DEPARTMENT OF WATER AND SANITATION
REBPUBLIC OF SOUTH AFRICA

REQUEST FOR BID

REQUEST FOR BID NUMBER: WP11550

DESCRIPTION

APPOINTMENT OF A PROFESSIONAL SERVICE PROVIDER (PSP) TO UNDERTAKE THE POST FEASIBILITY BRIDGING STUDY AND ENVIRONMENTAL IMPACT ASSESSMENT FOR THE BREEDE-BERG (MICHELL'S PASS) WATER TRANSFER SCHEME FOR A PERIOD OF 36 MONTHS

ISSUE DATE:
3 FEBRUARY 2026

CLOSING DATE:

5 MARCH 2026
TIME: 11:00

Briefing Session not Compulsory
Date: 18 February 2026
Time: 10:00
Teams: https://teams.microsoft.com/meet/39015396114568?p=kz5SbaXfApmUQkq0oi

Meeting ID: 390 153 961 145 68
Passcode: 3a9QE7mL

SUBMIT TENDER DOCUMENT
TO
ALL BID REPONSES MUST BE SUBMITTED ONLINE THROUGH E-TENDER'S E-SUBMISSION PORTAL

PLEASE NOTE THAT NO BID DOCUMENTS WILL BE ACCEPTED VIA EMAIL OR DEPARTMENTAL TENDER BOX.

TENDERER: (Company address and stamp)

SCAM ALERT: BIDDERS ARE ALERTED TO SCAM SYNDICATES OPERATING AS DEPARTMENT OFFICIALS. BIDDERS ARE THEREFORE ADVICED TO REPORT ANY SUSPICIOUS INFORMATION TO THE DEPARTMENT. DEPARTMENT OFFICIALS WILL NOT CONTACT BIDDERS FOR BRIBES IN EXCHANGE OF BID AWARDS

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

DIRECTIVE TO BIDDERS ON COMPLETION OF SBD FORMS AND PACKAGING OF BID PROPOSAL

The purpose of this document is to guide bidders on the completion of SBD forms and packaging of a Bid Proposals with each document being placed under the correct Annexure. The last column of the table below (this column must be ticked as an indication that each document and its requirements have been complied with by the bidder). The dates on this all-SBD forms must be a date which is within the bid advert period

TABLE OF CONTENTS FOR BID PROPSALS

DOCUMENT	ANNEXURE	DIRECTIVE	COMPLIED/NOT COMPLIED
SBD 1	**A**	Bidders are required to complete this document in full and be signed off. The date on this form must be a date which is within the bid advert period	
SBD .3.3	**B**	Bidders are required to complete the applicable form in full and ensure that the amounts in the document are properly calculated. The total amount (inclusive of VAT) as reflected herein will be regarded as the Total Bid Price. **Bidders who are not VAT Vendors are not allowed to charge VAT** Bidders are required to constantly verify their TAX Status on CSD to ensure that their task matters are in order	
SBD 4	**C**	This document must be completed in full. **Bidders' attention is drawn particularly to paragraph 2.3 which requires the bidder to disclose if the company or any of its directors have interest in other companies whether they have bidded or not. Bidders are required to provide all information. Should a bidder have more companies to declare, such information can be provided on a separate sheet in the format prescribed in the form and be attached to the SBD 4. Information captured must be in line with what is captured in the CSD report**	
SBD 6.1	**D**	This document must be completed in full. Bidders are advised to ensure that information captured in this this form is aligned to information contained in the CSD Reports.	
BBBEE Certificate/Sworn affidavit	**E**	Bidders are required to submit a valid BBBEE Certificate or sworn affidavit.	
CSD Report	**F**	Bidders are requested to provide copies of reg CSD Report.	
Certificate of authority for signatory	**G**	3 Different forms are attached. Bidders are required to only complete one form which is relevant to their situation	
Copy of an Identity document of the authorised individual	**H**	The ID copy to be attached should be that of a person authorised to represent the Service provider as per the completed certificate of authority for signatory form	
Copy of Company's CIPC Certificate	**I**	Bidders are required to attach copies of the CIPC Certificates	
Bid Proposal	**J**	A detailed bid proposal inline with the Specifications must be attached	

PART A
INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (*NAME OF DEPARTMENT/ PUBLIC ENTITY*)					
BID NUMBER:	**WP11550**	CLOSING DATE:	**5 MARCH 2026**	CLOSING TIME:	**11H00**
DESCRIPTION	**APPOINTMENT OF A PROFESSIONAL SERVICE PROVIDER (PSP) TO UNDERTAKE THE POST FEASIBILITY BRIDGING STUDY AND ENVIRONMENTAL IMPACT ASSESSMENT FOR THE BREEDE-BERG (MICHELL'S PASS) WATER TRANSFER SCHEME**				
BID RESPONSE TO					
ALL BID REPONSES MUST BE SUBMITTED ONLINE THROUGH E-TENDER'S E-SUBMISSION PORTAL PLEASE NOTE THAT NO BID DOCUMENTS WILL BE ACCEPTED VIA EMAIL OR DEPARTMENTAL TENDER BOX.					

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO		**TECHNICAL ENQUIRIES MAY BE DIRECTED TO:**	
CONTACT PERSON	**Mr JACOB MABUSELA**	CONTACT PERSON	**DR MENARD MUGUMO**
TELEPHONE NUMBER	**012 336 7240**	TELEPHONE NUMBER	**012 336 6838**
CELLPHONE		CELLPHONE	
E-MAIL ADDRESS	mabuselaj@dws.gov.za	E-MAIL ADDRESS	mugumom@dws.gov.za

SUPPLIER INFORMATION						
NAME OF BIDDER						
POSTAL ADDRESS						
STREET ADDRESS						
TELEPHONE NUMBER	CODE		NUMBER			
CELLPHONE NUMBER						
FACSIMILE NUMBER	CODE		NUMBER			
E-MAIL ADDRESS						
VAT REGISTRATION NUMBER						
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		**OR**	CENTRAL SUPPLIER DATABASE No:	MAAA	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	TICK APPLICABLE BOX] ☐ Yes ☐ No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT		[TICK APPLICABLE BOX] ☐ Yes ☐ No	
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]						
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐Yes ☐No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR **THE GOODS /SERVICES /WORKS OFFERED?**		☐Yes ☐No [IF YES, ANSWER PART B:3]	
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS						

IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? ☐ YES ☐ NO

DOES THE ENTITY HAVE A BRANCH IN THE RSA? ☐ YES ☐ NO

DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? ☐ YES ☐ NO

DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? ☐ YES ☐ NO

IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? ☐ YES ☐ NO

IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.

PART B
TERMS AND CONDITIONS FOR BIDDING

1.	**BID SUBMISSION:**
1.1.	BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2.	**ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.**
1.3.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
1.4.	**THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).**
2.	**TAX COMPLIANCE REQUIREMENTS**
2.1	BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2	BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3	APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
2.4	BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.5	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.6	WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
2.7	NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER: .....

CAPACITY UNDER WHICH THIS BID IS SIGNED: .....
(Proof of authority must be submitted e.g. company resolution)

DATE: .....

PRICING SCHEDULE
(Professional Services)

NAME OF BIDDER: ..... BID NO: **WP11550**

CLOSING TIME 11:00 ..... CLOSING DATE: **5 MARCH 2026**

OFFER TO BE VALID FOR 180 DAYS FROM THE CLOSING DATE OF BID.

ITEM NO	DESCRIPTION	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)

1. The accompanying information must be used for the formulation of proposals.
2. Bidders are required to indicate a ceiling price based on the total estimated time for completion of all phases and including all expenses inclusive of all applicable taxes for the project. R.....

3. PERSONS WHO WILL BE INVOLVED IN THE PROJECT AND RATES APPLICABLE (CERTIFIED INVOICES MUST BE RENDERED IN TERMS HEREOF)

4. PERSON AND POSITION	HOURLY RATE	DAILY RATE
----------	R----------	----------
----------	R----------	----------
----------	R----------	----------
----------	R----------	----------
----------	R----------	----------

5. PHASES ACCORDING TO WHICH THE PROJECT WILL BE COMPLETED, COST PER PHASE AND MAN-DAYS TO BE SPENT

----------	R----------	---------- days
----------	R----------	---------- days
----------	R----------	---------- days
----------	R----------	---------- days

5.1 Travel expenses (specify, for example rate/km and total km, class of airtravel, etc). Only actual costs are recoverable. Proof of the expenses incurred must accompany certified invoices.

DESCRIPTION OF EXPENSE TO BE INCURRED	RATE	QUANTITY	AMOUNT
----------	.....	.....	R.....
----------	.....	.....	R.....
----------	.....	.....	R.....
----------	.....	.....	R.....

TOTAL: R.....

"" all applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

Bid No.: .....

Name of Bidder: .....

5.2 Other expenses, for example accommodation (specify, e.g. Three star hotel, bed and breakfast, telephone cost, reproduction cost, etc.). On basis of these particulars, certified invoices will be checked for correctness. Proof of the expenses must accompany invoices.

DESCRIPTION OF EXPENSE TO BE INCURRED	RATE	QUANTITY	AMOUNT
----------	.....	.....	R.....
----------	.....	.....	R.....
----------	.....	.....	R.....
----------	.....	.....	R.....

TOTAL: R.....

6. Period required for commencement with project after acceptance of bid .....

7. Estimated man-days for completion of project .....

8. Are the rates quoted firm for the full period of contract? *YES/NO

9. If not firm for the full period, provide details of the basis on which adjustments will be applied for, for example consumer price index. .....

.....

.....

.....

***[DELETE IF NOT APPLICABLE]**

SBD 4

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of his invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest1 in the enterprise,
employed by the state? **YES/NO**

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:

.....
.....

1 the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

2.3.1 If so, furnish particulars:

Name of company related to	**CSD Registration number of the company related to**

3 DECLARATION

I, the undersigned, (name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

3.1 I have read and I understand the contents of this disclosure;

3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;

3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium2 will not be construed as collusive bidding.

3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of

2 Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

the awarding of the contract.

3.5 There have been no consultations, communications, agreements, or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.
I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS

OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING

AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD

THIS DECLARATION PROVE TO BE FALSE.

.....	.....
Signature	Date
.....	.....
Position	Name of bidder

SBD 6.1

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

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1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and

1.2 To be completed by the organ of state

a) The applicable preference point system for this tender is the 80/20 preference point system.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

(a) Price; and

(b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

(a) **"tender"** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;

(b) **"price"** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;

(c) **"rand value"** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

(d) **"tender for income-generating contracts"** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and

(e) **"the Act"** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 **or** **90/10**

$$Ps = 80\left(1 - \frac{Pt - P\,min}{P\,min}\right) \text{ or } \quad Ps = 90\left(1 - \frac{Pt - P\,min}{P\,min}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. **POINTS AWARDED FOR PRICE**

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 **or** **90/10**

$$Ps = 80\left(1 + \frac{Pt - P\,max}{P\,max}\right) \text{ or } \quad Ps = 90\left(1 + \frac{Pt - P\,max}{P\,max}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system: or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Women	5	
People with disability	5	
Youth (35 and below)	5	
Location of enterprise (Province)	2	
B-BBEE status level contributors from level 1 to 2 which are QSE or EME	3	
Total points for SPECIFIC GOALS	20	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number: .....

4.5. TYPE OF COMPANY/ FIRM

Partnership/Joint Venture / Consortium
One-person business/sole propriety
Close corporation
Public Company
Personal Liability Company
(Pty) Limited
Non-Profit Company
State Owned Company
[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the

company/ firm for the preference(s) shown and I acknowledge that:

i) The information furnished is true and correct;

ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;

iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;

iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –

(a) disqualify the person from the tendering process;

(b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;

(c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation.

(d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and

(e) forward the matter for criminal prosecution, if deemed necessary.

.....
SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME: .....
DATE: .....

ADDRESS: .....
.....
.....
.....

STANDARD EVALUATION CRITERIA IN TERMS OF THE PREFERENTIAL PROCUTEMENT REGULATIONS 2022

THE 80/20 POINTS AWARDED FOR PRICE AND SPECIFIC GOALS

The 80/20 Preferential Procurement System will be used in evaluating these bids:

Evaluation element	Weighting (Points)
SPECIFIC GOALS	20
PRICE	80
Total	**100**

Price

A maximum of 80 points are allocated for price on the following basis:

$$Ps = 80\left(1 - \frac{Pt - P\ \min}{P\ \min}\right)$$

Where:
Ps = Points scored for comparative price of bid under consideration
Pt = Comparative price of bid under consideration
Pmin = Comparative price of lowest acceptable bid

Preference point system

SPECIFIC GOALS	NUMBER OF POINTS TO BE ALLOCATED
Women	**5**
People with disability	**5**
Youth (35 and below)	**5**
Location of enterprise (Province)	**2**
B-BBEE status level contributors from level 1 to 2 which are QSE or EME	**3**
Total points for SPECIFIC GOALS	**20**

Documents Requirement for verification of Points allocation: -

Procurement Requirement	Required Proof Documents
Women	Full CSD Report
Disability	Full CSD Report
Youth	Full CSD Report
Location	Full CSD Report
B-BBEE status level contributors from level 1 to 2 which are QSE or EME	Valid BBBEE certificate/sworn affidavit Consolidated BEE certificate in cases of Joint Venture Full CSD Report

The definition and measurement of the goals above is as follows:

Women, disability, and youth:

This will be measured by calculating the pro-rata percentage of ownership of the bidding company which meets this criterion. E.g., Company A has five shareholders each of whom own 20% of the company. Three of the five shareholders meet the criterion, i.e. they are women/disability/youth. Therefore, this bidder will obtain 60% of the points allowable for this goal.

Location of enterprise

Local equals province. Where a project cuts across more than one province, the bidder may be located in any of the relevant provinces to obtain the points.

B-BBEE status level contributors from level 1 to 2 which are QSE or EME

Measured in terms of normal BBBEE requirements.

Note: Formula for calculating points for specific goals

Preference points for entities are calculated on their percentage shareholding in a business, provided that they are actively involved in and exercise control over the enterprise. The following formula is prescribed:

$$PC = Mpa \times \frac{P\text{-}own}{100}$$

Where

PC= Points awarded for specific goal

Mpa= The maximum number of points awarded for ownership in that specific category

P-own = The percentage of equity ownership by the enterprise or business

Annexure A

GOVERNMENT PROCUREMENT

GENERAL CONDITIONS OF CONTRACT
July 2010

NOTES

The purpose of this document is to:

(i) Draw special attention to certain general conditions applicable to government bids, contracts and orders; and

(ii) To ensure that clients be familiar with regard to the rights and obligations of all parties involved in doing business with government.

In this document words in the singular also mean in the plural and vice versa and words in the masculine also mean in the feminine and neuter.

- The General Conditions of Contract will form part of all bid documents and may not be amended.

- Special Conditions of Contract (SCC) relevant to a specific bid, should be compiled separately for every bid (if (applicable) and will supplement the General Conditions of Contract. Whenever there is a conflict, the provisions in the SCC shall prevail.

TABLE OF CLAUSES

1. Definitions
2. Application
3. General
4. Standards
5. Use of contract documents and information; inspection
6. Patent rights
7. Performance security
8. Inspections, tests and analysis
9. Packing
10. Delivery and documents
11. Insurance
12. Transportation
13. Incidental services
14. Spare parts
15. Warranty
16. Payment
17. Prices
18. Contract amendments
19. Assignment
20. Subcontracts
21. Delays in the supplier's performance
22. Penalties
23. Termination for default
24. Dumping and countervailing duties
25. Force Majeure
26. Termination for insolvency
27. Settlement of disputes
28. Limitation of liability
29. Governing language
30. Applicable law
31. Notices
32. Taxes and duties
33. National Industrial Participation Programme (NIPP)
34. Prohibition of restrictive practices

General Conditions of Contract

1. Definitions

1. The following terms shall be interpreted as indicated:

1.1 "Closing time" means the date and hour specified in the bidding documents for the receipt of bids.

1.2 "Contract" means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

1.3 "Contract price" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.

1.4 "Corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.

1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.

1.6 "Country of origin" means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.

1.7 "Day" means calendar day.

1.8 "Delivery" means delivery in compliance of the conditions of the contract or order.

1.9 "Delivery ex stock" means immediate delivery directly from stock actually on hand.

1.10 "Delivery into consignees store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.

1.11 "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.

1.12 "Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

1.13 "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.

1.14 "GCC" means the General Conditions of Contract.

1.15 "Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.

1.16 "Imported content" means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.

1.17 "Local content" means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.

1.18 "Manufacture" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.

1.19 "Order" means an official written order issued for the supply of goods or works or the rendering of a service.

1.20 "Project site," where applicable, means the place indicated in bidding documents.

1.21 "Purchaser" means the organization purchasing the goods.

1.22 "Republic" means the Republic of South Africa.

1.23 "SCC" means the Special Conditions of Contract.

1.24 "Services" means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.

1.25 "Written" or "in writing" means handwritten in ink or any form of electronic or mechanical writing.

2. Application

2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.

2.2 Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.

2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

3. General

3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.

3.2 With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za

4. Standards

4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

5. Use of contract documents and information; inspection.

5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.

5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.

5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.

5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

6. Patent rights

6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.

7. Performance

7.1 Within thirty (30) days of receipt of the notification of contract award,

security

the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.

7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.

7.3 The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:

(a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
(b) a cashier's or certified cheque

7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.

8. Inspections, tests and analyses

8.1 All pre-bidding testing will be for the account of the bidder.

8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organization acting on behalf of the Department.

8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.

8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.

8.5 Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.

8.6 Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.

8.7 Any contract supplies may on or after delivery be inspected, tested or analyzed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the

cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies which do comply with the requirements of the contract. Failing such removal the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.

8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of GCC.

9. Packing

9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents

10.1 Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.

10.2 Documents to be submitted by the supplier are specified in SCC.

11. Insurance

11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.

12. Transportation

12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.

13. Incidental services

13.1 The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

(a) performance or supervision of on-site assembly and/or commissioning of the supplied goods;
(b) furnishing of tools required for assembly and/or maintenance of the supplied goods;
(c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
(d) performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties,

provided that this service shall not relieve the supplier of any warranty obligations under this contract; and

(e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

14. Spare parts

14.1 As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

(a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and

(b) in the event of termination of production of the spare parts:

(i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and

(ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty

15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

15.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.

15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.

15.4 Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.

15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser

may have against the supplier under the contract.

16. Payment

16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC.

16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfillment of other obligations stipulated in the contract.

16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.

16.4 Payment will be made in Rand unless otherwise stipulated in SCC.

17. Prices

17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized in SCC or in the purchaser's request for bid validity extension, as the case may be.

18. Contract amendments

18.1 No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.

19. Assignment

19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

20. Subcontracts

20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contracts if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

21. Delays in the supplier's performance

21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.

21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.

21.3 No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.

21.4 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily

available.

21.5 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.

21.6 Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without canceling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

22. Penalties

22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

23. Termination for default

23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:

(a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;

(b) if the Supplier fails to perform any other obligation(s) under the contract; or

(c) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.

23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.

23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the

envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.

23.5 Any restriction imposed on any person by the Accounting Officer / Authority will, at the discretion of the Accounting Officer / Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer / Authority actively associated.

23.6 If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:

(i) the name and address of the supplier and / or person restricted by the purchaser;
(ii) the date of commencement of the restriction
(iii) the period of restriction; and
(iv) the reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

24. Anti-dumping and countervailing duties and rights

24.1 When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him

25. Force Majeure

25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.

25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

26. Termination for insolvency

26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

27. Settlement of Disputes

27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.

27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.

27.4 Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.

27.5 Notwithstanding any reference to mediation and/or court proceedings herein,

(a) the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
(b) the purchaser shall pay the supplier any monies due the supplier.

28. Limitation of liability

28.1 Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 6;

(a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and

(b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing language

29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

30. Applicable law

30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.

31. Notices

31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice

31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

32. Taxes and duties

32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.

32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.

32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.

33. National Industrial Participation (NIP) Programme

33.1 The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.

34. Prohibition of Restrictive practices

34.1 In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder (s) is / are or a contractor(s) was / were involved in collusive bidding (or bid rigging).

