YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE SOUTH AFRICAN NATIONAL PARKS

<table>
<thead>
<tr>
<th>RFP NUMBER:</th>
<th>KNP-003-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLOSING DATE:</td>
<td>25 AUGUST 2015</td>
</tr>
<tr>
<td>CLOSING TIME:</td>
<td>11:00 AM</td>
</tr>
<tr>
<td>BID VALIDITY PERIOD:</td>
<td>90 days (commencing from the RFP Closing Date)</td>
</tr>
<tr>
<td>DESCRIPTION OF BID:</td>
<td>PROVISION OF PEST CONTROL SERVICES IN THE KRUGER NATIONAL PARK FOR A PERIOD OF FIVE (05) YEARS</td>
</tr>
<tr>
<td>BID DOCUMENTS DELIVERY ADDRESS</td>
<td>KRUGER NATIONAL PARK, SUPPLY CHAIN MANAGEMENT (PROCUREMENT) OFFICES; SKUKUZA; 1350</td>
</tr>
<tr>
<td>For Attention:</td>
<td>MR LUCKY MAHLALELA</td>
</tr>
</tbody>
</table>

NB: Bidders must ensure that they sign the register at the park when submitting the bids.

The successful bidder will be required to fill in and sign a written Contract Form (SBD 7).

Bidders should ensure that bids are delivered timeously to the correct address. If the bid is late, it will not be accepted for consideration.

The bid box is generally open 8 hours a day, 5 days a week.

ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS – (NOT TO BE RE-TYPED)

THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2011, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT
THE FOLLOWING PARTICULARS MUST BE FURNISHED (FAILURE TO DO SO MAY RESULT IN YOUR BID BEING DISQUALIFIED)

| NAME OF BIDDER | …………………………………………………………………………………………… |
| POSTAL ADDRESS | …………………………………………………………………………………………… |
| STREET ADDRESS | …………………………………………………………………………………………… |
| TELEPHONE NUMBER | CODE………..NUMBER…………………………………………………………………… |
| CELLPHONE NUMBER | …………………………………………………………………………………………… |
| FACSIMILE NUMBER | CODE……………… NUMBER…………………………………………………………………… |
| E-MAIL ADDRESS | …………………………………………………………………………………………… |
| VAT REGISTRATION NUMBER | …………………………………………………………………………………………… |

HAS AN ORIGINAL AND VALID TAX CLEARANCE CERTIFICATE BEEN SUBMITTED? (SBD 2)  
YES or NO

HAS A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE BEEN SUBMITTED? (SBD 6.1)  
YES or NO

IF YES, WHO WAS THE CERTIFICATE ISSUED BY?

- AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA)………………………………………
- A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN ACCREDITATION SYSTEM (SANAS); OR…………………
- A REGISTERED AUDITOR ……………………………………………………………………………………………………….……..….

[TICK APPLICABLE BOX]

(A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE 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 or NO [IF YES ENCLOSE PROOF]

SIGNATURE OF BIDDER ……………………………………………………………………………………………

DATE ……………………………………………………………………………………………

CAPACITY UNDER WHICH THIS BID IS SIGNED ……………………………………………………………………………………………

TOTAL BID PRICE: R…………………………………………………………………………………………

(Total bid price including VAT and any other charges)

ANY ENQUIRIES REGARDING THE BIDDING PROCEDURE MAY BE DIRECTED TO:

Name of Institution: South African National Parks
Park: Kruger National Park
Contact Person: Lucky Mahlalela
Tel: 013 735 4311
E-mail address: lucky.mahlalela@sanparks.org
## CONDITIONS AND UNDERTAKINGS BY BIDDER

a. **The Bid forms should not be retyped or redrafted but photocopies may be prepared and used.** However, only documents with the original signature in black ink shall be accepted. Additional offers against any item should be made on a photocopy of the page in question.

b. **Black ink should be used when completing Bid documents.**

c. Bidders should check the numbers of the pages to satisfy themselves that none is missing or duplicated. SANParks will accept NO liability in regard to anything arising from the fact that pages are missing or duplicated.

d. I/We hereby Bid to supply all or any of the supplies and/or to procure all or any of the services described in the attached documents to SANParks on the terms and conditions and in accordance with the specifications stipulated in the Bid documents (and which shall be taken as part of, and incorporated into, this Bid) at the prices inserted therein.

e. I/We agree that –

f. the offer herein shall remain binding upon me/us and open for acceptance by SANParks during the validity period indicated and calculated from the closing hour and date of the Bid;

g. the laws of the Republic of South Africa shall govern the contract created by the acceptance of my/our Bid and that I/we choose domicilium citandi et executandi in the Republic as indicated below; and

### NB: BIDDERS TERMS AND CONDITIONS ARE NOT ACCEPTABLE.

I/We furthermore confirm that I/we have satisfied myself/ourselves as to the correctness and validity of my/our Bid that the price(s) and rate(s) quoted cover all the work/item(s) specified in the Bid documents and that the price(s) and rate(s) cover all my/our obligations under a resulting contract and that I/we accept that any mistakes regarding price(s) and calculations will be at my/our risk.

I/We hereby accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me/us under this Bid as the Principal(s) liable for the due fulfilment of this contract.

<table>
<thead>
<tr>
<th>Signature(s) of Bidder or assignee(s)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of signing person (in block letters)</td>
<td></td>
</tr>
<tr>
<td>Capacity</td>
<td></td>
</tr>
<tr>
<td>Are you duly authorized to sign this bid?</td>
<td></td>
</tr>
<tr>
<td>Name of Bidder [company name] (in block letters)</td>
<td></td>
</tr>
<tr>
<td>Postal address (in block letters)</td>
<td></td>
</tr>
<tr>
<td>Domicilium citandi et executandi in the RSA (full street address of this place) (in block letters)</td>
<td></td>
</tr>
<tr>
<td>Telephone Number:</td>
<td>Fax Number</td>
</tr>
<tr>
<td>Cell Number:</td>
<td>Email Address</td>
</tr>
</tbody>
</table>
INSTRUCTIONS TO BIDDER

1 Confidential information disclosure notice

1.1 This document may contain confidential information that is the property of South African National Parks (SANParks).

1.2 No part of the contents may be used, copied, disclosed or conveyed in whole or in part to any party in any manner whatsoever other than for preparing a proposal in response to this Bid, without prior written permission from SANParks.

1.3 All copyright and Intellectual Property herein vests with SANParks.

2 Introduction

2.1 Purpose

2.1.1 The purpose of this Request for Bid (RFP) is an invitation to potential suppliers (hereinafter referred to as “Bidders”) to submit Bids for the items/products/solutions as detailed under Annex A: Technical/solution specification.

2.2 Objectives

2.2.1 The following objectives must be achieved with the implementation of the above required solution:

2.2.1.1 Based on the Bids submitted and the outcome of the evaluation process according to the set evaluation criteria, SANParks intends to select a preferred bidder/s with the view of concluding a service level agreement (SLA) where applicable with such successful bidder. The Bid shall be evaluated in terms of the PPPFA (90/10).

2.3 Queries

2.3.1 Should it be necessary for a bidder to obtain clarity on any matter arising from or referred to in this RFP document, please refer queries, in writing, to the contact person(s) listed below. Under no circumstances may any other employee within SANParks be approached for any information. Any such action may result to disqualification of a response submitted in response to the RFP. SANParks reserves the right to place responses to such queries on the website.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type of Query</th>
<th>Email address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lucky Mahlalela</td>
<td>Bid Queries</td>
<td><a href="mailto:lucky.mahlalela@sanparks.org">lucky.mahlalela@sanparks.org</a></td>
</tr>
</tbody>
</table>

Enquiries should reference specific paragraph numbers, where appropriate.

All questions/enquiries must be forwarded in writing not later than Friday, 14th AUGUST 2015 at 11h00.

Questions/enquiries received after Friday, 14th AUGUST 2015 at 11H00 will not be considered.

Bidders are not allowed to contact any other SANParks staff in the context of this tender other that the indicated official under 2.3.1.

2.4 Bid Documents

2.4.1 Bids must be hand delivered or (if couriered) reach to SANParks by no later than 25TH AUGUST 2015 at 11H00.

2.4.2 Bid documents must contain one (01) original document, initialled on each page, and signed where required and two (02) copy thereof (two separate envelops: one for financials and the other for technical document).

2.4.3 A digital version on CD/DVD/Memory stick containing the bid document and all other supporting documents (full submitted bid proposal with its attachments) must be provided of all tender documentation and brochures, within the Bid envelope.
3 General rules and instructions

3.1 Confidentiality

3.1.1 The information contained in this document is of a confidential nature, and must only be used for purposes of responding to this RFP. This confidentiality clause extends to Bidder partners and/or implementation agents, whom the Bidder may decide to involve in preparing a response to this RFP.

3.1.2 For purposes of this process, the term “Confidential Information” shall include all technical and business information, including, without limiting the generality of the foregoing, all secret knowledge and information (including any and all financial, commercial, market, technical, functional and scientific information, and information relating to a party's strategic objectives and planning and its past, present and future research and development), technical, functional and scientific requirements and specifications, data concerning business relationships, demonstrations, processes, machinery, know-how, architectural information, information contained in a party’s software and associated material and documentation, plans, designs and drawings and all material of whatever description, whether subject to or protected by copyright, patent or trademark, registered or un-registered, or otherwise disclosed or communicated before or after the date of this process.

3.1.3 The receiving party shall not, during the period of validity of this process, or at any time thereafter, use or disclose, directly or indirectly, the confidential information of SANParks (even if received before the date of this process) to any person whether in the employment of the receiving party or not, who does not take part in the performance of this process.

3.1.4 The receiving party shall take all such steps as may be reasonably necessary to prevent SANParks’ confidential information coming into the possession of unauthorised third parties. In protecting the receiving party’s confidential information, SANParks shall use the same degree of care, which does not amount to less than a reasonable degree of care, to prevent the unauthorised use or disclosure of the confidential information as the receiving party uses to protect its own confidential information.

3.1.5 Any documentation, software or records relating to confidential information of SANParks, which comes into the possession of the receiving party during the period of validity of this process or at any time thereafter or which has so come into its possession before the period of validity of this process:

3.1.5.1 Shall be deemed to form part of the confidential information of SANParks;
3.1.5.2 Shall be deemed to be the property of SANParks;
3.1.5.3 shall not be copied, reproduced, published or circulated by the receiving party unless and to the extent that such copying is necessary for the performance of this process and all other processes as contemplated in; and
3.1.5.4 Shall be surrendered to SANParks on demand, and in any event on the termination of the investigations and negotiations, and the receiving party shall not retain any extracts.

3.2 News and press releases
3.2.1 Bidders or their agents shall not make any news releases concerning this RFP or the awarding of the same or any resulting agreement(s) without the consent of, and then only in co-ordination with SANParks.

3.3 Precedence of documents
3.3.1 This RFP consists of a number of sections (see list). Where there is a contradiction in terms between the clauses, phrases, words, stipulations or terms and herein referred to generally as stipulations in this RFP and the stipulations in any other document attached hereto, or the RFP submitted hereto, the relevant stipulations in this RFP shall take precedence.
3.3.2 Where this RFP is silent on any matter, the relevant stipulations addressing such matter and which appears in the PPPFA shall take precedence. Bidders shall refrain from incorporating any additional stipulations in its proposal submitted in terms hereof other than in the form of a clearly marked recommendation that SANParks may in its sole discretion elect to import or to ignore. Any such inclusion shall not be used for any purpose of interpretation unless it has been so imported or acknowledged by SANParks.
3.3.3 It is acknowledged that all stipulations in the PPPFA are not equally applicable to all matters addressed in this RFP. It however remains the exclusive domain and election of SANParks as to which of these stipulations are applicable and to what extent. Bidders are hereby acknowledging that the decision of the SANParks in this regard is final and binding. The onus to enquire and obtain clarity in this regard rests with the vendor(s). The vendor(s) shall take care to restrict its enquiries in this regard to the most reasonable interpretations required to ensure the necessary consensus.

3.4 Preferential Procurement Reform
3.4.1 SANParks supports Black Economic Empowerment as an essential ingredient of its business. In accordance with government policy, SANParks insists that the private sector demonstrates its commitment and track record to Black Economic Empowerment in the areas of ownership (shareholding), skills transfer, employment equity and procurement practices (SMME Development) etc.
3.4.2 SANParks shall apply the principles of the Preferential Procurement Policy Framework Act, (Act No. 5 of 2000) with its Preferential Procurement Regulation 2011 to this proposal.
3.4.3 Bidders shall complete the preference certificate attached to this proposal. In the case of a consortium and subcontractors, the preference certificate must be completed for each legal entity (Annex C).

3.5 **Security clearances**

3.5.1 Employees and subcontractors of the Bidders may be required to be in possession of valid security clearances to the level determined by NIA or/or SANParks commensurate with the nature of the project activities they are involved in. The cost of obtaining suitable clearances is for the account of the bidders. The Bidders shall supply and maintain a list of personnel involved on the project indicating their clearance status.

3.6 **Occupational Injuries and Diseases Act 13 of 1993**

3.6.1 The Bidder warrants that all its employees (including the employees of any sub-contractor that may be appointed) are covered in terms of the Compensation for Occupational Injuries and Diseases Act 13 of 1993 (“COIDA”) and that the cover shall remain in force for the duration of the adjudication of this bid and/or subsequent agreement. SANParks reserves the right to request the Bidder to submit documentary proof of the Bidder’s registration and “good standing” with the Compensation Fund, or similar proof acceptable to SANParks.

3.7 **Instructions for submitting a proposal**

3.7.1 One (1) original, One (1) hard copy of the Bid shall be submitted on the date of closure of the Bid.

3.7.1.1 The original copy must be signed in black ink by an authorised employee, agent or representative of the bidder and each and every page of the proposal shall contain the initials of same signatories.

3.7.2 Bidders shall submit proposal responses in accordance with the prescribed manner of submissions as specified above.

3.7.3 Bid must be submitted in a prescribed response format herewith reflected as **Response Format**, and be sealed in an envelope. The envelope must be marked clearly (on the outside) with the Bid Number and be addressed to **Mr Lucky Mahlalela**.

3.7.4 Bid must be submitted on or before 25TH AUGUST 2015 at 11H00. The bids must be dropped in the tender box at the **South African National Park, Kruger National Park, Supply Chain Management (Procurement) Offices; Administration Block, Skukuza, 1350**.

3.7.4.1 SANParks receives a lot of correspondence on a daily basis. Bidders are therefore urged to ensure that they clearly mark their bids with the Bid Number; register their bids and sign the register that will be provided at the gate. Failure to sign the register will lead to the bid being disqualified. Failure to submitted sealed bids could result to disqualification of bids. The onus is on the bidder to ensure that their bids get registered in the bids received register. Bidders must advise their courier companies of this instruction.
3.7.5 All Bids in this regard shall only be accepted if they have been registered on the bids received register before or on the closing date and stipulated time.

3.7.6 Bids received after the time stipulated shall not be considered.

3.7.7 Bid responses sent by courier must reach this office at least **36 hours** before the closing date to be registered on the bids received register. Failure to comply with this requirement shall result in your proposal being treated as a “late proposal” and shall not be entertained. Such proposal shall be returned to the respective Bidders.

3.7.8 **No proposal shall be accepted by SANPARKS if submitted in any manner other than as prescribed above.**

4 Reasons for disqualification

4.1 SANParks reserves the right to disqualify any bidder which does any one or more of the following, and such disqualification may take place without prior notice to the offending bidder, however the bidder shall be notified in writing of such disqualification:

4.1.2 Bidders who do not submit a valid and original Tax Clearance Certificate on the closing date and time of the bid;

4.1.3 Bidders who submitted incomplete information and documentation according to the requirements of this RFP;

4.1.4 Bidders who submitted information that is fraudulent, factually untrue or inaccurate, for example memberships that do not exist, BEE credentials, experience, etc;

4.1.5 Bidders who received information not available to other bidders through fraudulent means;

4.1.6 Bidders who do not comply with mandatory requirements as stipulated in this RFP.

4.1.7 Bidders who made false declarations on the Standard Bidding Documents, or misrepresent facts; and/or

4.1.8 Bidders who are listed on the National Treasury’s database of restricted suppliers

5 Closing of Bid

5.1 There shall be **no public opening** of the Bid received. There shall be no discussions with any enterprise until evaluation of the proposal has been complete. Any subsequent discussions shall be at the discretion of SANParks. Unless specifically provided for in the proposal document, bids submitted by means of telegram, telex, facsimile or similar means shall not be considered.

5.2 No Bids from any bidder with offices within the RSA shall be accepted if sent via the Internet or e-mail. However Bids from international bidders with no office or representation in the RSA shall be accepted if received via the Internet or e-mail before the closing date and time.

5.2.1 Such Bids shall not be made available for evaluation until the original signed documentation is received within three (3) working days after the closing date, otherwise the proposal shall be disqualified. International bidders must submit proof that they do not have any offices or representation in South Africa.
6 **Bid preparation**

6.1 All additions to the proposal documents i.e. annexes, supporting documentation pamphlets, photographs, technical specifications and other support documentation covering the solution offered etc. shall be neatly bound as part of the schedule concerned.

6.2 All responses regarding questions posed in the annexes attached herewith shall be answered in accordance with the prescribed **RFP Response Format**.

7 **Oral presentations and briefing sessions**

7.1 Bidders who submit Bids in response to this RFP may be required to give an oral presentation, which may include, but is not limited to, an equipment/service demonstration of their proposal to SANParks. This provides an opportunity for the vendor to clarify or elaborate on the proposal. This is a fact finding and explanation session only and does not include negotiation. SANParks shall schedule the time and location of these presentations. Oral presentations are an option of SANParks and may or may not be conducted.

8 **Evaluation Criteria for B-BBEE**

8.1 Points awarded for B-BBEE Status Level of Contribution

8.2 The value of this bid is estimated to exceed R1 000 000 (all applicable taxes included) and therefore the 90/10 system shall be applicable.

8.3 In terms of Regulation 5 (2) and 6 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

8.4 Preference points for this bid shall be awarded for:

(a) Price; and
(b) B-BBEE Status Level of Contribution.

