<u>LOAN AGREEMENT</u>

in respect of

<u>UMZIMKULU WATER AUGMENTATION SCHEME STAGE 1</u>

made and entered into by and between

<u>UGU DISTRICT MUNICIPALITY (UGU DM)</u>

and

<u>THE DEVELOPMENT BANK OF SOUTHERN AFRICA LIMITED</u>

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SUMMARY

1.	LOAN AMOUNT	:	R62 000 000.00.
2.	LOAN PERIOD	:	20 years.
3.	FIXED INTEREST RATE	:	5% (nominal).
4.	GRACE PERIOD FOR CAPITAL REPAYMENT	:	2 (two) years.
5.	CAPITAL REPAYMENT	:	216 equal Monthly instalments, commencing on the last day of the 25th (twenty fifth) Month after the Month during which the first disbursement was advanced to the Borrower.
6.	INTEREST REPAYMENT	:	240 Monthly instalments commencing on the last day of the 1st (first) Month during which the first disbursement was advanced to the Borrower.
6.	PROJECT FILE NO.	:	KZN 102756.

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1. INTERPRETATIONS

1.1 In this Agreement, unless the contrary appears from the context, the following words have the meanings as stated:-

1.1.1	"this Agreement"	means this Agreement together with any Annexures thereto;
1.1.2	"Borrower"	means Ugu District Municipality;
1.1.3	"Business Day"	means any day between 08h00 and 16h30 other than a Saturday, Sunday and a Public Holiday;
1.1.4	"the DBSA"	means the Development Bank of Southern Africa Limited, a juristic person reconstituted and incorporated in terms of section 2 of the Development Bank of Southern Africa Act 13 of 1997;
1.1.5	"Fixed Rate Loan"	means the amount of Loan disbursed and outstanding from time to time in respect of which the Fixed Interest Rate as determined in clause 3.1 shall apply;
1.1.6	"Interest Payment Date"	means the last day of each Interest Period;
1.1.7	"Interest Period"	means each period of 1 (one) Month commencing on the 1st of each Month. The first Interest Period shall begin to run from the date of the first disbursement to the last day of the Month immediately during which the first disbursement was made. Each Interest Period thereafter shall begin to run from the date of expiry of the

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preceding Interest Period, even if the first day of this Interest Period is not a Business Day;

1.1.8	"Loan"	means the financing granted to the Borrower in terms of clause 2;
1.1.9	"Monthly" or "Month"	means each calendar Month;
1.1.10	"On-lending"	means the transfer, by the Borrower, of any amount(s) to any third parties, from the proceeds of the Loan, excluding payments for the procurements of goods and services;
1.1.11	"Parties"	means collectively, the Borrower and the DBSA;
1.1.12	"Project Agent"	means a person nominated in writing by the Borrower to act on its behalf in respect of the Project;
1.1.13	"Project"	means Umzimkulu Water Augmentation Scheme Stage 1, as described in more detail in Annexure A attached hereto; and
1.1.14	"Unwinding Costs"	means any and all actual costs, expenses and disbursements incurred by the DBSA in taking out a new hedge position, closing out, settling or unwinding any hedge transaction deposits or funding transactions that may have been entered into by the DBSA or reacquiring any negotiable Instruments that have been issued by the DBSA, in respect of funding any part or all of the Loan.

1.2 Headings to the clauses of this Agreement, the table of contents and summary are for reference purposes only and are not intended to affect the interpretation thereof.

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1.3 Any reference to the singular shall include the plural and vice versa.

1.4 Any reference to a natural person shall include an artificial or corporate person and vice versa.

1.5 Any reference to one gender shall include the other.

1.6 This Agreement shall bind the Borrower and its successors-in-title or in law.

2. THE LOAN

2.1 The Loan shall be:-

2.1.1 an amount not exceeding, in aggregate, R62 000 000.00 (sixty two million Rand); and

2.1.2 utilised exclusively for the Project and the Borrower, hereby, undertakes that it shall comply with all provisions of this Agreement.

2.2 The Loan proceeds shall be paid by the DBSA to, and on the order of, the Borrower in such disbursements and in accordance with all provisions contained in this Agreement.

2.3 No On-Lending shall be effected unless provided for in this Agreement.

3. INTEREST

The Loan shall bear interest on the amount from time to time outstanding at a Fixed Rate as follows:

3.1 FIXED INTEREST RATE

3.1.1 The capital shall bear interest on the amount from time to time outstanding at a nominal Fixed Rate of 5% per annum.

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3.1.2 Interest on the amount from time to time outstanding shall be compounded Monthly and shall be due and payable on the last day of each Month. If payment of interest falls on a day other than a Business Day, such interest shall be payable on the next succeeding Business Day.

3.1.3 The interest rate for each Interest Period shall be compounded Monthly based on the actual number of days elapsed and a 365-day year (irrespective of whether it is a leap year) and shall be payable in arrears on each Interest Payment Date.

3.1.4 Payment shall commence on the last day of the Month during which the first disbursement was advanced to the Borrower.

4. REPAYMENT OF LOAN AND PAYMENT OF INTEREST

4.1 The capital amount of the Loan shall be repaid in 216 (two hundred and sixteen) equal Monthly instalments, commencing on the last day of the 25th (twenty fifth) Month following the Month during which the first disbursement was made to the Borrower from the proceeds of the Loan; and thereafter at the end of each succeeding Month until the Loan together with interest thereon shall be fully repaid; provided that subject to the provisions of clause 7, the Borrower may, with 30 (thirty) days written notice to the DBSA, make repayments in excess of the abovementioned or repay the full amount outstanding, provided further that the Borrower shall not be entitled to make any repayments prior to the date on which the first instalment shall fall due in terms of this Agreement; provided further that this shall not jeopardise the proper completion of the Project.

4.2 An instalment shall be a fixed amount, determined as at the outset of the 25th (twenty fifth) Month following the Month during which the first disbursement was made to the Borrower from the proceeds of the Loan; calculated as being sufficient to amortise the outstanding amount, plus interest at the rate set out in clause 3.1 above. Should, at the outset of the said 25th (twenty fifth) Month, part of the Loan still not be drawn by the Borrower, the amount of instalments shall be adjusted as and when drawings take place, in order to achieve amortisation over the original period of the Loan.

