

**T2.2.25 CENTRAL SUPPLIER DATABASE (CSD) REPORT**

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**TENDER NO: 2022/054(A)**

**CONTRACT TITLE:**

**APPOINTMENT OF AN ENVIRONMENTAL CONTROL OFFICER FOR THE CONSTRUCTION AND REHABILITATION OF THE UMSHWATHI PHASE 4 BULK WATER SUPPLY SCHEME**

**VOLUME 2 – Offer, Contract, Pricing, Scope of Work and Site Information**

**Issued by:**

uMngeni-uThukela Water  
310 Burger Street  
Pietermaritzburg

**Tender Queries:**

Contact Name: Snehlanhla Hlongwane |  
Telephone: 033 341 1369

**Name of Tenderer:** \_\_\_\_\_

**National Treasury CSD Number:** \_\_\_\_\_

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## C.1 AGREEMENTS AND CONTRACT DATA

### **IMPORTANT NOTE ON C1.1:**

***ALL Tenderers MUST complete and sign Form A: OFFER (the first page hereafter).***

***Form B: ACCEPTANCE will be signed by the Employer and then only in the case of the successful Tenderer.***

***Form C: SCHEDULE OF DEVIATIONS must be signed by the Employer as well as the successful Tenderer after award of the contract.***

***Form D: CONFIRMATION OF RECEIPT must be signed by the successful Tenderer on receipt of a fully completed original copy of the Agreement including the Schedule of Deviations, if any.***

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**C1.1 FORM OF OFFER AND ACCEPTANCE**

**A. OFFER**

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of an Appointment of an Environmental Control Officer for the Construction and Rehabilitation of the Umshwathi phase 4 Bulk Water Supply Scheme

The Tenderer, identified in the Offer signature block, has examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.

The Tenderer, identified in the Offer signature block, has examined the draft contract as listed in the Acceptance section and agreed to provide this Offer.

By the representative of the Tenderer, deemed to be duly authorized, signing this part of this Form of Offer and Acceptance the Tenderer offers to perform all of the obligations and liabilities of the Service Provider under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the Contract Data.

**THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VAT IS:**

(in words)

.....  
 .....Rand;

(in figures) R.....

The Tenderer confirms that he has read the Standard Professional Services Contract referred to in C1.2 Contract Data.

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

Signature(s) *(of persons authorized to sign the acceptance)* .....

Name(s) .....

Capacity .....

**For the Tenderer:**

*(Insert name and address of organization)* .....

Name & Signature of Witness .....

Date .....

**B: ACCEPTANCE**



By signing this part of the Form of Offer and Acceptance, the Employer identified below accepts the Tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract identified in the Contract Data. Acceptance of the Tenderer's Offer shall form an agreement between the Employer and the Tenderer upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the contract are contained in:

- C.1 Agreement, and Contract Data, (which include this Agreement)
- C.2 Pricing Data, including the Bill of Quantities
- C.3 Scope of Work
- C.4 Site Information
- C.5 Annexures

and the schedules, forms, drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 5 above.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules as well as any changes to the terms of the Offer agreed by the Tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be duly signed by the authorized representatives of both parties.

The Tenderer shall within two weeks after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any other bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Service Provider) within five days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

**Signature:** (of person authorized to sign the acceptance) .....

**Name:** (of signatory in capitals) .....

**Capacity:** (of Signatory) .....

**Name of Employer:** (organization) uMngeni-uThukela Water

**Address** 310 Burger Street, Pietermaritzburg

**Telephone number:** 033 341 1111 **Fax number:** .....

**AS WITNESS**

**Signature:** ..... **Name:** (in capitals) .....

**Date:** .....

**C: SCHEDULE OF DEVIATIONS**

The extent of deviations from the tender documents issued by uMngeni-UThukela Water prior to the tender closing date is limited to those permitted in terms of the Tender Data and the Conditions of Tender.

A Tenderer’s covering letter will not necessarily be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid become the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.

Any other matters arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here.

Any change or addition to the tender documents arising from the above agreements and recorded here shall also be incorporated into the final draft of the Contract.

1. **Subject:** .....  
**Details:** .....  
 .....
2. **Subject:** .....  
**Details:** .....  
 .....
3. **Subject:** .....  
**Details:** .....  
 .....
4. **Subject:** .....  
**Details:** .....  
 .....
5. **Subject:** .....  
**Details:** .....  
 .....
6. **Subject:** .....  
**Details:** .....  
 .....
7. **Subject:** .....  
**Details:** .....  
 .....

By the duly authorized representatives signing this Schedule of Deviations, uMngeni-UThukela Water and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change to the terms of the offer agreed by the Tenderer and uMngeni-UThukela Water during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.



**FOR THE TENDERER:**

Signature: .....

Name: .....

Capacity: .....

Tenderer: *(Name and address of organization)* .....

**Witness:**

Signature: .....

Name: .....

Date: .....

**FOR UMNGENI UTHUKELA WATER**

Signature: .....

Name: .....

Capacity: .....