<table>
<thead>
<tr>
<th>B-BBEE Status Level of Contributor</th>
<th>Number of points (90/10 system)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
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<tr>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Non-compliant contributor</td>
<td>0</td>
</tr>
</tbody>
</table>

8.5 Bidders who qualify as EMEs in terms of the B-BBEE Act must submit a certificate issued by an Accounting Officer as contemplated in the CCA or a Verification Agency accredited by
SANAS or a Registered Auditor. Registered auditors do not need to meet the prerequisite for IRBA’s approval for the purpose of conducting verification and issuing EMEs with B-BBEE Status Level Certificates.

8.6 Bidders other than EMEs must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.

8.7 A trust, consortium or joint venture, will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.

8.8 A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate bid.

8.9 Tertiary institutions and public entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.

8.10 A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.

8.11 A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.

9 Evaluation criteria and methodology

9.1 Functional evaluation criteria

“Functionality” means the measurement according to predetermined norms of a service or commodity designed to be practical and useful, working or operating, taking into account quality, reliability, viability and durability of a service or commodity.

The need to invite and evaluate bids on the basis of functionality depends on the nature of the required commodity or service.

When inviting bids, SANParks indicates:

(i) whether the bids will be evaluated on functionality;
(ii) the evaluation criteria for measuring functionality;
(iii) the weight of each criterion; and
(iv) the applicable values as well as the minimum threshold for functionality.
FUNCTIONAL / TECHNICAL EVALUATION CRITERIA

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>Threshold</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functionality:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Location (40)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Experience (40)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Appropriate experience and capacity (20)</td>
<td>85%</td>
<td>100</td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td></td>
<td>90%</td>
</tr>
<tr>
<td><strong>B-BBEE</strong></td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td><strong>TOTAL POINTS FOR PRICE AND B-BBEE</strong></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

This bid will be evaluated on Functionality according to the criteria and weighting as listed in the table above. 85% minimum functionality score will qualify the bid to move on to the next phase where PPPFA evaluation principle shall be applied, which is Price and Preference evaluation.

### 9.2 Price and preference evaluation criteria

Subsequent to the eligibility screening phase, the second phase of evaluation of the Bids shall be based on the 90/10 PPPFA principle and the points for evaluation criteria are as follows:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Price points</td>
<td>90</td>
</tr>
<tr>
<td>Preferential points/BEE</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100    points</td>
</tr>
</tbody>
</table>

All Bid received shall be evaluated by a panel using the preference points system as stipulated in the Preferential Procurement Regulations.
1. **Special instructions to Bidders**

1.1 Scope of work shall form part of the contract.

1.2 Should a vendor have reasons to believe that the Specification is not open and/or is written for a particular service or work; the vendor shall notify Procurement Services within seven (07) days after publication of the bid.

1.3 Bidders shall provide full and accurate answers to the mandatory questions posed in this document, and, where required explicitly state either “Comply/Not Comply” regarding compliance with the requirements. Bidders must substantiate their response to all questions, including full details on how their proposal/solution will address specific functional requirements. All documents as indicated must be supplied as part of the submission.

1. **SPECIAL INSTRUCTIONS TO BIDDERS**

1.1 Scope of work shall form part of the contract.

1.2 Should a vendor have reasons to believe that the Technical Specification is not open and/or is written for a particular service or work; the vendor shall notify Procurement Services within seven (07) days after publication of the bid.

1.2 Bidders shall provide full and accurate answers to the mandatory questions posed in this document, and, where required explicitly state either “Comply/Not Comply” regarding compliance with the requirements. Bidders must substantiate their response to all questions, including full details on how their proposal/solution will address specific functional requirements. All documents as indicated must be supplied as part of the submission.

2. **REQUIREMENTS BACKGROUND**

2.1 **Background**

SANParks aims to acquire services of a service provider that has the capability of providing pest control services in the Kruger National Park for a period of five (05) years. Bids are sought from reputable suppliers that have experience and capability in the provision of pest control services environment. Proof of such contract will be requested as part of the tender process.

3. **SCOPE OF WORKS**

SANParks aims to acquire the services of a service provider that has the capability of providing pest control services for SANParks. The required services will be contracted for a period of five (05) years. Bids are sought from reputable suppliers that have experience and capability in the providing pest control services. Proof of such contracts will requested as part of the tender process.

3.1 **Price and Preference**

The total amount of this tender cost estimate will exceed R1 000 000.00 thousands (VAT inclusive) and 90/10 preferential procurement principal will apply.
This document is issued in terms of the SANParks supply chain management policy and for the evaluation of bids in a uniform scoring methodology aligned to the National Treasury Regulations and the preferential procurement regulations.

Note:

- The qualification threshold for advancement requires 85% scoring on the technical evaluation to be able to proceed to the next phases of evaluation.

4. DESCRIPTION OF SERVICE

Fumigation and Pest Control Services including but not limited to the following services:
- Rodent [Rats and Mice]
- Bed bug and other related bugs
- Ants
- Cockroaches
- Termites
- Wasp and Bee Control
- Wood worms
- Insects in storage areas
- Mosquito
- Biting Insects
<table>
<thead>
<tr>
<th>Pest to be controlled</th>
<th>Period</th>
<th>Service required</th>
<th>Target areas</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rodents</td>
<td>Every 9 or 13 weeks’ cycle</td>
<td>Six / Four</td>
<td>Camps – units – storerooms – linen rooms – laundry – living quarters – offices – (staff village on ad hoc basis) – ablution facilities – conference centres.</td>
<td>Approved treatment method; e.g. baiting. All method to comply with the set regulations under OHS and SANParks environmental guidelines</td>
</tr>
<tr>
<td>Bed bugs and other related bugs</td>
<td>Every 9 or 13 weeks’ cycle</td>
<td>Six / Four</td>
<td>Camps – units – storerooms – linen rooms – laundry – living quarters – offices – (staff village on ad hoc basis) – ablution facilities – conference centres.</td>
<td>Approved treatment method; e.g. spraying. All method to comply with the set regulations under OHS and SANParks environmental guidelines</td>
</tr>
<tr>
<td>Ants</td>
<td>Every 9 or 13 weeks’ cycle</td>
<td>Six / Four</td>
<td>Camps – units – storerooms – linen rooms – laundry – living quarters – offices – (staff village on ad hoc basis) – ablution facilities – conference centres.</td>
<td>Approved treatment method; e.g. spraying. All method to comply with the set regulations under OHS and SANParks environmental guidelines</td>
</tr>
<tr>
<td>Cockroaches</td>
<td>Every 9 or 13 weeks’ cycle</td>
<td>Six / Four</td>
<td>Camps – units – storerooms – linen rooms – laundry – living quarters – offices – (staff village on ad hoc basis) – ablution facilities – conference centres.</td>
<td>Approved treatment method; e.g. gelling. All method to comply with the set regulations under OHS and SANParks environmental guidelines</td>
</tr>
<tr>
<td>Termites</td>
<td>Once a year</td>
<td>Once a year</td>
<td>Camps – units – storerooms – linen rooms – laundry – living quarters – offices – (staff village on ad hoc basis) – ablution facilities – conference centres.</td>
<td>All method to comply with the set regulations under OHS and SANParks environmental guidelines</td>
</tr>
<tr>
<td>Wasp and Bee Control</td>
<td>Ad hoc basis</td>
<td>Ad hoc</td>
<td>Camps – units – storerooms – linen rooms – laundry – living quarters – offices – (staff village on ad hoc basis) – ablution facilities – conference centres.</td>
<td>Approved treatment method; e.g. removing. All method to comply with the set regulations under OHS and SANParks environmental guidelines</td>
</tr>
<tr>
<td>Pest Type</td>
<td>Basis</td>
<td>Basis</td>
<td>Areas of Service</td>
<td>Method to Comply with Regulations</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------</td>
<td>--------</td>
<td>----------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Wood worms</td>
<td>Ad hoc</td>
<td>Ad hoc</td>
<td>Camps – units – storerooms – linen rooms – laundry – living quarters – offices – (staff village on ad hoc basis) – ablution facilities – conference centres.</td>
<td>All method to comply with the set regulations under OHS and SANParks environmental guidelines</td>
</tr>
<tr>
<td>Insect in storage areas</td>
<td>Ad hoc</td>
<td>Ad hoc</td>
<td>Camps – units – storerooms – linen rooms – laundry – living quarters – offices – (staff village on ad hoc basis) – ablution facilities – conference centres.</td>
<td>All method to comply with the set regulations under OHS and SANParks environmental guidelines</td>
</tr>
<tr>
<td>Mosquito</td>
<td>Ad hoc</td>
<td>Ad hoc</td>
<td>Camps – units – storerooms – linen rooms – laundry – living quarters – offices – (staff village on ad hoc basis) – ablution facilities – conference centres.</td>
<td>All method to comply with the set regulations under OHS and SANParks environmental guidelines</td>
</tr>
<tr>
<td>Biting insects</td>
<td>Ad hoc</td>
<td>Ad hoc</td>
<td>Camps – units – storerooms – linen rooms – laundry – living quarters – offices – (staff village on ad hoc basis) – ablution facilities – conference centres.</td>
<td>All method to comply with the set regulations under OHS and SANParks environmental guidelines</td>
</tr>
</tbody>
</table>

5. **OPERATIONAL REQUIREMENTS**

5.1 **General Requirements**

5.1.1 **Services Requirements**

- Service providers will act in good faith in conducting and providing services at SANParks premises.
- The Service Provider will provide full services as required in duration of contract period.
- All documents must be submitted upon delivery as requested.

6. **INDEMNITY**

The Service Provider will indemnify and hold SANParks harmless against any loss or damages which SANParks may suffer, or any claims lodged against SANParks by any third party arising out of or relating to any loss that SANParks or such third party may suffer as a result of, or arising out of any act or omission of any personnel of the service provider or failure of the service provider to provide the services in accordance with the provisions of the contract.
6.1 Termination of Service

Aside from the expiry of the agreement, the contract between SANParks and the service provider may be terminated for any one of the following reasons:

- Failure to meet the minimum operational requirements of SANParks
- Gross negligence by the service provider or its employees
- Failure to respond to any operational enquiries or complaints by SANParks within a reasonable time period.

In addition to the above, this agreement may go out of force entirely, at any time, at the discretion of either party on condition that a period of 90 days’ notice is given to the other party.

7. ASSIGNMENT AND SUB-CONTRACTING

The service provider must inform SANParks in advance if they wish to assign or subcontract any part of the order.

8. COMPETENCIES OR LEVEL OF SERVICE BY THE SERVICE PROVIDER

The service provider needs to be reputable with a track record of dealing with large clients.

SANParks shall be entitled to use the findings of customer satisfaction surveys, spot-checks and audit reports or complaints to determine the level of compliance by the service provider with regard to the service standards and responsibilities stipulated in this document.

Should SANParks at any time believe that any member of the service provider’s personnel is failing to comply with their operational requirements as described in this document, such person may be denied access by SANParks to the relevant premises and the service provider will be required to replace such person without delay.

9. OCCUPATIONAL HEALTH AND SAFETY

The service provider acknowledges that he is fully aware of the provisions of the OHS Act 85 of 1993 and that he is an employer in his own right with duties and responsibilities as prescribed in the Act.

10. RESPONSIBILITY OF THE SANParks

- Monitor and notify the service provider of consumable stock levels; breakages etc.
- Give indication of unsatisfactory performance to the attention of the company’s management for improvement and expect feedback on how such unsatisfactory performance or bad behaviour will be prevented for future occurrences.
- Review the monthly report and provide feedback.
- Effecting payment within 30 days from date of receipt of original tax invoices.

11. RESPONSIBILITY OF THE SERVICE PROVIDER MANAGEMENT

- Keeps the record of services attended on that day and provide check list and report on the conditions of the equipment.
- Submit invoice together with the check list and delivery note on every last day of the month.
12. **PROJECT OR CONTRACT PERIOD (TIMEFRAMES)**

The contract period will be for a period of five (05) years. The contract for the supply of service in terms of this agreement shall come into being on the start date and shall continue in force for a period of three years until the end date. SANParks will not in any way be responsible if the Service Provider fails to remove all equipment on the last day of service. The contract for pest control services will be re-advertised on expiry of the current contract.

13. **SUBMISSION OF BIDS**

Bidders are required to submit One (01) original bid document and Two (02) copies of the bid document. SANParks may request clarification or further information regarding any aspect of the bid. The bidder must supply the requested information within 48 hours or unless otherwise indicated after the request has been made; otherwise the bidder may be disqualified.

14. **EVALUATION PHASES**

The received bid proposals will be evaluated in different phases in order to arrive to the final phase of bid award, and the phases will be as follows:

14.1 **PHASE ONE (01): Mandatory / Minimum Requirements Compliance Screening**

In this phase All bids received will be verified for compliance and completeness of the submitted proposal per the below set of mandatory requirements. Bidders who fails to comply with the below requirements WILL be eliminated and bidders who comply with the below progresses to the next phase of technical evaluation.

- Bid forms must be properly received on the bid closing date and time specified on the invitation, fully completed, dated and signed in ink.
- Bid forms must be properly fully completed, dated, signed in ink and initial every page of the bid.
- Submission of the bid document must be bined and is without tearing any pages off.
- Invitation to Bid (SBD 1) must be fully completed,
- Submission of an Original Valid Tax Clearance Certificate (SBD 2) – Bidders whom their Tax matters are not in order and no proper arrangements have been made with SARS to meet their tax obligations will not be considered for this bid. 7 days from the bid closing date is afforded to any bidder who already made necessary arrangements with SARS (attached proof as obtained from SARS Branch) of when the necessary arrangements have been made to meet your Tax obligation and be issued with Tax certificate. Failure to submit a valid and original Tax Clearance within 7 days after the bid closing date, your submitted bid proposal will be considered non-responsive and shall be invalidated or disqualified and not considered for further evaluation.
- Submission of fully completed Pricing Schedule (Purchases – Goods - SBD 3.1). In case of purchases of goods other than services, bidders should complete and sign SBD 3.1 of the Firm price only. In case of professional services, bidders should complete and sign SBD 3.3 for services only.
- Submission of fully completed SBD 4 (Declaration of Interest),
- Submission of fully completed SBD 6.1 (Preference Claim Certificate), accompanied by the original or certified B-BBEE Status Level Verification Certificate as issued by SANAS accredited service providers, Accredited Registers Auditors – IRBA and Procurement
Regulation 2011 compliant letter issued by the Accounting Officer. Any copies submitted in this case should be certified.

- Submission of fully completed SBD 6.2 (Declaration Certificate for Local Production and Content for Designated Sectors).
- Submission of fully completed Contract Form (Purchases – Goods/Works - SBD 7.1), (Rendering of Services – SBD 7.2). In case of purchases of goods other than services, bidders should complete and sign SBD 7.1 of the Firm price only. In case of rendering of services, bidders should complete and sign SBD 7.2 for services only. Bidders to complete and sign PART ONE (01) only.
- Submission of fully completed SBD8 (Declaration of Bidders Past SCM Practice),
- Submission of fully completed SBD9 (Certificate of Independent Bid Determination),
- Letter of Good Standing on Compensation for Occupational Injuries & Diseases Act (COIDA), obtainable from the Department of Labour
- Business Registration Certificate e.g. CK 1, certificate of incorporation
- Familiarise yourself and Initial every page of the General Condition of Contract

The following documents must as well be attached in support of your bid proposal:

- Safety, Health & Environment (SHE) member certificate
- Occupational Health and Safety Policy

Other documents that will be incorporated into the contract

- Responsible Pest Control Brochure
- Preferred Chemical Control
- Prohibited Chemicals
- Chemical Use in KNP (Policy)
- Integrated Pest Management

14.2 PHASE TWO (02): DETAIL TECHNICAL EVALUATION CRITERIA AND POINT ALLOCATION

In this phase All bids that meet all the requirements in terms of compliance and completeness of the submitted proposal per the above set of mandatory requirements on Phase One (01) progresses to Phase Two (02) for further evaluation per the below set evaluation criteria's.

NB: Qualification Threshold – Bidders must achieve 85% per the above criteria for consideration to the next phase evaluation. Bidders who fails to comply with the set minimum threshold of 85% per the above requirements WILL be eliminated and bidders who comply with the below progresses to the next phase of evaluation.
14.2.1 TECHNICAL / FUNCTIONAL CRITERIA

With regards to technicality / functionality, the following criteria shall be applicable and the maximum points of each criterion are indicated in the table below:

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Location</td>
<td>40%</td>
</tr>
<tr>
<td>2. Experience</td>
<td>40%</td>
</tr>
<tr>
<td>3. Appropriate experience and capacity</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Bidders scoring 85 out of 100 on functional / technical criteria will be further evaluated on Price and B-BBEE.
<table>
<thead>
<tr>
<th>NUMBER</th>
<th>FUNCTIONALITY CRITERIA</th>
<th>WEIGHTING FACTORS</th>
<th>POINTS</th>
<th>DOCUMENTS TO BE SUBMITTED FOR EVALUATION PURPOSES</th>
<th>POINTS ALLOACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Location branch / Depot around Mpumalanga / Limpopo, company has an existing operation centre or site near or around Kruger National Park. Information in respond to this criteria should be placed under Annexure “A” or “1” labelled as “Appropriate experience and Capacity to deliver of the bidder Annexure A or 1”</td>
<td>40</td>
<td>5</td>
<td>Supply Strategy – provide in an A4 page size the strategy to be applied to distribute all required materials. Contingency Strategy – Indicate a contingency strategy going to be applied in case of Urgent delivery / Public Strike / Own Strike / Vehicle Breakdown / Festive Season. Bidders to indicate their close proximity / distance (in a form of kilometres) to the to be service</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>List of contracts with client name, value of contract and duration of contract. Information in respond to this criteria should be placed under Annexure “C” or “3” labelled as “Experience related to service in terms of years, value and number of the bidder Annexure C or 3”</td>
<td>40</td>
<td>5</td>
<td>List of contracts with client name, value of contract and duration of contract/appointment/service to the particular company * Currently engaged with * Provided services in the past Bidders need to have more than 3 years of experience executing relevant projects. Demonstrate company experience in the following field: • Pest Control Service</td>
<td></td>
</tr>
</tbody>
</table>

Invitation to Bid / SANParks / BID NUMBER: KNP-003-15 PROVISION OF PEST CONTROL SERVICES IN THE KRUGER NATIONAL PARK FOR A PERIOD OF FIVE (05) YEARS

Page 20 of 125
### Number of years in practice providing Pest Control services.