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5. COMMITMENT FEE

5.1 The DBSA shall be entitied, in respect of the Loan, to charge a commltment fee of 0,5% (nought comma five per centum) per annum on all the undisbursed portion of the Loan in the event that the Borrower deviates from the draw down schedule depicted in clause 5 of Annexure A, effective 3 (three) Months from the date of conclusion of this Agreement.

5.2 Payment of the commitment fee shall be made on the same terms and conditlons as the other amounts due in terms of this Agreement.

6. LATE PAYMENT

6.1 The Borrower shall be liable to the DBSA for the payment of penalty interest on all amounts payable, yet unpaid, In terms of this Agreement should the Borrower:-

6.1.1 fall to pay on the due date any amount owing or which may become owing to the DBSA in terms of thls Agreement; or

6.1.2 with the DBSA's written consent defer the payment of any amount so owing.

6.2 Penalty interest shall be calculated with regard to the actual period during which the amount payable remained unpaid, at the Fixed Interest Rate of the Loan plus 2% (two per centum). Penalty interest shall be compounded Monthly and payable on demand.

7. EARLY REPAYMENT

7.1 FIXED RATE LOANS

7.1.1 The Borrower shall, subject to thirty (30) days written notice to the DBSA, be entltled to prepay any portion or the entire principal amount of the DBSA Loan, subject to the payment of a prepayment fee on the principal amount

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being prepaid. The prepayment fee shall be determined or calculated as follows:

7.1.1.1 where the interest rate of the Loan is less than or equal to the Reinvestment Rate (defined herein below), the Borrower shall be liable to pay Unwinding Costs only (if any) on the prepaid amount;

7.1.1.2 where the interest rate of the Loan is greater than the Reinvestment Rate, the Borrower shall pay to the DBSA an amount equal to the difference (calculated on a present value basis to the DBSA's prejudice) between the interest which the prepaid principal amount would have produced had there been no prepayment and the interest which would be produced by a reinvestment of the same amount having the same repayment schedule as the prepaid principal amount of the Loan as well as any Unwinding Costs.

7.1.2 The Reinvestment Rate shall be the rate at which the DBSA can invest the funds in the relevant Interbank Market, for the period equal to the remaining Loan Period as determined at the relevant Interest Payment Date of such prepaid principal amount.

7.1.3 The discount rate used shall be equal to the Reinvestment Rate.

8. PAYMENT(S)

8.1 All payments to or by the Parties under this Agreement shall be effected in South African Rand.

8.2 All payments under this Agreement to the Borrower shall be effected to the credit of such banking account(s) of the Borrower as the Borrower may from time to time direct, in writing.

8.3 The Borrower shall furnish the DBSA with all the necessary information regarding its officials who are authorised to apply for drawdowns on the Borrower's behalf.

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8.4 All payments under this Agreement to the DBSA shall be effected to the credit of such banking account(s) of the DBSA as the DBSA may from time to time direct, in writing.

8.5 Payments to the DBSA in terms of this Agreement shall be effected without deduction and free from any taxes, charges, fees or other costs whatsoever.

8.6 Whenever any payment falls due on a Saturday, Sunday or Public Holiday under the laws to which either of the Parties are subject, such payment shall be made on the next succeeding business day.

9. CANCELLATION/TERMINATION OF DRAWDOWNS

9.1 The Borrower may, by giving 30 (thirty) days written notice to the DBSA, cancel any undrawn portion of the Loan provided that such cancellation shall not jeopardise the proper completion of the Project; it being understood that upon the giving of such notice the Instalments referred to in clause 4.1 supra shall be reduced pro rata.

9.2 If the DBSA reasonably concludes, after consultation with the Borrower, that any portion(s) of the Loan will not be required to finance the Project, the DBSA may by notice to the Borrower terminate the right of the Borrower to make drawdowns in respect of such undrawn portion; it being understood that upon giving of such notice the instalments referred to in clause 4.1 supra shall be reduced pro rata.

9.3 If the DBSA has not received a final application for a drawdown under the Loan from the Borrower at the end of the 25th (twenty fifth) Month following the Month during which the first disbursement was made to the Borrower from the proceeds of the Loan, the DBSA may terminate further disbursements to the Borrower on 30 (thirty) days written notice to the Borrower unless the DBSA, after consideration of the reasons for the delay, has determined a later date for the purposes of this sub-clause. The DBSA shall only consider an extension on receipt of a written request from the Borrower and shall notify the Borrower of its decision.

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10. EVENTS OF DEFAULT

10.1 The DBSA shall be entitled, after giving the Borrower 30 (thirty) days written notice, to suspend drawdowns from the Loan or to terminate this Agreement and to claim from the Borrower immediate payment of all the outstanding amounts should the Borrower commit any breach of this Agreement, provided that the DBSA may, at its entire discretion, dispense with the giving of the 30 (thirty) days notice.

10.2 Without derogating from the generality of the aforegoing, the DBSA shall be entitled to exercise its rights in terms of clause 10.1 above, upon the happening of any of the following events:-

10.2.1 the Borrower failing to repay the capital amount and to pay interest in terms hereof, and failing to remedy such breach within the notice period referred to in 10.1 above requiring it to do so;

10.2.2 any attachment being made or any execution being levied against the Borrower;

10.2.3 any failure to repay any of the DBSA's loans or breach of any agreement entered into between the Borrower and the DBSA and/or with any other lender/creditor;

10.2.4 any fact or circumstance shall have occurred which in the opinion of the DBSA may affect the ability or willingness of the Borrower to comply with all or any of its obligations under this Agreement;

10.2.5 the Borrower proposing any rescheduling, reorganisation or rearrangement of the whole or part of its indebtedness with the DBSA or any of its creditors;

10.2.6 the Borrower's business operations or any significant part thereof, being interrupted for a continuous period of at least 3 (three) months;

10.2.7 any approval, licence, authorisation or other requirement necessary to enable the Borrower to comply with any of its obligations in terms of this

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Agreement is modified, revoked or withdrawn whilst this Agreement is still in force;

10.2.8 any order is made or resolution passed or other action taken for the dissolution or termination of the existence of the Borrower; and

10.2.9 any representation, warranty or statement made in, or in connection with, this Agreement or any opinion delivered by or on behalf of the Borrower under this Agreement is found to be incorrect.