34.2 If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act No. 89 of 1998.

34.3 If a bidder(s) or contractor(s), has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.

RESOLUTION OF BOARD OF DIRECTORS TO ENTER INTO CONSORTIA OR JOINT VENTURES

RESOLUTION of a meeting of the Board of *Directors / Members / Partners of:

_____

_____

(Legally correct full name and registration number, if applicable, of the Enterprise)

Held at _____ *(place)*

on _____ *(date)*

RESOLVED that:

1. The Enterprise submits a Bid /Tender, in consortium/Joint Venture with the following Enterprises:

   _____

   _____

   (List all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Consortium/Joint Venture)

   to the Department of Water and Sanitation in respect of the following project:

   _____

   _____

   (Project description as per Bid /Tender Document)

   Bid / Tender Number: _____ *(Bid / Tender Number as per Bid / Tender Document)*

2. *Mr/Mrs/Ms: _____

   in *his/her Capacity as: _____ *(Position in the Enterprise)*

   and who will sign as follows: _____

   be, and is hereby, authorised to sign a consortium/joint venture agreement with the parties listed under item 1 above, and any and all other documents and/or correspondence in connection with and relating to the consortium/joint venture, in respect of the project described under item 1 above.

3. The Enterprise accepts joint and several liability with the parties listed under item 1 above for the due fulfilment of the obligations of the joint venture deriving from, and in any way connected with, the Contract to be entered into with the Department in respect of the project described under item 1 above.

4. The Enterprise chooses as its *domicilium citandi et executandi* for all purposes arising from this joint venture agreement and the Contract with the Department in respect of the project under item 1 above:

   Physical address: _____

   _____

   _____

   _____ (code)

Resolution of Board of Directors to enter into Consortia or Joint Ventures

Postal Address: _____

_____

_____

_____ (code)

Telephone number: _____

Fax number: _____

	Name	Capacity	Signature
1			
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The bidding enterprise hereby absolves the Department of Water and Sanitation from any liability whatsoever that may arise as a result of this document being signed

Note:

1. ** Delete which is not applicable.*
2. ***NB:** This resolution must, where possible, be signed by <u>all</u> the Directors / Members / Partners of the Bidding Enterprise.*
3. *In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (attach proof of shareholding / ownership hereto).*
4. *Directors / Members / Partners of the Bidding Enterprise may alternatively delegate a person to sign this document on behalf of the Bidding Enterprise, which person must be so authorized by way of a duly completed Delegation of Authority letter, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (proof of shareholding / ownership and Delegation of Authority letter are to be attached hereto).*
5. *Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.*

ENTERPRISE STAMP

SPECIAL RESOLUTION OF CONSORTIA OR JOINTVENTURES

RESOLUTION of a meeting of the duly authorized representatives of the following legal entities who have entered into a consortium/joint venture to jointly bid for the project mentioned below: *(legally correct full names and registration numbers, if applicable, of the Enterprises forming a Consortium/Joint Venture)*

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

6. _____

_____

7. _____

_____

8. _____

Held at_____

_____(*pla*

*ce)*on

_____(*dat*

e)

RESOLVED that:

A. The above-mentioned Enterprises submit a Bid in Consortium/Joint Venture to the Department of Water and Sanitation in respect of the following project:

_____

_____

(*Project description as per Bid /Tender Document)*

Bid / Tender Number:_____(*Bid / Tender Number as per Bid /Tender Document)*

B. *Mr/Mrs/Ms:_____in *his/her

Capacity as:_____(*Position in the Enterprise)*and who will sign as follows: _____

be, and is hereby, authorized to sign the Bid, and any and all other documents and/or correspondence in connection with and relating to the Bid, as well as to sign any Contract, and any and all documentation, resulting from the award of the Bid to the Enterprises in Consortium/Joint Venture mentioned above.

C. The Enterprises constituting the Consortium/Joint Venture, notwithstanding its composition, shall conduct all business under the name and style of:

_____

D. The Enterprises to the Consortium/Joint Venture accept joint and several liability for the due fulfilment of the obligations of the Consortium/Joint Venture deriving from, and in any way connected with, the Contract entered into with the Department in respect of the project described under item A above.

E. Any of the Enterprises to the Consortium/Joint Venture intending to terminate the consortium/joint venture agreement, for whatever reason, shall give the Department 30 days written notice of such intention. Notwithstanding such decision to terminate, the Enterprises shall remain jointly and severally liable to the Department for the due fulfilment of the obligations of the Consortium/Joint

Venture as mentioned under item D above.

F. No Enterprise to the Consortium/Joint Venture shall, without the prior written consent of the other Enterprises to the Consortium/Joint Venture and of the Department, cede any of its rights or assign any of its obligations under the consortium/joint venture agreement in relation to the Contract with the Department referred to herein.

G. The Enterprises choose as the *domicilium citandi et executandi* of the Consortium/Joint Venture for all purposes arising from the consortium/joint venture agreement and the Contract with the Department in respect of the project under item A above:

Physical address:_____

_____

_____

_____

(code)Postal Address:_____

_____

_____

_____ (code)

Telephone number: _____

Fax number: _____

	Name	Capacity	Signature
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The bidding enterprise hereby absolves the Department of Water and Sanitation from any liability whatsoever that may arise as a result of this document being signed.

Note:

1. ** Delete which is not applicable.*
2. ***NB:** This resolution must be signed by all the Duly Authorized Representatives of the Legal Entities to the consortium/joint venture submitting this tender, as named in item 2 of **RESOLUTION OF BOARD OF DIRECTORS TO ENTER INTO CONSORTIA OR JOINT VENTURES***
3. *Should the number of the Duly Authorized Representatives of the Legal Entities joining forces in this tender exceed the space available above, additional names, capacity and signatures must be supplied on a separate page.*
4. ***RESOLUTION OF BOARD OF DIRECTORS TO ENTER INTO CONSORTIA OR JOINT VENTURES**, duly completed and signed, from the separate Enterprises who participate in this consortium/joint venture,must be attached to this **SPECIAL RESOLUTION OF CONSORTIA OR JOINT VENTURES***

LETTER OF AUTHORITY FOR SOLE PROPRIETOR OR SOLE TRADER

I, ...hereby confirm that I am the sole owner of the business trading as .....

Signature: Sole owner..... .....

Date.....

Witnesses:

1. _____ _____
Date :

2. _____ _____

ENTERPRISE STAMP

RESOLUTION OF BOARD OF DIRECTORS FOR COMPANY /CLOSE CORPORATION/ PARTNERSHIP

RESOLUTION of a meeting of the Board of *Directors / Members / Partners of:

_____

(legally correct full name and registration number, if applicable, of the Enterprise)

Held at_____*(place)*

on_____*(date)*

RESOLVED that:

1. The Enterprise submits a Bid / Tender to the Department of Water and Sanitation in respect of the following project:

   _____

   (project description as per Bid / Tender Document)

   Bid / Tender Number:_____*(Bid / Tender Number as per Bid / Tender Document)*

2. *Mr/Mrs/Ms: _____

   in *his/her Capacity as:_____ *(Position in the Enterprise)*

   and who will sign as follows: _____

   be, and is hereby, authorized to sign the Bid / Tender, and any and all other documents and/or correspondence in connection with and relating to the Bid / Tender, as well as to sign any Contract, and any and all documentation, resulting from the award of the Bid / Tender to the Enterprise mentioned above.

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
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12			
13			

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

14			
15			
16			
17			
18			
19			
20			

The bidding enterprise hereby absolves the Department of Water and Sanitation from any liability whatsoever that may arise as a result of this document being signed.

Note:

1. ** Delete which is not applicable.*
2. ***NB:** This resolution must, where possible, be signed by all the Directors / Members / Partners of the Bidding Enterprise.*
3. *In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (attach proof of shareholding / ownership hereto).*
4. *Directors / Members / Partners of the Bidding Enterprise may alternatively delegate a person to sign this document on behalf of the Bidding Enterprise, which person must be so authorized by way of a duly completed Delegation of Authority letter, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (proof of shareholding / ownership and Delegation of Authority letter are to be attached hereto).*
5. *Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.*

ENTERPRISE STAMP

water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

DIRECTORATE: WATER RESOURCE DEVELOPMENT PLANNING

TERMS OF REFERENCE

for the

POST FEASIBILITY BRIDGING STUDY AND ENVIRONMENTAL IMPACT ASSESSMENT FOR THE BREEDE-BERG (MICHELL'S PASS) WATER TRANSFER SCHEME

(Contract Period: 36 months)

DECEMBER 2025

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LIST OF ACRONYMS AND ABBREVIATIONS

BBTS	Breede-Berg (Michell's Pass) Transfer Scheme
BCR	Benefit Cost Ratio
CBR	Cost Benefit Ratio
DEFF	Department of Environment, Forestry and Fisheries
DEA&DP	Department of Environmental Affairs and Developmental Planning
DM	District Municipality
DWA	Department of Water Affairs (now DWS)
DWAF	Department of Water Affairs and Forestry (now DWS)
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EWR	Environmental Water Requirements
FSL	Full Supply Level
HFY	Historic firm yield
IRR	Internal Rate of Return
LM	Local Municipality
LSY	Long-term stochastic yield
MAP	Mean Annual Precipitation
MAR	Mean Annual Runoff
masl	metres above sea level
million m^3	Million cubic metres
NOC	Non-overspill crest
NPV	Net present value
PBP	Pay Pack Period
PSC	Project Steering Committee
PSP	Professional Services Provider
RL	Reduced level (in metres above sea level)
SEF	Safety Evaluation Flood
SMC	Study Management Committee
ToR	Terms of Reference
URV	Unit Reference Value
WCWSS	Western Cape Water Supply System
WMA	Water Management Area
WRPM	Water Resources Planning Model
WRSM	Water Resources Simulation Model
WRYM	Water Resources Yield Model
WTW	Water treatment works

1. INTRODUCTION

The Department of Water and Sanitation (DWS) invites proposals from registered engineering consultancy firms for appointment as Professional Service Provider (PSP) to conduct the proposed ***Post Feasibility Bridging Study and Environmental Impact Assessment for the Breede-Berg (Michell's Pass) Water Transfer Scheme*** in the Western Cape Water Supply System.

The Western Cape Water Supply System (WCWSS) serves the City of Cape Town (CCT), surrounding urban centres and irrigators. It consists of infrastructure components owned and operated by both CCT and the Department of Water and Sanitation (DWS). The Western Cape Reconciliation Strategy Study (WCRSS) has investigated a range of bulk water supply schemes that could serve towards meeting the growing water requirements that will need to be supplied from the WCWSS. These schemes include interventions such as sea water desalination, effluent treatment for re-use, groundwater development, and surface water augmentation options.

In 2008, DWS commissioned pre-feasibility level investigations into the potential development of six surface water schemes, from which two schemes were further investigated to feasibility level, namely:

- The Breede-Berg (Michell's Pass) Transfer Scheme (BBTS), which is the subject of this Post Feasibility Bridging Study to make the project implementation ready; and
- The Berg River-Voëlvlei Augmentation Scheme (BRVAS), which is currently being implemented by the Trans-Caledon Tunnel Authority (TCTA).

In 2021, DWS appointed a consultant for the Post Feasibility Bridging Study for the Breede-Berg (Michell's Pass) Water Transfer Scheme, but this study was only partially conducted because the contract period lapsed due to gross delays that were encountered in the procurement of rainfall data required for the water resource assessment. To avoid a recurrence of similar challenges in this proposed study, bidders are required to price for rainfall data in their financial proposals.

The **objectives** of this Bridging Study are to:

a) Review and update the hydrology and water requirements of the **entire** Breede River catchment. The Department is also planning to commission a parallel study to update the hydrology of the Breede River catchment through the Directorate: Strategic Water Resource Planning. The progress of the second study will be closely monitored, and the scope of the Bridging Study may thus need to be reduced depending on information generated by the parallel study.

b) Determine the stochastic yield of the **Upper** Breede River at the Michell's Pass and the volume of excess water available for transfer to the Berg River, after providing for downstream ecological flows in the Breede River and Estuary.
c) Undertake a public participation process to engage with water users in the Upper Breede River catchment to ensure the transfer will not affect their allocation or interests.
d) The public participation process must also include other stakeholders, such as environmentalists acting as watchdogs on environmental flows, and water users in the Klein Berg River; and
e) Review and update the layout, design, and cost estimates of the BBTS components to feasibility level of detail, including provision for EWR in the Breede River and an increased abstraction rate into the Brandvlei Dam.
f) Undertake the required Environmental Impact Assessment (EIA) process and water use licence applications (WULAs) for the Breede-Berg (Michell's Pass) Water Transfer Scheme, in terms of all applicable environmental legislations.

The Scope of Services, as described in **Section 3**, constitutes the minimum requirements that the DWS will accept for this Bridging Study. The PSP is nevertheless required to undertake all the other processes to comply with relevant environmental legislations. The EIA process includes:

- Review the Environmental Screening Report and other information gathered from the engineering investigations.
- Submit environmental applications and prepare a Scoping Report for the proposed BBTS.
- Identify all Interested and Affected Parties (I&APs) and undertake a public participation process to engage with stakeholders.
- Perform a complete and comprehensive EIA for the proposed BBTS.
- Prepare and submit the required applications in terms of the National Heritage Resources Act, 1999 (NHRA).
- Prepare the Environmental Impact Report (EIR).
- Prepare the necessary specialist study reports.
- Prepare a Social Impact Assessment (SIA) Report.
- Develop an Environmental Management Programme (EMPr) for pre-construction, construction and operational phases.
- Submit applications for mining permits in borrow areas.
- Develop an Environmental Management Plan (EMP) for the proposed borrow areas; and
- Submit water use licence applications (WULAs) in terms of Section 21, Section 22(3) and Section 40 of the National Water Act (NWA), 1998. A **Water Use Licence Technical Report** is required.

- Assess environmental impacts of the proposed power line to be constructed by Eskom. Application for authorisation of the power line is, however, not covered in this study.

The appointed PSP must possess the requisite diverse skills and expertise necessary to undertake both the technical Post Feasibility Bridging Study and the EIA Study within the prescribed study period of **36 months**. The Environmental Assessment Practitioner (the EAP) must be registered with the Environmental Assessment Practitioners Association of South Africa (EAPASA). Registration with the South African Council for Natural Scientific Professions (SACNASP) will be an added advantage. Furthermore, the PSP must appoint a Study Leader who is a Professional Civil Engineer, experienced in coordinating and managing diverse projects of a similar nature and magnitude. The Study Leader will act as the main communication link between DWS and the PSP.

The estimated duration for the completion of the Post Feasibility Bridging Study and Environmental Impact Assessment is **36 months**. This duration includes all components of the study, namely inception phase, updating of the catchment hydrology, water resource modelling for yield estimation and determination of ecological flows, water requirements assessment, engineering investigations, design of infrastructure components, cost estimation and economic analysis, socio-economic impact assessment, land matters for acquisition of land, legal and institutional and financing arrangements, public participation process, EIA process including authorisation, water use licence applications (WULAs) and authorisation, assistance with the appeal process, preparation of both draft and final study reports and other necessary deliverables, among other tasks.

2. BACKGROUND

2.1. STUDY AREA

The study area is effectively that of the Berg-Olifants Water Management Area (WMA) and the Breede-Gouritz WMA. The proposed Michell's Pass inter-basin transfer would supply water from the upper Breede River to the existing Voëlvlei Dam on the Berg River to augment the WCWSS. The layout of the WCWSS and BBTS are shown in **Figure 2-1**.

The Breede-Overberg Catchment Management Agency (BOCMA) has set clear goals and objectives in its Catchment Management Strategy towards protection of water resources of the Breede River and limiting further development thereof.

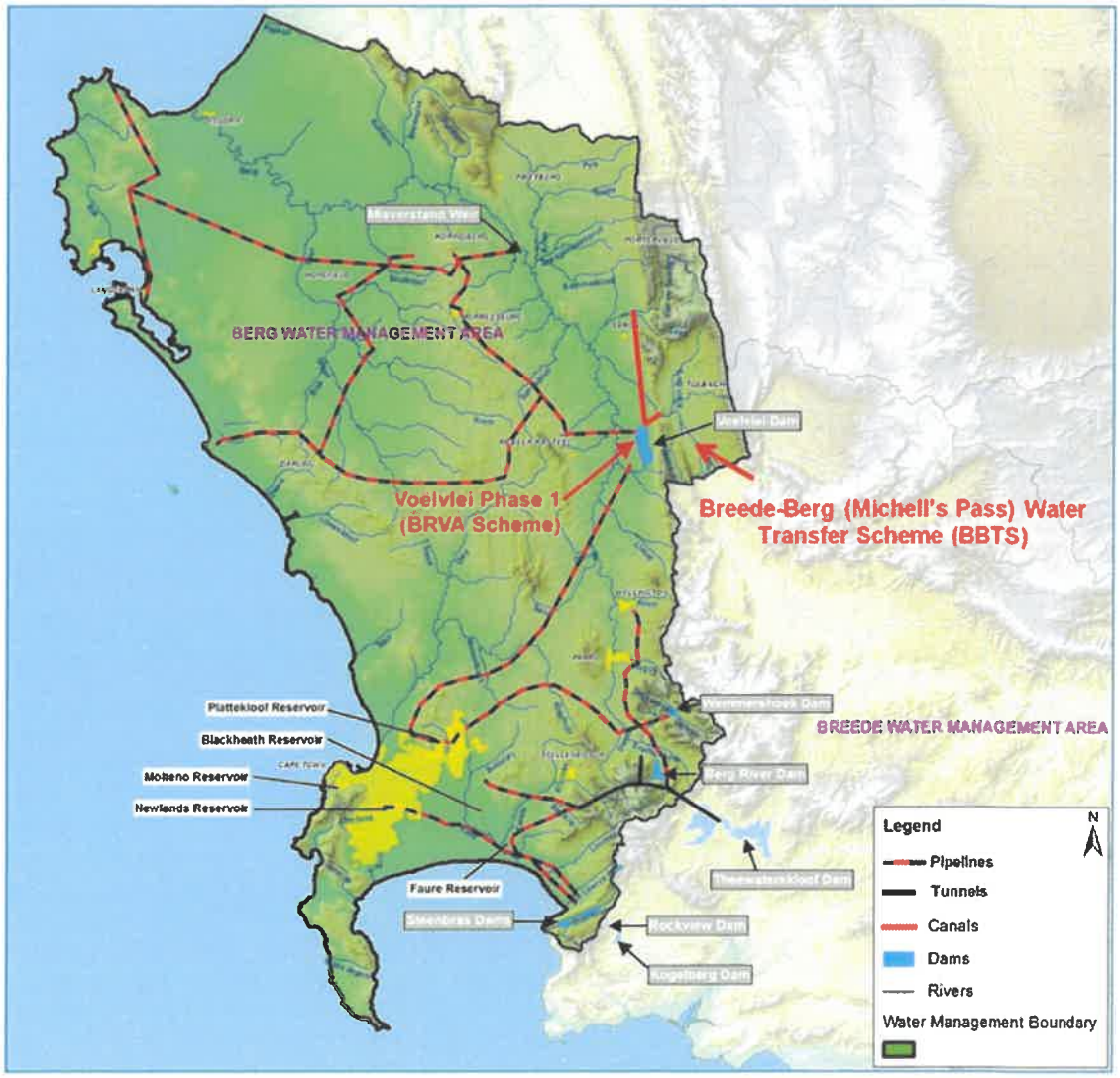

Figure 2-1: The Western Cape Water Supply System and Proposed BBTS

BOCMA is the lead agency for water resources management within the Breede-Gouritz WMA (BGWMA). The BGWMA is bounded by the Indian Ocean to the south, the Berg-Olifants WMA to the west, the Orange WMA to the north and the Mzimvubu-Tsitsikamma WMA to the east.

2.2. PREVIOUS STUDY REPORTS

The BBTS is described in detail in the report entitled: *Pre-Feasibility and Feasibility Studies for Augmentation of the Western Cape Water Supply System by means of Further Surface Water Developments*, Report No 3; Volume 2: *Breede-Berg (Michell's Pass) Water Transfer Scheme*, December 2012, compiled by the Department of Water Affairs.

The above-mentioned BBTS report (Dec 2012) is supported by the following sub-reports (available on the DWS website):

- Appendix 5: Scheme Operation and Yield Analyses with Ecological Flow Requirements for the Breede-Berg (Michell's Pass) Water Transfer Scheme;
- Appendix 6: Preliminary Design of Papenkuils Pump Station Upgrade and Pre-Feasibility Design of the Boontjies Dam, for the Breede-Berg (Michell's Pass) Water Transfer Scheme;
- Appendix 7: Ecological Water Requirements Assessment Summary for the Berg River-Voëlvlei Augmentation Scheme, and the Breede Berg (Michell's Pass) Water Transfer Scheme;
- Appendix 8: Geotechnical Investigations for the Berg River-Voëlvlei Augmentation Scheme, and the Breede-Berg (Michell's Pass) Water Transfer Scheme;
- Appendix 9: LiDAR Aerial Survey, for the Berg River-Voëlvlei Augmentation Scheme, and the Breede-Berg (Michell's Pass) Water Transfer Scheme;
- Appendix 10: Conveyance Infrastructure Design Report, for the Berg River-Voëlvlei Augmentation Scheme, and the Breede-Berg (Michell's Pass) Water Transfer Scheme;
- Appendix 11: Diversion Weirs Design for the Berg River-Voëlvlei Augmentation Scheme, and the Breede-Berg (Michell's Pass) Water Transfer Scheme; and
- Appendix 12: Cost Estimates for the Berg River-Voëlvlei Augmentation Scheme, and the Breede-Berg (Michell's Pass) Water Transfer Scheme.