Appropriate experience and capacity in providing Pest Control services. Information in respond to this criteria should be placed under Annexure “B” or “2” labelled as “Relevant References of the bidder Annexure “B” or “2” labelled as “Relevant References of the bidder Annexure “B” or “2”

| 3 | **List of at least 5 (five) contactable / traceable references** that you are:
|   | * Currently engaged with
|   | * Provided services to in the past
|   | **NB:** Bidder need to have more than 5 years of experience executing relevant services.
|   | Reference letters / appointment letters as obtained from the Organizations in which services were executed to be attached.
| 20 | 5 |

#### Total Score

| 100 |

### QUALIFICATION THRESHOLD TO PROGRESS TO THE NEXT PHASE OF EVALUATION

Threshold – Bidders must achieve 85% per the above criteria for consideration to the final stage evaluation of price and preference – B-BBEE claim point’s information.
14.3 PHASE 3: EVALUATION OF BID RESPONSES USING THE PRICE AND B-BEEE SCORES

All bidders who achieved 85% and more of the set minimum threshold from the technical evaluation phase progresses to this final phase of Price and Preference (BEE Score) points allocation systems for the recommendation of the successful bidder.

NB: Bidder who obtains highest total points on PRICE and B-BBEE claimed points shall be awarded the contract. SANParks reserves the right to appoint one or more service providers for this project.

15. EVALUATION CRITERIA AND WEIGHTING:

The RFB stipulated that the responses to be evaluated using the 90/10 preference points system in accordance with the PPPFA guidelines. Based on this system the points will be allocated as follows:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>90</td>
</tr>
<tr>
<td>Participation Goals/BEE</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

16. EVALUATION FORMULA

The following formula will be applied to calculate the scores:

**Price Formula**

The following PPPFA formula was used to evaluate the price proposals submitted by bidders, this formula was used because price was the only criterion that was scored i.e. the whole 90 points were allocated to price as per par. 10.1 of this submission.

\[ PS = 90 \times (1 - \frac{Pt}{Pmin}) \]

\[ Pmin \]

Ps = Points scored for price of the bid under consideration.

Pt = Rand value of bid under consideration.

Pmin = Rand value of lowest acceptable bid

17. FINAL AWARD

Bidder who obtains highest total points on PRICE and B-BBEE claimed points shall be awarded the contract. SANParks reserves the right not to appoint or to appoint one or more service providers for this project.
18. TERMS AND CONDITIONS OF SPECIFICATION

a) Due diligence review may be conducted before the awarding of the contract.

19. CONTACTABLE OFFICIALS FOR CLARIFICATION

All technical and bid documentation enquiries can be addressed to Mr Lucky Mahlalela at Tel: 013 735 4311 or lucky.mahlalela@sanparks.org
ANNEX A: BID INVITATION

- This section refers to page 1 to 24 of the bid document.
ANNEX B: SARS TAX CLEARANCE CERTIFICATE OR SBD2

- An original and valid SARS Tax Clearance Certificate must be furnished, OR
- SBD2 Tax Clearance Certificate Requirement (if Original and Valid Tax Clearance Certificate above is not submitted)
## ANNEX C: SBD3.3 PRICING SCHEDULE – FIRM PRICES

<table>
<thead>
<tr>
<th>Camp</th>
<th>Number of Units to be Serviced</th>
<th>Number of Services per Annum</th>
<th>Total Amount Per Month (Excluding VAT)</th>
<th>Total Annual Amount (Excluding VAT)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CYCLES *</td>
<td>ONCE OFF **</td>
<td>CYCLES</td>
<td>ONCE OFF</td>
</tr>
<tr>
<td><strong>NXANATSENI REGION</strong></td>
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<tr>
<td>SHINGWEDZI</td>
<td>54</td>
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<td>PUNDA MARIA</td>
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<td>4</td>
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<td>PAFURI PICNIC SPOT</td>
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</table>
## MARULA REGION

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<thead>
<tr>
<th>CAMP</th>
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<th>NUMBER OF SERVICES PER ANNUM</th>
<th>TOTAL ANNUAL AMOUNT (EXCLUDING VAT)</th>
</tr>
</thead>
<tbody>
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<td>ESTIMATED NUMBER OF SERVICES PER ANNUM</td>
<td>PRICE PER SERVICE</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>BITING INSECTS</td>
<td>1 404</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL AMOUNT PER ANNUM EXCLUDING VAT**

VAT @ 14%

**TOTAL AMOUNT PER ANNUM INCLUDING VAT**

**TOTAL AMOUNT OVER THE FIVE (05) PERIOD**

**SERVICE FEES AND BILLING**

The contract costs as stipulated in the bid proposal of the Service Provider will be fixed for the duration of the contract period. The bid prices must reflect the separate costs for the following services for the period of a single month and of the **total contract price** period of five (05) years.

Any subsequent billing which shall be on completion of each month shall conform to the detailed above service and submit invoice as required.

All prices must be VAT inclusive (if VAT registered)
ANNEX D: SBD4: DECLARATION OF INTEREST

DECLARATION OF INTEREST

1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes a price quotation, advertised competitive bid, limited bid or proposal). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-

- the bidder is employed by the state; and/or

- the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

2. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

2.1 Full Name of bidder or his or her representative: .................................................................

2.2 Identity Number: ..............................................................................................................

2.3 Position occupied in the Company (director, trustee, shareholder²): .................................

2.4 Company Registration Number: ......................................................................................

2.5 Tax Reference Number: ...................................................................................................

2.6 VAT Registration Number: ................................................................................................

2.6.1 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / persal numbers must be indicated in paragraph 3 below.

¹"State" means –
(a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
(b) any municipality or municipal entity;
(c) provincial legislature;
(d) national Assembly or the national Council of provinces; or
(e) Parliament.

²"Shareholder” means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

2.7 Are you or any person connected with the bidder presently employed by the state? 

   YES / NO

2.7.1 If so, furnish the following particulars:

Name of person / director / trustee / shareholder/ member: ....................................................
Name of state institution at which you or the person connected to the bidder is employed: ....................................................
Position occupied in the state institution: ............................................................................

Any other particulars:

---

Invitation to Bid / SANparks / BID NUMBER: KNP-003-15 PROVISION OF PEST CONTROL SERVICES IN THE KRUGER NATIONAL PARK FOR A PERIOD OF FIVE (05) YEARS-15

Page 29 of 125
2.7.2 If you are presently employed by the state, did you obtain \textbf{YES} / \textbf{NO} the appropriate authority to undertake remunerative work outside employment in the public sector?

2.7.2.1 If yes, did you attached proof of such authority to the bid \textbf{YES} / \textbf{NO} document?

(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.

2.7.2.2 If no, furnish reasons for non-submission of such proof:

………………………………………………………………
………………………………………………………………
………………………………………………………………

2.8 Did you or your spouse, or any of the company’s directors / \textbf{YES} / \textbf{NO} trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months?

2.8.1 If so, furnish particulars:
………………………………………………………………
………………………………………………………………
………………………………………………………………

2.9 Do you, or any person connected with the bidder, have \textbf{YES} / \textbf{NO} any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?

2.9.1 If so, furnish particulars.
………………………………………………………………
………………………………………………………………
………………………………………………………………

2.10 Are you, or any person connected with the bidder, \textbf{YES/NO} aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid?

2.10.1 If so, furnish particulars.
………………………………………………………………
………………………………………………………………
………………………………………………………………

2.11 Do you or any of the directors / trustees / shareholders / members \textbf{YES/NO} of the company have any interest in any other related companies whether or not they are bidding for this contract?

2.11.1 If so, furnish particulars:
………………………………………………………………
………………………………………………………………
………………………………………………………………
3 Full details of directors / trustees / members / shareholders.

<table>
<thead>
<tr>
<th>Full Name</th>
<th>Identity Number</th>
<th>Personal Tax Reference Number</th>
<th>State Employee Number / Persal Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DECLARATION**

I, THE UNDERSIGNED (NAME)…………………………………………………………………………………………………………………………

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 23 OF THE GENERAL CONDITIONS OF CONTRACT SHOULD THIS DECLARATION PROVE TO BE FALSE.

..................................................  ..................................................
Signature                           Date

..................................................  ..................................................
Position                           Name of bidder

May 2011
ANNEX E: SBD6.1: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2011

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2011.

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all bids:

- the 80/20 system for requirements with a Rand value of up to R1 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R1 000 000 (all applicable taxes included).

1.2 The value of this bid is estimated to exceed/not exceed R1 000 000 (all applicable taxes included) and therefore the……………………………..system shall be applicable.

1.3 Preference points for this bid shall be awarded for:

(c) Price; and
(d) B-BBEE Status Level of Contribution.

1.3.1 The maximum points for this bid are allocated as follows:

<table>
<thead>
<tr>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3.1.1 PRICE</td>
</tr>
<tr>
<td>1.3.1.2 B-BBEE STATUS LEVEL OF CONTRIBUTION</td>
</tr>
</tbody>
</table>

Total points for Price and B-BBEE must not exceed 100

1.4 Failure on the part of a bidder to fill in and/or to sign this form and submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS) or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA) or an Accounting Officer as contemplated in the Close Corporation Act (CCA) together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

1.5. The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

2.1 “all applicable taxes” includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;

2.2 “B-BBEE” means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;

2.3 “B-BBEE status level of contributor” means the B-BBEE status received by a measured entity based
on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;

2.4 “bid” means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;

2.5 “Broad-Based Black Economic Empowerment Act” means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);

2.6 “comparative price” means the price after the factors of a non-firm price and all unconditional discounts that can be utilized have been taken into consideration;

2.7 “consortium or joint venture” 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;

2.8 “contract” means the agreement that results from the acceptance of a bid by an organ of state;

2.9 “EME” means any enterprise with an annual total revenue of R5 million or less.

2.10 “Firm price” means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;

2.11 “functionality” means the measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder;

2.12 “non-firm prices” means all prices other than “firm” prices;

2.13 “person” includes a juristic person;

2.14 “rand value” means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties;

2.15 “sub-contract” means the primary contractor’s assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the contract;

2.16 “total revenue” bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the Government Gazette on 9 February 2007;

2.17 “trust” means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and

2.18 “trustee” means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

3. **ADJUDICATION USING A POINT SYSTEM**

3.1 The bidder obtaining the highest number of total points will be awarded the contract.

3.2 Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts.;

3.3 Points scored must be rounded off to the nearest 2 decimal places.
5.1 In the event that two or more bids have scored equal total points, the successful bid must be the one scoring the highest number of preference points for B-BBEE.

3.5 However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for B-BBEE, the successful bid must be the one scoring the highest score for functionality.

3.6 Should two or more bids be equal in all respects, the award shall be decided by the drawing of lots.

4. POINTS AWARDED FOR PRICE

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

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

\[ Ps = 80 \left(1 - \frac{Pt - P_{\text{min}}}{P_{\text{min}}} \right) \quad \text{or} \quad Ps = 90 \left(1 - \frac{Pt - P_{\text{min}}}{P_{\text{min}}} \right) \]

Where

- \( Ps \) = Points scored for comparative price of bid under consideration
- \( Pt \) = Comparative price of bid under consideration
- \( P_{\text{min}} \) = Comparative price of lowest acceptable bid

5. Points awarded for B-BBEE Status Level of Contribution

5.1 In terms of Regulation 5 (2) and 6 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

<table>
<thead>
<tr>
<th>B-BBEE Status Level of Contributor</th>
<th>Number of points (90/10 system)</th>
<th>Number of points (80/20 system)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Non-compliant contributor</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
5.2 Bidders who qualify as EMEs in terms of the B-BBEE Act must submit a certificate issued by an Accounting Officer as contemplated in the CCA or a Verification Agency accredited by SANAS or a Registered Auditor. Registered auditors do not need to meet the prerequisite for IRBA’s approval for the purpose of conducting verification and issuing EMEs with B-BBEE Status Level Certificates.

5.3 Bidders other than EMEs must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.

5.4 A trust, consortium or joint venture, will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.

5.5 A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate bid.

5.6 Tertiary institutions and public entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.

5.7 A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.

5.8 A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.

6. BID DECLARATION

6.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

7. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.3.1.2 AND 5.1

7.1 B-BBEE Status Level of Contribution: ............ = .............(maximum of 10 or 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 5.1 and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or a Registered Auditor approved by IRBA or an Accounting Officer as contemplated in the CCA).

8. SUB-CONTRACTING

8.1 Will any portion of the contract be sub-contracted? YES / NO (delete which is not applicable)

8.1.1 If yes, indicate:

(i) what percentage of the contract will be subcontracted? ....................................................%
(ii) the name of the sub-contractor? ..................................................................................
(iii) the B-BBEE status level of the sub-contractor? ....................
(iv) whether the sub-contractor is an EME? YES / NO (delete which is not applicable)
9 DECLARATION WITH REGARD TO COMPANY/FIRM

9.1 Name of company/firm .............................................................................................................. :

9.2 VAT registration number : ........................................................................................................

9.3 Company registration number ......................................................................................................:

9.4 TYPE OF COMPANY/ FIRM

[ ] Partnership/Joint Venture / Consortium
[ ] One person business/sole propriety
[ ] Close corporation
[ ] Company
[ ] (Pty) Limited
[ ] [TICK APPLICABLE BOX]

9.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................

9.6 COMPANY CLASSIFICATION

[ ] Manufacturer
[ ] Supplier
[ ] Professional service provider
[ ] Other service providers, e.g. transporter, etc.
[ ] [TICK APPLICABLE BOX]

9.7 Total number of years the company/firm has been in business? ..........................................

9.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contribution indicated in paragraph 7 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we 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 paragraph 7, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;

(iv) If the B-BBEE status level of contribution has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –

(a) disqualify the person from the bidding 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) restrict the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, 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

WITNESSES:

1. ......................................................

......................................................

SIGNATURE(S) OF BIDDER(S)

2. ......................................................

......................................................

DATE:..............................................

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

......................................................

......................................................
ANNEX F: BBBEE CERTIFICATES

NB: Bidder(s) is requested to attach their valid and original or certified B-BBEE Preferential point claim certificate to be eligible for points claimed. Certificate must be issued by SANAS Accredited agency.
ANNEX G: SBD 7.2: CONTRACT FORM RENDERING OF SERVICES

CONTRACT FORM - RENDERING OF SERVICES

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SERVICE PROVIDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SERVICE PROVIDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE SERVICE PROVIDER)

1. I hereby undertake to render services described in the attached bidding documents to (name of the institution)……………………………………. in accordance with the requirements and task directives / proposals specifications stipulated in Bid Number………….……….. at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the Purchaser during the validity period indicated and calculated from the closing date of the bid.

2. The following documents shall be deemed to form and be read and construed as part of this agreement:

   (i) Bidding documents, viz
   - Invitation to bid;
   - Tax clearance certificate;
   - Pricing schedule(s);
   - Filled in task directive/proposal;
   - Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2011;
   - Declaration of interest;
   - Declaration of bidder’s past SCM practices;
   - Certificate of Independent Bid Determination;
   - Special Conditions of Contract;

   (ii) General Conditions of Contract; and

   (iii) Other (specify)

3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the services specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfillment of this contract.

5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)…………………………….
CAPACITY…………………………….
SIGNATURE……………………………
NAME OF FIRM…………………………….
DATE…………………………….

WITNESSES

1  ……………………………
2  ……………………………
CONTRACT FORM - RENDERING OF SERVICES

PART 2 (TO BE FILLED IN BY THE PURCHASER)

1. I…………………………………………….in my capacity as………………………...… …………… accept your bid under reference number ………………dated…………………………for the rendering of services indicated hereunder and/or further specified in the annexure(s).

2. An official order indicating service delivery instructions is forthcoming.

3. I undertake to make payment for the services rendered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice.

<table>
<thead>
<tr>
<th>DESCRIPTION OF SERVICE</th>
<th>PRICE (ALL APPLICABLE TAXES INCLUDED)</th>
<th>COMPLETION DATE</th>
<th>B-BBEE STATUS LEVEL OF CONTRIBUTION</th>
<th>MINIMUM THRESHOLD FOR LOCAL PRODUCT AND CONTENT (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

4.I confirm that I am duly authorised to sign this contract.

SIGNED AT ………………………………………ON…………………………………………

NAME (PRINT)…………………………………………

SIGNATURE…………………………………………

OFFICIAL STAMP

WITNESSES

1. ........................................

2. ........................................

_ _ _ _
## ANNEX H: SBD 8: DECLARATION OF BIDDER’S PAST SUPPLY CHAIN PRACTICES

### DECLARATION OF BIDDER’S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

1. This Standard Bidding Document must form part of all bids invited.

2. It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.

3. The bid of any bidder may be disregarded if that bidder, or any of its directors have-
   
   a. abused the institution’s supply chain management system;
   
   b. committed fraud or any other improper conduct in relation to such system; or
   
   c. failed to perform on any previous contract.

4. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

<table>
<thead>
<tr>
<th>Item</th>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td><strong>Is the bidder or any of its directors listed on the National Treasury’s Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?</strong> (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <em>audi alteram partem</em> rule was applied).&lt;br&gt;The Database of Restricted Suppliers now resides on the National Treasury’s website(<a href="http://www.treasury.gov.za">www.treasury.gov.za</a>) and can be accessed by clicking on its link at the bottom of the home page.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>4.1.1</td>
<td>If so, furnish particulars:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td><strong>Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?</strong> The Register for Tender Defaulters can be accessed on the National Treasury’s website (<a href="http://www.treasury.gov.za">www.treasury.gov.za</a>) by clicking on its link at the bottom of the home page.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>4.2.1</td>
<td>If so, furnish particulars:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3</td>
<td><strong>Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?</strong></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>4.3.1</td>
<td>If so, furnish particulars:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
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<td></td>
</tr>
<tr>
<td>4.4</td>
<td>Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?</td>
<td>Yes ☐</td>
<td>No ☐</td>
</tr>
<tr>
<td>4.4.1</td>
<td>If so, furnish particulars:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CERTIFICATION**

I, THE UNDERSIGNED (FULL NAME)……………………………………………………………………

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

……………………………………………………………………………………………………………
Signature                              Date

……………………………………………………………………………………………………………
Position                              Name of Bidder
CERTIFICATE OF INDEPENDENT BID DETERMINATION

1 This Standard Bidding Document (SBD) must form part of all bids¹ invited.

2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a pe se prohibition meaning that it cannot be justified under any grounds.

3 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:

   a. disregard the bid of any bidder if that bidder, or any of its directors have abused the institution’s supply chain management system and or committed fraud or any other improper conduct in relation to such system.

   b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.