10.3 The exercise of the rights by the DBSA in terms hereof shall be without prejudice and/or in addition to any other rights which the DBSA may then have against the Borrower in law, including the right to demand specific performance by the Borrower of its obligations in terms of this Agreement.

11. CONDITIONS PRECEDENT

11.1 The client must submit the project list of the entire water augmentation scheme to the KwaZulu-Natal Department of Agriculture and Environmental Affairs ("KZN DAEA") in order to determine the approval or exemption requirements of KZN DAEA. Should KZN DAEA require an Environment Impact Assessment ("EIA"), or any other form of environmental assessment or the compilation and Implementation of a plan the Client must ensure that such assessment is undertaken or plan implemented to the satisfaction of KZN DAEA and the DBSA project team. The Client must issue the DBSA project team with a copy of all authorisations required by KZN DAEA.

11.2 The client must submit the project list of the entire water augmentation scheme to the Department of Water Affairs and Forestry ("DWAF") in order to determine the approval or exemption requirements of DWAF. The Client must issue the DBSA project team with a copy of all authorisations required by and issues by DWAF.

11.3 The Borrower warrants that it will obtain or cause to be obtained from the relevant government authorities any authorisation(s) and/or permit(s)/licenses which are or may be required in terms of the relevant environmental and/or water legislation prior to the implementation of projects contained in this programme and it shall comply or

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ensure compliance with same. The Borrower agrees to furnish the DBSA with copies of any such authorisation(s) and/or license(s), including the records of the authorisations for projects currently under implementation.

12. FURTHER TERMS AND CONDITIONS

12.1 Should KZN DAEA require any projects to have CEMP's, the Borrower will provide the DBSA project team with copies of the CEMP's and reports of all deviations from the CEMP's. The CEMP's should include inputs from KZN DAEA and will be to the satisfaction of the municipality and the DBSA project team.

12.2 The Borrower warrants that no asbestos will be used in any of the projects listed on the programme.

12.3 The Borrower will ensure that a well planned community awareness and information campaign is launched about the Project.

12.4 The Borrower will ensure that sound empowerment principles are applied in the construction and operation of the Project.

12.5 The DBSA team will participate in the Steering Committee or Working Group meetings of the project.

12.6 The DBSA will monitor and evaluate the implementation of the project. For the latter purposes, the Borrower will, on a regular basis, provide DBSA with progress reports.

12.7 The client will provide the DBSA with audited financial statements, within 6 months from the end of its financial year.

12.8 The Borrower will provide the DBSA project team with reports of all deviations from the Construction Environmental Management Plans ("CEMP") and regular audits, and also report all major environmental incidents pertinent to the projects under DBSA support. The CEMP's will include inputs from KZN DAEA, and will be to the satisfaction of the municipality and the DBSA project team.

12.9 Any event of default under this Agreement shall be tantamount to an event of default in respect of the DBSA loan portfolio under Project No's 101980/01 and 101980/02 and vice versa, and the DBSA, shall accordingly, when it becomes aware of the relevant facts or circumstances, be entitled to exercise any of its rights in terms of

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this Agreement and the Loan Agreements under Project No's 101980/01 and 101980/02. The exercise of the rights by the DBSA, in terms hereof, shall be without prejudice and/or in addition to any other rights, which the DBSA may, in law, have against the Borrower, including the right to demand specific performance by the Borrower of its obligations in terms of the Agreement.

12.10 The Borrower is to compile and implement the Non-revenue Water Master Plan and Consolidated Plan which will include milestones, measurable targets and time-frames.

12.11 DBSA must be satisfied that there will be sufficient water available in the Umzimkulu River for the Programme.

12.12 The Borrower shall obtain a prior written consent from the DBSA to raise additional debt funding from other sources.

12.13 The Borrower shall continue to shorten its debt collection period. The DBSA project team, in collaboration with DBSA Credit Risk, will report to the DBSA Management on the management of debtor book.

12.14 The Borrower shall ensure that the liquidity and leverage ratios do not fall below the norm, as reflected in the table below:

Current Ratio	1.5:1
Cash and Investments: Current liabilities	0.3
Total debt / total assets	<50%
Total debt / total income	<50%
Long term debt / total income	100%
Debt serving : total income	20%

12.15 The Borrower shall submit management accounts and latest audited Annual Financial Statements to the DBSA on a regular basis.

13. ARBITRATION

13.1 Any dispute arising out of or relating to this Agreement concerning the interpretation of the terms and conditions of this Agreement or of compliance by any Party with the terms/conditions of this Agreement which is not resolved amicably through consultations or negotiations shall, subject to the other provisions

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of this Agreement, be settled by arbitration in terms of the Arbitration Act No. 42 of 1965, as amended from time to time; provided that a claim by the DBSA for the repayment of any monies due under this Agreement shall not be regarded as a dispute for the purpose of this clause and neither Party shall therefore be obliged to refer such a claim to arbitration.

13.2 In case of arbitration a tribunal shall be composed of one arbitrator who shall be appointed by the Parties by agreement or failing such agreement, by the chairperson of the Association of Arbitrators, who shall, in appointing such arbitrator, have regard to the qualifications and experience of the appointee in relation to the nature of the dispute over which he/she has to adjudicate. In case the arbitrator resigns or becomes unable to act, a successor shall be appointed in the same manner as herein prescribed for the appointment of the original arbitrator and the successor shall have all the powers and duties of his/her predecessor.

13.3 The arbitration shall be held at the place and in accordance with whatever procedures the arbitrator considers appropriate. In particular, the arbitrator, may, if he/she deems appropriate, conduct the arbitration in an informal and summary manner and without requiring pleadings or discovery of documents and without observing the rules of evidence. The proceedings shall be confidential and neither the Parties nor the arbitrator shall disclose to third parties any information regarding the proceedings, the award, or settlement terms unless the parties otherwise agree in writing.