The layout of the WCWSS and proposed BBTS is shown in **Figure 2-1**.

The reports for augmentation of the WCWSS can be accessed from the DWS website by following the steps below.

1. Visit the Department of Water and Sanitation homepage at www.dws.gov.za.
2. Click on the '**Projects & Programmes**' tab located on the top navigation panel.
3. From the list that appears, select '**National Water Resource Planning.**'
4. Again, click on the '**Projects & Programmes**' tab on the top panel.
5. Select '**Western Cape Water Supply System Augmentation Project**' from the list provided.
6. Click the '**Feasibility Study**' tab and select either '**Preliminary Study Phase**' or '**Detailed Feasibility Phase**' from the drop-down menu that appears.
7. Chose the report you wish to access from the list that appears. It is recommended that you begin with the **Main Report**, followed by appendices for any additional information required.
8. Please note that the **Environmental Impact Assessment** (EIA) study for the BBTS will be undertaken concurrently with the Post Feasibility Bridging Study. As such, no reports for the BBTS are currently available under the '**Environmental Impact Assessment**' tab.

2.3. DESCRIPTION OF THE EXISTING SCHEME

The existing Voëlvlei Government Water Scheme and Artois Canal Diversion Scheme at Michell's Pass are described in the *Breede-Berg (Michell's Pass) Water Transfer Scheme* (December 2012) report. This information has been summarised in a *Background Information Document* (September 2018), which is available from the Directorate: Water Resource Development Planning.

Water transferred from the proposed BBTS would feed into the existing Voëlvlei Government Water Supply Scheme via the existing diversion weir on the Klein Berg River. The canal from the diversion weir diverts water into Voëlvlei Dam, which is located in a natural depression between the Voëlvlei Mountain range and the Berg River, near Gouda.

Currently, diversion at Witzenberg into the Artois Canal, which was constructed in about 1950, diverts an average 19 million m^3/a. About 15 million m^3/a is utilised by the Artois irrigators and Wolseley town. The remaining 4 million m^3/a flows into the Klein Berg River. This water transfer occurs year-round from the manually controlled gated canal intake structure at the DWS flow gauging station H1H006, into the canal and across the catchment divide (from the Breede WMA into the Berg WMA).

2.4. FEASIBILITY STUDY FOR THE BBTS

The proposed Breede-Berg (Michell's Pass) Transfer Scheme (BBTS) is described in the *Breede-Berg (Michell's Pass) Water Transfer Scheme* (December 2012) report. This information is also summarised in a *Background Information Document* (September 2018), which is available from the Directorate: Water Resource Development Planning.

The proposed BBTS involves the diversion of winter water from the upper Breede River at the same site as that of the current Artois canal diversion. The scheme comprises a new diversion weir and a 10.76 km long gravity pipeline, with a diameter of 2 000 mm, to convey the diverted water into the adjacent Berg River catchment. The scheme will also supply the summer and winter irrigation requirements of the existing users of the Artois Canal. The gravity pipeline will have multiple offtakes for suppling the farmers and other existing users and will thus need to be investigated and designed as a system instead of a simple straight pipeline. Bidders are required to cost this aspect in their financial proposals.

The preliminary determination of the Ecological Reserve assessment of the Breede River determined that the present ecological status (PES) of the Breede River at the weir location is Class D. It has been assumed that if the BBTS is constructed, future abstractions should comply with both the summer and winter Reserve of the upper Breede River.

Any transfer of water out of the Breede River catchment will impact on downstream water users. In this case the yield of Brandvlei Dam would be reduced unless the capacity of the infrastructure to pump water into the dam is increased. Therefore, the various BBTS options investigated include an allowance for maintaining the yield of Brandvlei Dam through an upgrade of the pump station at Papenkuils. The upgrading of the pump station forms part of the scope of this Post Feasibility Bridging Study.

The founding conditions at the Michell's Pass Weir site are typical loose alluvial sediments and boulders. The geotechnical conditions along the proposed pipeline route vary from coarse to sandy alluvium towards Wolseley, and finer alluvium with sandy clay towards the proposed discharge location.

The proposed general layout of the BBTS, including the route of the pipeline, is shown in **Figure 2-2**. Two alternative scheme layouts were considered for transferring water while also supplying the EWR in the Breede River.

Alternative A involves the diversion of surplus winter water via the proposed weir on the Upper Breede River at Michell's Pass into a new gravity pipeline. The pipeline will transfer water into the Blousloot stream, which is a tributary of the Klein Berg River. Summer Reserve releases need to be supplied from Koekedouw Dam at Ceres.

Alternative B is similar to Alternative A, but makes provision for a new storage dam, which allows for the storage of water for the summer Reserve flows. This possibility was only identified fairly late during the 2012 BBTS study, which resulted in the potential dam site being excluded from the geotechnical investigation and topographical survey.

The concept of the dam on the Boontjies River is as follows:

- Provide a discharge facility for winter water diverted from the Breede River.
- Enable spills and provide releases to the downstream Klein Berg River from where the diversion into Voëlvlei Dam will take place.
- Provide summer releases to current irrigators who are supplied from the Boontjies River.
- Pump water from the dam to the current upstream Artois irrigators in summer.
- Enable the current diversions to the Artois canal in summer to be stopped and allow this water to continue flowing in the Breede River to provide summer Reserve flows.
- Supplement, when necessary, the summer Reserve flows in the Breede River from the stored water in the Boontjies Dam, via pumping.

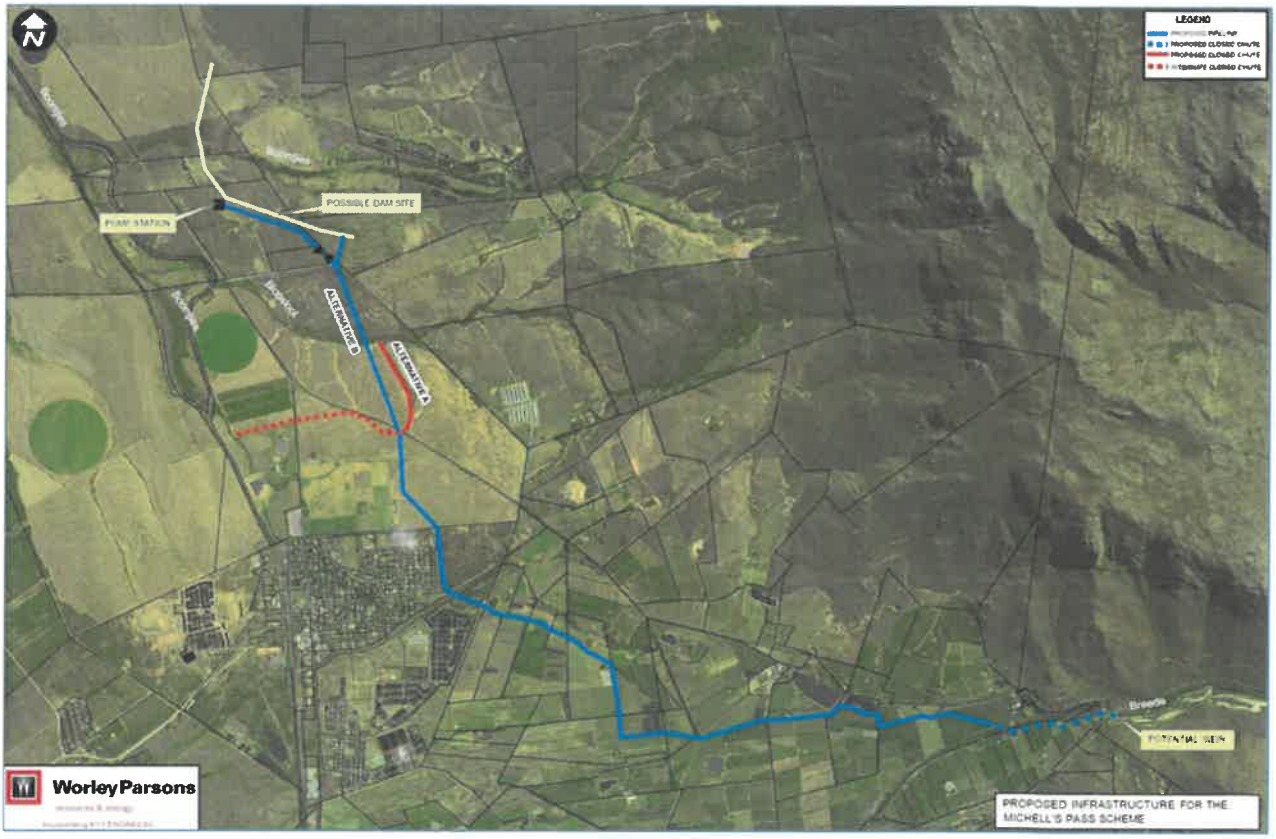

Figure 2-2: Layout of Alternatives for the Breede-Berg (Michell's Pass) Transfer Scheme

3. SCOPE OF SERVICES

3.1. INTRODUCTION

The Scope of Services for this Bridging Study describes the various tasks required to meet the objectives outlined in Section 1 of this Terms of Reference (ToR).

3.2. TASK 1: INCEPTION REPORT

The appointed PSP is required to conduct a comprehensive review of previous study reports including reports produced in the *Pre-feasibility and Feasibility Studies for Augmentation of the Western Cape Water Supply System by Means of Further Surface Water Developments: Breede-Berg (Michell's Pass) Water Transfer Scheme, December 2012*. This review should also encompass the draft Water Resources Assessment Report (partial deliverable) produced in the 2024 partial Post Feasibility Bridging Study and any other relevant existing information necessary for the project.

The PSP will then prepare an ***Inception Report*** that includes the following key components:

- **Detailed Task Description**: A comprehensive breakdown of all tasks to be performed during the study.
- **Methodology**: A clear outline of the methodologies and approaches to be employed in executing each task.
- **Study Programme**: A detailed timeline for the project (study), including milestones and deadlines for each phase.
- **Human Resource Schedule**: A roster outlining the personnel involved, their roles, and time allocations for each task.
- **Cashflow Projection**: A financial plan projecting the expected flow of funds throughout the duration of the study, linked to key deliverables and milestones.

The Inception Report will list all tasks and deliverables required in line with the signed contract, the cost per deliverable (including disbursements), the team members, revised study programme, among other information. New team members required during the Study, who were not part of the accepted Proposal, need to be approved before they can be utilised on the Study. Similarly, approved team members who leave the study team, for whatever reason, must be reported promptly to the Department and necessary arrangements put in place to replace them with similarly skilled personnel approved by the Department.

The Inception Report should be finalised and approved by the DWS within ***three (3) months*** of commencement of the Bridging Study. A Background Information Document must also be prepared during the Inception Phase for information dissemination with stakeholders. A

familiarisation tour of the proposed project site must be conducted during the Inception Phase to ensure the Inception Report is based on reasonable knowledge of the area and associated issues.

3.3. TASK 2: PROJECT MANAGEMENT

The ***Project Management*** and coordination of the Post Feasibility Bridging Study and Environmental Impact Assessment are key responsibilities of the appointed PSP under the supervision of the DWS Project Manager. This involves organising meetings, site visits, and ensuring the timely and efficient execution of the Study. Financial provisions for these activities as outlined in **Table 3.1** below must be included in the Financial Proposal.

Table 3.1: Study Meetings and Site Visits

Meeting type	Number	Place	PSP obligations
Inception meetings	2 meetings 1 site visit	Pretoria Study area	a) Arrangements for meetings b) Attendance of meetings c) Minute taking and distribution
Meetings with authorities	Total = 8	Cape Town = 4 Pretoria = 4	a) Arrangements for meetings b) Attendance of meetings c) PowerPoint presentation d) Minute taking and distribution
Presentation to DWS Management	Total = 2	DWS Pretoria	High quality Power Point presentation by one or two team members
Study Management Committee (SMC) meetings	Once every two months Total = 15	Assume SMC and PSC meetings coincide, and venue is Cape Town	a) Arrangements for meetings b) Attendance of meetings c) PowerPoint presentation of study progress d) Minute taking and distribution e) Any other secretarial service
Project Steering Committee (PSC) meetings with role players	Once every two months Total = 15	Assume venue is Cape Town for all meetings	
Public meetings with stakeholders	Total = 10	Wolseley, Ceres and Worcester	
Ad hoc meetings with stakeholders and role players	As required Total = 10	Project area	

The PSP must cover all ***travel and subsistence costs*** for its team members attending these meetings and site visits and is responsible for ***secretarial services*** at all meetings and workshops.

a) Project Steering Committee and Public Meetings

The PSP will coordinate the Project Steering Committee (PSC) and Study Management Committee (SMC) meetings, in addition to public meetings. The DWS will provide the PSP with contact details for officials involved in these meetings. The PSP is responsible for the associated costs.

b) Liaison with Role Players and Stakeholders

The PSP is responsible for organising additional meetings with key role players and stakeholders as required. Potential stakeholders include various government departments, local municipalities, agricultural entities, and community groups, such as:

- Department of Water and Sanitation (Head Office and Western Cape Regional Office)
- Department of Forestry, Fisheries and the Environment
- Western Cape Department of Environmental Affairs and Development Planning
- Department of Agriculture, Rural Development and Land Reform

- Western Cape Department of Agriculture
- City of Cape Town
- Wolseley, Worcester, Ceres, and other towns
- Water User Associations
- Irrigation Boards
- District municipalities
- Local municipalities
- Cape Nature
- Local environmental organisations; and
- Other government departments and institutions.

c) Meetings with Authorities

The appointed PSP will be required to arrange and attend meetings with various authorities to present and discuss various aspects of the Study. The DWS Project Manager will also attend these meetings. The important authorities include various government departments such as the Department of Water and Sanitation, Department of Forestry Fisheries and the Environment, Department of Mineral Resources, National Treasury, among others.

d) Coordination and Management of Study Team

The PSP Study Leader must ensure that the study team is fully mobilised, tasks are activated, and project milestones are met. The Study Leader must coordinate the various tasks of this Post Feasibility Bridging Study and Environmental Impact Assessment to achieve coherence and agreed milestones. Progress will be reported at SMC and PSC meetings, and monthly progress reports submitted to DWS.

e) Quality Control of Deliverables

The Study Leader is responsible for ensuring all deliverables are thoroughly reviewed before submission to DWS. Reports must meet professional standards and comply with DWS, DFFE, and other regulatory formats. Any inadequate submissions will be returned to the PSP.

Quality control of reports includes ensuring that language use and grammar are of a high standard, and reports contain all information required to take the project to the implementation stage. The format for engineering reports must comply with the international scientific standards and the Havard referencing style must be adopted. Any inadequate submissions will be returned to the PSP before review by the Department. Although not a requirement for appointment, it is highly recommended that the PSP has a language specialist on their team or at least a senior engineer with extensive report writing experience in the water resources sector.

f) Financial Management

The PSP will ensure prompt invoicing and proper documentation in line with DWS invoicing requirements. An example of documentation requirements for invoicing is a ***Progress Report*** for deliverables achieved during the claim period. This progress report supporting an invoice is additional to monthly progress reports and progress reports presented at PSC meetings. The contract is deliverable-based, and invoices are only paid for actual deliverables achieved. Furthermore, bidders are advised to break down tasks in the Financial Proposal into multiple deliverables to ensure ***smooth cashflow*** throughout the contract period. Expenditure must be strictly according to the approved budget as variation orders are discouraged.

g) Project Website

The PSP will be required to provide the DWS Web Manager with project information to develop, update and maintain the project website that will be used for dissemination of information to the public. Relevant information includes, among others:

- Background Information Document (BID) on the homepage.
- Inception Report excluding contractual details.
- Meeting proceedings.
- Notices of all public meetings.
- Public participation documents.
- Advertisements.
- Government Gazette notices.
- Post Feasibility Bridging Study Reports.
- Scoping Report.
- Environmental Impact Assessment Report.
- Environmental Management Programme.
- Environmental Management Plan.
- Specialist Study Reports.
- Environmental Authorisation.
- Mining Permit, if required.
- Water Use Licence information.
- Other relevant information.

h) Appointment of External Specialists

The PSP will appoint any ***additional specialists*** required during the Post Feasibility Bridging Study and Environmental Impact Assessment for engineering investigations whose scope could not be defined at tender stage, as well as environmental investigations unforeseen at tender stage. This includes compilation of ***terms of reference***, adjudication and appointment of the

specialists through sub-consultancy agreements. Coordination with these specialists to meet milestones and reporting requirements is the PSP's responsibility.

Appointments for additional specialist studies will be paid through variation orders. A variation order must, however, be properly motivated for approval by the Department. Any additional task may only be undertaken based on express written approval from the Department.

3.4. TASK 3: ASSESSMENT OF WATER RESOURCES

The assessment of the water resources (availability and requirements) for the **entire** Breede River catchment **up to the estuary** is required. This entails updating of the hydrology (rainfall-runoff model) of the Breede River catchment.

This assessment must determine the yield of the Upper Breede River catchment to supply the various water users and the downstream Environmental Water Requirements (EWR). A water balance for the catchment will then indicate the volume of water available for transfer to the Berg River catchment at the Voëlvlei Dam. The anticipated tasks associated with this water resource assessment are briefly described in the following sub-sections.

1) Streamflow Hydrology

The objective of this task is to undertake a comprehensive hydrological analysis of the Breede River catchment in order to update the existing hydrological dataset for the **entire** catchment to the most recent hydrological year. This will require the preparation of a reliable hydrological database on land use, rainfall, evaporation and streamflow in order to configure and calibrate the rainfall-runoff model and the naturalisation of streamflow data, among other analyses required to update the hydrology. The Department is planning to commission a parallel study for updating the Breede River catchment hydrology through the Directorate: Strategic Water Resource Planning, but information may not be available when required by the Post Feasibility Bridging Study. Should information become available when this task is undertaken, the scope and cost for the 'Streamflow Hydrology' task will have to be reduced. The envisaged sub-tasks are described as follows:

a) Updating of rainfall data

The purpose of this sub-task is to update the rainfall records of the catchment until the most recent hydrological year in order to update and improve the reliability of the catchment hydrology. This information is required as input for the Water Resources Simulation Model (WRSM). This sub-task will, among other things, include the following activities:

- Screening of rainfall gauges for use in the Post Feasibility Bridging Study.
- Visual screening of the rainfall data of each rainfall gauge, including identification of outliers.
- Analytical screening of rainfall data, including data plotting and testing for stationarity.

- In-filling ('patching') of discontinuous rainfall records of each rainfall gauge, where applicable. Rainfall records requiring extensive 'patching' shall not be used to generate streamflow data if more reliable records are available.
- Continuous non-patched and acceptable patched rainfall data shall be used to generate catchment rainfall and point rainfall time series; and
- The mean annual precipitation (MAP) shall be estimated for the catchment and sub-catchments.

b) Updating of evaporation data

The purpose of this sub-task is to update the evaporation records of the catchment until the end of the most recent hydrological year. This information is required as input for:

- The WRSM (Pitman Model) to calculate runoff; and
- The assessment of evaporation losses from water bodies in the catchment.

c) Updating of land use data

The purpose of this sub-task is to confirm and quantify changes in land use that have occurred in the catchment since the last update of the hydrology. It is necessary to apply updated land use in the Post Feasibility Bridging Study.

d) Updating of streamflow data

Observed streamflow data for the Breede River is available from the DWS website, under the icon '*Our dams*', which opens the Hydrological Services page. Data for the flow gauging stations in Drainage Region H can then be accessed. Assistance for accessing the website will also be available from the Directorate: National Hydrological Services.

This sub-task will, among others, require the following:

- Collating existing streamflow and return flow data for the catchment;
- Extension of streamflow records until the most recent hydrological year;
- Examination and rectification of streamflow data;
- In-filling ('patching') of streamflow records using acceptable simulation techniques;
- Checking of 'patched' values using acceptable methods; and
- Evaluation of the reliability of the streamflow data in order to select appropriate streamflow gauges that can be used in the calibration and naturalisation processes.

e) Groundwater resources

This sub-task is focused on determining the groundwater resources of the catchment, its current use and its interaction with the surface water of the catchment, in order to correctly model the hydrology of the catchment. Although this sub-task is limited to a desktop investigation, every effort shall be made to ensure that the most up-to-date information is used as this component needs to be included in the hydrology of the catchment model.