**Witness:**

Signature: .....

Name: .....

Date: .....

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**D: CONFIRMATION OF RECEIPT**

The Tenderer, (now Service Provider), identified in the Offer part of this Agreement hereby confirms receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations on this

**FOR THE CONTRACTOR:**

Signature: .....

Name: .....

Capacity: .....

**Signature and name of witness:**

Signature: .....

Name: .....

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### C.1.2 CONTRACT DATA (INCLUDING SPECIAL CONDITIONS OF CONTRACT)

This services contract is based upon the Standard Professional Services Contract (July 2009) (third Edition of CIDB document 1014), published by the Construction Industry Development Board (see [www.cidb.org.za](http://www.cidb.org.za)).

**Each item of data given below is cross-referenced to the clause in the Conditions of Contract to which it mainly applies.**

#### Special Conditions of Contract

##### 1. National Treasury Central Supplier Database

The successful Tenderer is required to provide proof of registration with the National Treasury Central Supplier Database (CSD) prior to the award of contract.

##### 2. Application of Contract Price Adjustment Factor

Contract Price Adjustment will not be applicable

##### 3. Progress Measurement and Payments

Progress measurement shall take place on or before, but not later than, the 20<sup>th</sup> of the month, but should the 20<sup>th</sup> be a 'non-working' day, it shall take place on the last working day prior to the 20<sup>th</sup>.

Statements, invoices and back-up documentation together with a Payment Certificate shall be submitted to the Employer on or before the 25<sup>th</sup> of the month for payment not later than the last day of the month following the month in which same were submitted.

**PART 1: DATA PROVIDED BY THE EMPLOYER**

Clause	Data
	The Employer is uMngeni-uThukela Water
3.4 and 4.3.2	The authorized and designated representative of the Employer is: Name: Constance Nko  The address for receipt of communications is: Telephone: 033 341 1321 E-mail: <a href="mailto:constance.nko@umgeni.co.za">constance.nko@umgeni.co.za</a> Address: 346 Burger Street, Pietermaritzburg, 3201
1	The Project is appointment of an ECO for the construction and rehabilitation of the the uMshwathi Phase 4 Bulk Water Supply Scheme
1	The Period of Performance is 60 months from the Commencement Date.
3.5	The location for the performance of the Project is Ndwedwe Local Municipality
3.9.2	The time based fees used to determine changes to the contract price are as stated in the Pricing Data
3.12	The Maximum Penalty Amount (MPA) shall be 7.5% of the Contract Price (CP) The Daily Penalty Amount (DPA) payable shall be: R500
3.15	The programme shall be submitted within 14 Days of the Contract becoming effective.
3.16	Where the rate tendered is less than the gazetted rate, price adjustment shall be according to the formula as contained in the Standard Professional Services contract, July 2009 (3 <sup>rd</sup> Edition, CIDB document 1014)
4.3.1(d)	The Service Provider is required to assist in the obtaining of approvals, licenses and permits from the state, regional and municipal authorities having jurisdiction over the Project if necessary.
5.4.1	The Service Provider is required to provide the following minimum insurances: 1. Public Liability Insurance Cover is: R10 000 000 (Ten million rand) Period of cover: For the period of performance  2. Professional Indemnity Insurance Cover is: R5 000 000 (Five million rand) Period of cover: For the period of performance  <i>Insurance cover requirements should be confirmed with the Risk Department on award</i>
7.2	The Service Provider is required to provide personnel in accordance with the provisions of Clause 7.2 and to complete the Personnel Schedule.
8.1	The Service Provider is to commence the performance of the Services within 14 Days of date that the Contract becomes effective.
8.4.3 (c)	The period of suspension under Clause 8.5 is not to exceed 6 weeks.

9.1	Copyright of documents prepared for the Project shall be vested with the Employer.
11.1	A Service Provider may subcontract any work for which he hasn't the skill and competency to perform.
12.1	Interim settlement of disputes is to be by adjudication.
12.2 / 12.3	Final settlement is by arbitration.
12.2.1	In the event that the parties fail to agree on an adjudicator, the adjudicator is nominated by the Association of Arbitrators (Southern Africa).
12.4.1	In the event that the parties fail to agree on an arbitrator, the arbitrator is nominated by Association of Arbitrators (Southern Africa).
13.1.3	All persons in a joint venture or consortium shall carry a minimum professional indemnity insurance of the value stipulated in clause 5.4.1 of the Contract Data
15	The interest rate will be prime interest rate of the Employer's bank at the time that the amount is due.
	The additional conditions of contract are:

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**PART 2: DATA PROVIDED BY THE SERVICE PROVIDER**

Clause	Data														
1	The Service Provider is.  Name: .....  Address: ..... .....  Telephone: ..... Facsimile: .....														
5.3	The authorized and designated representative of the Service Provider is.  Name: .....  The address for receipt of communications is:  Address: ..... .....  Telephone: ..... Facsimile: .....														
5.5 7.1.2	The Key Persons and their jobs / functions in relation to the services are:  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Name</th> <th>Specific duties</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	Name	Specific duties												
Name	Specific duties														