13.4 After the institution of arbitration proceedings the tribunal may proceed with the arbitration notwithstanding any failure, neglect or refusal of either Party to comply with the provisions hereof or to take part or to continue to take part in the arbitration proceedings. The arbitrator shall within 30 (thirty) days of the termination of the proceedings render a final and binding written award including interest and costs, and furnish the Parties with written reasons for his/her judgment.

13.5 The provisions of this clause may be invoked by any Party by delivering to the other Party a demand, in writing, that an arbitrator be appointed to adjudicate in respect of a specified dispute.

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14. GENERAL

14.1 PROJECT NOTICE BOARDS

The Borrower shall, at its own cost, ensure that, immediately upon commencement of construction/building operations, contemplated by this Agreement, if it is decided to erect a Project notice board, the said board shall clearly advertise the fact that such construction/building operations, have been financed or co-financed, as the case may be, by the DBSA.

14.2 DOMICILIUM

14.2.1 The Parties choose domicilium citandi et executandi ("domicilium") for all purposes arising from or pursuant to this Agreement, as follows:-

(i) In case of the DBSA:-

Physical address: Development Bank of Southern Africa Limited
1258 Lever Road
Headway Hill
MIDRAND
SOUTH AFRICA; or

Postal address: P O Box 1234
HALFWAY HOUSE
1685; or

Telefax number: (011) 313 3086

(ii) In case of the Borrower:-

Physical address: Ugu District Municipality
Connor Street
PORT SHEPSTONE
4240; or

Postal address: P O Box 33
PORT SHEPSTONE
4240; or

Telefax number: (039) 682 4598

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14.2.2 Each of the Parties shall be entitled from time to time, by written notice to the other, to vary its domicilium to any other address which is not a Post Office or Poste Restante.

14.2.3 All notices made by either Party to the other ("the addressee") which:-

(i) is delivered by hand during the normal business hours of the addressee at the addressee's domicilium for the time being shall be presumed to have been received by the addressee at the time of delivery;

(ii) is posted by prepaid registered post to the addressee at the addressee's domicilium for the time being shall be presumed to have been received by the addressee on the seventh day after the date of posting; Provided that the Parties agree that all other forms of correspondence and/or requests may be done through fax and/or electronic mail (e-mail).

14.3 WHOLE AGREEMENT

This Agreement (including the Annexures) constitutes the entire Agreement between the Parties and no representations, warranties, undertakings or promises of whatever nature which may have been made by any of the Parties, their agents or employees, other than those herein contained, shall be binding or enforceable against them.

14.4 NON-VARIATION

No variation, amendment or addition to this Agreement shall be valid unless the same has been reduced to writing and signed by or on behalf of the Parties.

14.5 NON-ENFORCEMENT/INDULGENCE

The non-enforcement of any provision of this Agreement or any indulgence which either Party may grant to the other Party shall be without prejudice to the rights of such first-mentioned Party to insist upon strict compliance by such other Party with all the provisions of this Agreement or to enforce its right in respect of which such indulgence was granted.

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14.6 TERMS AND CONDITIONS OF DISBURSEMENT

Disbursements of the funds will be effected, following the submission of duly signed invoices from the Borrower, to the satisfaction of the DBSA, to a maximum amount of R62 000 000.00.

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THUS DONE AND SIGNED AT Port Shepstone ON THE 17 DAY OF June 2008.

AS WITNESSES:

1. ______________________

2. ______________________

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FOR AND ON BEHALF OF THE BORROWER, DULY AUTHORISED THERETO IN TERMS OF ANNEXURE D ATTACHED HERETO

THUS DONE AND SIGNED AT Midrand ON THE 14 DAY OF July 2008.

AS WITNESSES:

1. ______________________

2. ______________________

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FOR AND ON BEHALF OF THE DBSA, DULY AUTHORISED THERETO IN TERMS OF ANNEXURE E ATTACHED HERETO

ANNEXURE A

PROJECT DESCRIPTION

1. PROJECT INTRODUCTION

The Ugu District Municipality's vision provides a strategic focus to the Council. Its vision is: '*A non-discriminatory society of healthy and empowered people living in a safe, transformed and sustainable environment, underpinned by a thriving and growing economy in which all participate and benefit fairly and equitably.*'and whose mission is spelt out as' *Enhancing our performance and work ethic to reach world class standards, by placing emphasis on customer satisfaction and total quality management of all resources at our disposal.*'

Ugu's total area of jurisdiction covers approximately 5 000 square kilometres with a population of about 760 000 of which 86% is rural based.

The project is based on the Bulk Services Master Plan for Hibiscus Coast, Ezinqoleni and uMuziwabantu municipalities adopted by Ugu during 2006. This Master Plan covers the development and augmentation of three existing regional water supply schemes namely the Umzimkulu, Umtamvuna and Harding/Weza water schemes in the mentioned areas.

This project focuses on the Umzimkulu Water Supply scheme. Construction of the Stage 1 components will take place over a number of years (2007 to 2010), depending on the need and practical phasing constraints. Stages 2 and 3 will be implemented from 2008 onwards.

The complexities involving multiyear planning and budgeting on these type of major schemes, warrants the DBSA and other funders to consider a multiyear investment framework. This requires upfront commitment to allocate funding based on certain principles. It is estimated that Ugu District Municipality (Ugu DM) would require an allocation of R 40 million per annum for the next two years.

The 2006 review of the Water Services Development Plan included the findings of the Bulk Water Supply Master Plan with respect to the funding and implementation of the proposed regional water schemes. Ugu DM will simultaneously implement projects to improve water demand management and water loss control. The latter projects are included in the DBSA's current year budget for KZN.

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The Umzimkulu project will also involve the obtaining of environmental and permit approvals for increased water abstraction, sludge handling, water handling and storage, etc. as well as approvals for servitudes over land, obtaining additional land, etc.