Useful sources for groundwater data are the National Groundwater Database and the Groundwater Resource Information Program (GRIP) Database which are both available from DWS.

f) Water Resources Simulation Model

The latest version of the water resources simulation model (WRSM) must be configured to simulate historical streamflow sequences and to generate natural streamflow sequences. Modelling must be based on a monthly time step and at a quaternary catchment level according to current practice. However, where major dams and abstraction works occur within a quaternary catchment, the latter shall be subdivided to model the sub-catchments of these works. Extensive testing of the model must be undertaken to ensure that the model has indeed been correctly configured. Compilation of the WRSM schematic diagram representing the system network must be included as part of the deliverables.

g) Runoff generation with the WRSM

The objective of this sub-task is the calibration of the runoff generation module of the WRSM. This is a standard process whereby adjustments are made to the model parameters until the simulated data is similar to the recorded streamflow data. Special care shall be taken during the calibration process, especially when the simulated data is used to in-fill ('patch') the observed record.

h) Naturalised streamflow records

Naturalised streamflow records are required for sub-catchments in order to generate stochastic streamflow sequences and calculate the system yield. This sub-task typically involves the following:

- Naturalise 'patched' recorded streamflow data by means of the standard methods that consider the effect of historical water abstractions and return flows that have occurred in the catchment during the period of historical data.
- Generate natural synthetic flow data with the calibrated WRSM in cases where recorded streamflow data in sub-catchments is not available for certain periods of the study period; and
- Use the synthetic flow data to extend the naturalised flow data to obtain a single natural flow record that covers the full study period.

i) Stochastic hydrology

The objective of this sub-task is the generation of stochastic streamflow sequences from naturalised streamflow records that will be used for the long and short-term yield analyses, as well as the planning analyses, of the Bridging Study. The Monthly Multi-Site Stochastic Streamflow Model, developed by the Water Research Commission, shall be used for this task.

The stochastic streamflow sequences generated need to be subjected to various tests to ensure that the generated sequences are realistic and properly correlated between the various sub-catchments. This will typically include testing of the following:

- Monthly and annual means.
- Monthly and annual standard deviations.
- Minimum sum runs.
- Maximum deficits and deficit durations.
- The longest depletion durations; and
- Yield-capacity relationship.

2) Existing and Future Water Requirements

The objective of this task is to confirm/determine all current and projected water requirements for all water use sectors within the Breede River catchment. This information will be compared to the water availability in the catchment to determine the water balance and availability of water for transfer to the Berg River system. As noted above, the Department is planning to commission a parallel study for water resource assessment of the Breede River catchment that will include updating water requirements in the catchment. Should information become available when this task is undertaken, the scope and cost for the 'Existing and Future Water Requirements' task will have to be reduced. Typical user sectors shall include the following:

- *Urban domestic*: All towns and formal settlements supplied from the Breede River catchment's water resources.
- *Rural domestic*: All informal settlements and dwellings that rely on the Breede River catchment's water resources for their water supply.
- *Irrigation*: All irrigation allocations in the Breede River.
- *Industrial*: All current and future industrial abstractors along the Breede River and its tributaries.

The Reserve for the Breede River and Estuary must also be included as a water requirement for the system. The DWS Directorate: Reserve Requirements must be consulted regarding the adequacy of previous Reserve studies and to obtain additional guidance, as required.

3) Yield Analyses with WRYM

The objective of this task is to perform various yield analyses with the Water Resources Yield Model (WRYM) to:

- Determine the water resource potential in the catchment and the allocation of these resources.
- Evaluate operating rules; and
- Assess the system behaviour.

The main sub-tasks are discussed below, but further tasks may be identified at tender stage or during the course of this Bridging Study.

a. Network diagram for the WRYM

The network diagram for the WRYM must be configured/reviewed and updated to represent the **Upper** Breede River catchment at an acceptable level. All existing and future points of abstraction, return flows and storage within the catchment should be incorporated in the network diagram. The updated WRYM schematic diagram is part of the deliverables.

Extensive testing must be undertaken to ensure that the model has been configured correctly and adequately represents the system.

b. User priority classification table

A user priority classification table for all water users of the **Upper** Breede River's water resources must be compiled through a process of stakeholder involvement. The table shall reflect all types of users categorised into different user sectors.

c. System operating rules

A review of current operating rules for the catchment must be undertaken in consultation with DWS Western Cape Regional office, the catchment management agency, water service authorities, water user associations and other role players. The aim of this review is to select the most appropriate operating rules that can be used in the WRYM analysis to model the existing system and future scenarios.

d. Historical firm yield

After the WRYM has been set up, it will be used to simulate flow sequences to calibrate the model and determine the historic firm yield of the catchment.

e. Long-term stochastic yields

Long-term stochastic yield analyses must be undertaken to determine the long term water supply in the **Upper** Breede River catchment and the volume of water available for transfer to Voëlvlei Dam. The analysis shall make provision for the associated assurance of supply for the various water users.

4) Water Resources Planning Model

The Water Resources Planning Model (WRPM) must be configured, tested and applied in order to:

- Derive final system operating rules.
- Derive drought curtailment rules; and
- Determine the volume of water that can be transferred to Voëlvlei Dam.

The envisaged sub-tasks are as follows:

a) Configuration and testing of the WRPM

The network diagram must be reviewed and updated and be included as part of the deliverables of this sub-task. Before proceeding with any analyses, the WRPM configuration must be thoroughly tested to ensure that all aspects are functioning correctly and that the intended system operation is indeed simulated correctly. The deliverable for this sub-task includes an electronic copy of the final WRPM for the Upper Breede River catchment, supported by the associated report.

b) Development of scenarios

After the WRPM has been updated, the various modelling scenarios to be analysed will need to be developed and defined in consultation with DWS and major water users. The results of the analysis must be presented in box plots, where the format and types will be agreed with DWS prior to their production. Results of the initial scenarios will be presented and discussed with DWS during the execution of the task, and if needed, these scenarios may either be adjusted or completely new scenarios developed.

5) Climate Change Prediction and Impact on Yield

The possible climate change impacts on the proposed Boontjies River Balancing Dam and the BBTS need to be assessed **at pre-feasibility level**, based on available streamflow scenarios and results from previous studies, or new analyses. This investigation must have the following two separate components:

- Assessment of the flood design capacities (spillway capacities and freeboard) of the proposed Boontjies River Dam to accommodate future increased flood peaks; and
- Assessment of the possible climate change impact on the yields of the Boontjies River Dam.

3.5. TASK 4: ENGINEERING INVESTIGATIONS

1) Introduction

The feasibility investigation of the main components of the proposed BBTS has been undertaken and is described in the report *Breede-Berg (Michell's Pass) Water Transfer Scheme*, December 2012 (refer to **Section 2.3**). The work that needs to be undertaken as part of this Bridging Study includes the following:

- Review and confirm the layout, sizing, and detail of all the components required for the proposed BBTS, and update where necessary.
- Determine the volume of excess water that can be transferred from the Upper Breede River (refer to **Section 3.4**).

- Investigate the two alternative EWR schemes to determine the recommended option – *Alternative A*, supplying the summer EWR from Koekedouw Dam at Ceres or *Alternative B*, supplying the EWR from the proposed Boontjies River Dam.
- If the proposed Boontjies River Dam is the recommended option, the site needs to be confirmed, a topographical survey and geotechnical investigation are required, and a feasibility design must be undertaken.
- Bill of Quantities and a detailed cost estimate of all components of the proposed BBTS must be prepared.
- Determine and facilitate institutional and funding arrangements for implementation of the BBTS; and
- Draft and finalise reports (and sub-reports) for the various tasks, including the Main Report and Record of Implementation Decisions (RID) report.

2) Review of BBTS Components

The layout and operation of the proposed BBTS needs to be reviewed to confirm optimum layout and sizing of components. The current layout comprises a diversion weir on the Breede River at Michell's Pass with a transfer pipeline to a tributary of the Klein Berg River and a discharge structure. The pipeline must be designed as a hydraulic system with multiple offtake points supplying both existing and new users along its route.

The provision for summer EWR releases in the Breede River will be implemented either from Koekedouw Dam (Alternative A) or via the proposed balancing dam on the Boontjies River (Alternative B). The provision for summer EWR releases needs to be investigated further to determine the discharge point for the scheme, before the detail of these components can be confirmed.

The report on the review of the feasibility design shall include confirmation of the relevant detail of the scheme components, as well as the necessary drawings required to facilitate the detailed design and implementation. Design information must be presented in acceptable format according to current design practice. The Bridging Study design team must therefore anticipate the information requirements of the detail designers and provide the information in the correct format, readily accessible. No further planning studies will be conducted to generate design information except for studies required for design optimisation.

3) Geotechnical and Materials Investigations

The feasibility level geotechnical investigations, which were conducted in 2011, comprised the excavation of trial pits along the proposed transfer pipeline route. The results are recorded in the report: *Breede-Berg (Michell's Pass) Water Transfer Scheme*; Appendix 8: *Geotechnical Investigations for the Berg River-Voëlvlei Augmentation Scheme, and the Breede-Berg (Michell's*

Pass) Water Transfer Scheme, December 2012. The Feasibility Study included a geotechnical investigation for the majority of the Alternative A pipeline route, except for the last part, before crossing the R46 road and thereafter towards the Blousloot River. An additional geotechnical investigation is therefore required for this section of the pipeline route. Bidders are required to price in their Financial Proposals for trial pits, borrow areas, and for the PSP's professional fees associated with the geotechnical investigations.

Due to the alluvial nature of the geology at the Michell's Pass Weir site, no core drilling was considered necessary. Thirteen (13) trial pits were excavated at designated positions along the proposed BBTS gravity pipeline route at a spacing of about 500 metres. Samples were taken from representative soil layers in the trial pits and foundation indicator tests and grading analyses were undertaken. Bidders are, however, required to price for additional trial pits, core drilling, borrow area investigations, and the PSP's professional fees assuming a review of geotechnical information and further investigations at the Michell's Pass Weir and along the Alternative A pipeline will be necessary.

Detailed geotechnical and materials investigations for the proposed Boontjies River dam site and Alternative B pipeline are required, if this dam is the alternative to be implemented. These investigations should provide sufficient detail for feasibility design, and to verify the location, extent and suitability of available construction materials. Bidders are required to price for trial pits, core drilling, borrow area investigations, and professional fees associated with these geotechnical investigations.

Further geotechnical investigations may be needed for affected infrastructure that may require upgrading or realignment based on recommendations of the Post Feasibility Bridging Study. Bidders are required to price for trial pits, core drilling, borrow area investigations, and professional fees associated with these geotechnical investigations.

No Provisional Sum has been allocated for geotechnical and materials investigations (refer to **Section 6.3**). The cost for appointing a drilling contractor and an accredited laboratory to undertake these investigations must be included in the bidder's Financial Proposal.

4) Topographical Surveys

A LiDAR survey and aerial photography of the study area was undertaken during the 2012 feasibility study. The survey is described in a report entitled; *Breede-Berg (Michell's Pass) Water Transfer Scheme*; Appendix 9: *LiDAR Aerial Survey for the Berg River-Voëlvlei Augmentation Scheme and the Breede-Berg (Michell's Pass) Water Transfer Scheme*, December 2012.

The results of the LiDAR survey at the Michell's Pass Weir site are such that they are deemed adequate to determine river cross-sections and therefore no further topographical survey of the river section is necessary. To cater for optimisation of the weir design, however, bidders are required to price for additional topographical and bathymetric surveys at the Michell's Pass Weir site, along the Alternative A pipeline, and borrow areas for construction material for the dam and pipeline.

The proposed Boontjies River Dam site was not included in the original aerial survey. The proposed dam has been investigated at a pre-feasibility level using existing 1:10 000 maps (5 m contours). A topographical survey of this site is needed to enable the dam to be investigated at feasibility level, if this option is considered for implementation. The Feasibility Study LiDAR survey did not include the Alternative B pipeline route. As such, additional surveys will be required from the point where the proposed pipeline crosses the R46 road, between Wolseley and Tulbagh, up to the Boontjies River Dam and pump station site, and for borrow areas for construction material for the dam and pipeline. Bidders are required to price for additional topographical surveys for the Boontjies River Dam and pump station sites, for Alternative B pipeline route, for borrow areas as well as for professional fees.

The Papenkuils Pump Station is proposed for upgrading to maintain the Brandvlei Dam yield unaffected. The current operation of the Papenkuils Pump Station is based on damming of water by means of a rip-rap weir. The rip-rap weir is considered inadequate for operation of an upgraded pump station, and a higher permanent weir will be needed for a higher damming effect and abstraction rate. Additional topographical surveys are required for upstream hydraulic modelling for designing the weir, conservation of the Papenkuils wetland, and for borrow areas for construction material. Bidders are required to price for these topographical surveys as well as for the PSP's professional fees.

Recent site visits have confirmed the damming of the summer water level in both the Klein Berg River and Twenty-Four Rivers canal outlets at the Voëlvlei Dam. With higher water levels expected during winter and from the raised Voëlvlei Dam to accommodate additional water transferred from the Breede River, severe damming of the canals is envisaged. Severe damming of canal outlets may necessitate raising of the canal embankments if this mitigation measure is recommended in the Post Feasibility Bridging Study. To cater for the raising of Voëlvlei Dam and potential upgrading of the canal outlets, additional topographical surveys are required for the raised Voëlvlei Dam up to the new high flood level (HFL), canals and adjacent areas between Voëlvlei Dam and the R46 road and borrow areas for construction material for the dam and canals. Bidders are required to price for these topographical surveys and the PSP's professional fees.

The hydraulic capacity of the Klein Berg River diversion weir needs a review to determine if the existing structure is able to handle the proposed transfer from the Berg River. Additional topographical and bathymetric surveys are required for the Klein Berg River up to the 110 masl contour and borrow areas for construction material if upgrading of the diversion weir is necessary. Bidders are required to price for these topographical and bathymetric surveys as well as the PSP's professional fees.

Topographical surveys are also required for land acquisition purposes including cadastral data, title deeds and Surveyor General (SG) diagrams for all properties affected by the BBTS infrastructure, and for benchmarks for setting out during construction of the infrastructure components. Additionally, topographical surveys are also required for associated infrastructure such as access roads, power line for power supply, and site establishment where necessary. Survey information must meet the format requirements for detail design and environmental authorisation purposes. This requires coordination between the engineering and EIA teams throughout the contract period to ensure integration of survey and other relevant information. Bidders are required to price in their Financial Proposals for these topographical surveys and the PSP's professional fees.

No Provisional Sum has been allocated for topographical and bathymetric surveys (refer to **Section 6.3**). The cost for appointing a survey contractor to undertake these investigations must be included in the bidder's Financial Proposal.

5) Michell's Pass Diversion Weir Design

The feasibility design of the proposed diversion weir is described in the report: *Breede-Berg (Michell's Pass) Water Transfer Scheme*; Appendix 11: *Diversion Weir Design for the Berg River-Voëlvlei Augmentation Scheme and the Breede-Berg (Michell's Pass) Water Transfer Scheme*, December 2012.

The feasibility design of the proposed diversion weir needs to be reviewed. Aspects that require particular attention are founding depth and stability of the structure, as well as the layout of the inlet to the pipeline, screening of the inlet for transported rocks and sediment, and hydraulic modelling. The diversion weir design must incorporate a fishway (fish ladder) according to current river ecology management principles to preserve fish migration patterns. The feasibility design needs to be properly documented in a report, including any supporting documentation and engineering drawings showing pertinent details and dimensions.

6) Transfer Pipeline to Klein Berg River

The feasibility design of the transfer pipeline is described in the report: *Breede-Berg (Michell's Pass) Water Transfer Scheme*; Appendix 10: *Conveyance Infrastructure Design Report for the*

Berg River-Voëlvlei Augmentation Scheme and the Breede-Berg (Michell's Pass) Water Transfer Scheme, December 2012.

The feasibility design of the proposed transfer pipeline, from the Michell's Pass diversion weir to the discharge structure, needs to be reviewed and optimised to ensure that the design is efficient and cost effective. This includes the pipeline route, pipe diameter, pipe material, air valves, scour valves, stream and road crossings, offtakes to farms and other users, and hydraulic gradient. Bidders must note that the **pipeline is designed as a hydraulic system** including the identification and inclusion of various draw-offs (offtakes) at different points of interest. This requires field investigations and confirmation of farm and other water uses, as well as in-depth hydraulic modelling. The pipeline is not a simple pipeline from the starting point at the weir to a defined end point with lumped draw-offs.

The need for the Boontjies River balancing dam (Alternative B) must be determined before the pipeline can be optimised, as the discharge point and length of pipeline differ:

- Alternative A: Discharge point in Blousloot tributary, which has a pipeline length of 7 600 m; and
- Alternative B: Discharge point at the proposed Boontjies River Dam, which has a pipeline length of 10 600 m.

The discharge structure for Alternative A (Blousloot) needs to be reviewed and optimised if necessary (refer to **3.5 (12) (a)**). If Alternative B (Boontjies River) is the recommended option, the discharge into the dam will be part of the feasibility design of the dam.

7) Boontjies River Dam Design

The pre-feasibility design of the proposed Boontjies River Balancing Dam is described in the report: *Breede-Berg (Michell's Pass) Water Transfer Scheme*; Appendix 6: *Preliminary Design of Papenkuils Pump Station Upgrade and Pre-Feasibility Design of the Boontjies Dam for the Breede-Berg (Michell's Pass) Water Transfer Scheme*, December 2012.

The active storage volume required in the proposed Boontjies River Balancing Dam would be about 7.5 million m^3, and the total storage volume would be about 8 million m^3, based on a 5 m^3/s diversion capacity for the scheme.

If this balancing dam is the recommended option (Alternative B), the current pre-feasibility design needs to be reviewed and upgraded to feasibility level. This would include topographical survey and geotechnical investigation of the site and borrow areas for construction material, confirmation of the layout and dam type, and feasibility design of the dam wall, spillway, fishway, and outlet works including discharge of EWR into the Breede River. The dam design must incorporate a

fishway (fish ladder) according to current river ecology management principles to preserve fish migration patterns. The feasibility design needs to be properly documented in a report, including any supporting documentation, engineering drawings showing pertinent details and dimensions.

8) Water Quality Assessment

The 2012 Feasibility Study did not consider the water quality of the water transferred from the Breede River at the Artois Canal offtake. Although it is expected that the water will be of good quality for irrigation purposes, its corrosive classification is a critical factor for the design of the proposed conveyance infrastructure in terms of pipeline material options, valve material options and coatings, pump material options and coatings, concrete durability, among other factors. Historical water quality test results, if available from the DWS or other stakeholders, must be obtained and water quality sampling and testing carried out by an accredited laboratory to assess the water quality and seasonal variation for both Alternative A and B scheme layouts.

9) Flood Determination and Backwater Calculations

The determination (review) of flood magnitudes at the Michell's Pass Weir site, Boontjies River Dam site and diversion weir site is required for the various return periods needed for feasibility design purposes, namely:

- Diversion works: The 1:5, 1:10, 1:20 and 1:50 year flood for design of the structure and temporary works.
- High flood line: The 1:100-year flood at the diversion weirs and balancing dam.
- Spillway design and freeboard: The 1:200-year flood; and
- Safety Evaluation Flood (SEF): Required for the dam site.

Backwater calculations are required during the feasibility investigations for the dam and diversion weirs in order to determine the high flood levels (HFL). The impact of 50 years of sediment accumulation on the HFL must be included in these calculations. The flood routing calculations should assume that the dam would be at FSL when the high flood occurs. A contour map of the dam basin showing the HFL is required.

The dam boundary line, relocation of infrastructure and compensation must be based on the 1:100-year backwater level and buffer zone, according to DWS standards. The buffer zone is an additional 1.5 m, measured vertically from the HFL in steep areas, or 15 m, measured horizontally in flat areas of a dam basin. This principle is applied to obtain a series of straight lines that define the area to be acquired for the dam basin, and upstream of the diversion weirs. A contour map of the dam basin showing the purchase line is required.

10) Papenkuils Pump Station Upgrade

The preliminary design of the Papenkuils pump station upgrade is described in the report: *Breede-Berg (Michell's Pass) Water Transfer Scheme*; Appendix 6: *Preliminary Design of Papenkuils Pump Station Upgrade and Pre-Feasibility Design of the Boontjies Dam for the Breede-Berg (Michell's Pass) Water Transfer Scheme*, December 2012.