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**PART C2: PRICING DATA**

**Option 1 - Fee based**

**C2.1 PRICING INSTRUCTIONS**

**1. Percentage Fee**

- 1.1. **Definition of work required** - the Tenderer is required to review the scope of work defined within C3 and to determine all the resources, equipment, plant, machinery, disbursements and ancillary costs required to do the work.
- 1.2. **Definition of Percentage Fee** – on the basis of the Tenderer’s assessment of the work required, the Tenderer is required to determine the total percentage (%) fee to achieve the scope of work based on the Capital Value of the work set down in Table 2 of C2.2.
- 1.3. **Equipment, plant, machinery, disbursements and ancillary costs** – the Tenderer is required to include within the % fee all equipment, plant, machinery, disbursements and ancillary costs required to do the work as there will be no additional payment for such expenses.
- 1.4. **Tender Amount** - the Tenderer is required to fill in the % fee and complete the pricing calculations set down in C2.2 Pricing Schedule Table 2, and carry forward the tender amount from the C2.2 Pricing Schedule to the Offer C1.1.
- 1.5. **Payment** – the Tenderer will be paid the proportion of the fee for each stage of the work, as set down in the Pricing Schedule C2.2 Table 1.
- 1.6. **Interim Monthly Payments** - interim monthly payments shall be made within each work stage, for work assessed to have been completed within the month.

**C2.2 PRICING SCHEDULE**

**Table 1. ENVIRONMENTAL AUTHORISATION AND PERMITS**

Item No.	Resource Function	Unit	Quantity	Rate	Amount (excl VAT)
<b>1. INCEPTION PHASE</b>					
1.1	Authority notification & liaison	Sum	1	R	R
1.2	Develop Checklist to be used for auditing	Sum	1	R	R
<b>2. PRE-CONSTRUCTION INSPECTION PHASE</b>					
2.1	Site visit with the Engineer's Representative pre-construction, including written feed-back on observations	Km	56	R	R
2.2	Site camp identification/selection, including written feed-back on observations	Sum	10	R	R
2.3	Pipe-yard /material storage area identification/selection, including written feed-back on observations	No.	14	R	R
2.4	Site camp establishment - assessment of the site plan/ method statements and recommendations.	Sum	4	R	R
2.5	Pipe-yard establishment - assessment of the site plan /method statements and recommendations.	Sum	7	R	R
2.6	Borrow pits and spoil sites – initial site visit and assessment of relevant documentations	No.	12	R	R
2.7	Plant identification, marking, listing for rescue/removal and guidance for nursery establishment provided.	No.	20	R	R
<b>3. CONSTRUCTION PHASE</b>					
3.1	Fortnightly site visits and liaison with Project Team	No.	120	R	R
3.2	Meetings - Attend monthly progress and technical meetings.	No.	60	R	R
3.3	Monthly compliance report for submission to the Authority and the technical meetings	No.	60	R	R
3.4	WUL <ul style="list-style-type: none"> <li>• Monthly audit reports undertaken against the WUL and reports submitted to DWS.</li> <li>• WUL reports prepared and submitted to DWS.</li> </ul>	No	60	R	R
3.5	Environmental Awareness/toolbox talks	No.	48	R	R
3.6	Flow monitoring undertaken as per WUL requirements.	Sum		R	R
3.7	Keep record of all activities on site, problems identified and transgressions	Sum	1	R	R
<b>TOTAL CARRIED FORWARD</b>					<b>R</b>

3. CONSTRUCTION PHASE cont'd					
<b>TOTAL BROUGHT DOWN</b>					<b>R</b>
3.8	The ECO will review method statements prepared by the contractor and submit the approvals to the Scientist and then to Project team.	No.	25	R	R
3.9	Apply for required permits	No	10	R	R
3.10	Snag list and mitigation measures undertaken for December/Easter shut down.	No	10	R	R
3.11	Permits updated applied for (include biodiversity assessment requirement).	No.	5	R	R
3.12	Authority audits prepared for and attended. Information supplied. Audit with DFFE, DWS, DAFF.	No	8	R	R
3.13	Provisional sum (permits/licenses, Amafa, DAFF, EKZN wildlife	1	Provisional sum	R50 000	R50 000
4. PROJECT CLOSE-OUT PHASE					
4.1	End of Construction Closeout –Inspection, snag list and report prepared with recommendations. Follow up site visits undertaken.	No.	20	R	R
4.2	Authority Closeout Report and Response (Construction site, pipe yard, workshop and Site Camp).	No	4	R	R
4.3	Authority site visits (for permits and substantive amendments, etc.).	No.	8	R	R
4.4	Adhoc site visits, assessments and reports.	No.	25	R	R
4.5	Authority Compliance Audit	No.	20	R	R
<b>SUMMARY TOTAL A:</b>					<b>R</b>