2. PROJECT OBJECTIVE

This Project deals with the implementation of Stage 1 of the Umzimkulu Water Augmentation Scheme which will be implemented between 2007 and 2010 at a total estimated cost of R 196.365 million. A total of 8 major projects components will be implemented.

The objective is to increase the bulk water supply capacity in the central, western and southern areas which will reduce backlogs in water infrastructure and which will support the further development of the coastal areas.

3. PROJECT PRINCIPLES

3.1 Project Principles

- To plan and design water supply components that are based on the latest water demand management principles that makes provision for water conservation and water loss control in the design and implementation of the Project.
- To plan and phase the supply of water infrastructure components timeously to realistically meet future demand.
- To achieve cost recovery on the project account and a financial break-even situation for the overall project in the shortest time possible.
- To optimise the use of existing infrastructure and to prevent unnecessary and costly duplication.
- To institute appropriate water infrastructure maintenance and operational procedures to ensure maximum benefit from the assets created.

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- Applying value engineering to achieve added value through project design, use of resources and assets.

- To optimise the opportunities for small contractors and BEE groups to participate in the project.

3.2 Planning and Design Principles

- Demand projections should be realistic taking into consideration demographic movements, actual demand based on recent experience of household consumption and non-revenue water control.

- Consideration of National and Provincial spatial development initiatives and plans, in particular development corridors and the like.

- In line with approved municipal development plans (IDP & WSDP).

- Modular design of facilities where possible, e.g. water treatment works, reservoirs, pumpstations.

- Life-cycle cost comparisons in selecting most appropriate facilities.

- Appropriate technology and materials.

- Appropriate levels of service.

4. PROJECT DESCRIPTION

4.1 Overall Description

The Stage 1 project, totalling R196.365 million (including VAT), will be implemented between 2007 and 2010 and consists of the following components:

1) Augmentation and upgrading of the St Helens Rock Pump Station at an estimated cost of R31.635 million and a Weir at a total cost of R10.260 million.
2) Augmentation and upgrading of Umzimkulu - Bhobhoyi Water Works at an estimated cost of R65.892 million.
3) Construction of a raw water storage dam between the above installations at a cost of R50.844 million.

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4) Construction of pipeline and pump stations between Umzimkulu - Bhobhoyi Water Works and Shelly Beach at an estimated cost of R20.000 million.
5) Construction of main pipeline and pump stations between Shelly Beach and Uvongo at an estimated cost of R7.600 million.
6) Connection to Shelly Beach reservoirs at an estimated cost of R3.767 million.
7) Connection to Uvongo Reservoirs at an estimated cost of R 3.863 million.
8) Installation of San Lameer booster pump station at a cost of R2.504 million.

The total project will be implemented over a 5 year period. An amount of R 62 million needs to be allocated under the current loan. The remainder will be phased over the next two years.

4.2 Project Description for Stage 1

St Helens Rock Pump Station:

The original works were constructed during 1973/74 on the banks of the Umzimkulu River which is more than 30 years ago. The aim is to increase the capacity to 108 Ml per day and to operate at extreme river water levels: between low water level of 1.3 MSL and high water level of 9 MSL without removing sections of the rising mains.

Low Lift Pumps – currently two pumpsets are attached to each of two trolleys which run on rails which adjust the level of pumps as per the water level. However, due to the decreasing water level during the last few years, the rails and rail supports need to extended. Further to this, in an attempt to meet capacity requirements, it is proposed that two new pairs of rails be constructed together with the installation of one trolley complete with two pumpsets and all associated equipment and the construction of all the civil works required for the future trolley.

High Lift Pumps – Currently four 200/250 GME horizontal split casing pumps are being used at pump station (with three pumps operating in parallel and the fourth on standby). However the efficiency of the pumps has been reduced due to old age and wear. Also with the proposed new Raw Water Storage Dam and the augmentation of the Waterworks, it is proposed that all four existing pumps be replaced by four Small pumps and two new large pumps be installed. One large pump and one small pump

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will be on standby. With regard to handling and servicing of the pumps, a 10 ton gantry crane needs to be installed along with pipe work and ancillary equipment.

Electrical Supply – with the increased number of pumps, the estimated total capacity will 6500 kW. The municipality will be required to enter into new agreements with Eskom for increased electrical capacity. However modification in the existing system will be required to handle the upgrade.

The overall work includes:

	Item	Amount
	Low-Lift Pumping	
1	Installation of 2 low-lift pumpsets complete with pipework	R 1 200 000
2	Provision of trolley and rising main	R 1 100 000
3	Winch with steel wire ropes	R 1 600 000
4	Electrical work	R 550 000
	High-Lift Pumping	
1	2 large pumpsets	R 3 200 000
2	Replace 4 small pumpsets	R 3 880 000
3	10 tonne crane	R 320 000
4	Pipework and ancillary	R 2 900 000
5	Main electricity supply	R 2 450 000
	Civil Contract	
1	Sleeper rails, canals and winch house	R 1 450 000
2	Additional settling canals	R 2 050 000
3	Modifications to high-lift pumpstation	R 300 000
	Sub-total	**R 21 000 000**
1	Contingencies 15%	R 3 150 000
2	Engineering fees 15%	R 3 600 000
Sub-total (excluding VAT)		**R27 750 000**
Add: 14% VAT		**R3 885 000**
~~TOTAL~~		**R31 635 000**

The pumpstation will be linked to a new raw water storage dam and from there pipework will ensure that the water is gravitated to the existing Bhobhoyi Water Works.

Weir in Umzimkulu River:

	Item	Amount
1	Construction	R 5 365 000
2	P&G and Escalation	R 804 750
	Sub-total	**R 6 169 750**
3	Contingencies	R 1 233 950
	Sub-total	**R 7 403 700**
4	Indirect costs	R 1 325 000
	Sub-total	**R 8 728 700**

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Sub-total (excluding VAT)	Say R 9 000 000
Add: 14% VAT	R1 260 000
TOTAL	R10 260 000

The above cost estimates are before detail design stage and therefore subject to change.