If the BBTS is implemented, the capacity of the Papenkuils pump station needs to be increased to between 15 m^3/s and 26 m^3/s to maintain the yield of Brandvlei Dam. The required optimal pumping capacity needs to be confirmed as part of this Bridging Study. The existing pumps have a nominal 5 m^3/s capacity. The existing pump station makes provision for upgrading to 20 m^3/s capacity by including space for two more pumps of the same size. There is a 350 m tunnel with a 3.5 m diameter and discharge capacity of 40 m^3/s, which passes through the hill to the dam.

The existing Papenkuils Weir is not a formal structure but consists of dumped rip-rap across the Breede River. The purpose of the weir is to raise the water level for the upstream inlet canal of the pump station. It is assumed that the proposed higher abstraction at the pump station required to maintain the yield of the Brandvlei Dam will result in a higher damming effecting at the upgraded weir. However, any formal weir structure cannot be built too high as the adjacent area towards Worcester would be flooded. This will require calculation of flood levels and flood routing. The upgrading of the weir will also require an assessment of the existing abstraction works hydraulics, field work for hydraulics and sediment transport during winter, investigation of modified intake with sediment and debris control at the intake and new weir hydraulic design, hydrodynamic modelling of flow patterns and sediment dynamics, hydraulic design aspects for EWR releases, fishway design (if required), and an evaluation of operating rules. In addition, site specific hydrology will be determined for flood line determination.

The preliminary design of the pump station upgrade needs to be reviewed and brought to feasibility level. The feasibility design needs to be properly documented in a report, including any supporting documentation, engineering drawings showing pertinent details and dimensions.

11) Raising of Voëlvlei Dam

The additional storage capacity required in Voëlvlei Dam, to store the water transferred from the Breede River, needs to be confirmed, as well as the associated height of raising required. The feasibility design of the raising and associated works needs to be undertaken. This task includes optimisation of the dam wall raising, details of any associated works, hydraulics and civil design for canal outlets upgrading, sourcing of construction materials from borrow areas and commercial market, engineering drawings, quantities and cost estimates.

The feasibility design of the dam wall raising needs to be properly documented in a report, including any supporting documentation, engineering drawings showing pertinent details and dimensions.

12) Affected Infrastructure

There are certain existing infrastructure and other aspects that require attention to ensure that the proposed BBTS can be implemented effectively, which include the following:

a) Existing conveyance infrastructure

The hydraulic capacity of the Klein Berg River Weir and the existing canal, from the weir to Voëlvlei Dam, needs to be reviewed, together with the capacity of the inlet and outlet works. The hydraulic capacity and efficiency of both the weir and canal must be reviewed. This will entail a review of the diversion works hydraulics and sediment dynamics for the increased diversion from the Breede River, collection and analysis of field data and modification of the hydraulic design (if required), sediment yield, evaluation of sediment control measures, hydrodynamic modelling, hydraulic design for EWR releases, fishway design (if required), and evaluation of operating rules. In addition, site specific hydrology will be determined for flood line determination. The abstraction capacity needs to cater for the water transferred via the BBTS, in addition to the flow currently diverted from the Klein Berg River. Betterments need to be proposed, if required, and the feasibility design of such betterments needs to be undertaken.

b) Access roads

The routes of access roads to the various components of the BBTS (diversion weirs, pipelines, balancing dam, and pump stations) need to be determined. Topographical surveys of route alignment, feasibility level cost estimates, and environmental impacts of these roads form part of this Bridging Study. This task includes assessment of the width and standard of access roads, stream crossings and associated structures. Environmental authorisation of the access roads is required.

c) Power supply

The source of power supply for the Michell's Pass diversion weir and Boontjies River Dam (if Alternative B is recommended), the route alignment and length of the transmission line need to be established. The power supply must be quantified, a topographical survey undertaken, a conceptual design prepared, and environmental screening conducted for the powerline and connection to the grid. Provision of power supply must be factored in the cost estimate of project. A registered professional electrical engineer must be appointed to lead this task.

d) Land acquisition and servitudes

The acquisition of land and servitudes required for the construction and operation of the BBTS infrastructure components needs to be investigated. This includes the registration of rights for structures on State land, servitude for pipelines, servitude for water transfer in the Klein Berg River, and servitude for the Boontjies River Dam if Alternative B is recommended.

Topographical surveys are required for land acquisition purposes including cadastral data, title deeds and Surveyor General (SG) diagrams for all properties affected by the BBTS infrastructure. The level and format of survey data must meet the requirements for detail design and environmental authorisation purposes. This requires coordination between the engineering and EIA teams throughout the contract period to ensure integration of survey and other relevant information.

e) Advance construction infrastructure

Advance infrastructure for construction of the BBTS components needs to be established. This includes access roads, power supply for construction and operation, construction camp layout, laydown areas, as well as operator's housing and facilities, if required. The level and format of information required must be adequate to meet the requirements for environmental authorisation of the project. This requires coordination between the engineering and EIA teams throughout the contract period to ensure integration of survey and other relevant information.

13) Scheme Operation

The operating rules of the proposed BBTS need to be determined in consultation with the various role players such as DWS, City of Cape Town, environmental authorities, Artois canal irrigators, among others. The Record of Implementation Decisions (RID) report, among other reports, must include a chapter on the proposed scheme operation.

14) Cost Estimates and Economic Analyses

The cost of the BBTS shall be estimated by a cost engineer or other suitably qualified person who has both a proven record and experience in estimating construction costs and is still employed in this field. The design engineers need to assist in identifying the billing items that should be included in the cost estimates.

A separate Bill of Quantities (BoQ) shall be prepared for each component of the BBTS such as the diversion weirs, Boontjies River Dam, pump stations, pipeline, and others. The BoQ shall include all costs required to implement that component. Unit rates should be verified with the latest water infrastructure projects completed in South Africa, and shall exclude contingencies and VAT. A summary of the total cost of the various components comprising the proposed BBTS

shall be included in the relevant reports. Contingencies and VAT shall be added to the total of this summary.

Financial viability analyses must include calculation of unit reference value (URV) and other relevant economic indices such as net present value (NPV), cost benefit ratio (CBR), payback period (PBP), and internal rate of return (IRR). Affordability of water to the various user groups must be investigated based on water tariff estimates calculated in accordance with the Pricing Strategy for Raw Water Use Charges and applicable subsidies. The latest ***Infrastructure Planning and Appraisal Guideline*** issued by Treasury must be consulted for guidance on the expected methodology.

15) Socio-Economic Impact Assessment

An analysis is required to determine the regional and national socio-economic impacts of the proposed BBTS. This assessment should determine the impact of the water transfer scheme on sustaining existing developments, new developments, gross domestic product (GDP), job creation, household income, direct and indirect impacts, among other economic indicators.

The PSP will be required to consult National Treasury to establish requirements for funding approval which need to be factored in the socio-economic impact assessment. The ***Infrastructure Planning and Appraisal Guideline*** referred to above should be consulted.

16) Legal, Institutional, and Financing Arrangements

a. Legal Aspects

The appointed PSP will be required to investigate the **legal aspects** pertaining to the Project in terms of the relevant legislations, policies and regulations applicable during the planning, design, construction, and operational phases. Recommendations must be provided with regard to the required compliance. A suitably qualified and experienced **Legal Professional** must be appointed to lead the legal aspects of the study.

b. Institutional Arrangements

The PSP must investigate options for **Institutional Arrangements** needed for the implementation of all components of the Project. Key role players that are responsible for implementation and operation as well as for funding the different components of the scheme must be identified. The key role players include the Department of Water and Sanitation, the Office of the Premier, Department of Agriculture, Land Reform and Rural Development (national and provincial), Department of Mineral Resources, the City of Cape Town and others. Roles and responsibilities must be clearly defined including the role for ownership of the different components of the infrastructure. This requires extensive consultation with the key role players. The scheme will most likely be built as a Government Waterworks in accordance with **Section 109 of the National**

Water Act, 1998 (Act No. 36 of 1998), but the Minister may choose to appoint an implementing agent such as the Trans-Caledon Tunnel Authority (TCTA) to secure funding and implement the Project on behalf of the Department of Water and Sanitation.

Co-ordination of the activities of role players is critical for the successful implementation of the Project. It is therefore necessary to develop a Project Governance Structure showing work streams and committees, committee membership, terms of reference, and other processes.

The PSP will be required to investigate various options and provide recommendations for ownership, implementation and operational arrangements. Recommendations should preferably be based on lessons learned from existing projects in the province as well as international best practice.

c. Financing Arrangements

The PSP is required to investigate financing arrangements in consultation with National Treasury. Possible sources of funding include on-budget funding from Treasury, off-budget funding from commercial loans raised on the financial market, Regional Bulk Infrastructure Grant (RBIG), City of Cape Town Metropolitan Municipality, donor funding, among others. In the light of the current fiscal constraints, the possibility of bridge financing must be investigated. Financing arrangements must distinguish between social and commercial components of the Project, as required by Treasury. Motivation will be required for the social component of costs that are not redeemed from the sale of water, if any, and a discussion presented on whether subsidisation is needed for capital costs or for interest payments only.

Financing arrangements must also provide for the acquisition of land required for the construction of the Project, compensation for any affected property and infrastructure, and incidental costs. If an implementing agent is appointed, the Department of Water and Sanitation would normally provide bridging finance for preparatory works such as detail design, compliance with conditions of environmental authorisation, drafting of the memorandum of agreement with the DWS, and negotiations for water offtake agreements until project financing has been secured.

3.6. PUBLIC PARTICIPATION PROCESS

1) Public participation process

The **Public Participation Process (PPP)** is a critical component of the Post Feasibility Bridging Study, Environmental Impact Assessment (EIA) process, as well as the Water Use Licence Application (WULA) process, ensuring transparency, inclusivity, and adherence to legal requirements. This process must start during the Bridging Study and continue during the EIA study. The PSP must implement a well-organised and timely PPP to meet the regulatory obligations of the **EIA Regulations, 2014** (as amended), providing stakeholders with the

opportunity to engage and voice their concerns or inputs. Where possible, the PPP will be integrated for both the **National Environmental Management Act (NEMA)** and **National Water Act (NWA)** processes, ensuring that it complies with the relevant legal frameworks.

2) Objective of public participation

The objective of the public participation process is to engage with interested and affected parties (I&APs) including water users in the Breede River, and other stakeholders, regarding the BBTS. Other stakeholders include water users in the Klein Berg River and along the Artois canal, as well as environmental organisations.

The water users in the Upper Breede River (Ceres to Worcester) need to be engaged regarding the results of the yield analysis. They need to be in a position to accept that the water transferred to the Berg River will not affect their current water allocations in future. It is equally important that environmental organisations and activists are engaged regarding compliance with the environmental water requirements of the Breede River.

Water users in the Klein Berg River and along the Artois canal need to be engaged and made aware that the water transferred from the Upper Breede River is not intended to increase their current allocation.

3) Key responsibilities of the PSP

Bidders are required to consider the following key deliverables when preparing their Financial Proposal for the PPP:

a) Identify members of the public, key stakeholders, local authorities, government departments, and environmental groups with an interest or stake in the proposed schemes.
b) Identify all landowners, residents, and communities directly affected by the proposed schemes.
c) Create and maintain a register of **Interested and Affected Parties (IAPs)** with their contact details for the duration of the study to ensure all communications are properly managed.
d) Advertise the Environmental Scoping and EIA process in **local and regional newspapers** to inform the public of the process and how they can participate.
e) Develop and maintain relevant project information suitable for publishing on the **DWS website** during the EIA process, providing transparency and easy access to information.
f) Prepare a detailed **Background Information Document (BID)** to circulate to all identified IAPs at the start of the EIA Study, outlining the project background, potential impacts, and opportunities for engagement.
g) Notify all identified IAPs about the EIA process, detailing their roles, responsibilities, and rights under the applicable environmental legislation.

h) Ensure that all relevant environmental information and reports are shared with IAPs for their review and comment. This includes making reports publicly accessible in a format that can be easily understood.

i) Organise, coordinate, and facilitate **Public and Focus Group Meetings** to present information about the EIA process, gather comments and inputs from IAPs, and ensure that these meetings are properly documented through minute-taking.

j) Record all issues and concerns raised by IAPs, document comments, and prepare an **Issues and Responses Report (IRR)**. This report must be comprehensive, reflecting the views of IAPs and how their concerns are being addressed.

k) Circulate the comments and issues raised by IAPs to the project team to ensure that they inform the technical aspects of the project and decision-making processes.

l) Notify all registered IAPs of the **Environmental Authorisation** outcome from the Department of Forestry, Fisheries and the Environment (DFFE), the **Water Use Licence Applications** outcome from the Department of Water and Sanitation (DWS), the **Mining Permit Application** outcome from the Department of Mineral Resources (DMR), and other relevant authorisations. This notification(s) must include information on the available channels for appeal and how IAPs can provide further comments if necessary.

m) Produce a Background Information Document (BID).

4) Stakeholder engagement in the Upper Breede River catchment

A database of stakeholders for the Upper Breede River (Ceres to Worcester) needs to be compiled to facilitate the public participation process. Important stakeholders include but are not limited to:

- DWS Western Cape Regional office.
- City of Cape Town.
- Municipalities receiving water from the WCWSS.
- Witzenberg Local Municipality (Ceres and Wolseley).
- Breede Valley Municipality (Worcester).
- Western Cape Department of Agriculture.
- Department of Forestry, Fisheries and the Environment (National).
- Western Cape Department of Environmental Affairs and Development Planning.
- Cape Nature.
- Local environmental organisations.
- Koekedouw Irrigation Board (Ceres).
- Local farmers and communities.

The main concern of stakeholders is that transferring water to the Berg River catchment will impact negatively on the water users in the Breede River catchment. There is also concern that

the transfer will mean insufficient water for the EWR. Although the BBTS is intended solely for augmentation of the City of Cape Town Metropolitan Municipality, farmers in the Breede River catchment will want assurance that Breede River water will not benefit irrigation in the Berg River catchment at their expense. The appointed PSP will be required to facilitate meetings with the relevant stakeholders to address these and other concerns.

Provision for public meetings and liaison with stakeholders has been made in **Table 3.1**. The appointed PSP is required to have a team member with experience in public participation, who can lead these meetings, present information clearly, deal with difficult situations, as well as report writing.

A further requirement for this task is to facilitate negotiations with the Witzenberg Municipality and Koekedouw Irrigation Board regarding summer releases from Ceres Dam to provide the EWR downstream of the proposed BBTS diversion weir. Flood releases for the environment are currently not being made from the dam, and as such, this portion of water should be available to make Reserve releases.

Engagement and consultation with environmental authorities and organisations is also critical for the successful implementation of the BBTS. It is essential to show that provision for the EWR will be made in addition to the transfer of water to the Berg River catchment. Currently most of the summer flow in the Breede River is transferred to the Artois canal.

5) Stakeholder engagement in the Klein Berg River catchment

The stakeholder database (list of interested and affected parties) needs to be extended to include farmers and other parties in the Klein berg River catchment, as well as those receiving water from the Artois canal.

It is important to engage with these farmers regarding the layout and operation of the proposed BBTS. They also need to be informed that the additional transfer water is intended to augment the WCWSS and not to increase their allocation.

Opposition to the proposed BBTS needs to be dealt with as far as possible during the Bridging Study. This should reduce resistance during the EIA study and also reduce possible appeals against environmental authorisation of the scheme.

6) Background Information Document

A Background Information Document (BID) will be required during the Inception Phase of the Post Feasibility Bridging Study to provide interested and affected parties (I&APs) and other stakeholders with an overall background to the BBTS project and its objectives. Preparation and dissemination of the BID document must be priced in the Financial Proposal as a deliverable.

3.7. ENVIRONMENTAL SCREENING

An environmental specialist is required for the Post Feasibility Bridging Study to manage the environmental screening task and the Reserve requirements. It will be necessary to review the environmental screening of the preferred options, undertaken during the 2012 feasibility study, to identify and confirm listed activities under the EIA Regulations, 2014 (as amended) and address any aspects that require further investigation.

The Environmental Screening Report must also describe the general EIA process and contain a chapter dealing with the most important requirements of NEMA and related EIA Regulations. Environmental screening must ensure that there is a smooth transition of relevant information towards the EIA phase as well as fast tracking of the EIA process.

3.8. PRE-APPLICATION AND SCOPING PHASE

The **Environmental Scoping Phase** is crucial for setting the foundation of the EIA process by identifying key environmental aspects and potential impacts of the proposed project. Building on the previous **Environmental Screening Report** from the Bridging Study and the DFFE web-based screening tool, this phase systematically collects and analyses data relevant to the EIA process, ensuring that all potential environmental, social, and economic factors are considered. A **Scoping Report** which contains an environmental baseline is required.

Key activities in this phase include engaging the public and stakeholders, identifying significant impacts, and developing a comprehensive **EIA Plan of Study.** The Scoping Report, which must comply with the requirements of **Appendix 2 of GN R968/2014** (as amended), will outline all findings, stakeholder inputs, and the methodology of the EIA including the required specialist studies.

The deliverables required for the Scoping Phase include:

a) The PSP must use the **DFFE web-based screening tool** to complete pre-application requirements and consult with the DFFE to confirm the required **Specialist Studies.**
b) Conduct an initial **pre-application PPP** to identify any major issues or objections from the public and stakeholders. This step ensures early identification of potential roadblocks or significant concerns.
c) The **Scoping Report** should comprehensively describe the environment and potential impacts, while the **EIA Plan of Study** must detail the methodology for assessing impacts and outline the **specialist studies** to be undertaken. This will guide the subsequent EIA phase.
d) The PSP is responsible for completing and submitting all relevant **EIA application forms** to register the project and obtain official reference numbers for the BBTS project.
e) After submitting the application, the **Scoping Report** must be circulated for public and stakeholder comments. This public participation process (PPP) ensures transparency and allows IAPs to provide feedback on the report and the proposed project.

f) The Scoping Report must be **updated** with the comments received during the post-application PPP. Any new issues or concerns raised by IAPs must be addressed, and the report should reflect how these concerns will be considered during the EIA phase.

g) Once updated and finalised, the **Scoping Report** must be submitted to the **DFFE** for review and approval. This submission marks the end of the Scoping Phase and provides a clear path forward for the EIA phase.

3.9. ENVIRONMENTAL IMPACT ASSESSMENT

The **Environmental Impact Assessment (EIA)** phase is a critical step in evaluating the potential environmental, social, and economic impacts of the proposed project. It builds on the Plan of Study for the EIA, which was developed during the Scoping Phase, and must adhere to **Appendix 3 of GN R982/2014** (as amended). The objective is to provide a comprehensive assessment of the likely effects of the project and propose mitigation measures to minimise negative impacts, and secure Environmental Authorisation from the Department of Forestry, Fisheries and the Environment (DFFE) for the proposed Breede-Berg (Michell's Pass) Water Transfer Scheme (BBTS).

The PSP is required to appoint an Environmental Assessment Practitioner (EAP) to manage the EIA process, including both Environmental Scoping and EIA phases, according to all applicable legislations (refer to **Section 3.15** for applicable legislations). The objective of the EIA Study is to secure Environmental Authorisation from the Department of Forestry, Fisheries and the Environment (DFFE) for the proposed Breede-Berg (Michell's Pass) Water Transfer Scheme (BBTS). Although the DFFE is the Competent Authority in terms of NEMA, they may exercise their mandate to delegate their authority to the Western Cape Department of Environmental Affairs and Development Planning. Any such delegation must be in writing.

The ***methodology*** to be presented by the EAP should cover, but is not limited to, the following tasks:

- Compilation and submission of the necessary application forms for the proposed project to the relevant authorities.
- Pre-consultation and Authorities meetings with DFFE, DWS, Department of Mineral Resources (DMR), and other competent authorities to coordinate and align regulatory requirements.
- Key Activities for Environmental Scoping and EIA phases which should cover, but are not limited to, the following activities:
    a) Inception Phase to review the scope and objectives of the study.
    b) Site visits during both the Environmental Scoping and EIA phases.
    c) Public Participation Process (PPP) as per the EIA Regulations to gather input and address concerns.
    d) Environmental Scoping Report (ESR).

e) EIA Plan of Study based on scoping results.
f) Environmental Impact Assessment (EIA Report) to evaluate the potential environmental impacts.
g) **Eskom Power Supply Assessment** to verify the scope and carry out the necessary environmental assessments for the proposed power line and connection to the grid. Liaison with Eskom is required.
h) Specialist Studies (refer to **Table 3.2** for a full list)
i) Environmental Management Programme (EMPr) to guide the management and mitigation of environmental impacts.
j) Environmental Management Plan (EMP) for any proposed quarries and borrow areas, and submission of applications to the DMR for necessary authorisation.
k) Water Use Licence Applications (WULAs) in accordance with the National Water Act (NWA), 1998.