TABLE 2: REHABILITATION MONITORING					
Item No.	Resource Function	Unit	Quantity	Rate	Amount (excl VAT)
1.1	Monthly site visits	No	12	R	R
1.2	Preparation and Submission of audit reports to Project Team.	No	12	R	R
1.3	Monthly compliance report	No	12	R	R
1.4	Monthly compliance report to UW and compliance report submitted to DEFF, EDTEA and DWS.	No	12	R	R
1.5	WUL: <ul style="list-style-type: none"> <li>• Monthly audit reports undertaken against the WUL and reports submitted to DWS.</li> <li>• WUL reports prepared and submitted to DWS.</li> <li>• WUL close out audit and report prepared and submitted to DWS.</li> </ul>	No	12	R	R
1.6	Adhoc site visits, assessments and reports	No	10	R	R
<b>SUMMARY TOTAL B:</b>					<b>R</b>



**TABLE 3 : SUMMARY**

<b>1.SUMMARY TOTAL A</b>	<b>R</b>
<b>2. SUMMARY TOTAL B</b>	<b>R</b>
<b>A - TOTAL FOR ALL ITEMS EXCLUDING VAT (ITEMS 1 TO 2)</b>	<b>R</b>
<b>B – CONTINGENCY AT 10% OF A</b> <i>(TO BE USED AT THE SCIENTIST’S DISCRETION)</i>	<b>R</b>
<b>C – SUB-TOTAL ( A + B)</b>	<b>R</b>
<b>D – ESCALATION AT 10% OF SUB-TOTAL C</b>	<b>R</b>
<b>E – SUB-TOTAL (C + D)</b>	<b>R</b>
<b>F - VAT @ 15% OF E</b>	<b>R</b>
<b>TOTAL INCLUDING VAT (E + F)</b> <i>CARRIED FORWARD TO C1.1 (OFFER).</i>	<b>R</b>

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## **PART C3: SCOPE OF WORK**

### **1. Employer's objectives**

To procure the services of Environmental Control Officer to undertake environmental compliance auditing during the construction phase of the Lower uMshwathi Bulk Water Supply Scheme Project.

### **2. Description of the services**

As a requirement of the NEMA, the Environmental Control Officers will undertake independent environmental compliance monitoring during the construction and rehabilitation phases of the uMshwathi Phase 4 Bulk Water Supply Scheme

### **3. Extent of the services**

As per the environmental authorizations, the environmental control officers will undertake routine, independent compliance monitoring, auditing and reporting for the full duration of the construction and rehabilitation phases of the project, with regular submission of the environmental compliance reports to the authority. Audit of the WUL will also be conducted monthly and the audits reports submitted to the the Department of Water and Sanitation (DWS). The environmental control officers will also form part of the professional team to undertake environmental awareness as well as provide sound environmental management advice with the view of reducing environmental impacts that may arise from changes in construction methodology

### **4. Use of reasonable skill and care**

The Environmental Control Officer must be able to conduct environmental audits, monitor compliance with reference to the conditions of the Environmental Authorization, Environmental Management Plan Rehab plan, WUL, permits and any other licenses. The ECO must hold an educational qualification within the relevant sector and be registered with the relevant Registration Body

### **5. Co-operation with other services providers**

The ECO will be required to sign in at the construction site, align with the SHE requirements of the site and discuss non-conformance issues with the Engineer's Representative. In addition the ECO will be required observe the Covid -19 protocols

### **6. Brief**

The proposed source of water for the southern Ndwedwe water supply scheme is the Umshwathi BWSS. The Umshwathi BWSS is the extension of the previous Wartburg Bulk Water Scheme and will provide the bulk water supply to the rural hinterland east of Pietermaritzburg in KwaZulu-Natal. The Midmar Dam will provide the water source for the proposed scheme, which is a well-managed source with a degree of supply assurance exceeding 98%. Raw water from the Midmar Dam will be conveyed for purification at Umgeni Water's DV Harris Waterworks near Pietermaritzburg. The cumulative population of the areas that will be newly supplied from the scheme (social component) is 237 824 and this number is

projected to reach 332 462 by the year 2045. This is in addition to the existing supply areas of Wartburg, Dalton, Cool Air and Schroeders. The Umshwathi BWSS system design capacity is 25 Ml/day to Nondabula Reservoir (from Dalton Reservoir) and 12 Ml/day at the Bruyns Hill Reservoir. The system design supply to Nondabula and Montebello reservoirs is more than adequate to meet the 2045 projected demand. The above information shows that the proposed supply of 25 Ml/day of potable water from the Umshwathi BWSS will provide acceptable level of supply in the study area until the 2045 design year.

Umgeni Water proposes the construction of a 56 km bulk water pipeline and seven reservoirs along it within a 100m wide corridor envisioned for the fourth Phase of the BWSS. The proposed pipeline will start in the north west with the Nondabula Reservoir and continue south connecting existing and proposed reservoirs. The Nondabula and Montebello reservoirs both receive potable water from the Dalton Reservoir, via one bulk pipeline which ends at the Nondabula Reservoir. A pipeline offtake, approximately 6.1km long and 150mm in diameter, from this bulk pipeline will end at the Montebello Reservoir.