4 This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.

5 In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.
CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

BID NUMBER: KNP-003-15 PROVISION OF PEST CONTROL SERVICES IN THE KRUGER NATIONAL PARK FOR A PERIOD OF FIVE (05) YEARS

in response to the invitation for the bid made by:

SOUTH AFRICAN NATIONAL PARKS

(Name of Institution)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _______________________________________________________ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word “competitor” shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
   (a) has been requested to submit a bid in response to this bid invitation;
   (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
   (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

6. 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 consortium will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
   (a) prices;
   (b) geographical area where product or service will be rendered (market allocation)
(c) methods, factors or formulas used to calculate prices;
(d) the intention or decision to submit or not to submit, a bid;
(e) the submission of a bid which does not meet the specifications and conditions of the bid; or
(f) bidding with the intention not to win the bid.

8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.

9. 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 the awarding of the contract.

3 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.

10. 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.

----------------------------------------------------------------------------------

Signature

----------------------------------------------------------------------------------

Date

----------------------------------------------------------------------------------

Position

----------------------------------------------------------------------------------

Name of Bidder

Js914w 2
ANNEX J: ATTACH COMPANY PROFILE

- Attached company profile at this section or annexure.
ANNEX K: COMPANY REGISTRATION DOCUMENTS (CIPC/CIPRO)

- Certified copies (copy with original stamp) of your CIPC (CIPRO) company registration documents listing all members with percentages, in case of close corporation
- Certified copies (copy with original stamp) of all latest share certificates, in case of a company
ANNEX L: JOINT VENTURE AGREEMENT

- To provide Joint Venture Agreement signed under Commissioner of Oath.
- To provide above documentation for both companies that form the JV.

NB: Joint venture agreement and performing the work
The primary bidder needs to have major responsibilities in this project and both parties need to state their percentage interest in this joint venture. Joint venture is encouraged mainly for developmental purposes.
ANNEX M: CD/DVD/MEMORY STICK – COPY CONTAINING A DIGITAL COPY OF ALL TENDER DOCUMENTS AS PROVIDED IN PRINT
ANNEX N: LIST OF REFERENCE OF RELEVANT SERVICES (PROJECTS)

PARTICULARS OF COMMITMENTS WHICH THE TENDERER HAS PREVIOUSLY COMPLETED AND PRESENTLY ENGAGED WITH.

Current and Previous Projects of not more than 5 years.

<table>
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<tr>
<th>No</th>
<th>Project/Company name</th>
<th>Extent of contract/relationships</th>
<th>Contact person</th>
<th>Contact number</th>
<th>Contract amount</th>
<th>Date of commencement</th>
<th>Scheduled date of completion</th>
<th>Contract period (No of years)</th>
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ANNEX O: RESOLUTION OF BOARD OF DIRECTORS / MEMBERS / SOLE PROPRIETOR / PARTNERS OF PARTNERSHIP

This returnable schedule needs to be completed if the tenderer is a joint venture. This form must be completed by each partner of the joint venture. The name of the principal partner must be stated under Point 2.

Resolution of Board of Directors / Members / Sole Proprietor/ Partners of Partnership (i.e. of each legal person to comprise the Joint Venture Partnership)

RESOLUTION of a meeting of the Board of *Directors / Members / Sole Proprietor/ 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 Tender, in Joint Venture with the following Enterprises:

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

to the South African National Parks in respect of the following project:

(Project description as per Tender Document)

Tender Number: __________________________________________ (Tender Number as per Tender Document)

2. The Principal Partner of the Joint Venture will be

(Legally correct full name and registration number, if applicable, of the Principal Partner of Joint Venture)

3. *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 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 joint venture, in respect of the project described under item 1 above.

4. 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 South African National Parks in respect of the project described under item 1 above.

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

Physical address: _______________________________
Postal Address: _______________________________

_________________________  (code)

Telephone number: ___________________________  (code)

Fax number: ________________________________  (code)

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Note:
1. * Delete which is not applicable
2. **NB. This resolution must be signed by all the Directors / Members / Partners of the Bidding Enterprise**
3. **Should the number of Directors / Members/Partners exceed the space available above, additional names and signatures must be supplied on a separate page**
ANNEX P: SANPARKS GENERAL CONDITIONS OF CONTRACT

PLEASE INITIAL EACH PAGE OF THE GENERAL CONDITIONS OF CONTRACT

General conditions of bid and conditions of contract

Bidders shall provide full and accurate answers to all (including mandatory) questions posed in this document, and, are required to explicitly state "Comply/Accept" or "Do not comply/Do not accept" (with a √ or an X) regarding compliance with the requirements. Where necessary, the bidders shall substantiate their response to a specific question.

NOTE: It is mandatory for bidders to complete or answer this part fully; failure to do so result to their bid to be treated as incomplete and shall be disqualified. Refer to paragraph 4 of this document (reasons for disqualification).

1. This bid is subject to the General Conditions of Contract stipulated below.  
   | Accept | Do not accept |

2. The laws of the Republic of South Africa shall govern this RFP and the bidders hereby accept that the courts of the Republic of South Africa shall have the jurisdiction.  
   | Accept | Do not accept |

3. SANParks shall not be liable for any costs incurred by the bidder in the preparation of response to this RFP. The preparation of response shall be made without obligation to acquire any of the items included in any bidder’s proposal or to select any proposal, or to discuss the reasons why such vendor’s or any other proposal was accepted or rejected.  
   | Accept | Do not accept |

4. SANParks may request written clarification or further information regarding any aspect of this proposal. The bidders must supply the requested information in writing within twenty four (24) hours after the request has been made, otherwise the proposal may be disqualified.  
   | Accept | Do not accept |

5. In the case of Consortium, Joint Venture or subcontractors, bidders are required to provide copies of signed agreements stipulating the work split and Rand value.  
   | Accept | Do not accept |
6. In the case of Consortium, Joint Venture or subcontractors, all bidders are required to provide mandatory documents as stipulated in schedule 1 of the Response format.

<table>
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<th>Accept</th>
<th>Do not accept</th>
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7. SANParks reserves the right to; cancel or reject any proposal and not to award the proposal to the lowest bidder or award parts of the proposal to different bidders, or not to award the proposal at all.

<table>
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<th>Accept</th>
<th>Do not accept</th>
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8. Where applicable, bidders who are distributors, resellers and installers of network equipment are required to submit back-to-back agreements and service level agreements with their principals.

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<th>Do not accept</th>
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9. By submitting a proposal in response to this RFP, the bidders accept the evaluation criteria as it stands.

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10. Where applicable, SANParks reserves the right to run benchmarks on the requirements equipment during the evaluation and after the evaluation.

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11. SANParks reserves the right to conduct a pre-award survey during the source selection process to evaluate contractors' capabilities to meet the requirements specified in the RFP and supporting documents.

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12. Only the solution commercially available at the proposal closing date shall be considered. No Bids for future solutions shall be accepted.

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13. The bidder should not qualify the proposal with own conditions. **Caution:** If the bidder does not specifically withdraw its own conditions of proposal when called upon to do so, the proposal response shall be declared invalid.

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<th>Accept</th>
<th>Do not accept</th>
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### Should the bidder withdraw the proposal before the proposal validity period expires

Should the bidder withdraw the proposal before the proposal validity period expires, SANParks reserves the right to recover any additional expense incurred by SANParks having to accept any less favourable proposal or the additional expenditure incurred by SANParks in the preparation of a new RFP and by the subsequent acceptance of any less favourable proposal.

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### Delivery of and acceptance of correspondence between the SANParks and the bidder

Delivery of and acceptance of correspondence between the SANParks and the bidder sent by prepaid registered post (by air mail if appropriate) in a correctly addressed envelope to either party’s postal address or address for service of legal documents shall be deemed to have been received and accepted after (2) two days from the date of postage to the South African Post Office Ltd.

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### Should the parties at any time before and/or after the award of the proposal and prior to, and/or after conclusion of the contract fail to agree on any significant product price or service price adjustments, change in technical specification, change in services, etc.

Should the parties at any time before and/or after the award of the proposal and prior to, and/or after conclusion of the contract fail to agree on any significant product price or service price adjustments, change in technical specification, change in services, etc. SANParks shall be entitled within 14 (fourteen) days of such failure to agree, to recall the letter of award and cancel the proposal by giving the bidder not less than 90 (ninety) days written notice of such cancellation, in which event all fees on which the parties failed to agree increases or decreases shall, for the duration of such notice period, remain fixed on those fee/price applicable prior to the negotiations.

Such cancellation shall mean that SANParks reserves the right to award the same proposal to next best bidders as it deems fit.

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### In the case of a consortium or JV

In the case of a consortium or JV, each of the authorised enterprise’s members and/or partners of the different enterprises must co-sign this document.

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</table>
Any amendment or change of any nature made to this RFP shall only be of force and effect if it is in writing, signed by SANPARKS signatory and added to this RFP as an addendum.

Accept  Do not accept

Failure or neglect by either party to (at any time) enforce any of the provisions of this proposal shall not, in any manner, be construed to be a waiver of any of that party’s right in that regard and in terms of this proposal. Such failure or neglect shall not, in any manner, affect the continued, unaltered validity of this proposal, or prejudice the right of that party to institute subsequent action.

Accept  Do not accept

Bidders who make use of subcontractors.

The proposal shall however be awarded to the Vendor as a primary contractor who shall be responsible for the management of the awarded proposal. A vendor which was awarded the contract after scoring HDI / RDP goals is not allowed to subcontract more than 25% of the contract to a non-HDI entity. No separate contract shall be entered into between SANParks and any such subcontractors. Copies of the signed agreements between the relevant parties must be attached to the proposal responses.

Accept  Do not accept

All services supplied in accordance with this proposal must be certified to all legal requirements as per the South African law.

Accept  Do not accept

No interest shall be payable on accounts due to the successful vendor in an event of a dispute arising on any stipulation in the contract.

Accept  Do not accept

Evaluation of Bids shall be performed by an evaluation panel established by SANParks.

Bids shall be evaluated on the basis of conformance to the required specifications as outlined in the RFP. Points shall be allocated to each bidder, on the basis that the maximum number of points that may be scored for price is 80, and the maximum number of preference points that may be claimed for BBBEE (according to the PPPFA) is 20.

Accept  Do not accept
| 24 | If the successful bidder disregards contractual specifications, this action may result in the termination of the contract. | Accept | Do not accept |
| 25 | The bidders’ response to this Bid, or parts of the response, shall be included as a whole or by reference in the final contract. | Accept | Do not accept |
| 26 | Should the evaluation of this bid not be completed within the validity period of the bid, SANParks has discretion to extend the validity period. | Accept | Do not accept |
| 27 | Upon receipt of the request to extend the validity period of the bid, the bidder must respond within the required time frames and in writing on whether or not he agrees to hold his original bid response valid under the same terms and conditions for a further period. | Accept | Do not accept |
| 28 | Should the bidder change any wording or phrase in this document, the bid shall be evaluated as though no change has been effected and the original wording or phrasing shall be used. | Accept | Do not accept |
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.
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<tr>
<th>Clause</th>
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<td>1.</td>
<td>Definitions</td>
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<td>2.</td>
<td>Application</td>
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<td>3.</td>
<td>General</td>
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<td>4.</td>
<td>Standards</td>
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<td>5.</td>
<td>Use of contract documents and information; inspection</td>
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<td>6.</td>
<td>Patent rights</td>
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<td>7.</td>
<td>Performance security</td>
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<td>8.</td>
<td>Inspections, tests and analysis</td>
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<td>Packing</td>
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<td>Delivery and documents</td>
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<td>Termination for default</td>
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<td>Dumping and countervailing duties</td>
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<td>25.</td>
<td>Force Majeure</td>
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<td>26.</td>
<td>Termination for insolvency</td>
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<td>Settlement of disputes</td>
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<td>Limitation of liability</td>
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<td>Applicable law</td>
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<td>31.</td>
<td>Notices</td>
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<td>32.</td>
<td>Taxes and duties</td>
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<td>33.</td>
<td>National Industrial Participation Programme (NIPP)</td>
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<td>34.</td>
<td>Prohibition of restrictive practices</td>
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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 anything 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.
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 Security

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

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 antidumping 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 accrued 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 wilful 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 document 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.
ANNEX Q: RECORD OF ADDENDA ISSUED TO BIDDERS BEFORE THE BID CLOSING DATE

I / We confirm that the following communications amending the tender documents that I / we received from the employer or his representative before the closing date for submission of this tender offer have been taken into account in this tender offer.

<table>
<thead>
<tr>
<th>ADDENDUM NO</th>
<th>DATE RECEIVED</th>
<th>TITLE OR DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

SIGNATURE: .................................................................. DATE: ....................
(OF person authorized to sign on behalf of the Tenderer)
ANNEX R: LOCATION OF THE BIDDER

NB: Bidder(s) are requested to attach in this annexure any documents, information or answers to this evaluation criteria.
ANNEX S: EXPERIENCE OF THE BIDDER

NB: Bidder(s) are requested to attach in this annexure any documents, information or answers to this evaluation criteria.
ANNEX T: APPROPRIATE CAPACITY OF THE BIDDER

<table>
<thead>
<tr>
<th>NB: Bidder(s) are requested to attach in this annexure any documents, information or answers to this evaluation criteria.</th>
</tr>
</thead>
</table>

BID RESPONSE SCHEDULE OF ALL RETURNABLE DOCUMENTS

Very important: Bidders are requested to arrange their bid proposal and attach all returnable documents in the following sequence. This will enable the evaluation committee to easily find your response for ease evaluation.

<table>
<thead>
<tr>
<th>Item No.:</th>
<th>Description of the returnable document</th>
<th>Annexure where the document should be placed / attached</th>
<th>Are the documents attached as indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SBD 1 : Bid Invitation</td>
<td>Annexure A or 1</td>
<td>Y</td>
</tr>
<tr>
<td>2.</td>
<td>SBD 2 : Tax Clearance Certificate</td>
<td>Annexure B or 2</td>
<td>Y</td>
</tr>
<tr>
<td>3.</td>
<td>SBD 3.3 : Pricing Schedule – Firm Prices</td>
<td>Annexure C or 3</td>
<td>Y</td>
</tr>
<tr>
<td>4.</td>
<td>SBD 4 : Declaration of Interests</td>
<td>Annexure D or 4</td>
<td>Y</td>
</tr>
<tr>
<td>5.</td>
<td>SBD 6.1: Preference Points Claim Form</td>
<td>Annexure E or 5</td>
<td>Y</td>
</tr>
<tr>
<td>6.</td>
<td>B-BBEE Certificate – Original or Certified copies</td>
<td>Annexure F or 6</td>
<td>Y</td>
</tr>
<tr>
<td>7.</td>
<td>SBD 7.2 : Contract Form – Rendering of Services</td>
<td>Annexure G or 7</td>
<td>Y</td>
</tr>
<tr>
<td>8.</td>
<td>SBD 8: Declaration of bidder’s Past Supply Chain Practices</td>
<td>Annexure H or 8</td>
<td>Y</td>
</tr>
<tr>
<td>9.</td>
<td>SBD 9: Certificate if Independent Bid Determination</td>
<td>Annexure I or 9</td>
<td>Y</td>
</tr>
<tr>
<td>10.</td>
<td>Attach Company Profile</td>
<td>Annexure J or 10</td>
<td>Y</td>
</tr>
<tr>
<td>11.</td>
<td>Company Registration Documents: Certified copies (Copy with original stamp) of your CIPC (CIPRO) company registration documents listing all members with percentages, in case of a CC. Certified copies (Copy with original stamp) of all latest share certificates, in case of a company.</td>
<td>Annexure K or 11</td>
<td>Y</td>
</tr>
<tr>
<td>12.</td>
<td>Joint Venture Agreement - To provide signed Joint Venture Agreement signed by all parties involved. The primary bidder needs to have major responsibilities in this project and all parties need to state their percentage interest in this joint venture. Joint venture is encouraged mainly for developmental purposes.</td>
<td>Annexure L or 12</td>
<td>Y</td>
</tr>
<tr>
<td>13.</td>
<td>CD/DVD: Copy containing a digital copy of all Tender Documents as provided in print.</td>
<td>Annexure M or 13</td>
<td>Y</td>
</tr>
<tr>
<td>14.</td>
<td>List of traceable references of relevant services. Particulars of commitments which the bidder had previously completed and presently engaged with.</td>
<td>Annexure N or 14</td>
<td>Y</td>
</tr>
<tr>
<td>15.</td>
<td>Resolution of Board of directors / members / sole proprietor / partners of partnership</td>
<td>Annexure O or 15</td>
<td>Y</td>
</tr>
<tr>
<td>16.</td>
<td>General Conditions of Contract – every page initialled by the bidder</td>
<td>Annexure P or 16</td>
<td>Y</td>
</tr>
<tr>
<td>17.</td>
<td>Record of Addenda issued to bidders before the bid closing date</td>
<td>Annexure Q or 17</td>
<td>Y</td>
</tr>
<tr>
<td>18.</td>
<td>Location of the bidder</td>
<td>Annexure R or 18</td>
<td>Y</td>
</tr>
<tr>
<td>19.</td>
<td>Experience of the bidder</td>
<td>Annexure S or 19</td>
<td>Y</td>
</tr>
<tr>
<td>20.</td>
<td>Appropriate Capacity of the bidder</td>
<td>Annexure T or 20</td>
<td>Y</td>
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<tr>
<td>21.</td>
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<td>Annexure U or 21</td>
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<td>22.</td>
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<td>Annexure V or 22</td>
<td>Y</td>
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<tr>
<td>23.</td>
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<td>Annexure W or 23</td>
<td>Y</td>
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</tbody>
</table>
This document has been put together to assist management in applying ecologically friendly pest control measures. The best possible pesticides are recommended in each case. The sustainable success of this programme will depend on consistent feedback from management dealing with these pests.