The deliverables required for the EIA Phase include:

a) The PSP must compile a detailed **EIA Report** in accordance with the Plan of Study outlined in the Scoping Report. This report should thoroughly assess all identified impacts and propose mitigation measures. It must also include a detailed assessment of the direct, indirect, and cumulative impacts of the project.

b) The **Specialist Study Reports** provide expert analysis on specific environmental aspects (refer to **Table 3.2**). These studies must be completed by independent specialists appointed by the EAP and submitted as separate reports.

c) The findings and recommendations from the specialist studies must be **integrated** into the EIA Report. The specialist input should guide the impact assessment, influencing the mitigation strategies and the overall project design.

d) The PSP must develop an **Environmental Management Programme (EMPr)** in accordance with **Appendix 4 of GN R982/2014** (as amended). The EMPr outlines specific measures for managing and mitigating environmental impacts during the construction, operation, and decommissioning phases of the project. It also includes monitoring requirements, roles and responsibilities, and timelines for implementation.

e) The **EIA Report** must be circulated to all registered IAPs for review and comment. The EAP should compile a **Comments and Responses Report**, documenting all feedback received during this process along with the applicant's and EAP's responses. This ensures that public and stakeholder input is fully integrated into the final assessment.

f) Once all comments have been addressed and the report has been updated, the final **EIA Report** must be submitted to the **DFFE** within the regulated timeframes, as stipulated in

GN R982/2014 (as amended). This submission is crucial for obtaining the necessary environmental authorisations, mining permits, and water use licences.

g) The PSP is required to undertake all tasks needed for the completion of the EIA process and follow all prescribed processes until Authorisation is obtained and all applicable licenses are issued by the relevant authorities.

Bidders must make provision in their Technical and Financial Proposals for environmental assessment at different levels including environmental screening, scoping phase, EIA process, mining permits for borrow areas, and water use licence applications.

The PSP must ensure continuity of processes between the Post Feasibility Bridging Study and the EIA phase. Therefore, the Interested and Affected Parties (IAPs) database developed in the initial phase of the study will be extended during the EIA phase to ensure that all registered parties are informed about the EIA process.

3.10. ENVIRONMENTAL WATER REQUIREMENTS

The appointed PSP must source available water resource classification and reserve information during the Inception Phase. The PSP must also consult with the Directorate: Reserve Requirements regarding compliance with the reserve determination process.

Based on the updated hydrology, the appointed PSP will be required to update the ecological water requirements produced in the 2012 Feasibility Study contained in the report: *Breede-Berg (Michell's Pass) Water Transfer Scheme – Appendix No. 7: Ecological Water Requirements Summary for the Berg River-Voëlvlei Augmentation Scheme, and the Breede-Berg (Michell's Pass) Water Transfer Scheme* (available on DWS website).

3.11. EIA SPECIALIST STUDIES

As part of the EIA process, various **Specialist Studies** are required to evaluate the social, economic, and environmental impacts of the proposed project. These studies aim to provide detailed insights into potential impacts and propose mitigation measures where necessary. The following specialist studies are envisaged for the EIA Study (see **Table 3.2**):

- Terrestrial Ecology and Botanical Study.
- Aquatic Ecology and Wetland Study.
- Freshwater (Surface and Ground Water) Study.
- Heritage and Palaeontological Study.
- Social Impact Assessment.
- Agricultural Impact Assessment.
- Traffic and Access Roads Assessment.
- Power Supply Infrastructure Assessment.

Specialists appointed to lead these studies must meet the requirements specified in **Table 3.2** below. These specialists are in addition to those required for the engineering and water resources investigations.

Table 3.2: Specialists for the EIA Study

SPECIALIST STUDY	REQUIRED SPECIALIST (Minimum Qualification)	PROFESSIONAL BODY (Professional Registration)
Environmental Assessment Practitioner (the EAP)	BSc Honours in Environmental Science or related field	Environmental Assessment Practitioners Association of South Africa (EAPASA Professional Member)
Terrestrial Ecology and Botanical Study	BSc Honours in Ecology, Botany, Zoology, or related field	South African Council for Natural Scientific Professions (SACNASP) or equivalent (Professional Scientist)
Aquatic Ecology and Wetland Study	BSc Honours in Ecology, Aquatic Science, or related field	SACNASP or equivalent (Professional Scientist)
Freshwater (Surface and Ground Water) Study	BSc Honours in Hydrology, Microbiology, Chemistry, or related field	SACNASP or equivalent (Professional Scientist)
Heritage and Palaeontological Study	BSc/BA Honours in Archaeology or related field	Association of Southern African Professional Archaeologists (ASAPA) or equivalent (Professional Member)
Social Impact Assessment	BSc Honours in Social Science or related field	South African Sociological Association (SASA) or equivalent (Professional Member)
Agricultural Impact Assessment	BSc Honours in Agriculture, Agricultural Economics, Soil Science or related field	SACNASP or equivalent (Professional Scientist)
Traffic and Access Roads Assessment	BSc Eng/BEng in Civil Engineering, Highway Engineering, or Traffic Engineering	Engineering Council of South Africa (ECSA) (Professional Engineer)

SPECIALIST STUDY	REQUIRED SPECIALIST (Minimum Qualification)	PROFESSIONAL BODY (Professional Registration)
Power Supply Infrastructure Assessment	BSc Eng/BEng in Electrical Engineering	ECSA (Professional Engineer)

Requirements for the appointment of EIA specialists are as follows:

- **Curriculum Vitae**: A list of the proposed specialists must be included in the **Technical Proposal**, together with their curriculum vitae (CVs) showing previous experience on similar assignments, proof of qualifications and professional registration. For each specialist study, a **CV folder cover** must be attached using the template provided in **Table 5.1** for ease of identification.
- **Financial Proposal**: Bidders shall make provision in their **Financial Proposals** for all costs associated with conducting the above-mentioned specialist studies.
- Should unforeseen specialist studies be identified during the EIA process, the necessary specialist sub-consultants will need to be appointed. For each additional specialist study, the PSP will be required to submit a motivation for the **variation order** with a detailed task budget. These additional specialist studies MAY ONLY be undertaken following the approval of the variation order by DWS in writing.

3.12. ENVIRONMENTAL MANAGEMENT PROGRAMME

The PSP is responsible for compiling an **Environmental Management Programme (EMPr)** that outlines mitigation measures for managing environmental impacts identified during the Environmental Impact Assessment. The EMPr should address all phases of the project, including **design**, **construction**, and **operation**. It is a **living document** and may require updates based on new information or changes in project scope.

The EMPr must comply with Appendix 4 of GN R982, 2014 (as amended) and will be submitted as part of the EIA suite of reports. The purpose of the EMPr is to:

- Comply with **environmental best practices** to avoid, minimise, or mitigate identified impacts.
- Ensure compliance with **environmental laws and regulations** during all stages of the project.
- Specify **roles and responsibilities** of stakeholders, including contractors and the project management team.
- Define **monitoring, reporting, and auditing** procedures for ensuring compliance with the prescribed mitigation measures.
- Provide **guidelines** for handling environmental emergencies such as spills, accidents, or other unforeseen incidents that could affect the environment.

- Develop a **training programme** for all personnel involved in the project to ensure they are aware of the EMPr requirements and the importance of environmental management.
- Specify **format and frequency** of submission of environmental monitoring reports to relevant authorities and stakeholders.

3.13. MINING PERMITS FOR BORROW AREAS

In the course of the project, **borrow areas** will be established to source construction materials, such as earthfill material or aggregate (sand, gravel or crushed stone). The development of these borrow areas could trigger **listed activities** under **Government Notice (GN) R983** and **GN R985** of the EIA Regulations, 2014 (as amended). As a result, a separate application must be made for authorisation from the **Department of Mineral Resources (DMR)**. Bidders must include the following key tasks related to borrow areas in the scope of the project:

- Submission of a **separate application** to the DMR for obtaining the required mining permits.
- The application must ensure compliance with the **Mineral and Petroleum Resources Development Act (MPRDA), Act 28 of 2002**, as well as other relevant legislations.
- A detailed **Environmental Management Plan (EMP_L)** must be developed for the borrow areas to manage environmental impacts associated with the mining activities.
- The EMP_L must cover aspects such as excavation and extraction of materials, rehabilitation of the site after material extraction is completed, among others.
- The application process must include appropriate **public participation** and consultation with **Interested and Affected Parties (IAPs)**, in compliance with DMR requirements.
- The appointed PSP will be required to develop a monitoring and reporting framework to ensure that the environmental management measures for the borrow areas are implemented and maintained during the construction phase.
- The PSP will be required to ensure that the activities related to the borrow areas align with the overall project schedule and environmental compliance measures established for the **broader EIA Process**.

3.14. WATER USE LICENCE APPLICATIONS

The **Water Use Licence Applications (WULAs)** are a critical component of the EIA process for this project, ensuring compliance with the National Water Act, 1998 (Act No. 36 of 1998). These applications are required for the various water-related activities that form part of the proposed project. The objectives and deliverables of this task include identification of water uses requiring licensing, preparation of technical reports, and submission of WULAs to DWS as outlined below:

- The PSP must engage with the **Water Use Licensing Office**, both regional and national offices, to confirm the water uses that require licensing. This consultation will clarify the scope and requirements for the project in terms of the National Water Act.

- The PSP will identify specific components of the proposed project requiring licensing under **Section 21** of the **National Water Act**. Potential water uses requiring licensing, among others, include:
  - **Section 21(a)**: Taking water from a water resource (e.g. diversion weirs and pump stations).
  - **Section 21(b)**: Storing water (e.g. Michell's Pass Weir, Boontjies River Dam).
  - **Section 21(c)**: Impeding or diverting the flow of a watercourse.
  - **Section 21(i)**: Altering the bed, banks, course, or characteristics of a watercourse.
- The PSP must assess whether these or any other categories of water use apply to the different components of the project, including pipeline river crossings and any other infrastructure that interact with the water resources.
- Bidders are required to anticipate, from their knowledge of the WULA process, and price for any specialist studies required to provide necessary information for WULA processing.
- A **WULA Technical Report** will be prepared for all components of the project that require licensing. This report must include all the necessary technical information required for processing the licence applications.
- The WULA Technical Report(s) must be prepared in close collaboration with the **Water Use Licensing Office** at the **Head Office** and the **Western Cape Regional Office** to ensure all requirements are met.
- The PSP will be responsible for completing all relevant **WULA forms** as required by Section 41 of the National Water Act. This includes the submission of all supporting documentation as specified by DWS. WULA documentation must comply with the requirements set out in **GN R267/2017.**
- The completed WULAs, along with the technical report(s), must be submitted to DWS for processing.
- Bidders must make **adequate provision of the cost** of the WULA process in their Financial Proposals.

3.15. AMMENDMENT OF AUTHORISATION AND ASSISTANCE WITH APPEALS

This task involves supporting the Department of Water and Sanitation (DWS) throughout the environmental authorisation and WULA processes, including handling comments and any amendments to the authorisation and managing appeals lodged against the project. The PSP must remain involved until final authorisation is obtained from the Department of Forestry, Fisheries and the Environment (DFFE), and WULA applications meet the prescribed requirements. The PSP's involvement in this phase ensures that DWS is well-supported in responding to comments, appeals, and potential amendments, ensuring that the project proceeds in compliance with legal and regulatory requirements.

Support in Handling Comments and Appeals: The PSP must assist DWS in addressing all comments, objections, and appeals from IAPs or appellants for both the EIA and WULA processes. This includes setting up and facilitating meetings with DFFE or DMR or DWS and the appellants, drafting responses to issues raised, and communicating with IAPs in accordance with relevant environmental regulations.

Review of Conditions of Authorisation: Upon receipt of the conditions attached to the environmental authorisation, the PSP will be responsible for examining these conditions and other aspects of the authorisation in collaboration with DWS. If any aspect of the authorisation requires amendment, the PSP must bring this to the attention of DWS and submit applications for the necessary amendments to DFFE.

Preparation of Appeals Response Report: The PSP is tasked with preparing both the Draft and Final Appeals Response Report (ARR) in the prescribed format for submission to either DFFE or DMR or DWS. The ARR must address each appeal lodged against the project and provide a comprehensive report. The PSP will also conduct a **Legal Review** of the appeals, ensuring that responses are in accordance with applicable water and environmental legislations.

Administrative and Professional Support: The PSP must handle all administrative tasks associated with the appeal process, including document management, scheduling meetings, and maintaining communication with DWS, DFFE, DMR and the appellants. The PSP is responsible for ensuring the appeal process is conducted professionally, and that all responses are legally sound and well-documented.

Legal Review by Experienced Professional: A suitably qualified and experienced **Legal Professional**, specialising in water and environmental legislations, must be engaged for the legal review of the appeals and proposed responses. This professional must have a proven track record in these fields, ensuring that the legal aspects of the project are handled with expertise.

Provision for Amendments: If any amendments to the authorisation are required, the PSP must prepare and submit applications for up to two (2) amendments. These applications must follow the relevant procedures and be submitted to DFFE or DMR for approval.

Comments and Appeals Period: Based on appeal processes encountered in previous EIA studies, an average appeal period of six (6) months is anticipated. Bidders must make provision for this timeframe in their Proposals.

Financial Provision for Appeals: Bidders must make provision in their **Financial Proposals** for handling a maximum of **10 appeals** and **2 applications** for amendment. The cost for each appeal and amendment must be easily identifiable in the Proposal to allow proper management of the task budget. This must include all associated administrative and professional costs. Additionally, the Proposal must cover the costs related to managing non-appeal, general comments and tasks during the **Appeal Process**.

3.16. DATA AND INFORMATION REQUIREMENTS

Streamflow records and other data required for the water resources assessment will be available from DWS. However, weather data (rainfall and other data) will need to be purchased by the PSP and must be priced adequately in their Financial Proposal. **No Provisional Sums** have been allocated for data acquisition, and variation orders for data acquisition WILL NOT be accepted. Bidders are therefore required to ascertain all the data and information requirements for the Post Feasibility Bridging Study and Environmental Impact Assessment as well as the WULA applications and make provision for the relevant costs in their Proposals. For easy budget control, professional fees for the PSP's time expended on data and information acquisition must preferably be priced under the **Project Management task**, and not data acquisition task.

Any data and information provided by DWS and other role players free of charge shall not be eligible for invoicing.

3.17. APPLICABLE LEGISLATIONS

The following legislations apply to the EIA Study and WULA application for the Breede-Berg (Michell's Pass) Water Transfer Scheme:

a) National Environmental Management Act (No. 107 of 1998, as amended)

The project requires a Scoping-EIA process under the National Environmental Management Act (NEMA) as it triggers, among others, activities 15 and 16 of GN R984 (2014, as amended). Additionally, the project will trigger various listed activities under GN R983 and R985 (2014, as amended).

b) Mineral and Petroleum Resources Development Act (No. 28 of 2002, as amended)

If suitable construction materials are not available from commercial sources, the project may require materials to be sourced from borrow areas, necessitating the creation of borrow pits near construction sites. Although the DWS is exempt from sections 16, 20, 22 and 27 of the Mineral and Petroleum Resources Development Act (MPRDA) under section 106 of the Act, the amended GN R983 and R984 exclude section 106 (mining activities). However, auxiliary activities like vegetation clearance or access roads are not excluded. Borrow (mining) areas may trigger listed activities under GN R983 and R985. For listed activities directly related to the extraction or primary processing of a mineral, a separate application must be submitted to the Department of Mineral Resources (DMR), as the Minister of Mineral Resources is the Competent Authority (CA) for mining activities (borrow pits).

c) National Environmental Management: Biodiversity Act (No. 10 of 2004, as amended)

It is anticipated that the NEM:BA will have to be consulted. The EAP will be required to conduct an assessment for delineating ecosystems protected by the Biodiversity Act. The presence of any Critical Biodiversity Areas within the study area must be investigated.

d) National Water Act (No. 36 of 1998, as amended)

The Boontjies River Dam will have a storage volume of approximately 8 million m^3, requiring a Water Use Licence Application under section 21(b) of the National Water Act. Similarly, the Michell's Pass diversion weir, pipeline river crossings, Papenkuils Pump Station, and other components of the BBTS project will require additional WULA applications.

e) National Forests Act (No. 84 of 1998, as amended)

The potential impacts of the BBTS project on natural vegetation will need assessment. The potential impacts on tree species must be assessed, and the necessary permits must be obtained under the National Forests Act (NFA).

f) Nature and Environmental Conservation Ordinance (No. 19 of 1974)

Based on the findings of the environmental assessment, a permit may be required for the relocation, damage or destruction of species protected under the Nature and Environmental Conservation Ordinance.

g) National Heritage Resources Act (No. 25 of 1999)

The project requires notification to Heritage Western Cape under Section 38(1)(b) and (c) of the National Heritage Resources Act (NHRA). If a heritage object or site is identified during Phase 1 of the Archaeological and Paleontological Study, a permit application for destruction or relocation will be required. Phase 2 of the Heritage and Palaeontological Study ***will only proceed*** if required by Heritage Western Cape. Therefore, the cost for Phase 1 and Phase 2 must be quoted separately in the Financial Proposal. Should Phase 2 not proceed, funds would be reallocated to study tasks with insufficient budgets, subject to ***prior written approval*** from the DWS.

h) Competent Authority

Under Section 24C(2)(d)(i) and Section 43(1)(c)(i) of NEMA, the Department of Forestry, Fisheries and the Environment (DFFE) is the ***Competent Authority (CA)*** for all listed activities under GN R983, R984 and R985. Should DFFE decide to delegate the authority to the Western Cape Department of Environmental Affairs and Development Planning, any such delegation must be in writing. Other competent authorities include the DWS for WULA

applications, DMR for mining permits of borrow areas, Heritage Western Cape for permits related to national heritage sites, among others.

3.18. PROVISION OF INFROMATION FOR THE DWS WEBSITE

The PSP will be required to provide the DWS Web Manager relevant project information required to develop, update and maintain the project website that will be used for dissemination of information to the public. Relevant information includes, among others:

- Background Information Document (BID).
- Inception Report without contractual details.
- Meeting proceedings.
- Notices of all public meetings.
- Public participation documents.
- Advertisements.
- Government Gazette notices.
- Post Feasibility Bridging Study Reports.
- Scoping Report.
- Environmental Impact Assessment Report.
- Environmental Management Programme.
- Environmental Management Plan.
- Specialist Study Reports.
- Environmental Authorisation.
- Mining Permit, if required.
- Water Use Licence information.
- Other relevant information.

3.19. CAPACITY BUILDING AND TRAINING

Bidders are required to allocate resources for the ***Capacity Building and Training*** of DWS officials and interns on both the technical and environmental aspects of the Bridging Study. The specifics of the capacity-building programme will be developed by the PSP in consultation with the DWS Project Manager.

Capacity building must include the secondment of DWS officials and interns to the PSP for hands-on experience with certain aspects of the Bridging Study. The PSP's responsibility in this regard will be limited to mentoring effort, provision of office space, and necessary study-related resources. Compliance with this requirement must be confirmed in the Technical Proposal.

Additionally, one-day workshops are required to cover selected technical and environmental aspects of the Bridging Study for DWS officials. These workshops **MUST be accredited** with SACNASP and ECSA to enable DWS participating scientists and engineers to gain Continuing

Professional Development (CPD) credits. The workshop content should be outlined in the **Technical Proposal** and will be subject to further review.

In the **Financial Proposal**, bidders must make provision for the secondment of **three (3) officials** for a period of six (6) months each, and for the facilitation of **two (2) similar one-day workshops**. One workshop will be held in Cape Town and the other in Pretoria, although they may be combined and presented virtually if preferred by the DWS officials. Provision must be made for the preparation of presentation materials, venue arrangements, travelling to the workshop venue, refreshments, lunch, and CPD accreditation with SACNASP and ECSA.

3.20. BRIDGING STUDY AND EIA PROGRAMME

The estimated duration of this EIA Study is **36 months**. Bidders are required to attach a comprehensive programme in their Technical Proposal, in Gantt Chart format, detailing all major activities and milestones for the Bridging Study. The programme must clearly outline the timeline for each task, ensuring that all tasks are completed within the stipulated 36-month contract period. The programme should be developed using **MS Project**, which is the preferred format throughout the Bridging Study.

3.21. IMPLEMENTATION PROGRAMME

This task entails determination of the implementation programme of the BBTS Project, in MS Project format, including the following main programme components:

- Approvals, authorisations, directives, financing and institutional arrangements.
- Appointment of a project management team.
- Additional geotechnical and materials investigation and topographical surveys, should the need arise.
- Tender design of the recommended project components.
- Financing Arrangements.
- Compliance with conditions of Environmental Authorisation.
- Appointment of an environmental control officer and heritage specialist.
- Detail design (will commence after tender design and continue through construction phase).
- Land acquisition and servitudes.
- Construction procurement (tender advertisement and adjudication).
- Award of contract, and
- Construction phase (showing earliest start and latest finish dates).