Bhobhoyi Water Works:

The capacity of the existing Bhobhoyi Water Works will be increased from 54 Ml per day to 81 Ml per day. With the completion of the new raw water storage dam, the waterworks will be gravity fed from the dam most of the time. The following items at the various key positions in the waterworks will be upgraded.

Inflow Control and Distribution

- Two 500mm diameter regulating valves would be installed together with a magnetic flow meter and both would automatically regulate the incoming flow to the required operational standard.
- A new splitter box and divisional chamber will be built upstream of the existing Chemical House and Treatment facilities to deal with flow distribution.

Clarification

Currently two clarification options will be looked at but the clarification system for the extensions will be finally selected once tenders have been received and evaluated and the relative suitability and costs of the different systems offered have been determined. The one system, the Mechanised Circular Sedimentation Tanks which is similar to the existing 'Bateman' clariflocculators is the preferred system as it is currently being used and as such tenderers for the mechanical and electrical treatment plant and equipment would be required to submit offers incorporating mechanised circular sedimentation tanks.

The Counter Current Dissolved Air Flotation and Filtration (COCODAFF) units are the other system that may be chosen. Initial concerns were raised around the fact that this was a new system and that this system was not suitable for dealing with turbid water. However, with the construction of the new Raw Water Dam, it is expected that raw

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water inflow would be less turbid and less variable, thus making the system more acceptable in dealing with the raw water. Further to this, the COCODAFF units would be easier to accommodate on the congested site and that the capital cost of these units would be lower. Therefore anticipated works would include the installation of two clariflocculators and the demolition of the existing sedimentation basin.

Filtration

Eight new standard dual media (anthracite/sand) rapid gravity filters are proposed. Each filter will contain two 6.45m X 3.30m wide filter beds. Provision has been made for the demolition of the existing 7.6Ml rectangular Sedimentation Basin to make space for the proposed additional filter blocks.

Filter Backwashing

As the existing backwater system requires definite upgrading as some aspects do not comply with requirements of the OHS Act and it will not be able to manage the filter requirements of the additional filter bays, provision has been made for the construction of an entirely new washwater pumping facility that can draw water from the existing circular 4.5Ml clear water reservoir. The final design parameters and values will be as specified by the successful mechanical and electrical plant tenderer to suit the filter technology and arrangement offered by them.

Chemical Dosing

The existing chemical dosing will be upgraded so as to give a minimum re-supply period of some 3 weeks once the Waterworks is operating at it ultimate capacity. It is proposed that three new chlorinators be installed in the existing chlorine dosing room together with suitably rated pumps, on the understanding that two chlorinators will disinfect filtered water from all 23 filters and one chlorinator will be on standby.

Automation of Existing Works

A simple SCADA system would be installed to control the operation of the existing and new facilities. The system would be capable of sequentially opening and closing valves, starting and stopping pumps, airblowers and dosing equipment and after pre-set periods, sequentially removing sludge or float from the clarifiers. This would give the operators better control of the treatment processes and facilitate the optimisation of the waste water recovery processes and by ensuring that inflows into the washwater and sludge treatment facilities occur in a regular manner.

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The works include:

	Item	Amount
1	Mechanical and electrical plant for 27 Ml/d augmentation	R 20 700 000
2	Civil work for upgrade	R 9 100 000
3	Mechanical and electrical plant for washwater and sludge treatment	R 15 500 000
4	Civil work for washwater and sludge treatment	R 3 600 000
5	Domestic water pumpstation	R 600 000
6	Chlorine store room	R 1 300 000
	Sub-total (including contingencies)	**R 50 800 000**
	Engineering fees	R 7 000 000
Sub-total (excluding VAT)		**R 57 800 000**
Add: 14% VAT		**R8 092 000**
TOTAL		**R65 892 000**

Proposed off-channel storage dam:

The total estimated cost is R50.844 million and would be separately funded by a MIG allocation.

Pipeline and pumpstations between Umzimkulu-Bhobhoyi Waterworks and Shelly Beach at an estimated cost of R27.600 million.

Following a rapid feasibility study the following description emerges. The Southern Main (which supplies water to the areas of Oslo Beach, Uvongo, Margate and Ramsgate) will not be able to meet future water demands and hence will need augmentation. Currently, the Southern Main consists of a 375mm diameter main and a 300mm diameter main. It has been decided that the most cost effective option to construct the new pipeline will be adjacent to the existing 300mm and 375mm pipelines.

Based on demand predictions, it has been decided that the Southern Main augmentation will consist of the installation of a 7.2km 600mm diameter steel pipeline from Umzimkulu Waterworks to Shelly Beach and associated works and, the installation of a 2.3km 450mm diameter steel pipeline from Shelly Beach to Uvongo

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and associated works. This will include the attachment of the steel pipes at the three river crossings to existing bridge structures.

The total cost for the two portions of the pipeline of R27.6 million (including VAT is made up as follows:

Northern Portion comprising pumpstations and 7.2 km 600 mm diameter pipeline from Umzimkulu Waterworks to Shelly Beach at a cost of R20.0 million.

	Item	Amount
1	Construction of Pumpstations, 600mm diameter x 7.2km steel pipeline from Umzimkulu Water Treatment Works to Shelly Beach	R 15 000 000
	Sub-total (including contingencies)	R15 000 000
	Engineering fees and other costs	R2 543 860
Sub-total (excluding VAT)		**R17 543 860**
Add: 14% VAT		**R2 456 140**
TOTAL		**20 000 000**

Southern Portion comprising a 3.3 km 450 mm diameter steel pipeline from Shelly Beach to Uvongo at an estimated cost of R7.6 million

	Item	Amount
1	Construction of Pumpstations, 450mm diameter x 3.3km steel pipeline from Shelly Beach to Uvongo	R 5 850 000
	Sub-total (including contingencies)	R5 850 000
	Engineering fees and other costs	R816 667
Sub-total (excluding VAT)		**R6 666 667**
Add: 14% VAT		**R933 333**
TOTAL		**R7 600 000**

Connection to reservoirs:

In line with the increasing capacity restraints, it is proposed to construct a gravity pipeline from the Umzimkulu WW to all the service reservoirs so as to minimise reliance on the booster pumps along the route. It is proposed that a 300mm diameter pipeline, 1.6km long, to be installed from the new 600/450mm pipeline to the Shelly

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Beach reservoirs and a 250mm diameter pipeline, 2.1km long, to be installed from the new 600/450mm pipeline to the Uvongo Reservoirs. However, funding for the Uvongo pipeline will come from internal sources.

