and the potential evaporation is well in excess of the rainfall.
- Grassland and sparse bushveld shrubbery and trees cover most of the terrain, marked by isolated giant Boabab trees.





- **The geology** is varied and complex and consists mainly of sedimentary rocks in the north, and metamorphic and igneous rocks in the south.
- The eastern limb of the mineral rich Bushveld Igneous Complex touches on the southern parts of the catchment. The formation is of relatively low water bearing capacity. A wide spectrum of soils occurs in the catchment, with sandy soils being most common.
- available a comprehensive record of all available data sets, reports on previous and current water-related studies and all water-related modelling undertaken





The following considerations regarding the Study Area's:

- In the recent past, a range of water resource-related models have been configured for the Letaba River catchments.
- The water resources of the Letaba catchment are **generally believed to be over-allocated**, but, in practice, many users have not yet taken up their full entitlements, whereas others are deemed to **over-abstract or abstract illegally.**
- The primary categories of water use are: streamflow reductions
 (commercial afforestation), irrigated agriculture, domestic and
 industrial, the ecological Reserve requirements and invasive alien
 plants (IAPs).
- Several large dams are in the study area and small dams used for irrigation (refer to the RFB for these dams)





- The main urban areas in the Letaba are Tzaneen and Nkowakowa in the Groot Letaba River catchment and Giyani in the Klein Letaba River catchment.
- Intensive irrigation farming is practised.
- Entitlements for water used for irrigation exceed 65% of the historical firm yield of the system.
- The water balance of the wetlands is dependent on the groundwater dynamics of their immediate environments.
- Groundwater is a major contributor to the low flows in the rivers.



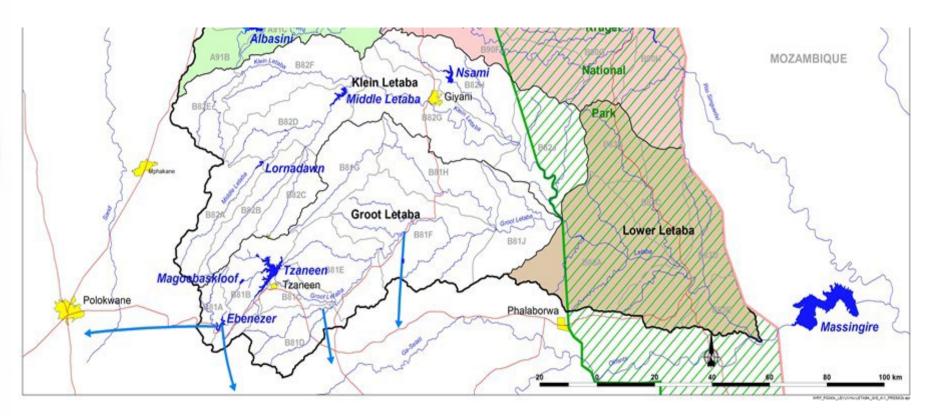


- The extent and impact of sedimentation in the dams need to assessed.
- The recent Verification and Validation of Water Use study for the Letaba catchment area undertaken by the Regional Office must be thoroughly analyzed and the results incorporated into the modelling, if found relevant.
- The PSP must critically determine the usefulness of this data and then use it in this study, if found applicable.





Study Area







Duplicate tender perception

- TCTA is aware that it might appear to be some overlap between this Tender and a recent DWS tender, especially since Nwamitwa Dam is inside the Letaba sub-catchment (B81). However, the two studies are different in scope, focus, and intended outcomes.
- The Nwamitwa Dam Bridging Study is focused on preparing the Nwamitwa Dam for implementation and it aims to address information gaps identified during the initial Budget Facility for Infrastructure (BFI) application. These include updates to hydrology, feasibility data, stakeholder inputs, and alignment with the latest Treasury guidelines. The refined study will help ensure the project is ready for funding and construction. It is project-specific, covering a limited area in the Groot Letaba catchment, and is scheduled to be completed in 12 months.
- The DWS study covers the broader Luvuvhu-Letaba Water Supply System and is aimed at long-term water resource planning across multiple subcatchments (B81, B82 and B83). This includes system modelling, scenario analysis, Reserve determination, water demand projections, and reconciliation strategies for the next 25 years. This study is more strategic in nature and is planned over a 36-month period.