The envisaged project timeframe is shown in **Table 3.3.** The timing of design and construction phases will be reviewed once the project planning has been completed.

Table 3.3: Estimated Timeframe for BBTS Implementation

Project stage	Duration	Earliest Start	Earliest Finish
Bridging Study and EIA Study	36 months	August 2026	July 2029
Ministerial Approval for Government Waterworks	3 months	Aug 2029	Oct 2029
Gazette Notice	3 months	Nov 2029	Jan 2030
RID Report	3 months	Nov 2029	Jan 2030
Project initiation	12 months	Feb 2030	Jan 2031
Funding Approval	24 months	Nov 2029	Oct 2032
Detail design	24 months	Feb 2031	Jan 2033
Tender Process	12 months	Feb 2033	Jan 2034
Construction	30 months	Feb 2034	Aug 2037

3.22. GUIDELINE FOR DELIVERABLES

All deliverables, including reports, presentations, analyses, maps, letters, minutes and data, must be submitted in **Microsoft applications** and **PDF format** where applicable. Text in all documents should be in **Arial 11 font** with **1.5 spacing**, unless otherwise specified or agreed upon.

Provision must also be made for the submission of deliverables in hard copy format. The format of reports must be confirmed with the DWS before the final version is submitted. Reports are typically submitted as First Draft, Draft Final and Final versions. In addition to five (5) electronic copies (on memory stick), three (3) hard copies of each final ***Study Report*** and one (1) hard copy of each draft version must be submitted. Electronic copies should be uploaded on the DWS website. The DWS Web Manager will remove draft copies from the website once final versions are available.

The appointed PSP will be responsible for preparing the suite of study reports to record all the investigations undertaken during the Post Feasibility Bridging Study and Environmental Impact Assessment, as well as provide all relevant information of the BBTS. A comprehensive list of proposed study reports should be provided in the Inception Report for the approval of DWS.

Table 3.4 below provides a guideline for the deliverables required for the Post Feasibility Bridging Study and Environmental Impact Assessment. This list is not exhaustive and should be reviewed to agree with all the sections of the Terms of Reference (ToR). Bidders are required to examine the list and relevant sections of the ToR and submit an updated, comprehensive list of expected deliverables in their **Technical Proposals**. The number of deliverables should be sufficient to allow a smooth cashflow for the PSP over the duration of the contract.

Table 3.4: Guideline for Deliverables

NO.	DESCRIPTION
A	**Work Plan** detailing the various tasks to be undertaken, including a detailed description of each task/sub-task/work package and the expected technical deliverables.
B	**Study Gantt Chart** (*MS Project*) showing the tasks, sub-tasks, and work packages with milestone dates (to be **updated regularly**).
C	**Monthly Progress Reports** detailing completed work and expenditure to date, **Ad-hoc Reporting** to DWS (*PowerPoint presentations and other formats*), and a **Study Close-out Report.**
D	**Minutes** of Project Steering Committee (PSC) and Study Management Committee (SMC) meetings, public meetings, other meetings and workshops, along with **Presentations** on study progress.
E	**Decisions Register** to record important decisions made to ensure smooth execution of the Study.
F	**Record of Liaison** with role players and stakeholders.
G	**Post Feasibility Bridging Study**: A typical feasibility study has the following deliverables (*with executive summaries as needed*), among others. • Inception Report. • Background Information Document. • Description of Existing Infrastructure. • Water Resources Assessment. • Climate Change Prediction and Impact on Yield. • Water Requirements and Return Flows. • Environmental Water Requirements. • Water Quality Assessment. • Geotechnical and Materials Investigations. • Topographical Surveys. • Michell's Pass Diversion Weir (*feasibility design*). • Transfer Pipeline to Klein Berg River (*feasibility design*). • Boontjies River Dam (*feasibility design*). • Flood Determination and Backwater Calculations. • Papenkuils Pump Station (*feasibility design*). • Raising of Voëlvlei Dam (*feasibility design*). • Affected Infrastructure (*upgrading or relocation and compensation*). • Scheme Operation. • Environmental Screening. • Land Acquisition and Servitudes.

NO.	DESCRIPTION
	• Cost Estimates and Economic Analyses. • Socio-Economic Impact Assessment. • Legal, Institutional and Financing Arrangements. • Capacity Building and Training. • Record of Implementation Decisions (*on DWS template*). • Main Report. • Summary Report. • Book of Engineering Drawings and Maps.
H	**Scoping and EIA Process**: A typical EIA study has the following deliverables, among others: • Inception Report. • Background Information Document. • Public Participation Report. • Register (Database) of Interested and Affected Parties. • Notifications to Interested and Affected Parties. • Newspaper Advertisements. • Site Notices. • Specialist Study Reports. • Environmental Impact Report. • Environmental Management Programme. • Environmental Management Plan. • Issues and Responses Report. • Appeals Response Report. • Summary Report (*for the entire Scoping and EIA Process*).
I	**WULA Technical Reports** (*including reports and forms*).
J	**Funding Proposal** (*for DWS submission to Treasury*).
K	**Gazette Notice** (*publication of Government Waterworks – Section 110 of NWA*).
L	**Contract Close-out Report**.

4. THE PROPOSAL

Bidders are required to submit, **at their own expense**, a comprehensive Proposal consisting of the following documents:

- **Standard Bidding Documents** as outlined in **Table 7.1**.
- **Technical Proposal** demonstrating the bidder's capacity to undertake all aspects of the Post Feasibility Bridging Study and Environmental Impact Assessment described in this ToR.
- **Financial Proposal** detailing the costs associated with performing the Post Feasibility Bridging Study and Environmental Impact Assessment.
- Proposals are submitted online via the e-tender portal as explained in the bid documents.

Proposals must be detailed and comprehensive, as the management of the Post Feasibility Bridging Study and Environmental Impact Assessment aims to **avoid variation orders** as much as possible. Bids that fail to demonstrate a clear understanding of the scope of services and do not provide sufficient detail will receive low evaluation scores. Furthermore, bids must fully comply with this ToR and **must not make any conditions**.

5. TECHNICAL PROPOSAL

5.1. Introduction

The introductory section should provide a concise overview of the bidding organization, highlighting its capacity to execute the Post Feasibility Bridging Study and Environmental Impact Assessment. This section should not exceed one (1) A4 page and must focus on the specific skills and resources available for the project.

While bidders are allowed to provide **company profiles** and other **marketing materials** in a separate appendix, it should be noted that this information **WILL NOT** be considered during the evaluation of bids. Therefore, bidders are encouraged to keep such material to a minimum to avoid unnecessary bulk in their submission, and to avoid cluttering the important information which may distract from fair evaluation of the bid.

5.2. Past Experience

The Bidder must demonstrate relevant experience in engineering and EIA studies for water resource development projects conducted over the past 10 years. At least five projects must be cited, providing sufficient detail to explain their relevance to the Scope of Services described in this ToR in no more than eight (8) A4 pages. For each project, the following details must be included:

- Description of the project's scope, highlighting its relevance to this Study.

- Roles played by the proposed Study Leader and key team members (task specialists).
- Contract value and project duration.
- Contact details for the client organisation.

5.3. Approach and Methodology

This section must outline the bidder's proposed approach and methodology to perform the Bridging Study. The approach should:

- Provide a brief description of how the bidder intends to undertake the Study, structured around the modular nature of the tasks as defined in **Section 3**.
- Include comments on the ToR, if any, to show the bidder's understanding of potential challenges, project timeframes, necessary resources, and systems to ensure timely completion of the Study.
- Highlight critical aspects of each task and ensure compliance with existing legislations.

If the bidder believes the ToR does not cover a particular aspect or identifies complications that may arise during the Study, this should be clearly explained in the Technical Proposal along with any additional scope that may be necessary. The purpose of any proposed additional scope and comments will solely be to enable DWS to consider, at its discretion, the issues raised and must not form the basis of the bidder's Proposal. The additional scope proposed by the bidder must not be priced and does not place any obligation on DWS as client.

A provisional Programme in **Gantt Chart format**, created in MS Project, must be attached. The Programme should illustrate phases, tasks, and sub-tasks, as well as critical milestones and the **Critical Path**.

This section should not exceed ten (10) A4 pages, excluding diagrams and illustrations.

5.4. Team Capability and Availability

The bidder must demonstrate the capability to mobilise a team of highly skilled professionals with the expertise required to successfully undertake the tasks outlined in this ToR. An **Organogram** should be provided, indicating the Study Leader, the EAP, Specialists, and key support staff.

For the Study Leader, EAP, and Specialists, a curriculum vitae (CV) not exceeding four (4) A4 pages must be attached in a **designated appendix**. For each specialist study, a **CV folder cover** must be attached using the template shown in **Table 5.1.** Each CV must:

- Highlight the team member's role in the project.
- List educational qualifications.
- List professional registration(s).
- Emphasize recent relevant experience.
- Confirm the team member's availability throughout the Study duration.

- Be signed and dated to confirm consent and availability.

The availability of the key team members, including any potential limitations from other commitments, must be explicitly confirmed.

A **summary table** of key team members (see **Table 5.2** for template) should also be included for easy reference. This table should cross-reference the CVs in the appendix and serve as a checklist for compliance with the ToR. CVs should be chronologically numbered, in the order they appear in the appendix, with the summary table duplicated as the first page of the appendix.

The CVs for non-specialist (non-key) team members are not required, but their details must be included in the **Human Resource Schedule**, as indicated in **Section 6.1** of the Financial Proposal.

The **Study Leader** and **Specialists** for both the Post Feasibility Bridging Study and Environmental Impact Assessment must be registered with relevant professional bodies. Proof of qualifications and professional registration must be attached with the CVs.

This section of the Technical Proposal is limited to **ten (10) A4 pages**, excluding CVs.

Table 5.1: CV Folder for Specialists

TERRESTRIAL ECOLOGY AND BOTANICAL STUDY: CV 2
1) Full Names (*state full names*)
2) Qualifications (*state relevant qualifications*)
3) Professional Registration (*state professional registration*)
4) Years of Relevant Experience
5) CVs, Qualification Certificates, Professional Registration (*refer to attachments*)

Table 5.2: Checklist Template for Specialists

STUDY	NAME OF SPECIALIST	CV NO.	QUALIFICATIONS	PROFESSIONAL BODY	EXPERIENCE (years)	PROOF OF QUAL. ATTACHED	PROOF OF REG. ATTACHED
The EAP						YES/NO	YES/NO
Terrestrial Ecology and Botanical Study						YES/NO	YES/NO
Aquatic Ecology and Wetland Study						YES/NO	YES/NO
Freshwater Study						YES/NO	YES/NO
Heritage and Palaeontological Study						YES/NO	YES/NO
Social Impact Assessment						YES/NO	YES/NO
Agricultural Impact Assessment						YES/NO	YES/NO
Traffic and Access Roads Assessment						YES/NO	YES/NO
Power Supply Infrastructure Assessment						YES/NO	YES/NO
Engineering Specialists						YES/NO	YES/NO

6. FINANCIAL PROPOSAL

6.1. Requirements for Financial Proposal

The **Financial Proposal** MUST be submitted and provide a detailed breakdown of the costs associated with undertaking the Post Feasibility Bridging Study and Environmental Impact Assessment.

Bidders must factor in **all foreseeable costs** for all tasks described in the Scope of Services (**Section 3**) and must particularly note that **no Provisional Sums** have been allocated; hence the Tender Price must fully account for all costs. Requests to adjust the Contract Amount post-award will ONLY be considered **under exceptional circumstances** relating to unforeseen additional scope, and only if such scope cannot be accommodated through a reallocation of existing funds. Bidders must note that approval of cost variation is not guaranteed.

The Financial Proposal must include the following:

- **Breakdown of Deliverables and Associated Costs**: Costs must be based on resource and time allocation for tasks, sub-tasks, and disbursements (refer to **6.2**).
- **Value Added Tax**: VAT at 15% must be applied **ONCE** to the total estimated cost.
- **Escalation for Professional Fees**: An annual rate of escalation (percentage, %) must be provided, if desired, applicable ONLY if contract extension becomes necessary beyond the PSP's control. Escalation would then apply ONLY to uncompleted tasks at the time of contract extension. Any associated additional **disbursement costs** required during the contract extension will need strong motivation for approval of the variation order.
- **Cashflow Projection**: A cashflow for the entire contract duration based on the proposed Study Programme.
- **Human Resource Schedule**: The schedule must include Historically Disadvantaged Individuals (**HDI) status** for all team members. In compliance with the Preferential Procurement Regulations, the total fees earned by HDI members must be provided, expressed **as a percentage** of total professional fees.

6.2. Cost of Deliverables

This contract is deliverable based, and payments will be managed based on **deliverables completed and submitted**, not the number of man-hours completed. Bidders must therefore provide a detailed breakdown of deliverables and associated costs in their Financial Proposals to ensure smooth cashflow throughout the study duration (refer to **Section 3.22** for a guideline).

Each deliverable cost must include the following:

- **Human and material resources** necessary to complete the deliverable.
- **Disbursements** and other expenses associated with completing the task.
- Costs for **Specialists** engaged in the Bridging Study and EIA.
- PSP's **Professional and Administrative Fees** for each sub-contract.
- Sub-contractors and sub-consultants' **quotations**.

6.3. Provision for Specialist Sub-contractors and Sub-consultants

The services of specialist sub-contractors and sub-consultants will be needed during the Bridging Study and EIA to undertake the following specialised tasks:

a) EIA Specialist Studies (refer to **Section 3.11**).
b) Geotechnical and Materials Investigations for feasibility design of the proposed BBTS project (refer to **Section 3.5 (3)**).
c) Laboratory Services for testing of geotechnical materials and water quality.
d) Topographical Surveys for feasibility design of the proposed BBTS project (refer to **Section 3.5 (4)**); and
e) Reserve Determination – Revision of ecological water requirements in consultation with the Directorate: Reserve Requirements (refer to **Section 3.10**).

PLEASE NOTE that no Provisional Sum has been allowed for this study and all envisaged study costs must be fully captured in the bidder's Financial Proposal. Quotations must therefore be obtained at tender stage from sub-contractors and sub-consultants and added to the Financial Proposal for specialist services and engineering investigations stipulated in the Scope of Services as this study will be managed to avoid wasteful expenditure and variation orders as much as possible in accordance with the Public Finance Management Act (PFMA). Sub-contracts will be covered by the PSP's contract, and no additional sub-contracts will be entertained after signing of the contract.

Sub-contracting costs shall be provided as follows:

6.4. EIA Specialist Studies

Bidders must include in their Financial Proposals the cost of appointing specialists to undertake EIA specialist studies listed in **Table 3.2**. The price of this deliverable must include both the cost of the EIA Specialists and the cost of the EAP and support team. **No Provisional Sum** has been allocated for these costs – provisional sums are not permissible in this contract.

6.5. Geotechnical and Materials Investigations

Dam Foundations and Civil Works

In-situ investigations at dam and weir foundations, spillway site, intake tower, stilling basin, pump station, and pipeline must include the following investigations. The sites must be rehabilitated on completion of the drilling, and each borehole must be marked with a concrete block upon completion of the drilling.

1. **Type of Investigations:**
   - **Desk Study** of both regional and site geology from existing literature.
   - **Reconnaissance Survey** of the project site and surrounding areas to confirm site coordinates and basic geology of the region and site, to identify topographical and geomorphological features, to confirm access roads and power supply, and to identify areas required for construction camp and lay-down areas. Locations of proposed borrow areas for soil and aggregates must be identified.
   - **Geophysical Surveys** including both **seismic refraction survey** and **electrical resistivity survey**. The exact locations of the seismic and resistivity surveys have not yet been determined, and costing must be based on six (6) seismic lines of approximately 100 metres each, giving a total length of 600 metres. These would be located on both sides of the river in approximately equal proportions. The resistivity survey should be run in parallel with the seismic survey in order to augment the information derived from seismic refraction in respect of the presence of fracturing in the bedrock and depths to interface boundaries. Costing for the resistivity survey must be based on the same quantities as for the seismic survey.
   - **Core Drilling:** N-size rotary core drill at strategic positions. (i) Michell's Pass Weir centreline – 2 x 40 metres vertical boreholes and 2 x 40 metres inclined (60° to the horizontal) boreholes, (ii) Boontjies River Dam centreline – 4 x 40 metres vertical boreholes and 2 x 40 metres inclined (60° to the horizontal) boreholes, (iii) Boontjies River Dam spillway site – 4 x 25 metres vertical boreholes, (iv) Boontjies River Dam stilling basin location – 2 x 25 metres vertical boreholes, (v) Papenkuils Pump Station abstraction weir centreline – 2 x 40 metres vertical boreholes and 2 x 40 metres inclined (60° to the horizontal) boreholes, (vi) Borrow Areas (Quarry Areas) – 5 x 20 metres vertical boreholes.
   - **Test Pit Excavations:** (i) Borrow Areas (earthfill core, shoulder fill and sand materials) – 5 x 3 metre pits, (ii) Alternative A Pipeline, 8 km at 500 metres spacing, (iii) Alternative B Pipeline, 12 km at 500 metres spacing.

2. In-situ Tests and Analyses:

- Core logging and rock mass description.
- Recovery ratio for each core (x 14).
- Rock Quality Designation (RQD) for each core (x 14).
- Fracture index of recovered core (x 14).
- Plate bearing tests (x 10) for dam and weir foundations.
- Standard penetration tests (SPT) (x 10).
- Permeability of ground (packer test/ Lugeon test x 10) to establish grout take.
- Water table depth at each borehole on dam and weir foundations (x 10).
- Pressuremeter test measurements with piezometers (x 10).
- Dam basin slope condition assessment from a reconnaissance survey of the slopes using existing maps of the area and a walkover of the site and provide recommendations for detailed investigations during the post feasibility bridging study or during the detail design phase. Identify areas (coordinates) for these investigations.
- Rock description using results from both in-situ and laboratory tests (colour and lustre, grain size, bedding, jointing, faulting, weathering, strength, minerals, rock name and classification).

Bidders must include in their Financial Proposals the cost of appointing a drilling contractor to undertake the geotechnical and materials investigations required for the Bridging Study. These investigations must include costs for both the Reconnaissance Survey and Sub-surface Investigations as indicated above. Although most of the geotechnical investigations along Alternative A Pipeline route were undertaken in the 2012 Feasibility Study, bidders are required to budget for 8 km of this pipeline assuming test pit spacing of 500 metres to ensure availability of sufficient funds for this component of the geotechnical investigations. No geotechnical investigations were undertaken for Alternative B Pipeline route; hence detailed investigations are required in this Bridging Study. Bidders must therefore allow in their Financial Proposals for geotechnical investigations over 12 km of Alternative B Pipeline route assuming test pit spacing of 500 metres.

In addition to the trial pits investigated in 2012, Financial Proposals must allow for core drilling along the centreline at the Michell's Pass Weir site, along the centreline at the Boontjies River Dam site, and at the

Papenkuils Pump Station as indicated above. Any additional drilling identified during the study including drilling for the possible upgrading of the Klein Berg River diversion weir must be recommended for the detail design phase if no funds are available for reallocation from other tasks.

The Financial Proposal must also provide for a reconnaissance survey including trial pitting for construction materials at the Michell's Pass Weir, Boontjies River Dam, Voëlvlei Dam, and Papenkuils Pump Station sites, as well as proving of the construction materials. In addition, clear indications must be provided of materials that are recommended for sourcing from the commercial market where this option is considered feasible.

The price of this deliverable must include both the cost of drilling services and the PSP's professional fees to analyse and report the results. **No Provisional Sum** has been allocated for these costs – provisional sums are not permissible in this contract.

6.6. Laboratory Tests

It is not clear at this stage which specific laboratory tests for geotechnical materials will be required. After analysing the design requirements, the PSP will advise on the specific tests required, which could result in cost savings. For the purpose of bidding, rock and soil and water samples taken from site will need to be tested in the laboratory for the following properties. The numbers indicated in brackets are the number of each test that must be used for costing the bid.

- Petrological microscope analysis for mineralogy (x 10).
- X-ray diffraction for mineral identification (10).
- Scratch for hardness (x 10).
- Colour (streak and lustre) (x 10).
- Flakiness index (x 5).
- Slake durability (x 10).
- Sulphate test (x 10).
- Young's Modulus and Poison's Ratio (x 10).
- Direct shear test (x 10).
- Unconfined compressive strength (UCS) (x 10).
- Triaxial compressive strength (TCS) (x 10).
- Grain size analysis (particle size distribution) (x 5).
- Atterberg Limits (5).