Connection to Shelly Beach Reservoirs at an estimated cost of R3.767 million.

	Item	Amount
1	Construction: Pipelines and Pipe Jack	R 2 060 000
2	P&G and Escalation	R 427 450
	Sub-total	**R 2 487 450**
3	Contingencies	R 236 900
	Sub-total	**R 2 724 350**
4	Indirect costs	R 580 000
Sub-total (excluding VAT)		**R 3 304 350**
Add: 14% VAT		**R462 609**
TOTAL		**R3 766 959**

Connection to Uvongo Reservoirs at an estimated cost of R3.863 million.

	Item	Amount
1	Construction: Pipelines and Pipe Jack	R 1 950 000
2	P&G and Escalation	R 404 625
	Sub-total	**R 2 354 625**
3	Contingencies	R 224 250
	Sub-total	**R 2 578 875**
4	Indirect costs	R 810 000
Sub-total (excluding VAT)		**R 3 388 875**
Add: 14% VAT		**R474 442.50**
TOTAL		**R3 863 317.50**

San Lameer Booster Pumpstation at an estimated cost of R2.504 million

A pump station which is located at San Lameer to boost water supply from the Umtamvuna system into the Umzimkulu system for short term relief of the latter system is to be constructed. This will provide between 2 and 3 year relief before all components of the augmentation is complete. Included in this project will be the increase in capacity of pipeline and the erection of a new reservoir.

	Item	Amount
1	Civil Works	R 5 365 000
2	Mechanical and Electrical	
2	P&G and Escalation	R 281 889
	Sub-total	**R 1 640 389**

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3	Contingencies	R 156 228
	Sub-total	**R 1 796 617**
4	Indirect costs	R 400 000
	Total (excluding VAT)	
Sub-total (excluding VAT)		**R 2 196 617**
Add: 14% VAT		**R307 526 38**
TOTAL		**R2 504 143.38**

4.3 Summary of Stage 1: Estimates of Total Costs

The estimates for the various components of Stage 1 is summarised in the following table:

Umzimkulu Water Augmentation Scheme
Stage 1: Revised Estimates of Costs (13 September 2007)

Description	**Total (including VAT) Million**	
St Helen's Rock Pumpstation (Mechanical, Electrical and Civils)	R	31.635
Weir in Umzimkulu River	R	10.260
Bhobhoyi Waterworks (Mechanical, Electrical and Civils)	R	65.892
Raw Water Storage Dam	R	50.844
Bhobhoyi – Shelly Beach Main	R	20.000
Shelly Beach – Uvongo Main	R	7.600
Connection to Shelly Beach Reservoirs	R	3.767
Connection to Uvongo Reservoirs	R	3.863
San Lameer Booster Pumpstation	R	2.504
TOTAL	**R**	**196.365**

5. DBSA PROJECT DISBURSEMENTS FOR LOAN 1

	31 Mar 2008	**31 Mar 2009**	**31 Mar 2010**	**30 Jun 2010**
DBSA Disbursements	R2 000 000	R27 000 000	R26 000 000	R7 000 000
Cumulative amount	R2 000 000	R29 000 000	R55 000 000	R62 000 000

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6. MONITORING ARRANGEMENTS

- The existing Working Group between DBSA and Ugu DM will be used to monitor the programme on regular basis.
- The Borrower shall submit regular reports to the DBSA on the progress made with the implementation of the Project, in terms of the Project Description.
- The log frame Matrix below would be used as a tool to monitor progress of this project.

7. OTHER MATTERS

- The DBSA undertakes to consider approximately R40 million per annum for the Umzimkulu Water Augmentation Scheme under its Targeted Infrastructure Programme for the following two years.
- Ugu DM undertakes to implement the Non-revenue Water Master Plan and Water and Sanitation Consolidated Plan projects each linked to quantifiable targets, milestone and time-frames.

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LOG FRAME MATRIX: UMZIMKULU WATER AUGMENTATION SCHEME STAGE 1

	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
GOAL: • To support broad based sustainable economic development and access to basic municipal services	• Economic performance	• GDP/GAV or Social Accounting Matrix tools	
OBJECTIVES: (OUTCOMES) • Achieve targets of potable water supply to communities. • Enable further development of coastal zones. • Achieve water loss and revenue targets	• Water reporting • Client satisfaction	• Water management reports • Social surveys	• The project will not negatively affecting the municipality's income generation potential • Sustainable development will be supported by the project
OUTPUTS: • Increasing of raw water extraction capacity from 54 Ml to 81Ml per day. • Augmentation of pumping and piping. • Create standby electricity generating capacity. • Increasing the capacity of water treatment facilities to 81 Ml per day. • Increasing of water storage capacity with 26.5 Ml. • Link Umtamvuna and Umzimkulu supply systems. • Implement Technical Assistance plans	• Stage 1 Construction work completed by Dec / Jan 2009 • Commissioning of new systems	• Site meetings • Steering committee meetings	• No construction delays or serious cost overruns are assumed • No supplier delays or cost overruns are assumed.
ACTIVITIES: • Upgrade of St Helens Rock Pump Station. • Upgrade of Bhobhoyi Water Works. • Construct off-channel raw water storage facility. • Provide new piping and augment existing piping and pumping capacity between above facilities. • Augment piping and pumping to Shelley Beach. • Augment piping and pumping to Uvongo. • Improve reservoir capacities at Uvongo, Shelley Beach, KwaMavudla, Ramsgate and San Lameer. • Provide booster pumping between Umtamvuna and Umzimkulu System to provide short term relieve. • Prepare Non-revenue water master plan & Consolidated Plan	• Approval of designs • Procurement for different contracts • Procurement of equipment	• Working committee meeting	• The designs will enable the achievement of the required performance standards • The contractors and sub-contractors will be able to complete their task as per contracted time frames. • Approval and access to land will be obtained timeously.