**When pricing the PSP should take into consideration that the contractors for contract packages will commence at various times. It should also be noted that more contractors for all packages will participate in the construction of uMshwathi Phase 4 Bulk Water System Supply who will come in phases until the project is completed.**

**The work components to be undertaken must be in accordance with Appendix 7 of the EIA Regulations, 2014 and will extend to:**

- 1) UMngeni-UThukela Water will present the ECO with the environmental authorisation, EMPr and WUL and all other permits obtained. The ECO shall familiarize with the requirements presented in these documents and develop a checklist to be used for auditing.
- 2) Notify the competent authority of the intention to commence the project and after completion of the construction process.
- 3) Conduct a pre-construction inspection of the entire uMshwathi Phase 4 bulk water supply system project prior to site establishment and site clearance to:
  - Identify any red data species for rescue and advise on a suitable location for transplanting, if deemed required. In addition, the ECO shall keep a record of the condition of the site prior to construction commencing.
  - Ensure that all protected plants are tagged, and are not cut or damaged in any way.
  - Conduct all required permit/license application for the disturbance and removal of trees. A provisional sum will be provided and reserved for this.
  - Assist the contractor in identifying a suitable area that can be used as the camp sites and spoil areas.

- 4) Conduct environmental awareness sessions, in close liaison with Umgeni Water Environmental Site Officer for the contractor, highlighting environmental requirements and compliance measures.
- 5) Provide guidance/advice that ensures implementation of appropriate environmental management measures and adherence with environmental legislation/regulations.
- 6) For each contract undertake fortnight audits for the entire duration of the construction and rehabilitation process.
- 7) Prepare monthly environmental audit reports for submission to the Department of Forestry, Fisheries and Environment (DFFE). The ECO shall make provision for a 5 (five) day review period of the audit report by UW Environmental Scientist prior to submission to DFFE.
- 8) Prepare monthly environmental audit reports of the WUL for submission to the Department of Water and Sanitation (DWS).
- 9) Conduct compliance audits with the conditions of the water use licence.
- 10) Prepare monthly compliance reports for submission to the Department of Water and Sanitation (DWS).
- 11) Conduct compliance audits with environmental authorities, as required.
- 12) Keep record of all activities on site, problems identified and transgressions. In conjunction with UW ESO, the ECO must ensure records are kept related to compliance and non-compliance with the environmental authorization and approved EMPr.
- 13) The ECO will be required to be present during the construction through sensitive areas such as watercourses and wetlands.
- 14) Ensuring that incidents are investigated and reported accordingly.
- 15) The ECO would be required to request (in writing) method statements to be compiled by the contractor in cases where the EMPr may not have adequately addressed the issue. The method statement must be approved by the ECO prior to carrying out the activity.
- 16) The ECO will monitor the implementation of the method statement.
- 17) Advise on rehabilitation measures to be implemented, especially for rehabilitation of the environmental sensitive areas which shall include watercourses and wetlands. The ECO is then to monitor the work carried out by the specialist rehabilitation sub-

contractor (to be appointed by the Contractor) and report to the Umgeni Water environmental scientist.

- 18) Where property to be rehabilitated is privately owned, consultation with each land- parcel owner regarding their requirements for rehabilitation must be carried out in close liaison with Umgeni Water's ISD personnel.
- 19) After completion of construction the ECO must prepare a snag list and a site close out report which will include recommendations for the rehabilitation measures.
- 20) The ECO will be required to prepare the final snag list after rehabilitation process has been completed and the report highlighting the outstanding areas.
- 21) The ECO will be required to prepare the report to be submitted to DEA, DWS and DMR within 30 days of completion of construction. The ECO shall make provision for a 3 day review period of the report by Umgeni Water environmental scientist prior to submission to the environmental authorities.
- 22) Liaising with the Project Manager, Engineer's Representative and the Competent Authority throughout the construction and rehabilitation phases of the project.
- 23) Assisting the Site Engineer and Principal Contractor in ensuring all the necessary environmental authorisations, EMPs, Rehabilitation Plans and permits have been obtained and confirming that the activities on-site comply with environmental legislation.
- 24) Preparing and providing an environmental induction programme to every person involved in the project, including construction workers, on each construction site, prior to commencement of any construction activities.
- 25) Attending monthly progress site meetings where further environmental guidance will be provided to the project team. The ECO will form part of the professional team and should perform an active role for sound environmental management during the construction and rehabilitation phases of the project.
- 26) Ensuring that remedial action is implemented appropriately in the event of non- compliance.
- 27) The ECO must on quarterly basis, monitor and inspect that no waste water from the construction goes directly into any municipal sewers and/or adjacent properties including site streams.