Company Experience Required





Company Experience

- Experience in setting up and updating systems models.
- Experience in setting up and utilizing the Water Resource Yield Model (WRYM) and Water Resource Planning Model (WRPM).
- Experience in developing water requirement scenarios for municipalities, industries and irrigators.
- Experience and good understanding of water resources planning including hydrology, geohydrology, and water quality and to assess their impacts on the system yields.
- Experience in mega-project development and financial viability
- Ability to synthesize recommendations in a complex environment.
- Ability to interact with and successfully manage multidisciplinary teams.
- Ability to manage public participation processes.





Personnel Experience Required

The bidder should provide the details of all the personnel who will execute the required services. In addition, the bidder is required to submit the CV of key personnel identified by TCTA for evaluation, i.e. **Stage 3: Functionality**. Please refer to the requirements and instructions on how to complete the forms and tables in Annexure B, including various appendices forming part of the FIDIC Client/Consultant Model Services Agreement (i.e. Annexure S: Agreement Form and appendices, and the Conditions of the Client/Consultant Model Services Agreement).





Scope of Work

- The Consultant will review the existing feasibility study report and undertake all necessary work to ensure the feasibility study is current, complete, and compliant with applicable standards and guidelines.
- The main components of the work include a thorough review of the existing feasibility study report and its evaluation against the Infrastructure Planning Guideline, consultation with relevant stakeholders, a review of the water resources simulation model, and updates to demographic and water demand data. Additionally, the service provider must provide supplementary information related to project assurance of supply and the current tariffs applicable to beneficiaries.





Scope of Work

TASKS:-

- Task 1: Inception report.
- Task 2: Provide Technical Modelling Support for the Evaluation of the Current Situation.
- Task 3: Hydrological data and water demand updates.
- Task 4: Project management.
- Task 5: Skills Development as per CIDB B.U.I.L.D Programme.

Refer to Appendix 1: Scope of Services forming part of the FIDIC Client/Consultant Model Services Agreement (i.e. annexure: Agreement Form and appendices, and the Conditions of the Client/Consultant Model Services Agreement).





Deliverables

- Inception Report
- 4.2.2 Middle Letaba, Klein Letaba and Groot Letaba sub reports on Hydrology
- 4.2.3 Middle Letaba, Klein Letaba and Groot Letaba sub reports on Assessment of rainfall and river flow gauging stations
- 4.2.4 Middle Letaba, Klein Letaba and Groot Letaba sub reports on Systems' Operations
- 4.2.5 Middle Letaba, Klein Letaba and Groot Letaba sub reports on Systems analysis report updated Water Resource Yield Model and Water Resources Planning Model
- 4.2.6 Middle Letaba, Klein Letaba and Groot Letaba sub reports on Ecological requirements





Deliverables

- 4.2.7 Middle Letaba, Klein Letaba and Groot Letaba sub reports on Land use and water requirements
- 4.2.8 Middle Letaba, Klein Letaba and Groot Letaba sub reports on Assessment of water quality
- 4.2.9 Middle Letaba, Klein Letaba and Groot Letaba sub reports on Assessment of Alien invasive vegetation
- 4.2.10 Yield modelling report
- 4.2.11 Ground water quality and statistics report
- 4.2.12 Climate change scenarios report
- 4.2.13 Final Water Availability Assessment Report
- 4.2.14 Executive Summary
- 4.2.15 Newsletter(s)





Deliverables

- 4.2.16 Study Management Meetings reports and minutes
- 4.2.17 Study Technical Support Group meetings reports and minutes
- 4.2.18 Study Steering Committee meetings reports and minutes
- 4.2.19 Stakeholder Workshops
- 4.2.20 Quarterly progress reports





SUBMISSION REQUIREMENTS





Bid Requirements: Procurement Process

STAGES OF THE BID EVALUATION PROCESS

- 1:ATTENDANCE OF COMPULSORY BRIEFING SESSION
- 2: RETURNABLES SUBMIT ALL DOCUMENTS REQUIRED AND COMPLY

Price is Mandatory (Summary of Cost Estimate)

Proof of Registration with National Treasury CSD: Requirement per s4.2 of National Treasury Instruction 4A of 2016/17.