<table>
<thead>
<tr>
<th>PEST</th>
<th>CONTROL MECHANISM</th>
<th>DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cockroaches</strong></td>
<td>Adults - <em>Fendona</em></td>
<td>Need to treat both adult and larval life stages</td>
</tr>
<tr>
<td></td>
<td>(Cyanamid) 1g/l undiluted</td>
<td>Cockroaches are attracted to any protein or veg matter</td>
</tr>
<tr>
<td></td>
<td>Larvae - <em>Stericide</em></td>
<td>Apply simultaneously with adult treatment</td>
</tr>
<tr>
<td></td>
<td>(Bayer) 10ml/10l</td>
<td>Use spray dispenser</td>
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<tr>
<td></td>
<td><em>Premise Cockroach bait Gel</em> (Bayer)</td>
<td>Summer - effective for 3 months</td>
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<td></td>
<td>Winter - effective for 6 months</td>
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<td></td>
<td></td>
<td>Use in pistol gun, in small cracks and holes. Takes to nest</td>
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<td></td>
<td></td>
<td>Kills families</td>
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<tr>
<td></td>
<td></td>
<td>Effective and long lasting</td>
</tr>
<tr>
<td><strong>Fleas</strong></td>
<td>See Cockroach control</td>
<td>See Cockroach control</td>
</tr>
<tr>
<td><strong>Fishmoths</strong></td>
<td>See Cockroach control</td>
<td>See Cockroach control</td>
</tr>
<tr>
<td>Pest Control</td>
<td>Description</td>
<td>Comments</td>
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<td>--------------</td>
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</tr>
<tr>
<td><strong>BEDBUGS &amp; THATCHMITES</strong></td>
<td><strong>Doom duel action fogger insecticide</strong>&lt;br&gt;(Robertsons Homecare)&lt;br&gt;1 per building</td>
<td>Lasts about 6 months.&lt;br&gt;Also kills adult cockroaches&lt;br&gt;Ignite and let smoulder for 2-3 hours</td>
</tr>
<tr>
<td></td>
<td><strong>Coopex dust</strong>&lt;br&gt;(AgrEvo)</td>
<td>Dust freely onto surfaces frequented by bedbugs (matresess)</td>
</tr>
<tr>
<td><strong>RATS AND MICE</strong></td>
<td><strong>Racumin</strong>&lt;br&gt;(Bayer)</td>
<td>1st generation poison - animals need multiple feeds&lt;br&gt;to die, therefore safer and will not kill predators feeding on them&lt;br&gt;Rats drink every 24 hours.&lt;br&gt;Bait at night after dark&lt;br&gt;Bait in secluded spots to minimise contaminating other animals&lt;br&gt;<strong>Remove during the day</strong>&lt;br&gt;Expect mortalities after 4-7 days</td>
</tr>
<tr>
<td></td>
<td><strong>Premise</strong>&lt;br&gt;(Bayer)</td>
<td>Subterranean wood destroying termites&lt;br&gt;350g/litre&lt;br&gt;<strong>Pre-erection of building:</strong>&lt;br&gt;Spray 5 litre/square meter of area to be built&lt;br&gt;Expensive (R1000/l)&lt;br&gt;1l makes 70l spray mix&lt;br&gt;<strong>Post-infection of building:</strong>&lt;br&gt;Spray onto infected wood and around soil&lt;br&gt;Lasts up to 6 years&lt;br&gt;<strong>Post-erection of building:</strong>&lt;br&gt;Dig 6x6 inch trench around building adjacent to foundation&lt;br&gt;Spray 3-6 litre/linear meter</td>
</tr>
<tr>
<td><strong>TERMITES</strong></td>
<td><strong>Coopex ant dust</strong>&lt;br&gt;(AgrEvo)</td>
<td>Dust freely along runs and around nests. Repeat if necessary</td>
</tr>
<tr>
<td></td>
<td><strong>Fendona</strong></td>
<td>See Cockroach control</td>
</tr>
<tr>
<td>ANTS</td>
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<td>-------------------------------------------</td>
<td>-----------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Buildings - smooth walled:</td>
<td><strong>Tempo/Responsar/Fendona</strong> (Bayer/Bayer/ Cyanamid)</td>
<td></td>
</tr>
<tr>
<td>Buildings - rough walled:</td>
<td><strong>Coopex/Baythroid</strong> (AgrEvo/ Bayer)</td>
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<tr>
<td>Malaria control - Skukuza team</td>
<td></td>
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<tr>
<td><strong>Clothes and mosquito nets:</strong></td>
<td><strong>Responsar/Peripell</strong> (Bayer)</td>
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<tr>
<td>Wash items as directed</td>
<td>Mollecules stick to surface for upto 6 washes</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>MOSQUITOES</th>
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<tbody>
<tr>
<td>Clothing:</td>
<td><strong>Bayticol</strong></td>
</tr>
<tr>
<td>Spray directly onto clothing. Do not apply directly onto skin.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>TICKS</th>
<th></th>
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<tbody>
<tr>
<td>Raidyard</td>
<td>Spray from 6m away.</td>
</tr>
<tr>
<td><strong>Coltar/Jays fluid</strong></td>
<td>Wash area with this after spray - gets rid of pheromones</td>
</tr>
<tr>
<td>Then wash with soapy water</td>
<td></td>
</tr>
<tr>
<td><strong>Premise (l)</strong> (Bayer)</td>
<td>Spray onto area after cleaning, as a repellant so the bees do not re-establish</td>
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</tbody>
</table>

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<thead>
<tr>
<th>BEES</th>
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</tbody>
</table>
### PREFERRED CHEMICAL CONTROL GUIDELINES

<table>
<thead>
<tr>
<th>PEST</th>
<th>SPECIES</th>
<th>MORPHOLOGICAL PHASE</th>
<th>PESTICIDE ACTIVE INGREDIENT</th>
<th>PESTICIDE CHEMICAL CLASS</th>
<th>PESTICIDE TRADE NAME</th>
<th>COMPANY NAME</th>
<th>GRAMS PER ACTIVE INGREDIENT</th>
<th>DOSAGE</th>
<th>DIRECTIONS FOR USE</th>
<th>ADDITIONAL INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cockroaches</td>
<td>Various spp.</td>
<td>Adult</td>
<td>Alpha-cypermethrin</td>
<td>Pyrethroid</td>
<td>Fendona</td>
<td>AL Cyanamid</td>
<td>1g/l</td>
<td>Undiluted</td>
<td>Apply directly onto insect or to areas frequented by pest</td>
<td>Coarse spray or brush onto surfaces frequented by cockroaches. Use higher rate for longer residual action or where infestation is severe. Repeat when necessary.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SC Cyanamid</td>
<td>100g/l</td>
<td>25-50ml</td>
<td>Will also control ants. Insect chalk says deltamethrin - not really.</td>
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<td></td>
<td>60g/l</td>
<td>40-85ml</td>
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<td></td>
<td></td>
<td></td>
<td>Deltamethrin</td>
<td>Pyrethroid</td>
<td>K-Othrine</td>
<td>EW or HN AgrEvo</td>
<td>1l</td>
<td>20-40ml</td>
<td>Coarse spray or brush onto surfaces frequented by pests. Use higher rate under extremely dirty conditions or for longer residual action.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cyfluthrin</td>
<td>Pyrethroid</td>
<td>Responsar</td>
<td>Bayer</td>
<td>125g/l</td>
<td>20-40ml</td>
<td>Insect growth regulator: Coarse spray onto surfaces frequented by cockroaches. Use higher rate in areas of high infestation or for longer residual action. Also works on fleas.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Beta-cyfluthrin</td>
<td>Pyrethroid</td>
<td>Tempo</td>
<td>SC Bayer</td>
<td>480g/l</td>
<td>10ml/10l</td>
<td>Mix with Fendona spray - apply as one treatment. Effective for about 3 months in summer, 6 months in winter.</td>
</tr>
<tr>
<td>Larvae</td>
<td>Triflumuron</td>
<td>n/a</td>
<td>Benoylurea</td>
<td>Starycide</td>
<td>SC Bayer</td>
<td>1 tin/120-1000m3</td>
<td>Ignite and let smoulder for 2-3 hours. Dust freely onto surfaces frequented by bedbugs. Lasts about 6 months. Also controls adult cockroaches.</td>
<td></td>
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</tr>
<tr>
<td>Bed Bugs</td>
<td>Various spp.</td>
<td>n/a</td>
<td>Permethrin</td>
<td>Pyrethroid</td>
<td>Coopex maxi/mini smoke generator</td>
<td>FD AgrEvo</td>
<td>135g/kg</td>
<td>1 tin/120-1000m3</td>
<td>Ignite and let smoulder for 2-3 hours. Dust freely onto surfaces frequented by bedbugs. Lasts about 6 months. Also controls adult cockroaches.</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>Coopex dust</td>
<td>DP AgrEvo</td>
<td>5g/kg</td>
<td>na</td>
<td></td>
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<td></td>
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<tr>
<td>Rats and Mice</td>
<td>n/a</td>
<td>n/a</td>
<td>Coumatetralyl</td>
<td>Coumarin anti-coagulant</td>
<td>Racumin</td>
<td>CB (l) Bayer</td>
<td>7.5g/kg</td>
<td>1 part in 15-20 parts bait material undiluted</td>
<td>1st generation poison: animals need multiple feeds to die. Won't poison if something eats them. Rats drink daily. Bait at night after dark, minimise other animals using. Use secluded spots where other animals wont drink. Remove during the day.</td>
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<td></td>
<td>8g/l : 1 part in 30-40 parts water. 1l : 7l pinenut (lecol) Add 40ml Racumin CB (l)</td>
<td></td>
<td>Keep available for 16 days refilling as required</td>
<td></td>
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<tr>
<td>Pest</td>
<td>Control Method</td>
<td>Active Ingredient(s)</td>
<td>Product(s)</td>
<td>Dosage</td>
<td>Duration</td>
<td></td>
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<tr>
<td>Termites</td>
<td>Subterranean wood destroying and termite control.</td>
<td>Imidaclopid</td>
<td>Premise SC</td>
<td>Bayer</td>
<td>145ml</td>
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<td></td>
<td>依然有效1年。</td>
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<td></td>
<td>Still effective for 1 year.</td>
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<td>6x6 inch trench around building - 3-6l/linear meter.</td>
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<td>Prior to erection - 5l/m²</td>
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<td></td>
<td>Expensive (R1000/l) 1l makes 70l spray mix.</td>
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<td></td>
<td>Lasts up to 6 years.</td>
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<tr>
<td>Thatch mites</td>
<td>Coopex max/min and smoke generator.</td>
<td>Pyrethroid</td>
<td>AgrEvo</td>
<td>135g/kg</td>
<td>1 tin/120-1000m³</td>
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<tr>
<td>Bees</td>
<td>Pyrethroid</td>
<td>Premise SC</td>
<td>Bayer</td>
<td>145ml</td>
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<td></td>
<td>Wash area with this after spray, to rid of pheromones.</td>
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<td>Then wash with soapy water.</td>
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<td>Use as repellent before they establish again.</td>
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<tr>
<td>Ants</td>
<td>Coopex ant dust</td>
<td>Pyrethroid</td>
<td>AgrEvo</td>
<td>5g/kg</td>
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<td></td>
<td>See Cockroach</td>
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<tr>
<td>Mosquitoes</td>
<td>Smooth walls</td>
<td>Beta-cyfluthrin</td>
<td>Tempo SC</td>
<td>Bayer</td>
<td>20-40ml</td>
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<td>Coarse spray or brush onto surfaces frequently by pests.</td>
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<td></td>
<td>Spray directly onto insect or to areas.</td>
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<td>Rapid breakdown but bad smelling.</td>
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<td>Spray or paint onto surfaces to point of run-off. Use higher rate for longer.</td>
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</tr>
<tr>
<td>Rough walls</td>
<td>Coopex</td>
<td>Pyrethroid</td>
<td>AgrEvo</td>
<td>250g/kg</td>
<td>25-50g</td>
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<td></td>
<td>Coarse spray onto surfaces. Use higher rates for longer residual action.</td>
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</tbody>
</table>

**Will start to die 4-7 days**

**Smooth walls will start to die 4-7 days**

**Rough walls will start to die 4-7 days**

**Expense:**

- 350g/l - dosage 145 ml?
- 6x6 inch trench around building - 3-6l/linear meter
- Prior to erection - 5l/m²

**Expense (R1000/l):**
- 1l makes 70l spray mix.
<table>
<thead>
<tr>
<th>Insect</th>
<th>Residual Action</th>
<th>Molecules stick to surface for up to 6 washes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mozzie nets/clothing</td>
<td>Spray onto surfaces. Use higher rate for longer residual action. For contact repelling of mosquitoes, dip mosquito net for a few minutes in freshly prepared emulsion and allow to dry. Repeat every third to fourth wash.</td>
<td></td>
</tr>
<tr>
<td>Cyfluthrin</td>
<td>Pyrethroid</td>
<td>Solfac</td>
</tr>
<tr>
<td>Peripell</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fleas</td>
<td>See Cockroach</td>
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<td>Fishmoths</td>
<td>See Cockroach</td>
<td>See Cockroach</td>
</tr>
<tr>
<td>Ticks</td>
<td>Pyrethroid</td>
<td>Bayticol</td>
</tr>
</tbody>
</table>
## PROHIBITED CHEMICALS

IMPORTATION AND USE IN THE KNP STRICTLY PROHIBITED.

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>TRADE NAME</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atrazine</td>
<td>Atrazime</td>
<td>Toxicity group III</td>
</tr>
<tr>
<td></td>
<td>Gesaprim</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Atraflo</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bladex</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Terbutal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gesaprim</td>
<td></td>
</tr>
<tr>
<td>Parathion</td>
<td>Folidol</td>
<td>An organophosphate. Extremely toxic, Toxic group I. Banned in 17 countries, restricted use status in RSA.</td>
</tr>
<tr>
<td>diethyl (p-nitrophenyl) phosphorothioate</td>
<td>Parafos Agrithion</td>
<td></td>
</tr>
<tr>
<td>PCP</td>
<td>Woodprufe</td>
<td>An organochloride.</td>
</tr>
<tr>
<td>Pentachlorophenol</td>
<td>Timberlife</td>
<td></td>
</tr>
<tr>
<td>pentachlorophenyl</td>
<td>Borcide</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Timbertret</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anti-stain</td>
<td></td>
</tr>
<tr>
<td>Chlordane</td>
<td>Termidan</td>
<td>An organochlorine insecticide. Moderately toxic, toxic group I. Banned in 25 countries, restricted status in RSA.</td>
</tr>
<tr>
<td>octachloro-a hexahydror- methiodene.</td>
<td>Chlorsdasol</td>
<td></td>
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<tr>
<td>Aldicarb</td>
<td>Termik</td>
<td>A N-Methyl Carbonate insecticide. Extremely toxic, Toxic group I.</td>
</tr>
<tr>
<td>Methyl-(methylthio)- propionaldehyde</td>
<td></td>
<td></td>
</tr>
<tr>
<td>methylcarbonmoy oxime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDB</td>
<td>Edabrom</td>
<td>A halocarbon pesticide. Toxic group II. Banned in 14 countries. Restricted status in RSA.</td>
</tr>
<tr>
<td>Dibromoethane</td>
<td>Gerbex</td>
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<td></td>
<td>Aquamix</td>
<td></td>
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<tr>
<td></td>
<td>Bacfume</td>
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</tr>
<tr>
<td>Dieldrin</td>
<td>Aldrin</td>
<td>An organochlorine insecticide. Highly toxic, Toxic group I. Banned in 34 countries. Restricted status in RSA.</td>
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<tr>
<td>hexachloro-hexahydro- dimethanophthalene plus derivities</td>
<td>Aldrin</td>
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<tr>
<td>plus derivatives</td>
<td>HHDN</td>
<td></td>
</tr>
<tr>
<td>Aldrin and Endrin</td>
<td>Shelldrite</td>
<td></td>
</tr>
<tr>
<td>DDT</td>
<td>dichloro-diphenyl trichloro-ethane plus derivitives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DDE and DDD</td>
<td></td>
</tr>
<tr>
<td>CHEMICAL</td>
<td>TRADE NAME</td>
<td>NOTES</td>
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<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Difethialone</td>
<td>Rattex</td>
<td></td>
</tr>
<tr>
<td>Brodifacoum</td>
<td>Finale</td>
<td></td>
</tr>
<tr>
<td>Difenacoum</td>
<td>Tornadel</td>
<td></td>
</tr>
<tr>
<td>Flocoumafen</td>
<td>Storm</td>
<td></td>
</tr>
<tr>
<td>Chlorofluoro-carbon</td>
<td></td>
<td>Total phase-out by 1996. Manreal protocol 1987,</td>
</tr>
<tr>
<td>CFC-11, CFC-12, CFC-113,</td>
<td></td>
<td>Amended Copenhagen 1992</td>
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<tr>
<td>CFC-114, CFC-115</td>
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<tr>
<td>Halon gas</td>
<td></td>
<td>Total phase-out by 1996. London protocol 1990,</td>
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<tr>
<td>Halon-1211, Halon1301- Halon-2402</td>
<td></td>
<td>Amended Copenhagen 1992</td>
</tr>
<tr>
<td>Carbon-tetrachloride</td>
<td></td>
<td>Total phase-out by 1996. London protocol 1990,</td>
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<tr>
<td>CC14</td>
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<td>Amended Copenhagen 1992</td>
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<tr>
<td>Methyl-chloroform</td>
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<td>Total phase-out by 1996. London protocol 1990,</td>
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<tr>
<td>CH3CC13</td>
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<td>Amended Copenhagen 1992</td>
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<tr>
<td>HBFC’s</td>
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<tr>
<td>CH3Br</td>
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<td></td>
</tr>
<tr>
<td>Gamma- BHC</td>
<td>Dyant</td>
<td>An organochlorine insecticide. Moderately toxic, Class II.</td>
</tr>
<tr>
<td>Hexachlorocyclohexane</td>
<td>bexadust</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fumitabs</td>
<td></td>
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<td></td>
<td>Ant and</td>
<td></td>
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<tr>
<td></td>
<td>garden spray</td>
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</tr>
<tr>
<td></td>
<td>Nexit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lindane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anticide</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gardit</td>
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</tr>
<tr>
<td></td>
<td>Ants</td>
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</tr>
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<td></td>
<td>Everdeath</td>
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<tr>
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<td>Lindastof</td>
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<td>Agronex</td>
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<tr>
<td></td>
<td>Lindan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Woodprufe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blue death</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Servidol</td>
<td></td>
</tr>
<tr>
<td>Paraquat dimethyl-bipyridinium dichloride.</td>
<td>Paraquat Chloride Preegline WPK PARAQUAT Gramoxone</td>
<td>A bipyridyl herbicide. Moderately toxic, Toxic Group II.</td>
</tr>
</tbody>
</table>
SOUTH AFRICAN NATIONAL PARKS
OVER-ARCHING POLICY DOCUMENT
Version 2

THE USE OF CHEMICALS IN KRUGER NATIONAL PARK, WITH SPECIFIC REFERENCE TO:
1) INTEGRATED PEST MANAGEMENT AND PESTICIDES
2) HERBICIDE USE

CONTACT: Llewellyn Foxcroft
EMAIL: llewellynf@parks-sa.co.za
DATE: February 2004

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VERSION HISTORY

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<td>1</td>
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<td>A management plan for the use of chemicals within the KNP</td>
<td>1995</td>
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<td>Foxcroft, L.C.</td>
<td>1st Revision -draft</td>
<td>February 2004</td>
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DOCUMENT OWNER

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DOCUMENT APPROVAL

Document name: THE USE OF CHEMICALS IN KRUGER NATIONAL PARK,
WITH SPECIFIC REFERENCE TO:
  1. INTEGRATED PEST MANAGEMENT AND PESTICIDES
  2. HERBICIDE USE

Publication date: February 2004
Prepared by: Llewellyn Foxcroft

APPROVAL:___________________________________________
Name:_____________________________________________
Position:___________________________________________

CONCURRENCE:_____________________________________
Name:_____________________________________________
Position:___________________________________________
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1. INTRODUCTION

PURPOSE OF THIS DOCUMENT

This document outlines guiding policy statements and provides reference to applicable legislation.