- Permeability tests for soils (x 5).
- Proctor compaction (x 5).
- Oedometer test (x 5).
- Dispersion test (x 5).
- Water corrosivity tests must measure pH, electrical conductivity, total dissolved solids (TDS), alkalinity, and total hardness (winter and summer seasons).

The Financial Proposal must provide for laboratory services required for testing geotechnical materials for pipeline, weir and dam construction and for water quality assessment to determine the corrosive classification of the transferred water that is a critical factor for the design of pipeline material and valves, pumping system, and concrete durability. Water quality tests should be undertaken for both summer and winter seasons.

The price of this deliverable must include both the cost of laboratory services and the PSP's professional fees to analyse and report the results. **No Provisional Sum** has been allocated for these costs – provisional sums are not permissible in this contract.

6.7. Topographical Surveys

The appointed PSP will be required to update the topographical surveys produced in the 2012 Feasibility Study contained in the report *Breede-Berg (Michell's Pass) Water Transfer Scheme – Appendix 9: LiDAR Aerial Survey, for the Berg River-Voëlvlei Augmentation Scheme, and the Breede-Berg (Michell's Pass) Water Transfer Scheme* (available on DWS website). A total of 1 217 hectares were surveyed in that study. The current study will only require aerial survey for the project areas that were excluded in 2012 which can be assumed to be another 4 000 hectares for the purpose of bidding. The exact area to be flown will be confirmed in due course. In addition, the accuracy adopted in the 2012 survey must be used for bidding purposes. The total project area includes the following components:

- Michell's Pass Weir basin up to purchase line.
- Boontjies River Dam up to purchase line.
- Raised Voëlvlei Dam up to purchase line.
- Voëlvlei Dam canal outlets.
- Papenkuils Pump Station abstraction weir up to purchase line.
- Klein River diversion weir up to purchase line.
- Alternative A Pipeline – 10 m wide, 8 km long strip survey of the pipeline.
- Alternative B Pipeline – 10 m wide, 12 km long strip survey of the pipeline.

- Borrow areas and quarries for construction materials.
- Access Roads – 30 m wide strip survey for access roads.
- Powerline Route – 40 m wide strip survey for the powerline route.
- Construction camp and laydown areas for each site.

Bidders must include in their Financial Proposals the cost of appointing a contractor to undertake the topographical surveys required for the Bridging Study. The 2012 LiDAR survey is deemed adequate for determining river cross-sections at the Michell's Pass Weir site. However, provision must be made for additional bathymetric survey that may be required at the Mitchell's Pass site. Additionally, a topographical survey is required for 8 km of Alternative A Pipeline route and 12 km of Alternative B Pipeline route. Topographical surveys are required for the Boontjies River Dam site and basin (11 km^2), Papenkuils Pump Station, benchmarks required during construction at each site, as well as for construction material borrow areas for the Michell's Pass Weir, Boontjies River Dam, Papenkuils Pump Station, and the recommended pipeline (Alternative A or B). These areas are included in the survey area estimate of 4 000 hectares provided above.

The existing diversions into Voëlvlei Dam come from the Klein Berg River, Leu River, and the Twenty-Four Rivers canals. Topographical surveys are required for the raised Voëlvlei Dam up to the new purchase line, for canal outlets upgrading at the Voëlvlei Dam, for adjacent areas between the dam and the R46 road and for borrow areas for the dam and canals. If upgrading of the Klein Berg River diversion weir is recommended, additional topographical and bathymetric surveys would be required at the diversion weir site up to the 110 masl contour and for borrow areas for construction materials. These areas are included in the survey area estimate of 4 000 hectares provided above.

The Financial Proposal must also provide for topographical surveys that are required for access roads route alignment, powerline route alignment, and site establishment (operators' housing, site office, laydown areas, parking facilities, water and sanitation services), and for land acquisition purposes including cadastral data, title deeds and Surveyor General diagrams for all affected properties. These areas are included in the survey area estimate of 4 000 hectares provided above.

The price of this deliverable must include both the cost of topographical surveys and the PSP's professional fees to analyse and report the results. **No Provisional Sum** has been allocated for these costs – provisional sums are not permissible in this contract.

6.8. Reserve Determination

Based on the updated hydrology, the appointed PSP will be required to update the ecological water requirements for the Breede River and Estuary, as produced in the 2012 Feasibility Study contained in the report *Breede-Berg (Michell's Pass) Water Transfer Scheme – Appendix No. 7: Ecological Water Requirements Summary for the Berg River-Voëlvlei Augmentation Scheme, and the Breede-Berg (Michell's Pass) Water Transfer Scheme* report and supporting documents (available on the DWS website). The PSP will also be required to consult the Directorate: Reserve Requirements for guidance on the reserve determination process.

The price of this deliverable must include both the cost of appointing a specialist sub-consultant, if the service is outsourced, and the PSP's professional fees for sub-contract supervision and integration of the results with the other components of the Bridging Study. **No Provisional Sum** has been allocated for these costs – provisional sums are not permissible in this contract.

6.9. Professional Fees

Bidders must provide in their Financial Proposals for the PSP's professional fees related to each specialist study, such as interpretation of results of engineering investigations and laboratory testing, as well as reporting of these investigations. **No Provisional Sum** has been allocated for these costs – provisional sums are not permissible in this contract.

6.10. Administrative Fees

Bidders must add administrative and handling fees in their Financial Proposals to cover the costs incurred by the PSP in appointing sub-contractors and sub-consultants and managing sub-contracts. **No Provisional Sum** has been allocated for these costs – provisional sums are not permissible in this contract.

7. ADMINISTRATIVE COMPLIANCE

Bidders must comply with the administrative requirements listed in **Table 7.1** below.

Table 7.1: Administrative Criteria

NO	CRITERIA	YES	NO
1	Companies must be registered with the National Treasury's Central Supplier Database. Provide proof of print out from CSD		
2	Tax compliant with SARS (to be verified through CSD and SARS)		
3	Complete, sign, submit SBD 1, SBD 3.3, SBD 4, SBD 6.1		
4	Active registration with Company Intellectual Property Commission (to be verified through CSD and CIPC) Attach copy of CIPC/CIPRO Certificate		
5	The service provider (and in the case of a consortium or joint venture – at least one member of such consortium or joint venture) should submit a notary agreement between the parties must clearly identify the lead partner (if applicable)		
6	CERTIFICATE OF AUTHORITY FOR SIGNATORY (bidders to complete the relevant form.)		
7	Copy of an Identity document of the authorised individual to represent the Service Provider as per the CERTIFICATE OF AUTHORITY FOR SIGNATORY form		
8	Attendance of Non-compulsory virtual briefing session		

8. EVALUATION SYSTEM

The Department of Water and Sanitation will evaluate all proposals in terms of the Preferential Procurement Regulations (PPR's) 2022. In accordance with the PPR's 2022, submissions will be adjudicated on 80/20 points system and the evaluation criteria. A three-phase evaluation process will be considered in evaluating the bids. On the receipt of the proposals, the evaluation criteria shown below will be used for the selection of the most suitable bidder to undertake the assignment.

The evaluation will follow a **three-phase process** to identify the most suitable bidder for the EIA Study.

- Phase 1: Mandatory Requirements
- Phase 2: Functional/Technical Evaluation
- Phase 3: Price and Specific Goals (80/20 Preferential System).

8.1 Phase 1: Mandatory Requirements

Compliance with the mandatory requirements is compulsory. **Failure to comply will result in disqualification**.

- The **Environmental Assessment Practitioner (EAP)** MUST be registered with the **Environmental Assessment Practitioners Association of South Africa (EAPASA)**. Attach valid proof of registration with EAPASA. This registration must be valid at the time of bid submission (i.e. on the closing date). Proof of registration must accompany the bid submission, and the Department reserves the right to verify credentials during the evaluation process.

8.2 Phase 2: Functionality/Technical Evaluation

To proceed to **Phase 3**, bidders must achieve a minimum score of **70%** on the functionality assessment. Bids scoring below this threshold will be disqualified.

Table 8.1 defines the points allocation system for functionality.

Table 8.1: Points Allocation System

POINTS VALUE	RATING
0	Very Poor
1	Poor
2	Average
3	Good
4	Very Good
5	Excellent

Table 8.2: Functionality Evaluation Criteria

FUNCTIONALITY / TECHNICAL CRITERIA	POINTS VALUE	WEIGHTING POINTS AWARDED
Past Experience: a) This criterion relates to the experience of the bidding company in both engineering and EIA studies for water resource development projects over the past 10 years. A minimum of 5 projects is required. b) In the case of a joint venture (JV) or partnership the relevant experience of all companies should be provided. c) Past experience must be presented in table format under Past Experience section of the Technical Proposal and must not exceed eight A4 pages. For each past project, a completion certificate or confirmation letter from the client must be attached and clearly referenced in the Proposal.		**25**

FUNCTIONALITY / TECHNICAL CRITERIA	POINTS VALUE	WEIGHTING POINTS AWARDED
5 projects in the past 10 years	5	
4 projects in the past 10 years	4	
3 projects in the past 10 years	3	
2 projects in the past 10 years	2	
1 project in the past 10 years	1	
0 projects in the past 10 years	0	
Methodology: The methodology presented by bidders is evaluated according to the following criteria: a) Detailed method statement is given for each task of the Study. b) Expected challenges associated with tasks are highlighted. c) Critical aspects of tasks are emphasised. d) Relevant legislations are indicated; and e) Detailed Study Programme is attached.		**35**
All 5 criteria are adequately addressed in Technical Proposal	5	
4 criteria are adequately addressed in Technical Proposal	4	
3 criteria are adequately addressed in Technical Proposal	3	
2 criteria are adequately addressed in Technical Proposal	2	
1 criterion is adequately addressed in Technical Proposal	1	
0 criteria are addressed in Technical Proposal	0	
Team Capability: Study Leader The Study Leader: a) Must be a holder of a BSc/BEng degree in Civil Engineering and be registered with ECSA as a professional engineer. Proof of qualifications (copies) and professional registration (copies) must be attached. b) Should have at least 10 years' experience in water resource development projects. Study Leader's CV must be attached. c) Should have experience in Project Management gained in the past 10 years. Study Leader's CV must be attached; and d) Should have been a study leader in at least one large water resource development project. Study Leader's CV must be attached showing the scope of work undertaken, contract value and key elements of the projects. Proof of qualifications (copies) and professional registration (copies) must be attached.		**10**

FUNCTIONALITY / TECHNICAL CRITERIA	POINTS VALUE	WEIGHTING POINTS AWARDED
Exceeds the above 4 criteria	5	
Satisfies all 4 criteria	4	
Satisfies only 3 criteria	3	
Satisfies only 2 criteria	2	
Satisfies only 1 criterion	1	
Satisfies no criterion	0	
Team Capability: Specialists Specialists are required for Water Resource Modelling, Reserve Determination, Dam Design, Reservoir Hydraulics, Flood Determination, Pipeline Design, Geotechnology, Topographical Survey, Water Quality, Engineering Economics, Institutional and Financing Arrangements, Terrestrial Ecology and Botanical Study, Aquatic Ecology and Wetland Study, Freshwater Study, Heritage and Palaeontological Study, Social Impact Assessment, Agricultural Impact Assessment, Traffic and Access Roads Assessment, and Power Supply Infrastructure Assessment. a) **The EAP** must be a holder of a BSc Honours degree in Environmental Science or related field and be registered with EAPASA. Proof of qualifications (copies) and professional registration (copies) must be attached. b) **The EAP** must have a minimum of 10 years relevant experience in water resource development projects. CV must be attached. c) **Specialists** for Engineering and EIA studies should each have a minimum of 8 years' relevant experience in water resource development projects. CVs must be attached. d) **EIA Specialists** should have a minimum qualification of the degree specified in **Table 3.2, Section 3.11**. Proof of qualifications (copies) and registration (copies) must be attached. e) **Engineering Specialists** should have a minimum of BSc/BEng degree for engineers or BSc degree for scientists as required for the different tasks. Proof of qualifications (copies) and professional registration (copies) must be attached.		**20**
Satisfies all 5 criteria	5	
Satisfies only 4 criteria	4	
Satisfies only 3 criteria	3	
Satisfies only 2 criteria	2	

FUNCTIONALITY / TECHNICAL CRITERIA	POINTS VALUE	WEIGHTING POINTS AWARDED
Satisfies only 1 criterion	1	
Satisfies no criterion	0	
Capacity Building and Training: Secondment of DWS Officials Provide clear proposals on capacity building and training which must include secondment of DWS officials for skills transfer.		**5**
Provision is made for secondment of 3 DWS officials	5	
Provision is made for secondment of 2 DWS officials	3	
Provision is made for secondment of only 1 DWS official	1	
No provision is made for secondment of DWS officials	0	
Capacity Building and Training: Accredited Workshops Provide clear proposals on capacity building and training which must include presentation of training workshops accredited with ECSA or SACNASP for skills transfer. Proposed topics for the accredited workshops should be listed.		**5**
Provision is made for 2 accredited workshops	5	
Provision is made for 1 accredited workshop	3	
No provision is made for accredited workshops	0	
TOTAL		**100**

8.3 Phase 3: Price and Specific Goals (80/20 Preferential System)

Price

A maximum of **80 points** will be allocated for **price**, calculated as follows:

$$Ps = 80\left(1 - \frac{Pt - P\min}{P\min}\right)$$

Where:

- *Ps* = *Points scored for comparative price of bid under consideration.*
- *Pt* = *Comparative price of bid under consideration.*
- *Pmin* = *Comparative price of the lowest acceptable bid.*

Specific Goals

An additional **20 points** are allocated based on **specific goals** outlined in **Table 8.3** below.

Table 8.3: Preference Points System (Specific Goals)

SPECIFIC GOALS	NUMBER OF ALLOCATED
Women	5
People with disability	5
Youth (35 years and below)	5
Location of enterprise (Province)	2
B-BBEE status level contributors (Levels 1 to 2 QSE/EME)	3
Total Points for Specific Goals	**20**

Table 8.4: Documents Required for Verification of Points Allocation

SPECIFIC GOALS CATEGORY	REQUIRED DOCUMENTS
Women	Full CSD Report
Disability	Full CSD Report
Youth	Full CSD Report
Location	Full CSD Report
B-BBEE status level contributors (Level 1 to 2 QSE/EME)	Valid B-BBEE certificate or sworn affidavit, Consolidated B-BBEE certificate for Joint Ventures, Full CSD Report

Definition and Measurement of Specific Goals

1. **Women, Disability and Youth**

   These goals will be measured based on the percentage ownership of the bidding company that meets the respective criteria.

   Example:

   - Company A has **five shareholders**, each owning **20%** of the company.
   - **Three** of these shareholders meet the criterion (i.e., women/disability/youth).
   - Therefore, **60% ownership qualifies**, and the company will receive **60% of the allowable points** for each of the three goals.

2. **Location of Enterprise**

- An enterprise will receive **location points** if its offices are within the relevant province.
- If the project spans multiple provinces, the **bidder's office** will be recognized as having **multiple locations** in the relevant provinces, enabling the bidder to qualify for location-based points under the Preferential Procurement system.

3. **B-BBEE Status Level Contributors**

- Only **QSEs (Qualifying Small Enterprises)** and **EMEs (Exempted Micro Enterprises)** with B-BBEE levels 1 to 2 qualify for these points.
- Preference points are calculated based on the **percentage shareholding** of relevant individuals actively involved in and exercise control of the enterprise.

Formula for Calculating Preference Points

The formula for allocating points for ownership-related specific goals is:

$$PC = M_{pa} \times \frac{P_{own}}{100}$$

Where:

PC = *Points awarded for a specific goal.*

M_{pa} = *Maximum number of points awarded for ownership in a specific category.*

P_{own} = *Percentage of equity ownership by the relevant individuals.*

This system ensures fair and proportional allocation of points based on participation and ownership by women, youth, individuals with disabilities, and B-BBEE-compliant enterprises.

9. SPECIFIC CONDITIONS

Bidders are required to observe the following specific conditions when submitting their proposals. These conditions are binding, and non-compliance may render a proposal non-responsive.

- **Quantity of Proposals**: A full Proposal includes both the Technical and Financial Proposals.

- **Joint Ventures**: Bidders submitting a joint venture proposal must include a **formal agreement** between the participating firms. The agreement must clearly specify the percentage involvement of each firm within the joint venture.
- Bidders are required to ensure that their Central Supplier Database (CSD) profiles are up to date and accurately reflect the status of their current B-BBEE certificate or sworn affidavit. The Department relies on the CSD report as the official source for verifying claims related to B-BBEE status, including ownership by Women, Youth, and Persons with Disabilities. Therefore, bidders must ensure that the B-BBEE information on their CSD profile is marked as "active" and not "expired."
- The Department reserves the right to engage with the successful service provider to negotiate the prices as submitted. If it is envisaged that negotiations will be conducted only with the successful service provider, the negotiations will be based on a best estimate of the cost of the works.
- **DWS's Discretion on Bid Acceptance**: The Department of Water and Sanitation (DWS) **reserves the right not to accept any bid** for any reason it deems appropriate. Furthermore, the DWS retains the right to **cancel the appointment process entirely**, before a Service Level Agreement (Contract) is signed. If the decision is made to discontinue with the bid process, **official notification** will be issued to all participating bidders.

10. GENERAL INFORMATION

10.1 Client and Study Name

This Study shall be officially titled: *Post Feasibility Bridging Study and Environmental Impact Assessment for the Breede-Berg (Michell's Pass) Water Transfer Scheme*. This title must appear on all ***Study Reports*** unless a revised title is communicated by the Department of Water and Sanitation. For contractual purposes, the advertised ***Bid Number*** must be quoted in all official correspondence. The ***DWS***, represented by the ***Directorate: Water Resource Development Planning***, is the ***Client*** for this Post Feasibility Bridging Study and Environmental Impact Assessment.

10.2 Intellectual Property

The ownership of all **intellectual property** related to the deliverables produced in this Study shall be vested in the DWS. These deliverables include study reports, diagrams, maps, models, software, and both raw and processed data, whether in hard or electronic format. Once study documents are uploaded on the DWS website, they enter the public domain and can be accessed and used by interested members of the public, provided that **DWS ownership is acknowledged** in the prescribed format.

10.3 Invoice Submission

The ***Financial Proposal*** and invoices submitted for payment must establish a link between payments and deliverables. The DWS uses this structure to ***monitor study progress*** and budget drawdown by comparing invoices against approved deliverables. Invoice verification and approval are critical stages of the payment process. A guideline for deliverables is provided in **Table 3.4**.

The invoice format to be used for all claims must be approved by DWS at the beginning of the contract. ***A pro-forma invoice*** should therefore be submitted by the PSP to ensure that it meets DWS requirements. A **maximum of one (1) invoice** may be submitted for payment in any given month during the study period, although it is not mandatory to submit an invoice every month. Any deviation from this standard practice will require prior written approval of the DWS Project Manager. Furthermore, the first invoice may ONLY be submitted ***after the Contract has been signed*** by both Parties and an ***Order Number*** has been generated. This ensures compliance with the National Treasury regulations, which require payment of service provider invoices within a period of 30 days. **UNDER NO CIRCUMSTANCES** should the PSP commence work before the contract is signed.

10.4 Further Clarification

A ***NON-COMPULSORY online briefing session*** will be held to clarify the tender process for prospective bidders. The ***date for this session*** will be communicated in bid documents. For further clarification of the Terms of Reference and administrative matters, bidders must submit formal enquiries electronically via email to the address provided in **Table 10.1** (Section 10.5) up to 5 working days prior to the bid closing date. The Department will respond to all such queries in writing via email and will also upload the questions and responses onto the departmental website (www.dws.gov.za). Assistance with accessing the webpage will be available through the contact details provided in **Table 10.1**. While late enquiries may still be communicated telephonically after the deadline, they will not be responded to in writing.

10.5 Contact Persons

This Terms of Reference and the invitation to bid are administered by the **Directorate: Water Resource Development Planning**. The contact details for enquiries are provided in **Table 10.1** below.

Table 10.1: Contact Details

CONTACT PERSON	POSTAL ADDRESS	CONTACT INFORMATION
DR MENARD MUGUMO	Department of Water and Sanitation Private Bag X 313 PRETORIA 0001 (185 Francis Baard Street)	Tel: 012 336 6838 Cell: 082 804 5162 E-mail: mugumom@dws.gov.za

NOTE: *Email correspondence regarding this Bid should be directed to the official listed in* ***Table 10.1*** *above and copied to other contact details provided in the bid documents.*