- 3:FUCTIONALITY- CRITERIA & THRESHOLD (The threshold of 49 points out of the 80 points under Functionality will be disqualified at the end of this stage and not evaluated further)
- 4: SPECIFIC GOALS BBBEE Level Contributor
- 5: PRICE-PPPFA FORMULAE
- 6:SUPPLIER VETTING CONDITIONS FOR POSSIBLE DISQUALIFICATION

CONDITIONS OF BID – Zero tolerance for fronting, bribery, fraudulent and corrupt practices

A new word for water



Bid Requirements: General

COMMUNICATION: All clarifications must be sent to tenders01@tcta.co.za

CLARIFICATIONS DEADLINE: 25 November 2025 at 16:00 PM

CLOSING DATE AND TIME: 28 November 2025,14:00 PM.

BID VALIDITY PERIOD: 120 Calendar days from the closing date

PREPARATION OF BID SUBMISSIONS: Refer to the bid submission instructions.





FUNCTIONAL EVALUATION CRITERIA





ı	No.	Functionality	Maximum score
1		Company Experience: (1),(2), (3), (4) and (5) (Refer to Annexure A)	
1	.1	Past experience of the company in the field of water resource planning and updating hydrology. Experience should be demonstrated by listing the projects where you were the main Consultant.	5
1	.2	Past experience of the company in the field of setting up and updating systems models. Experience should be demonstrated by listing the projects where you were the main Consultant.	5
1	.3	Past experience of the company in the field of setting up and utilizing the Water Resource Yield Model (WRYM) and Water Resource Planning Model (WRPM). Experience should be demonstrated by listing the projects where you were the main Consultant.	5
1	.4	Past experience of the company in the field of developing water requirement scenarios for Government Departments, municipalities, industries and irrigators. Experience should be demonstrated by listing the projects. where you were the main Consultant.	5
1	.5	Past experience of the company in the field of mega-project development and financial viability. Experience should be demonstrated by listing the projects	5
		Subtotal	25
2		Personnel Experience: CVs of Key Personnel (Refer to Annexure B)	
2	1	Study Leader: The incumbent must be a Professional Engineer (Pr. Eng.) (or internationally equivalent) and have experience in project management, and similar/comparable water resource planning and hydrology studies. Experience should be demonstrated by listing the projects in the abridged cv documents attached as part of the proposal	15





	No.	Functionality	Maximu m score
July C	2.2	Deputy Study Leader The incumbent must be a be a registered Professional Engineer (with ECSA or recognized institution according to the Washington Accord) or registered professional Scientist (SACNASP) and have experience in project management, and similar/comparable water resource planning and hydrology studies. Experience should be demonstrated by listing the projects in the abridged cv documents attached as part of the proposal.	15
200	2.3	Specialist: Water resource engineer. The incumbent must be a Professional Engineer (Pr. Eng.) (or internationally equivalent) and have experience in water resource engineering.	5
	2.4	Specialist: Geohydrologist. The incumbent must have BSc (geology), be a Professional Natural Scientist (Pr. Sci. Nat.) OR be a Professional Engineer (Pr. Eng) (or internationally equivalent) and have at least five years of experience in geological, water resource engineering, hydrology, geohydrological and geotechnical investigations, geophysical surveys, mapping, testing and assessments of large dams (category 3** with vertical height ≥25m) and related infrastructure	5
	2.5	Specialist: Water quality The incumbent must have be a Professional Natural Scientist (Pr. Sci. Nat.) OR be a Professional Engineer (Pr. Eng) (or internationally equivalent) and have at least five years of experience in water quality monitoring and climate change.	5
	2.6	Specialist: environmentalist. The incumbent must have environmental-related degree in biological, physical or earth sciences (NQF level 7) and have at least five years of experience in managing and monitoring environmental and social management in integrated water resource planning.	5
	2.7	Specialist: stakeholder engagement. The incumbent must have a degree in communications or developmental studies (NQF level 7) and have at least five years experience in social facilitation/ community engagement relating to integrated water resource planning	5
		Subtotal	55
		Total	80



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Thank you

Discussion,
Questions and
Answers

TCTA

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