**The major activities to be carried out within each work component, deliverables to be provided within each work component**

<b>Work Component</b>	<b>Major Activities</b>	<b>Deliverables</b>
Permits/licences	Apply for applicable permits and licenses for protected trees and sensitive areas. Apply for permits that have expired.	Approved Permits/Licences
Auditing	Conduct environmental audits on monthly basis	Compliance Audit reports to the Authority, DEA, DWS, UW and project team. Waybills showing proof of reports sent to the Authorities.
Analysis/Assessments	Take soil samples before and after construction. Adhoc Assessments undertaken	Report of results of Soil sample analysis assessed with recommendations. Report on adhoc assessments with recommendations.
Awareness	Conduct environmental awareness	Toolbox talk awareness registers, other environmental awareness registers.
Methods statements	Request and review method statements prepared by contractor or project team.	Proof of methods statements reviewed and consent letters.
Project Management/mentorship of CPG partner	Mentorship Plan. Monthly Meetings	All deliverables from CPG partner reviewed with track changes for quality management.

**Payment Clauses:**

**PC 1. Authority notification & liaison:** This will cover all activities concerning the initial notification and liaison with the Authority relating to Compliance and would include but will not be limited to, notifying the Authority of ECO and Contractor contact information, Authority site information, changes and updates to the EMPS, changes and updates to the rehabilitation plan.

**PC 2. Fortnightly audit reports to the Project Manager and Project Team:** This will be in the form of a checklist covering impacts, proposed mitigation and photographic evidence. All findings must be reported to the contractor whilst referencing the "PI" numbers in the Long Section maps provided by the Engineer. Recommendations should be practical and unless the recommendation had been suggested by the contractor, the ECO will attempt to seek buy in from the contractor to ensure successful implementation of these recommendations. The main tenderer will provide fortnightly checklists to the Project Manager and Project Team within 24 hours of the site audit, for effective use and to enable timeous implementation of remedial measures. All inspection reports prepared by the CPG partner, however, will be peer reviewed by the main tenderer and must be sent to the project team no later than 48 hours after the site inspection.

**PC 3. Monthly compliance report:** This will be a comprehensive environmental compliance report to the Department's Compliance Monitoring and Enforcement Component of the Authority, as required by the Environmental Authorisation, and will cover documentation review as well as the weekly site audits with impacts (with reference made to the "PI" numbers in the Long Section maps provided by the Engineer), recommendations and photographic evidence. Such an audit would also address aspects such as the recommendation of the issuing of penalties to the Contractor for repeated or serious contraventions e.g. hazardous chemical/oil spills, dumping of foreign material into sensitive environmental areas such as wetlands and grasslands, destruction of or damage to protected vegetation, damage to cultural sites, breach of the 20m construction working area, etc. The audit report will contain mitigation measures for each non-compliance issue raised; it would detail the time frames supplied for the rectification of such non-compliance issues; cover visual evidence of the site inspection in the form of photographs. All reports prepared by the CPG partner will be peer reviewed by the main tenderer to ensure adequate quality control of the compliance reports. An electronic version of the report should be sent to the Project Manager for review before being sent to the Authority. A hard copy of the report will be sent to the Authority and the ECO will be required to send a copy of the waybill to the Project Manager as proof.

**PC 4. Environmental awareness:** The ECO will provide environmental induction/awareness training to all staff at the construction sites, during the inception of the construction phase as well as during the entire construction phase of the projects. This will extend to all activities associated with ensuring that adequate environmental awareness is created amongst the project team for effective prevention and minimization of environmental impacts. Environmental Awareness may be undertaken at least quarterly during toolbox talks. The ECO will ensure that all new staff on the construction site is adequately inducted on environmental matters. An attendance register will be signed and submitted as proof of training/awareness provided.



**PC 5. Permits applied for:** The ECO may be required to apply for permits relevant to the project. This will extend to applications such as, permits to the Department of Agriculture, Forestry and Fisheries (DAFF) to fell or prune protected trees; permits from Ezemvelo KwaZulu- Natal (EKZN) Wildlife to relocate protected plants; notification to Amafa/Heritage KwaZulu Natali (Amafa) for grave removal and relocation. The ECO will not be required to apply for a Water Use License.

**PC 6. Authority compliance audit:** This will extend to all tasks and activities associated with this item, extending to pre-audit preparation, obtaining agreement of suitable dates for the audit; authority/stakeholder liaison; ensuring representation at the audit; active participation during the audit; post audit liaison and feed back to project team; address findings with the project team and provide a response to the Authority. The ECO will be required to facilitate successful closeout of the compliance audit.

**PC 7. Review of method statements:** The ECO will be required to review method statements prepared by the contractor. These will include but not be limited to, river crossing method statements; trenching and topsoil separation for all construction activities; onsite stormwater management; sanitation and sewage/waste disposal options; borrow pit/spoil site management; disinfection of pipeline (pre-operations); etc. The ECO will be required to review each method statement providing suggestions where appropriate. Written approval letters for each method statement will be submitted to the Project Manager and Project team.