SCOPE OF THIS DOCUMENT

This document includes chemicals such as herbicides and pesticides.

This document does not contain reference to specific chemicals, laboratory chemicals and other hazardous chemicals, other than those completely banned in the KNP. These rules and regulations are contained within the sub-policies named herein.

CONSULTATION

List of organisations or persons that commented on this policy:

- Mrs Angela Gaylard
- Mr Peter Scott
- Mr Louis Olivier
- Dr Thomas Gyedu-Ababio
- Dr Andrew Deacon
- Ms Louise Rademan
OUTSTANDING ISSUES

The need for strict regulations that comply with ISO, environmental, health and safety, and other industrial standards to be developed to provide explicit guidelines and implemented.

An Environmental Management System (EMS) which is carefully developed and maintained will provide much support, as these systems are excellent controls for this type of issue.

The following specific issues need to be addressed urgently:

- The disposal of biological materials, e.g. needles, blood smears and other instruments that have been used medically.
- The transportation of hazardous materials and chemicals in the KNP, as well as rapid response and clearing up procedures.
- In a similar manner as above: Fuel and oil sites, fuel use, refilling points, old oil disposal etc.
- Use, management and disposal of acid fumes and acids used in chemical analysis labs.
- Ensuring that pesticides / chemicals listed as prohibited are not used.
- The safe storage of chemicals in the KNP.
- The disposal of chemicals and other hazardous materials in the KNP.

2. BACKGROUND AND DESCRIPTION OF THE PROBLEM

Numerous chemicals in solid, fluid or gaseous state, as well as compounds and mixtures of these, are used for a variety of purposes in the everyday management of the KNP. Chemicals are used to control the disruptive influence that man has had on the natural environment, to safeguard human health, in the construction and maintenance of infrastructure, and in daily activities. Potentially harmful chemicals are found in cleaning materials, refrigerators, air-conditioners, pesticides, fire extinguishers, cutting and welding equipment, paints, aerosols, batteries and photocopiers.

Ecological Significance of Chemical Use:

All chemicals, whether organic, inorganic, synthetic or natural that are artificially introduced into the natural environment may have a negative influence on that environment. These effects may be so slight as to be immeasurable or they may be catastrophic. The effect may be acute or chronic, short-lived or persistent. The nature of the effects could be toxic, carcinogenic, disruptive, or altering. The effects will be largely dependent on the type of chemical, the method of application and the dosage applied. Although the use of certain potentially harmful chemicals is unavoidable they should always be used with the utmost circumspection. It is important to weigh the positive benefits of their use against the possible deleterious effects. The accumulation of chemicals (Bioaccumulation) in the environment may only have consequences many years later, and therefore are not noticed over the short term.

Some well documented effects of chemical usage include ozone depletion, poisoning, abnormal growth and development in plants and animals, contamination of ground water and surface water and acidic rain. Less well known and studied effects of chemicals on the environment are the additive effects of chemical “cocktails” which undergo a variety of physical, chemical and microbiological reactions which result in complex interactions and potential long term side-effects.

3. GUIDING PRINCIPLES
• As a first approach, wherever possible and providing satisfactory results are obtained, non-chemical (mechanical) control options should be used. After exploring these alternatives, or in conjunction with these, chemicals such as pesticides may be used.
• Chemicals must be controlled and used in such a way as to impact as little as possible on the environment and functioning of ecosystems.
• The use of certain chemicals is unavoidable in the management of the KNP, but must be strictly controlled.
• Certain chemicals will be completely banned from the KNP. These (Appendix 1) may not be sold in any shop or warehouse, or used by personnel (and any other affiliated contract employees).
• All applicable legislation will be adhered to as a minimum guideline, with the aim to further improve thereon and provide an example to all South Africans.
• If a chemical is used for any reason, a sign or some form of notification should be prominently displayed to caution people (staff, tourists etc) that such chemical is being used, and the area is restricted. The notification may then be removed when safe to do so.

4. OVER-ARCHING POLICY

i. In order to minimise any possible negative effects of chemical use in the KNP on the natural environment:

a) It should be strived to minimise the use of potentially harmful chemicals.
b) All chemicals listed as PROHIBITED may not be brought into, sold or used in the KNP under any circumstances (Appendix 1).
c) All chemicals must be used according to registration and recommended / prescribed application. Trial use of chemicals outside of registration may only take place on approval of the Conservation Services Management Committee.
d) Always ensure safe storage and disposal of chemicals and their containers.

ii. To ensure the safety and health in the KNP any staff using chemicals must be supplied with the necessary safety equipment.

iii. To ensure efficient control over the importation, use and disposal of chemicals:

a) There be a Committee for Harmful Chemicals appointed by the Conservation Services Management Committee which will be responsible for the screening, approval and monitoring of all chemicals used in the KNP, and that appropriately experienced and qualified personnel be included in the committee (not necessarily KNP/ SANParks employees only).
b) The appendix be updated on a regular basis as more information becomes known

iv. Decisions regarding the control, use and disposal and veterinary drugs and other chemicals must of necessity be made by the appropriate qualified personnel, these persons then being responsible for ensuring adequate and effective safety in their importation, storage, use and disposal.

v. Toxic or other waste generally regarded as being dangerous should have an appropriate and specific disposal system under supervision of the Technical Services department. The responsibility of giving notification of such waste, and the costs involved in their disposal, lies with the relevant department manager.

vi. A list of approved chemicals, as periodically determined by the Committee for Harmful Chemicals, will be lodged wit the Conservation Services Management Committee, and with the Technical Services department.
5. SUB POLICIES
These policies provide detailed information on specific uses of the contents hereunder and may be updated to remain abreast of more recent knowledge and research.

- Integrated pest management in the KNP (Louise Rademan February 2004).
- Working for water: Policy on the use of herbicides for the control of alien vegetation (8 April 2002). (Used as KNP herbicide policy)

5.1. Integrated pest management in the KNP.

The Integrated Pest Management document was written up as a guideline for policy making and implementation of responsible pest control measures. It outlines both mechanical and chemical options for pest control that can be applied for most common household pests found within the KNP. The preferred chemicals identified in this document have been recommended by pest control professionals and have been chosen according to the chemical class of the active ingredient in each case. The Integrated Pest Management document contains details on the following:

- INTRODUCTION AND BACKGROUND IN THE USE OF PESTICIDES
- WARNING ON THE USE OF CHEMICALS
- TERMINOLOGY ASSOCIATED WITH PESTICIDE USE
- CHEMICAL CLASSES OF ACTIVE INGREDIENTS
- PEST CONTROL - MECHANICAL AND CHEMICAL CONTROL (RATS AND MICE, COCKROACHES, FISH MOTHS, BEDBUGS, TERMITES, BEES, ANTS, SPIDERS AND SCORPIONS)
- PROHIBITED CHEMICALS
- NON-RECOMMENDED CHEMICALS
- PREFERRED CHEMICAL CONTROL
- PESTICIDES SOLD IN KNP SHOPS
- RESPONSIBLE PEST CONTROL BROCHURE
- RESPONSIBLE BAT MANAGEMENT BROCHURE
- PESTICIDE PROCUREMENT DETAILS
- PREFERRED PEST CONTROL COMPANIES
5.2 Working for water: Policy on the use of herbicides for the control of alien vegetation

The herbicide use policy, as used by the Working for water programme is accepted as the policy on the use of herbicides in the KNP, as WFW is the main clearing agent and has done much work on developing acceptable standards of herbicide use.

The following provides the table of contents for the herbicide policy:

1. OBJECTIVE FOR THE USE OF HERBICIDES FOR ALIEN VEGETATION CONTROL
2. METHODS OF CONTROL
3. LONG TERM CONTROL PROGRAMMES
4. SELECTION OF HERBICIDES
5. TRAINING
6. COSTING OPERATIONS OR PROGRAMMES
7. PROVISION OF EQUIPMENT
8. STORAGE, HANDLING AND TRANSPORTATION
9. PUBLIC SAFETY
10. ENVIRONMENTAL SAFETY
11. APPLICATION
12. WEATHER CONDITIONS
13. MIXING HERBICIDES
14. CALIBRATION
15. ESTIMATED VOLUMES OF PRODUCT PER HECTARE
16. HERBICIDE DOSAGE AND LITERS PER HECTARE SUMMARY GUIDE
17. ANNEXURE A: GUIDE TO CONTROL METHOD AND HERBICIDE SELECTION FOR INDIVIDUAL SPECIES

The policy provides exact safety guidelines, herbicides to be used, for which species and under what conditions. Mixing ratios and methods of application are discussed per species.

6. RELATED POLICIES AND DOCUMENTS

- Code of Conduct- Kruger National Park

7. RELEVANT LEGISLATION and STANDARDS

- National Environmental Act.
- ISO
- Fertilizers, Farm feeds, Agricultural remedies and Stock remedies Act (Act no. 36 of 1947)
- Act on Dangerous substances
APPENDIX 1-

CHEMICALS TO BE BANNED FROM IMPORTATION AND USE IN KNP (Based on chemical class of active ingredients)

(1) Dichlorvos: Chemical class Organophosphate
Trade names Baygon Aerosol – Instant kill
Baygon Aerosol – Space spray
Dyant Aerosol (excluding Dyant Aerosol citronella extract)
Dyroach Aerosol – odourless
Target Aerosol – Cockroach and Ants

(2) Propoxur: Chemical class Carbamate
Trade names Doom Aerosol – Surface double action
Dyant Aerosol (excluding Dyant Aerosol citronella extract)
Dyroach Aerosol – odourless
Target Aerosol – Cockroach and Ants

(4) Chlorpyrifos: Chemical class Organophosphate
Trade names Target – Nest kill cockroach baits

PROHIBITED CHEMICALS

IMPORTATION AND USE IN THE KNP STRICTLY PROHIBITED.

1. Atrazine: Trade names Atrazine, Gesaprim, Atraflo, Bladex, Terbutal, Gesaprim.
Toxicity group III
2. Parathion: diethyl (p-nitrophenyl) phosphorothioate
Trade names Folidol, Parafos, Agrithion.
An organophosphate. Extremely toxic, Toxic group I.
Banned in 17 countries, restricted use status in RSA.
3. PCP (or Pentachlorophenol) : pentachlorophenyl.
Trade names Woodprufe, Timberlife, Borcide, Timbertret, Anti-stain.
An organochloride.
Trade names Termidan, Chlorsdasol.
An organochloride insecticide. Moderately, toxic, toxic group I
Banned in 25 countries, restricted status in RSA.
5. Aldicarb : Methyl-(methylthio)-propionaldehyde (methylcarbonmoy oxime.
Trade names Termik.
A N-Methyl Carbonate insecticide. Extremely toxic, Toxic group I.
6. EDB : Dibromoethane.
Trade names Edabrom, Gerbex, Aquamix, Bacfume.
A halocarbon pesticide. Toxic group II.
Banned in 14 countries. Restricted status in RSA.
7. Dieldrin : hexachloro-hexahydro-dimethanonaphthalene (plus derivatives Aldrin and Endrin)
Trade names Aldrin, HHDN, Shelldrite.
An organochloride insecticide. Highly toxic, Toxic group I.
Banned in 34 countries, Restricted status in RSA.
8. DDT : dichloro-diphenyl trichloro-ethane – (plus derivatives DDE and DDD).
12. Flocoumafen: Trade name – Storm.
15. Carbon-tetrachloride: CC14
16. Methyl-chloroform: CH3CCl3
17. Hydrochloro-fluorocarbon: HBFC’s
18. Methyl bromide: CH3Br
   Trade names–Dyant, bexadust, Fumitabs, Ant and garden spray, Nexit, Lindane, Anticide,
   Gardit, Ants, Everdeath, Lindastof, Agronex, Lindan, Woodprufe, Blue death, Servidol.
   An irganochlorine insecticide. Moderately toxic, Class II.
   Trade names-Gramoxone, Paraquat Chloride, Preeglone, WPK PARAQUAT.
   A bipyridyl herbicide. Moderately toxic, Toxic Group II.

Note:
Hydrochloro-fluorocarbon: HCF’s
INTEGRATED PEST MANAGEMENT

Management Plan for the Responsible Control of household and other pests within the Kruger National Park

March 2004
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RATS AND MICE

General information
Management
Mechanical control
Chemical control

COCKROACHES

General information
Management
Mechanical control
Chemical control

FISHMOTHS

General information
Management
Mechanical control
Chemical control

BEDBUGS

General information
Management
Mechanical control
Chemical control
TERMITES
General information
Management
Mechanical control
Chemical control

ANTS
General information
Management
Mechanical control
Chemical control

BEES
Management
Mechanical control
Chemical control

SPIDERS
General information
Management
Mechanical control
Chemical control

SCORPIONS
General information
Management
Mechanical control
Chemical control

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REFERENCES
APPENDIX

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2 - RESPONSIBLE BAT MANAGEMENT
3 - PROCUREMENT DETAILS
4 – PREFERRED CHEMICAL CONTROL
5 - PROHIBITED CHEMICALS
6 – NON-RECOMMENDED CHEMICALS
7 - KRUGER NATIONAL PARK - SELECTED SHOP INVENTORY
8 - PREFERRED PEST CONTROL COMPANIES
9 - THE USE OF CHEMICALS IN THE KRUGER NATIONAL PARK - POLICY DOCUMENT
INTEGRATED PEST MANAGEMENT

FORWARD

This document has been put together to serve as a basis reference document for Responsible Pest Control in the Kruger National Park. It was decided to include the necessary information required by both high level Policy Makers and on the ground Management, order to make an active contribution towards implementing successful and sustainable “Responsible Pest Control” in the long term. It is therefore recommended that the relevant sections be distributed to the relevant stakeholders and not the entire document. The complete document should be seen as a comprehensive Management Plan for Pest Control as referred to in “The Use of Chemicals in the Kruger National Park” policy document. The management plan can be seen as a static document, and should be updated on a continual basis by the responsible parties.

The Responsible Pest Control brochure and the Preferred Chemical Control Table serve to outline the preferred chemicals to be used in pest control in the KNP. It is important to note, however, that Chemical control is NOT the preferred method of pest control within the KNP. Species-specific Mechanical control methods are outlined in detail in this document, and should be emphasized as the first and preferred method for pest control in each case.

If anything within the following document is not understood, or further information or explanation is required in a particular area relating to the document, please contact the relevant persons from Conservation Services, Skukuza. Where more professional input is required, Gerard Verdoorn from the EWT’s Poison Working Group can be contacted at 011 486 1157.
INTRODUCTION AND BACKGROUND

Pest control: Aiming towards natural and barrier methods (mechanical control) as opposed to chemical control.

All chemicals that are artificially introduced into the natural environment may create an imbalance and have a negative effect on that environment. These effects can range from slight to catastrophic, but will be largely dependent on the type of chemical, the method of application and the dosage applied.

Chemicals must be controlled and used in such a way as to impact as little as possible on the natural diversity and functioning of ecosystems.

WARNING ON THE USE OF CHEMICALS

Pesticides are poisonous. Always read carefully and follow all precautions and safety recommendations given on the container label. Store all chemicals in the original labelled containers in a locked cabinet or shed, away from food and out of reach of children and unauthorized persons. Consult the pesticide label to determine active ingredients and signal words. Pesticides applied in your home and landscape can move and contaminate streams, lakes and rivers. Confin e chemicals to the property being treated and never allow them to reach drainage areas. Do not place containers containing pesticide into the rubbish bin, down the sink, toilet or outside drain. Either use the pesticide according to the label until the container is empty, or take unwanted pesticide to a household hazardous waste collection site. Dispose of empty containers by following label directions. Never reuse or re-burn the containers or dispose of them in such a manner that they may contaminate water supplies or natural waterways.

TERMINOLOGY

Pest: Any organism occurring in unnaturally high numbers due to human development that has a deleterious effect on the human population in terms of health and well-being.

Pesticide: A species specific chemical component designed to combat a particular pest species that is deemed as having deleterious effects on the resident human population.
**Herbicide**: A chemical component designed to eliminate a specific type or species of vegetation.

**Active ingredient**: the chemical compound within the pesticide that produces the required negative effect on the target species

**Synergist**: Substance added to pesticide in order to make the active ingredient more effective by performing a catalytic function.

**Wetter (spreader)**: enables the chemical to stick evenly onto the target.

**Coloring agent**: used to discourage birds, animals and people from consuming the pesticide.

**Bitter compound**: prevents animals from swallowing the compound.

**Carrying medium**: usually inactive and won’t have an effect on the pest.

**Pesticide toxicity**: All pesticides must be considered to be toxic. The relative toxicity, however, varies considerably as does the susceptibility of the human being, animal or plant. Species, age, sex, physical and nutritional state and type of formulation are some of the more important factors influencing the potential toxicity and hazard.

**LD50**: The toxicity of a chemical is expressed as an LD50 value. This is the lethal dosage expressed as mg per kg body mass which will kill 50 % of a random sample of a population of test animals (usually white laboratory rats). This standard makes comparison of toxicity possible. The potential hazard of a pesticide may not be judged only by its oral toxicity, as many pesticides can be absorbed through the skin, eyes and or lungs.