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ANNEXURE B

SOURCE AND APPLICATION OF FUNDS STATEMENT

(Including VAT)

MILE STONES	ACTIVITIES	TIME FRAMES	TOTAL COST	DBSA CONTR.
PROJECT PREPARATION	DESIGN WORK	Jun 2007 to May 2008	R 14 500 000	
CONSTRUCTION	CONSTRUCTION WORK	Jan 2008 to Mar 2011	R 181 865 000	R 62 000 000
TOTAL			R 196 365 000	R 62 000 000

Note: Client and other contributions may be changed to suit future needs as they develop over time.

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ANNEXURE C

PROJECT CO-OPERATION

1. To ensure that the purposes of the Loan are accomplished, the Parties shall:-

1.1 periodically, and at the request of either Party,:-

1.1.1 exchange views, with regard to the progress of the Project, the benefits derived therefrom and the performance of their respective obligations, in terms of this Agreement, as well as other matters relating to the purposes of the Loan; and

1.1.2 furnish each other with all such information, as may be reasonably requested, with regard to the progress of the Project, the benefits derived therefrom and the general status of the Loan;

1.2 promptly inform each other of any fact, which interferes with, or threatens to interfere with, the progress of the Project, the accomplishment of the purposes of the Loan, any related matter, and, in particular, the performance, by either Party, of its obligations, in terms of this Agreement;

1.3 confirm that they have determined the technical, financial and organisational requirements, in respect of planning, management and control of the Project, to ensure the efficient and effective execution and maintenance of the Project and related matters; and

1.4 jointly, determine the criteria to be taken into consideration, when awarding contracts for items and services to be financed by the Loan.

2. The Borrower shall:-

2.1 grant representatives of the DBSA the opportunities reasonably necessary, to visit any relevant area, for purposes related to the Loan;

2.2 in addition to the amount made available, in terms of this Agreement, be responsible for the provision of all other funds necessary for the successful execution of the Project, as set out in Annexure B, including funds to be supplied by third parties, as reflected in the said Annexure B;

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2.3 be responsible for the management and maintenance of work carried out, within the context of the Project;

2.4 with regard to the procurement of goods and services for the Project, in consultation with the DBSA, invite participation, in tender or quotation procedures on an open bid basis (such documentation to be drawn up, in consultation with the DBSA's Project Team and ratified by the DBSA), from natural persons and bodies corporate, respectively;

2.5 ensure that contractors, to whom contracts are awarded, are insured, and remain insured, in terms of contractors-all-risk-insurance policies, in a manner reasonably acceptable to the DBSA;

2.6 insure, and keep insured at the replacement value thereof, such of its interests in the Project, against such risks, as may be agreed upon by the Parties;

2.7 maintain, or cause to be maintained, records, adequate to identify the operations carried out by means of the Loan, and furnish the DBSA with all such information (e.g. progress reports), concerning the implementation of the Project;

2.8 apply the Loan, in accordance with Annexure B;

2.9 require each contractor, to whom a contract is awarded, to furnish a performance guarantee acceptable to the DBSA, in terms whereof the completion of such contract is guaranteed; and

2.10 preserve all documents and accounting records, relating to the Project, up to the expiry of a period of 9 (nine) years, after signature of this Agreement, and shall allow the DBSA, at the DBSA's cost, at any reasonable time, to have such documents and records audited by a person, nominated by the DBSA.

3. Where the Parties agree that the further appointment of consultants, or the revision of the brief of appointed consultants, is necessary, the following criteria shall obtain:-

- promotion and/or support of the SMME sector;
- past experience with similar projects;
- knowledge of local conditions;
- abilities and qualifications;
- membership of professional institutions.

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ANNEXURE D

AUTHORISATION

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ANNEXURE E

DEVELOPMENT BANK OF SOUTHERN AFRICA LIMITED: DELEGATIONS OF SIGNING AUTHORITIES FOR INVESTMENT LOANS AND TECHNICAL ASSISTANCE

PAUL CAMBO BALOYI

in his capacity as Chief Executive of the Development Bank of Southern Africa, in terms of authority delegated to the incumbent of this post by the Board of Directors of the Development Bank of Southern Africa Limited on 20 March 1997, as amended and read with section 5 of the Development Bank of Southern Africa Act No 13 of 1997, determined on 1 October 2006 that:

PAUL CAMBO BALOYI
in his capacity as Chief Executive Officer
and Managing Director

OR

LEONIE VAN LELYVELD
in her capacity as Chief Risk officer
and Acting as Chief Financial Officer

OR

ADMASSU YILMA TADESSE

OR

SAMSON GWEDE MANTASHE

OR

ERNEST ARTHUR DIETRICH

OR

LOYISO PITYANA

OR

LEWIS MAXWELL MUSASIKE

OR

SNOWY JOYCE KHOZA

OR

MAGARE LUTHER MASHABA

OR

JEANETTE SIBONGILE NHLAPO
in their capacities as Executive Managers

OR
SAMUEL RAPULANE MOGOTOTOANE
in his capacity as Manager: Legal Services

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OR

CHRISTINA JOANNA GOLINO

OR

BANE MOEKETSI MALEKE

OR

PUMLA MANNYA

OR

MAKGOTLA DANIEL PETER MOKUENA

OR

CHUCHEKA BEN MHLONGO

OR

EMILE DU TOIT

OR

JANINE THORNE

OR

REMBULUWANI BETHUEL NETSHISWINZHE

OR

JAMES MFANVELI TWANA NDLOVU

OR

TSHOKOLO PETRUS NCHOCHO

OR

SOLOMON ASAMOAH

in their capacities as Managers: Business Units

be authorised for and on behalf of the Development Bank of Southern Africa to enter into agreements in terms whereof money is:-

1. lent, or
2. granted for the purpose of technical assistance,

and to perform all acts and sign all contracts or any other documentation in connection therewith that may be necessary for the purpose.

DATE ______________________ **LEGAL SERVICES** ______________________

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