**PC 8 Site camp and pipe yard establishment:** The ECO will be required to review the layout plans and suggest remedial measures to reduce environmental impacts that may arise from the establishment of the site camps and pipe yards as well as associated activities. For site camps the ECO will, inter alia, check the plan for appropriate sanitation options, waste storage and disposal, grey water disposal options, vehicle wash bay areas, fuel storage and bunding, etc. and make suggestions for options that would have minimal impacts on the environment. For pipe yards, in addition to other environmental impacts, the ECO will advise on topsoil management, re-instatement and rehabilitation of the affected area to minimise compaction and conserve topsoil integrity. Reports will be submitted to the Project Manager and Project Team.

**PC 9 Substantive route amendments:** This will include all activities related to route amendments such as site inspection, assessment, preparation of amendment forms, specialist studies (public participation, heritage study as well as biodiversity/ecological assessment), advertising of the environmental authorisation within the required timeframe, appeals managed, authority/client and stakeholder liaison undertaken, EMPs/Rehabilitation Plans updated and approved.

**PC 10 Meetings:** Attend fortnightly progress and technical meetings. The ECO will be required to attend progress and technical meetings, forming part of the professional team to provide sound environmental management advice in order to reduce environmental impacts that may arise from technical changes in construction methodology, in alignment with environmental legislation. The attendance register must be signed and submitted as proof.

**Minimum Qualifications and Certificates:**

The independent Environmental Control Officer will be required to have:

- A BSc or BSoc Degree in Social Science/ Natural Sciences/ Environmental Sciences/ Environmental Engineering or Agricultural Engineering, BA Environmental Management, (Qualification copies should be submitted)

**Further skills that will be advantageous:**

The successful ECO will have the following competencies

- Proven experience in auditing of construction projects. a minimum of 3 years working experience as an ECO on construction project of a similar nature
- Working knowledge in ecology/ biodiversity, with the ability to identify vegetation species
- Knowledge of alien vegetation control requirements.
- Knowledge of Wetland protection, management and reinstatement requirements.
- Good communication skills both verbal and written.
- Experience with liaison with Authority (DEA/DEAT/DWS/DMR)

**Condition of appointment of ECOs:**

- Note only the designated ECOs will be allowed to undertake the Environmental Compliance Audits.
- Should there be any changes with staff, the service provider will need a written permission from the Umgeni Water Scientist to approve the staff changes.

**List of Acronyms:**

**ECO:** Environmental Control Officer

**ESO:** Environmental Site Office

**EMP:** Environmental Management Plan

**NEMA:** National Environmental Management Act

**DAFF:** Department of Agriculture, Forestry and Fisheries

**EKZN Wildlife:** Ezemvelo KwaZulu-Natal Wildlife

**AMAF:** Amafa/Heritage AkwaZulu Natali

**DAEA:** Department of Agriculture and Environmental Affairs

2. **Reference data**  
Environmental Authorisations, Amendments to Environmental Authorisations, Approved EMPs, Approved Rehabilitation Plans, permits, licences. These documents as well as other related documentation will be provided to the winning tenderer
3. **Applicable national and international standards**  
*ISO14001 and ISO 9001.*
4. **Particular/Generic specifications**  
*N/A.*
5. **Approvals**  
Environmental Authority for route amendments DAFF and EKZN Wildlife for permits. Amafa Approvals
6. **Procurement**  
*N/A*
7. **Access to land / buildings / sites**  
The ECO will be required to sign in/out of the construction site and align with all the SHE requirements of the site.
8. **Planning and programming**  
Construction of uMshwathi Phase 4 Bulk Water Supply Scheme ECO's programme needs to be in line with the entire project construction programme when available.
9. **Software application for programming**  
*N/A*
10. **Quality management**
  - The main tenderer will ensure that all reports are peer reviewed before being sent to the Project Manager and the Authority. This will include peer review of all reports prepared by the CPG partner.
  - Should an ECO be required to be replaced, the new ECO will be required to have the qualification and experience as required in this tender. This will need the approval of the UW Scientist.
11. **Format of communications**
  - Telephonic and email communication.
  - Biweekly Checklists to the contractor and Scientist
  - Hard copies of compliance reports must be sent to the Authority and Waybills submitted to the Project Manager.
12. **Key personnel**
  - Environmental Control Officer
13. **Management meetings**  
The ECOs will be required to attend monthly progress meetings and as well as technical meetings
14. **Forms for contract administration**  
*N/A*
15. **Electronic payments**  
*N/A*

**16. Daily records**

The tenderer and the CPG partner will be required to keep daily records as supporting documentation to the invoice and items claimed

**17. Professional indemnity insurances**

Refer to C.1.2 Contract Data Clause 5.4.1 and state number of copies and the place where policies are to be presented |

**18. Payment certificates**

All invoices must be submitted to the Project Manager by the 25<sup>th</sup> of each month, along with the supporting documentation. Proof of previous payment to CPG partner and Subconsultants will also be required to be submitted. An Excel Spreadsheet with a reconciliation must also be submitted with the invoice. |

**19. Use of documents by the Employer**

All information gathered during the audit and audit reports will remain the property of Umgeni Water.