**Pesticide hazard**: Both the concentration of a pesticide and its formulation affect the hazard of a remedy. The higher the concentration of an active ingredient, the more hazardous it becomes. A pesticide formulated as a solution or as an emulsifiable concentrate, is more hazardous than when formulated as a dust or as a wettable powder.
**Pesticide formulations:** Nearly all pesticides have to be formulated in order to enhance their efficacy and to make them suitable for application in a particular manner. Sometimes certain materials such as sticking or wetting agents are added to increase the terminal effectiveness.

AE – Aerosol dispenser
AL – Other liquids to be applied
BB – Bait block
  - CB – Bait concentrate (solid or liquid for dilution before used as bait)
CS – Capsule suspension (normally diluted in water)
DP – Dusting powder
EC – Emulsifiable concentrate (applied as liquid after dilution in water)
EW – Emulsion, oil in water (pesticide within oil droplets in water)
FD – Smoke tin
FK – Smoke candle
FT – Smoke tablet
FU – Smoke generator
GA – Gas
GB – Granular bait
GE – Gas generating product
GR – Granule
HN – Hot fogging concentrate
KN – Cold fogging concentrate
OL – Oil miscible liquid – dilute in an oil before application
PA – Paste (water based film forming)
SC – Suspension concentrate
SL – Soluble concentrate
SP – Water soluble powder
RB – Ready bait
TB – Tablet
UL – Ultra low volume liquid
VP – Vapor releasing product
WP – Wettable powder

**First generation poison:** A poison that will only affect the target species, in that it requires multiple feeds to be fatal.
**Second generation poison:** A poison that will have immediate deadly effects on the target population, as well as any predatory populations feeding on the dead target or other effected animals.

**CHEMICAL CLASS OF ACTIVE INGREDIENT**

**Chemical class:** Classification of chemicals based on the composition of the active ingredient.

*Organochlorine*: Eg. DDT. These compounds take a long time to decompose (eg. 8 tonnes of DDT will take 90 years to decompose). This means that the long-term effects are much worse than short-term effects, due to the build-up in the environment. All these products should be banned from use in terms of the environmental damage caused. Organochlorines should not be permitted for use in a National Park.

*Organophosphates*: These are acutely toxic in most cases, however, only to animals not plants. Organophosphates should not be permitted for use within a National Park.

*Pyrethroid*: These compounds are made from the carnation flower, by extracting pyrethrin from the oil. They are made in Kenya. They are mostly highly toxic to insects, fish and amphibians, but not so toxic to reptiles, birds and mammals. When used correctly, this is the least harmful class of all chemicals. When chemicals are used within a National Park, it is preferable that they are Pyrethroid in nature

*Carbamate*: These compounds are medium in toxicity when compared to organophosphates but more toxic than pyrethroids. They do however break down rapidly (chemicals last 4 weeks indoors and only a few days outdoors) and are not very toxic to fish and amphibians. Carbamates should not be used in a National Park.

**RESTRICTED USE OF CHEMICALS WITHIN THE KNP**

A management plan for the use of chemicals within the KNP was written by D.A. Zeller and L.E.O. Braak in January 1995. This document contained policies regarding the use of chemicals within the KNP as well as list of restricted chemicals, prohibited chemicals and chemicals to be
phased out. This list has since been updated by L. Foxcroft in January 2004. The new edition has one list of chemicals, for which the importation and use of within the KNP is strictly prohibited. A second list has been included outlining chemicals that are not recommended for use within the KNP, based on the chemical class of their active ingredients. **Although the prohibited list has been part of the management plan since 1995, a large number of pesticides containing chemicals on these restricted and prohibited lists, are currently available and being sold within both staff and tourist retail outlets inside the Kruger National Park.**

PESTS

RATS AND MICE

General information

Rats and mice are mostly active at night. They have poor eyesight, but they make up for this with their keen senses of hearing, smell, taste and touch. Rats and mice constantly explore and learn about their environment memorizing the locations of pathways, obstacles, food and water, shelter and other elements in their domain. They quickly detect and tend to avoid new objects placed in a familiar environment. Thus, objects such as traps and baits are often avoided for several days or more following their initial placement. Mice and young rats can squeeze beneath a door with only 2cm gap. If the door is made of wood, rats may gnaw to enlarge the gap.

Rats and mice eat a variety of foods including cereal grains, meats, fish, nuts, fruits, slugs and snails. When searching for food, rats and mice can travel up to 150m from their nests or burrows. Females can wean between 3 – 6 letters per year, each litter containing between 3 – 5 young.

Rats consume and contaminate foodstuffs and damage storage containers. They can also cause damage by gnawing electrical wires and wooden structures.

Management

Three elements are necessary for a successful rat and mouse management program: sanitation, building construction and rodent proofing and, if necessary, population control.
Mechanical control

Sanitation: Sanitation is fundamental to rat control and must be continuous. If sanitation measures are not properly maintained, the benefits of other measures will be lost and rats will quickly return. Good housekeeping in and around buildings will reduce available shelter and food sources for rats and mice. Neat, off-the-ground storage of pipes, timber, crates, boxes, gardening equipment and household goods will help reduce the suitability of the area for rats and will also make their detection easier. Garbage and garden refuse should be collected frequently and all garbage containers should have tight fitting covers. Thinning dense vegetation will make the habitat less desirable including climbing hedges such as jasmine and ivy. Trees with branches hanging closer than 1m to the roof should be trimmed.

Building construction and rodent proofing: The most successful and long lasting form of rat control in buildings is to “build them out”. Seal off cracks and openings in building foundations, and any openings for water pipes, electric wires, sewer pipes, drain spouts and vents. No hole larger than 7mm should be left unsealed. Make sure doors, windows and screens fit tightly. Their edges can be covered with sheet material if gnawing is a problem. Coarse steel wool, wire screen and lightweight sheet material are excellent materials for plugging gaps and holes. Plastic sheeting, wood, caulking and other less sturdy materials are likely to be gnawed away.

Because rats and house mice are good climbers, openings above ground level must all be plugged, especially all access points in the roof. Chimneys should be covered with wire netting or gauze to prevent rat and mice entry. Check all screens on windows, doors, and air vents are in good condition. Make sure all exterior doors are tight fitting and weatherproofed at the bottom.

Trapping: This is the safest and most effective way of controlling rats in and around homes. Traps can be used more than once therefore it is a cost effective but more labour-intensive method. The kind of bait used for the trap is important. Dried fruit or bacon makes excellent bait for rats. The bait should be fastened securely to the trigger of the trap with a light string or bit of glue. Soft baits such as peanut butter or cheese can also be used, but rats sometimes take soft baits without setting off the trap. Leaving traps baited but unset until the bait has been taken at least once improves trapping success by making the rodents more accustomed to the traps. Set traps so the trigger is sensitive and will spring easily.
The best places to set traps are in secluded areas where rats are likely to travel and seek shelter. Droppings, gnawing and damage indicate the presence of rodents and areas where such evidence is found are usually the best places to set traps, especially when these areas are located between their nests and food sources. Place traps in natural traveling paths such as along a wall, so the rodents will pass directly over the trigger of the trap. Position traps along a wall at right angles, with the trigger end nearly touching the wall. If traps are set parallel to the wall, they should be set in pairs to intercept rodents traveling from either direction. If a rat sets off a trap without getting caught, it will be very difficult to catch the rat with the trap again. Other good places for traps are behind objects, in dark corners, on ledges, shelves, branches, fences, pipes or overhead beams. In overhead places, the traps should be attached securely with screws or wire. In areas where children or birds and other animals might contact traps, place the trap in a box or use a barrier to keep them away.

Use as many traps as are practical so trapping time will be short and decisive. A dozen or more traps for a heavily infested home may be necessary. Place rat traps about 5-10 meters apart. Dispose of dead rats by burying them. Do not touch the dead rodent with bare hands and wash thoroughly after handling traps.

Live traps are not recommended because trapped rats must either be killed or released elsewhere. Releasing rat’s outdoors is not recommended because of health concerns.

Chemical control

While trapping is generally recommended for controlling rats indoors, when the number of rats around a building is high, it may be necessary to use toxic baits to achieve adequate control, especially if there is a continuous infestation from surrounding areas. Most toxic baits for rodents contain active ingredients that work as an anticoagulant, causing death by internal bleeding. Most anticoagulant baits have been considered as relatively safe baits to use around the house and garden because they require multiple feedings to be effective. This is referred to as a first generation poison, as only the target animal will be killed. Some of the more lethal rodent poisons that are prohibited for use in a National Park, contain a single feed, second generation poison, that will result in death to anything that eats the poison directly from the baits, or indirectly, by eating the dead rodents (e.g. Predators including owls, genets etc.).
Rodent bait should only be used, when placed in a bait station (Rodent bait station made by Bayer). These bait stations protect the bait from weather and restrict accessibility to rodents, providing a safeguard for people and other animals. Place bait stations next to walls or in places where rats will encounter them. Stations that may be accessible to children must be made of sturdy, tamper resistant material and be secured in a way that they cannot be tipped. All bait stations should be clearly labelled.

The use of bait stations help rats to feel secure when feeding. Place all bait stations in rat travel-ways or near their burrows. Do not expect rats to go out of their way to find the bait. If you place bait stations above the ground (on fences, eves), make sure they are securely fastened, and won’t fall onto the floor where children may find them. Because rats are often suspicious of new or unfamiliar objects, it may take several days for them to enter and feed in bait stations. For best results, make sure there is a continuous supply of bait until feeding stops. It usually takes 5 days or more once the rats start feeding for them to succumb.

During the baiting process, dispose of dead rodents by burying them, or placing them in a marked plastic bag, and putting them in the rubbish for incineration at the dump. Use gloves and wash hands thoroughly after handling dead rodents, traps or bait stations. Additionally, poisoned rats often die in inaccessible locations within a building, leading to persistent and unpleasant odours, so rodent proof the building before you use toxic baits outside.

A successful bait formula that can be administered in a Bayer Rodent Bait station can be made up as follows:

Dilute 1 part Racumin (made by Bayer) in 30-40 parts water (8g/l). Dilute 1litre of lecol pinenut with 7 litres of water, and add 40ml of Racumin. Keep this available for 16 days and refill as required. This is a first generation poison, so animals need multiple feeds to die. It will therefore not affect predators feeding on them. Rats drink every 24 hours, therefore bait after dark, in secluded spots to minimize contaminating other small animals. Remove bait stations during the day.

COCKROACHES

General information
Cockroaches may become pests in any structure that has food preparation or storage areas. They contaminate food and eating utensils, destroy fabric and paper products, and impart stains and unpleasant odors to surfaces they contact. They may transmit bacteria that cause food poisoning. The skin shed by cockroaches may cause asthma in children if inhaled. In South Africa, the exotic German cockroach is the main pest.

Cockroaches are common in kitchens and bathrooms because they favor warm, humid areas that are close to food and water. The German cockroaches are the fastest reproducing of all the pest cockroaches and a single female and her offspring can produce over 30,000 individuals in a year. Egg laying occurs more frequently during warm weather. The female carries around a light tan egg case (6mm long) for about 28 days (1-2 days before the eggs hatch), when she drops it. Each case contains about 30 young and a female may produce a new egg case every few weeks. Young or immature cockroaches undergo gradual metamorphosis resembling the adult visually and in feeding habits, but do not have fully developed wings and are not reproductively active. Cockroaches are white after molting, but their outer covering thickens and darkens as it hardens within hours.

Cockroaches are nocturnal; hiding in dark, warm areas especially narrow spaces where surfaces touch them on both sides.

Management

Cockroaches are tropical and like warm hiding places with access to water. If cockroaches have access to food, baits will have limited effect. Sprays alone will also not be effective against cockroaches. An integrated approach is required. The keys to controlling cockroaches are sanitation and exclusion: cockroaches will continue to re-invade as long as the habitat is suitable for them (i.e. available food, water and shelter). In addition to sanitation and exclusion, baits can be effective. Sprays or dusts that are registered for use on cockroaches may temporarily suppress populations, but they do not provide long-term solutions.

Mechanical control

Sanitation: Cockroaches thrive where food and water are available to them. Even tiny amounts of crumbs or liquids caught between cracks provide a food source. Important sanitation measures include:
• Store food in insect-proof containers such as glass jars or sealed plastic containers
• Keep rubbish in containers with tight fitting lids. Remove rubbish, newspapers, magazines, piles of paper bags, rags, boxes and other items that provide hiding places. Do not store rubbish indoors or close to the house.
• Eliminate plumbing leaks and correct other sources of free moisture. Increase ventilation where condensation is a problem.
• Vacuum cracks and crevices to remove food and debris. Be sure surfaces where food or beverages have been spilled are cleaned up immediately. Vacuuming also removes cockroaches, shed skins and egg capsules. Removing cockroaches reduces their numbers and slows development. Trim shrubbery around buildings to increase light and air circulation, especially near vents, and eliminate ivy or other dense ground covers near the house as these may harbor cockroaches.
• Remove trash and stored items such as piles of wood that provide hiding places for cockroaches from around the outside of buildings.

Exclusion and removal of hiding places: During the day, cockroaches hide in cupboard cracks, stoves, crawl spaces, outdoor vegetation and many other locations. They invade kitchens at night. Limiting hiding areas or avenues of access to living areas is an essential part of an effective management strategy. False-bottom cupboards, hollow walls and similar areas are common cockroach refuges. Prevent access to the inside of buildings through cracks, conduits, under doors of through other structural flaws:

• Seal cracks and other openings to the outside
• Look for other methods of entry such as from items being brought into the building, especially appliances, furniture and items that have been in storage.
• Look for egg sacs glued to undersides of furniture, in refrigerator and other appliance motors, boxes and other items. Remove and destroy any that are located.
• Locate and seal cracks inside the treatment area where cockroaches can hide.

Chemical control

Insecticides are most effective in controlling cockroaches when combined with sanitation and exclusion practices that limit the cockroaches' ability to establish or re-invade; chemical control alone will not solve the problem. If insecticides are used, they must always be used with
extreme care. Indoor chemical control is warranted only in the cockroach population is established but not for an incidental intruder or two.

**Fendona** (Made by Cyanamid, active ingredient = Alpha-cypermethrin) should be diluted at the specified rate, and sprayed onto surfaces frequented by cockroaches. Use a higher rate for longer residual action or where infestation is severe. Repeat when necessary.

**Staryside** (made by Bayer, active ingredient = Triflumuron) should be diluted at 10ml per 10l, and applied simultaneously (in the same sprayer) with the adult treatment. In summer, it can be effective for up to 3 months, and in winter, up to 6 months.

**Premise cockroach bait gel** (made by Bayer, active ingredient = imidacloprid) Use in pistol gun, apply in small cracks and holes. Very effective and long lasting. Most insecticides used in baits are slow-acting; cockroaches quickly learn to avoid fast acting ones. Consequently, an effective bait program does not give immediate results, but may take 7 days or longer. Baits can be quite effective for long-term control of cockroaches unless the cockroaches have other food sources available to them. Baits to not control all cockroaches equally. Female cockroaches with egg cases do very little feeding and avoid open spaces; consequently they are less likely to be immediately affected by bait. Baits do not attract cockroaches, so place them near hiding places or where cockroaches are likely to encounter them while foraging. Bait can also be placed near to fecal specks and droppings of cockroaches, which contain a natural aggregation pheromone. Look for these fecal specks and droppings under kitchen counters, behind kitchen drawers and in the back on cabinets.

The German cockroach has developed resistance (or tolerance) to many insecticides used for their control. If cockroaches seem to be unaffected a day after the application of the spray, a different material or strategy may be required.

After a cockroach control program has been started, evaluate the effectiveness visually. If populations persist, re-evaluate the situation. Look for other sources of infestation, making sure all possible entryways are blocked, be certain that food and water sources are eliminated as much as possible, and continue sealing and eliminating hiding places. When populations are under control, continue monitoring on a regular basis to make sure re-infestation is not taking place. Maintain sanitation and exclusion techniques to avoid encouraging a new infestation. If
severe re infestations continue to occur, consider having the infested area modified or remodeled to reduce the amount of suitable habitat for cockroaches.

FISH MOTHS

General information

Fish moths hide during the day, but are active at night looking for food and water. Fish moths eat cereals, moist wheat flour, books, paper on which there is glue or paste, wall paper, bookbindings and starch in clothing. They can live for several months without food.

Fish moths live and develop in damp cool places particularly in basements and laundry rooms.

Management

Mechanical control

To keep fish moths away, keep basements, laundry rooms and bathrooms (especially shower stalls) clean and dry. Plug or putty holes or spaces around pipes. Repair leaks and drips in plumbing. Clean out closets periodically. Collections of magazines, papers and books provide food for them. Move books around in bookcases occasionally. Keep foods in containers with tight lids.

Chemical control

Fish moths can be controlled using the same chemicals used to control cockroaches. A properly and thoroughly applied insecticide will show results in a few weeks. If control is not achieved in 2 or 3 weeks, fish moths are probably coming from untreated areas. Seek these areas out for treatment and also eliminate water sources. Large populations of fish moths cannot be controlled unless their water sources are eliminated. Chemical control advised for cockroaches will also work on fish moths, no additional pesticides are necessary.
BEDBUGS

General information

Female bedbugs lay from 200-500 eggs (in batches of 10 – 50) on rough surfaces such as wood or paper. Eggs are covered in a glue and hatch in about 10 days. There are 5 progressively larger nymph stages each requiring a single blood meal before molting to the next stage. The entire life cycle from egg to adult requires anywhere from 5 weeks to 4 months, depending on temperature. Nymphs and adults generally feed at night and hide in crevices during the day. Common hiding places include seams in mattresses and box springs, cracks in bed frames, under loose wallpaper, behind picture frames and inside furniture and upholstery.

Bed bugs can go without feeding for 80-140 days; older stages can survive longer without feeding than younger ones. Adults have survived without food for as long as 550 days. A bed bug can take 6 times it’s weight in blood and feeding can take 3 – 10 minutes. Adults live about 10 months and there can be 3-4 generations of bed bugs per year.

In addition to leaving a bite wound on their hosts, bed bugs have stink glands that leave odors; they also leave fecal spots on bed sheets and around their hiding places.

Management

Infestations of bed bugs can be detected by looking for their fecal spots, egg cases and shed skins under wallpaper, behind picture frames, and inside cracks and crevices near beds.

Mechanical control

Indirect measures can go a long way in controlling bed bugs: keep bats and birds away from houses; clean furnishings, launder bedding and mattress pads and stem-clean mattresses; and prevent bed bugs from getting into homes by removing debris from around the house, repairing cracks in walls, and caulking windows and doors.