**20. Property provided for the Service provider's use**

N/A

**21. Proof of compliance with the law**

State specific documents / methods by which compliance with any legislation is to be verified, as necessary.

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**PART C4: SITE INFORMATION**

The study area is located within the Ndwedwe Local Municipality (LM), one of four local municipalities that makes up the iLembe District Municipality (DM). The study area is depicted in Figure 1 which comprises the central and southern Parts of the Ndwedwe LM and occupies roughly 50 % of the total area of the Ndwedwe LM.

The Ndwedwe LM is landlocked and is situated approximately 20km inland of the KwaZulu- Natal Coast and lies predominantly easterly along the sea. The study area borders the eThekweni Municipality to the south with the King Shaka International Airport and Dube Tradeport being approximately 20km away, Maphumulo lies to the north and KwaDukuza to the east.

Ndwedwe LM extends over 1153km<sup>2</sup> and accommodates a population of about 145 people per km<sup>2</sup>. The residents live in remote areas away from the roads servicing the municipality. The study area has no proclaimed town of its own and the municipality is characterized mainly by disadvantaged communities who rely on subsistence farming as a livelihood. The municipality is in relatively close proximity to major urban and economic developments however, the area has remained substantially underdeveloped, disadvantaged and poor. Access to the study is via the R614 road either through Tongaat, Verulam or Wartburg and the P100 that branches off the R102 just north of Verulam to the town of Ndwedwe. Access within and to the study area is limited considering the absence of national, regional, municipal and local roads. In some instances, temporary access roads may need to be established during construction.

To date, all the environmental authorisations have been received. This includes:

- The EA through an EIA study for the uMshwathi Phase 4 Bulk water supply system and associated infrastructure with reference number 14/12/16/3/3/1/2224;
- Amended GA with reference number 27/2/1/U130/4/5/11

PART C5: ANNEXURES

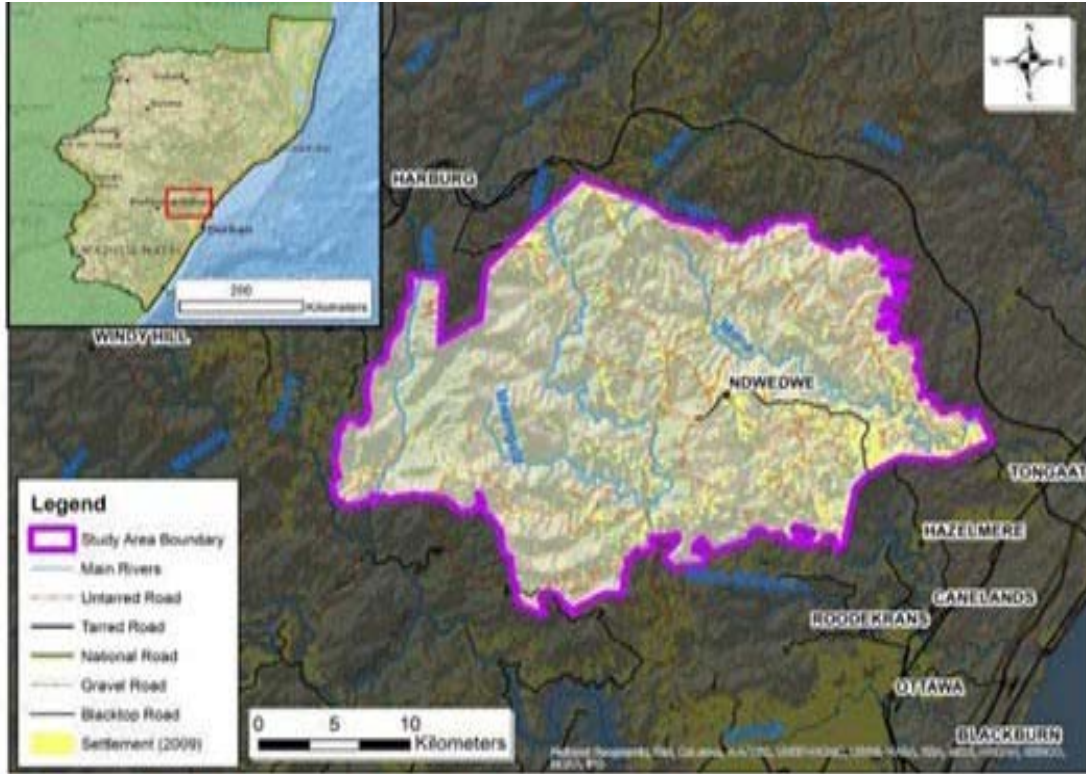


Figure 1: Locality map and extent of the southern Ndwedwe study area

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Personal Information (PI) requested in this form is mandatory for operational and administrative processes, and to comply with regulatory requirements. Umgeni UThukela Water will take reasonable steps to ensure that the Personal Information collected on this form is processed responsibly, kept safe and confidential, and does not unjustifiably infringe your privacy. This is in compliance to the Protection of Personal Information Act No. 4 of 2013.