Simple physical control methods include standing the legs of beds in soapy water, coating the legs with petroleum jelly or double-sided sticky tape. Bed bugs cannot climb polished glass or
metal easily and they don’t fly. Legs of beds can also be placed inside glass jars or metal cans. Heating to 50 degrees C, or freezing to below 0 will kill most bed bugs.

Chemical control

**Doom dual Action Fogger Insecticide** *(made by Robertsons homecare, and contains pyrethroid active ingredients)* lasts for about 6 months. Also kills adult cockroaches. Ignite and let smolder for 2-3 hours.

**TERMITES**

General information

Termites are small white, tan or black insects that can cause severe destruction to wooden structures. They belong to the insect order Isoptera, dating back more than 100 million years. Although many people think termites have only negative impacts, in nature they make positive contributions to the world’s ecosystems. Their greatest contribution is the role they play in recycling wood and plant material. Their tunneling efforts also help to ensure that soil are porous, contain nutrients and are healthy enough to support plant growth. Termites are very important in the Sahara desert where their activity helps to reclaim soils damaged by drying heat and wind and overgrazing by livestock.

Termites have become a problem where they consume structural timber. Termites may also damage utility poles, food, books and household furniture.

Termites are social and can form large nests or colonies consisting of very different looking individuals (castes). Physically, the largest individual is the queen. Her function is to lay eggs, sometimes thousands in a single day. A king is always at her side. Other individuals have large heads with powerful jaws, or a bulblike head that squirts liquid. These individuals are called soldiers. The largest groups of termites in a colony are the workers. They work long hours tending to the queen, building the nest or gathering food. While other species of social insects have workers, termites are unique in that they have both male and female workers. Termites can be long-lived: queens and kings can live for decades while individual workers can survive several years.
Management

Successful termite management requires special skills including a working knowledge of building construction and an understanding of termite biology. An integrated program is required to manage termites. Combine methods such as modifying habitats, excluding termites from the building by physical and chemical means, and using mechanical and chemical means to destroy existing colonies.

Inspection: Before beginning a control program, thoroughly inspect the building. Verify that there are termites, identify them, and assess the extent of their infestation and damage. Look for conditions in and around buildings that promote termite attack, such as excessive moisture or wood in contact with the soil.

Mechanical control

Prevention: Building design may contribute to termite invasion. Keep all sub structural wood at least 30 cm above the soil beneath the building. Alternatively, sink subterranean wood in concrete as a barrier against termites. Identify and correct other structural deficiencies that attract or promote termite infestations. Keep foundation areas well ventilated and dry. Reduce chances of infestation by removing or protecting any wood in contact with the soil. Look for and remove tree stumps, stored wood, untreated fence posts and buried scrap wood near the structure that may attract termites.

Foundation sand barriers can be used for subterranean termite control. Sand with particle size in the range of 10-16 mesh is used to replace soil around the foundation of a building. Subterranean termites are unable to construct their tunnels through the sand and therefore cannot invade wooden structures resting on the foundation.

Chemical control

Pre-infection treatment of wood: Wood used in foundations and other wood in contact with the soil may be chemically treated to help protect against termite damage in areas where building designs cannot be altered or concrete or sand cannot be used. Treated wood is toxic to termites and discourages new kings and queens from establishing colonies in it. If susceptible wood is used above the treated wood, subterranean termites can build their shelter tubes over
chemically treated wood and infest untreated wood above. Use only “exterior grade” treated wood for areas that are exposed to weather; otherwise the chemical that is in the wood may leach from the wood. All topical (applied to wood by painting on) treatments that will be exposed to weather must also have a sealer coat to prevent leaching into the soil following rain. Also, because they contain pesticides, disposal of treated wood requires special handling.

CCA (chromated copper arsenate) can be used to treat wood prior to construction. It gives the wood a green tint. Although this is a natural poison, it will not leach much into the soil.

Creosote is a natural treatment. Wood can be soaked in a hot bath (almost boiling) of creosote until it has penetrated 1/3 of the way into the wood.

Post-infection treatment of wood: Subterranean termites in structures cannot be adequately controlled by fumigation, heat treatment or freezing because the reproductives or nymphs are concentrated below ground level in structures out of reach of these control measures. The primary methods of controlling these termites are the application of insecticides. Treating infested wood in a structure requires drilling and injecting chemicals into the wood to reach the colony. Alternatively, the infested wood can be sprayed liberally with the insecticide (Premise). Spray wood at least 1 m above ground level, and spray the soil all around the infected wooded structure. Use of insecticides should be supplemented with the destruction of their access points or nests. To facilitate control of subterranean termites, destroy their shelter tubes whenever possible to interrupt access to wooden substructures and to open colonies to attack from natural enemies such as ants.

Treatment of soil: Insecticides are applied to the soil either in drenches or by injection. Special hazards are involved when applying insecticides to the soil around and under buildings. Applications in the wrong place can cause insecticide contamination of plumbing used for water under the treated building. Soil type, weather and application techniques influence the mobility of insecticides in the soil. Soil applied insecticides must not leach through the soil profile to contaminate groundwater.

Premise (made by Bayer) is effective in combating subterranean termites. It is expensive, but very concentrated and long lasting. One application should be effective for up to 6 years. Dilute as specified (350g/l) and apply in a trench around the building along foundations (6 x 6 inches
wide). For existing buildings, apply 3 – 6 l per linear meter (trench treatment). Where possible, treat similarly treat inside along outer foundation walls (suspended floors), of, if impossible, (solid floors), drill through floor adjacent to our foundation walls, flood soil below by injecting emulsion through holes and seal. Ensure that soil along the whole length of the foundation walls, is thoroughly treated. For new buildings, prior to construction, apply as an overall drench to soil under floor area at 5l per square meter. Use higher rate on heavy (clay eg. basalt) soils. Apply to bottom of foundation and service trenches, and to soil on both sides of outer foundation walls at 6l per linear meter (trench treatment).

For infested wooden structures, apply Premise in a spray (mix as above) liberally to the infested wood, and surrounding soil.

ANTS

General information

Ants are among the most prevalent pests in the household. They are found in any environment where they have food and water. Once ants have established a colony inside or near a building, they may be difficult to control. On outdoor (and sometimes indoor) plants, ants protect and care for honeydew-producing insects such as aphids, increasing damage from these pests. Ants also perform many useful functions in the environment, such as feeding on other pests (e.g. Fleas, caterpillars and termites), dead insects, and decomposing tissue from dead animals.

Ants are close relatives of bees and wasps, and are often confused with termites. Three main characteristics distinguish ants from termites:

- The ant’s abdomen is constricted where it joins the thorax, giving it the appearance of having a thin waist; the termites’ abdomen is broad where it joins the thorax.
- The ant’s hind wings are smaller than its front wings; the termites front and hind wings are about the same size (shortly after their flights to find new colonies, both ants and termites remove their wings so wings may not always be present)
- Winged female ants and worker ants have elbowed antennae; the termite’s antennae are never elbowed.
Ants undergo complete metamorphosis, passing through egg, larval, pupal and adult stages. Larvae are immobile and wormlike and do not resemble adults. Ants are social insects with duties divided among different types or castes of adult individuals. Queens conduct the reproductive functions of a colony and are larger than any other ants: they lay eggs and sometimes participate in the feeding and grooming of larvae. Female workers, who are sterile, gather food, feed and care for the larvae, build tunnels and defend the colony; these workers make up the bulk of the colony. Males do not participate in colony activities; their only apparent purpose is to mate with the queens. Few in number, the males are fed and cared for by the workers.

Inside a building, household ants feed on sugars, syrups, honey, fruit juice, fats and meats. Long trails of thousands of ants may lead from nests to food sources, causing considerable concern among building occupants. Outdoors they are attracted to sweet, sticky secretions, or honeydew, produced by aphids.

Ant usually nest in soil; nests are often found next to buildings, along sidewalks, or in close proximity to food sources such as trees and plants that harbor honeydew producing insects. They also construct nests under boards, stones, tree stumps or plants, and sometimes under buildings or other protected places.

Ants enter buildings seeking food and water, warmth and shelter, or a refuge from dry, hot weather or flooded conditions. They may appear suddenly in buildings of other food sources become unavailable or weather conditions change.

A new colony is typically established by a single newly mated queen. After weeks or months of confinement underground, she lays her first eggs. After the eggs hatch, she feeds the white, legless larvae with her own metabolized wing muscles and fat bodies until they pupate. Several weeks later the pupae transform into sterile female adult workers, and the first workers dig their way out of the nest to collect food for themselves, for the queen (who continues to lay eggs) and for subsequent broods of larvae. As numbers increase, new chambers and galleries are added to the nest. After a few years, the colony begins to produce winged male and female ants, which leave the nest to mate and form new colonies.
Management

Ant management requires diligent efforts and the combined use of mechanical, cultural, sanitation and sometimes chemical methods of control. It is unrealistic and impractical to attempt to totally eliminate ants from an outdoor area. Focus your management efforts on excluding ants from buildings and eliminating their food and water sources. Become aware of the seasonal cycle of ants in your area and be prepared for annual invasions by sealing the building in time.

Mechanical control

*Exclusion and sanitation:* To keep ants out of buildings, seal cracks and crevices around foundations that provide entry from the outside, using silicon. Ants prefer to make trails along structural elements, such as wires or pipes, and frequently use them to enter and travel within a structure to their destination. Indoors, eliminate cracks and crevices wherever possible especially in kitchens and other food preparation and storage areas. Store attractive food items such as sugar, syrup, honey and other sweets in closed containers that have been washed to remove residues from outer surfaces. Rinse out empty soft drink containers and remove them from the building. Thoroughly clean up grease and spills. Do not store rubbish indoors. Look for indoor nesting sites such as potted plants. If ants are found, remove containers from the building and submerge the pot for 20 minutes in standing water that contains a few droplets of liquid soap. Ant nests may be associated with plants that support large populations of honeydew-producing insects. Avoid planting such trees and shrubs near to buildings.

Chemical control

*Coopex ant dust* (made by AgrEvo) is the only chemical that is legal to use against ants in the Kruger National Park. Dust freely along runs and around nests, repeating where necessary. *Fendona* (see cockroach control) is also an effective and approved chemical used in ant control. *This however, is for use on man-made structures only, not for application to vegetation/in gardens etc.*
BEES

Bees play a vital role in the functioning of the ecosystem.

Management

Mechanical control

Bees can be smoked out in most cases. Once the bees have been removed, (either by smoke or pesticide), *Coltar* (carbolic acid) can be sprayed onto the area to get rid of the smell of the pheromones. If not removed, the pheromones could attract the bees back to the same place. *Jays fluid* can be applied to the area after the Coltar to further clean it. These can then be washed off using soapy water.

*Brown vinegar* is a bee repellent. Once bees have been removed, it can be applied directly to the area. Pieces of cloth swabbed in brown vinegar can be left in the area to repel the bees.

Chemical control

**It not policy for pesticides to be used to remove bees from any man-made structure except in extreme circumstances.** If the bees are posing a threat to humans and the option of smoking them out is not viable, the pesticide *Raidyard* can be used to kill the bees. This can be sprayed from 6m away to avoid danger to the person applying the pesticide. *Permethrin* spray is also a good repellant, and can be sprayed on the cleaned area to repel the bees from re-occupying the space.

SPIDERS

General information

Unlike mosquitoes, spiders do not seek people in order to bite them. Generally a spider doesn’t try to bite a person unless it is being squeezed, lain on or simply provoked to defend itself. Moreover, the jaws of most spiders are so small that the fangs cannot penetrate the skin of an adult person. Sometimes when a spider is disturbed in its web, it may bite instinctively because it mistakenly senses an insect has been caught.

Spiders are primarily beneficial and their activities should be encouraged in the garden. Pesticide control is difficult and rarely necessary. The best approach to controlling spiders in and around the home is to remove hiding spots for reclusive spiders and regularly clean webs off the house with brushes and vacuums.
Management

Mechanical control

Spiders may enter houses and other buildings through cracks and openings. They may also be carried in on plants, wood and boxes. Regular vacuuming or sweeping of windows, corners of rooms, storage areas and basements and other seldom used areas helps remove spiders and their webs. Vacuuming spiders can be an effective control technique because their soft bodies usually do not survive this process. Indoors, a web on which dust has gathered is an old web that is no longer being used by a spider.

Individual spiders can also be removed from indoor areas by placing a jar over them and slipping a piece of paper under the jar that then seals off the opening of the jar when it is lifted up.

To prevent spiders from coming indoors, seal crack in the foundation and other parts of the structure and gaps around windows and doors. Good screening will keep out spiders but will also keep out the insects that attract the spiders in the first place. In indoor storage spaces, place boxes off the floor and away from walls, where possible, to help reduce their usefulness as a harborage for spiders. Sealing the boxes with tape will prevent spiders from taking up residence within. Clean up clutter in garages, sheds, basements and other storage areas.

Outdoors, eliminate places for spiders to hid and build their webs be keeping the area next to the foundation free of trash, leaf litter, heavy vegetation and other accumulations of materials. Trimming plant growth away from buildings will discourage spiders from first taking up residence near the structure and then moving indoors. Outdoor lighting attracts insects, which in turn attracts spiders. If possible, keep lighting fixtures off structures and away from windows and doorways. Sweep, mop, hose and vacuum spiders and webs off buildings regularly.

Chemical control

Insecticides will not provide long-term control and should not generally be used against spiders. Pesticide control of spiders is difficult unless you actually see the spider and are able to spray it.
If you spray a spider, it will be killed only if the spray lands directly on it; the spray residual does not have a long-lasting effect. This means a spider can walk over a sprayed surface a few hours after treatment and not be effected. Control by spraying is only temporary if not accompanied by housekeeping. It is just as easy and much less toxic to catch and remove the spider from the building, or to simply vacuum it up.

**SCORPIONS**

General information

Scorpions are nocturnal, predatory animals that feed on a variety of insects, spiders and centipedes. Although they have two eyes in the centre of the head and usually from two to five more along the margin on each side, they do not see well and depend on touch. Scorpions that hide under stones and other objects during the day tend to carry their stinger to one side, whereas burrowing scorpions hold their stinger up over their backs.

Scorpions grow slowly. Depending on the species, they may take between 1-6 years to reach maturity. On average, scorpions may live 3-5 years, but some species can live as long as 10 – 15 years. Scorpions have an interesting mating ritual that may last several hours, with the male grasping the female’s pincers in his and leads her in a courtship dance. The male then deposits a sperm packet and maneuvers the female over it. The sperm packet is drawn into the females opening located near the front on the underside of her abdomen. The female stores the sperm packet, and the sperm is later used to fertilize the eggs. After mating, unless he is quick and able to escape, the male is often eaten by the female. Once impregnated, the gestation period may last several months to a year and a half, depending on the species. A single female may produce 25-35 young. Scorpions are born live and the young climb onto their mothers back. The young remain on their mother’s back until the first molt. They assume an independent existence once they leave their mothers back. Scorpions molt five or six times until they become fully grown adults.

Scorpions generally hunt at night using their stinger to paralyze prey. However, if the scorpion is strong enough to overpower its prey, instead of injecting venom, it will simply hold the prey and eat it alive. This conserves venom which can take up to 2 weeks to regenerate, during which time the scorpions' main defence is inactive. Outside during the day, scorpions hide in burrows or debris, under wood, stones or tree bark and under floors of buildings in crawl spaces.
Indoors, scorpions may be found in cracks and crevices of woodwork, behind baseboards, in closets and attics, and inside walls. Scorpions gain entry into buildings through poorly sealed doors and windows, cracks in foundations, vents that are not properly screened and through plumbing and other openings.

Management

Mechanical control

To prevent stinging encounters with scorpions, do not leave shoes, boots, clothing items or wet towels outdoors where scorpions can hide. Shake all clothing/bed linen and towels before use. Portable UV lights can be used to detect scorpions as they glow luminously under this light and are easily seen.

Outdoor lights attract insects and thus the scorpions that feed on insects. Yellow outdoor lighting is less attractive to insects and is recommended in areas where scorpions are prevalent. The first strategy for control is to modify the area surrounding a house because scorpions are difficult to control with insecticides. Use the following checklist to protect a building:

- Clean the area by removing all rubbish, logs, stones, brick and other objects from around the foundation of the building.
- Prune overhanging tree branches away from the house because they can provide a path to the roof for scorpions.
- Install weather stripping (rubber seal) around loose fitting doors, between doors and floors and around windows.
- Seal all eves, pipes and other cracks that allow entrance into the home.
- Make sure window screens fit tightly in the window frame and keep them in good repair.

How to safely capture a scorpion

Scorpions can be captured by placing a medium sized jar over the scorpion and sliding a sheet of heavy paper under the jar, trapping the scorpion. With the sheet of paper securely over the mouth of jar, invert the jar and the scorpion will fall to the bottom of the jar. Scorpions can also be picked up safely with forceps (10-12 inches) or with other long mechanical devices made for picking up small objects.
Chemical control

Chemical control of scorpions is not recommended. Apart from the unnecessary negative effects on the environment, pesticides are not very effective against scorpions as they hide in cracks and crevices during the daylight hours. Adult scorpions are difficult to kill with pesticides because of their larger body size and thicker cuticle.

SAFE AND EFFECTIVE PESTICIDE USE

All pesticides are considered to be potentially poisonous and must be handled accordingly. On the label of each remedy, the minimum requirements for safe handling are given.

In the case of many pesticides it is sufficient to follow a few basic rules. These may be summarized as follows:

- Wear rubber gloves when pouring or measuring a concentrate before dilution. This should be done in such a manner that any fumes or dust will drift away from the applicator.
- Immediately wash off any spillage on the body with soap and lots of water.
- Wear overall or other old clothing that will cover most of the body. These should be regularly washed especially when applying pesticide over an extended period of time.
- When applying, always keep out of the spray drift or dust cloud.
- Never smoke, eat or drink during application. Wash at least the hands and face before doing so, during a break.
- Take a bath after completing the application and change into clean clothes never continue with another job while still wearing clothes contaminated by a pesticide.

In the case of highly poisonous pesticides it is imperative that additional precautions be taken. Special protective clothing in good repair, rubber gloves and boots, headgear, goggles and mask or respirator must be worn. The eyes and respiratory tract must be adequately protected.
REFERENCES


STATEWIDE INTEGRATED PEST MANAGEMENT PROGRAM. 2004. UC IPM ONLINE. University of California; Agriculture and Natural Resources. .