



**EIA REFERENCE:** 16/3/3/1/B2/32/1084/18  
**NEAS REFERENCE:** WCP/EIA/0000518/2018  
**ENQUIRIES:** D'mitri Matthews  
**DATE OF ISSUE:** 2019 -05- 03

The Board of Directors  
Farmprops 53 (Pty) Ltd  
P. O. Box 13  
**BOTHA**  
6857

**Attention: Mr. Q. Stemmet**

Cell: 076 323 6655  
Email: quentin@bosjes.co.za

Dear Sir

**APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014, (AS AMENDED): EXPANSION OF AN EXISTING WATER STORAGE DAM (KLOOF DAM), THE CONSTRUCTION OF A WATER PIPELINE AND NEW CULVERTS AND THE DECOMMISSIONING OF DAMS AND WEIRS ON THE REMAINDER OF FARM NO. 218 AND PORTIONS 72, 81, 86 AND 87 OF FARM BOSJESMANS VALLEY NO. 218, WORCESTER**

1. With reference to the above application, the Department hereby notifies you of its decision to **grant** Environmental Authorisation, attached herewith, together with the reasons for the decision.
2. In terms of Regulation 4 of the Environmental Impact Assessment Regulations, 2014, (as amended), you are instructed to ensure, within 14 days of the date of the Environmental Authorisation, that all registered Interested and Affected Parties ("I&APs") are provided with access to and reasons for the decision, and that all registered I&APs are notified of their right to appeal.
3. Your attention is drawn to Chapter 2 of the National Appeal Regulations, 2014 (as amended), which prescribes the appeal procedure to be followed. This procedure is summarized in the attached Environmental Authorisation.

Yours faithfully

  
**MR. ZAHIR JOFEY**  
**DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)**  
**DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING**

CC: (1) Ms. S. de Kock (Cedarberg Environmental Assessment Practice) Fax: (087) 234 3434  
(2) Mr. J. Barnard (Witzenberg Municipality) Fax: (086) 523 6339  
(3) Ms. E. Rossouw (BGCMA) Fax: (086) 515 6323  
(4) Mr. C. van der Walt (Department of Agriculture) Fax: (021) 808 5092  
(5) Ms. P. Huntly (CapeNature) Fax: (021) 866 1523



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## **ENVIRONMENTAL AUTHORISATION**

**APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): EXPANSION OF AN EXISTING WATER STORAGE DAM (KLOOF DAM), THE CONSTRUCTION OF A WATER PIPELINE AND NEW CULVERTS AND THE DECOMMISSIONING OF DAMS AND WEIRS ON THE REMAINDER OF FARM NO. 218 AND PORTIONS 72, 81, 86 AND 87 OF FARM BOSJESMANS VALLEY NO. 218, WORCESTER**

With reference to your application for the abovementioned, find below the outcome with respect to this application.

## **DECISION**

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in Section B below with respect to the Design Alternative 1 and Location Alternative 1, described in the Basic Assessment Report ("BAR"), dated 7 January 2019.

The applicant for this Environmental Authorisation is required to comply with the conditions set out in Section E below.

### **A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION**

Farmprops 53 (Pty) Ltd  
% Mr. Q. Stemmet  
P. O. Box 13

**BOTHA**  
6857

Cell: 076 323 6655  
Email: [quentin@bosjes.co.za](mailto:quentin@bosjes.co.za)

The abovementioned applicant is the holder of this Environmental Authorisation and is hereinafter referred to as “the holder”.

## B. LIST OF ACTIVITIES AUTHORISED

Listed activities	Activity/Project Description
<p>EIA Regulations Listing Notice 1 of 2014: Activity Number 12: The development of—</p> <p>(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or</p> <p><b>(ii) infrastructure or structures with a physical footprint of 100 square metres or more;</b></p> <p>where such development occurs—</p> <p><b>(a) within a watercourse;</b></p> <p>(b) in front of a development setback; or</p> <p><b>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; —</b></p> <p>excluding—</p> <p>(aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;</p> <p>(bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;</p> <p>(cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;</p> <p>(dd) where such development occurs within an urban area;</p> <p>(ee) where such development occurs within existing roads, road reserves or railway line reserves; or</p> <p>(ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.</p>	<p>New infrastructure including pipelines will be constructed as part of the proposal will be located within and adjacent to watercourses and will exceed the 100m<sup>2</sup> threshold.</p>
<p>Activity Number 19: The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;</p>	<p>The proposal entails the decommissioning of existing in-stream dams, the expansion of an in-stream dam and associated infrastructure, the construction of nine culverts within watercourses and the construction of a new pipeline, within the Bobbejaans River, which will require both infilling and movement of material exceeding 10m<sup>3</sup>.</p>

<p>but excluding where such infilling, depositing, dredging, excavation, removal or moving—</p> <ul style="list-style-type: none"> <li>a. will occur behind a development setback;</li> <li>b. is for maintenance purposes undertaken in accordance with a maintenance management plan;</li> <li>c. falls within the ambit of activity 21 in this Notice, in which case that activity applies;</li> <li>d. occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</li> <li>e. where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.</li> </ul>	
<p>Activity Number 27: The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for—</p> <ul style="list-style-type: none"> <li>(i) the undertaking of a linear activity; or</li> <li>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</li> </ul>	<p>The proposed expanded in-stream dam will inundate an area of approximately 5,25ha, which contains indigenous vegetation.</p>
<p>Activity Number 48: The expansion of—</p> <ul style="list-style-type: none"> <li>(i) infrastructure or structures where the physical footprint is expanded by 100 square metres or more; or</li> <li><b>(ii) dams or weirs, where the dam or weir, including infrastructure and water surface area, is expanded by 100 square metres or more;</b></li> </ul> <p>where such expansion occurs—</p> <p><b>(a) within a watercourse;</b></p> <ul style="list-style-type: none"> <li>(b) in front of a development setback; or</li> <li>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;</li> </ul> <p>excluding—</p> <ul style="list-style-type: none"> <li>(aa) the expansion of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;</li> <li>(bb) where such expansion activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;</li> </ul>	<p>The existing in-stream dam will be expanded by more than 100m<sup>2</sup>.</p>

<p>(cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;</p> <p>(dd) where such expansion occurs within an urban area; or</p> <p>(ee) where such expansion occurs within existing roads, road reserves or railway line reserves.</p>	
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The abovementioned list is hereinafter referred to as **"the listed activities"**.

The holder is herein authorised to undertake the following alternative:

The proposal entails the expansion of the existing in-stream Kloof Dam, the decommissioning of nine existing dams, the construction of a new pipeline, the construction of culverts over the Bobbejaans River and the ephemeral stream and the removal of both the existing weir downstream of the existing Kloof Dam and the weir/diversion structure located further downstream of the aforementioned weir.

The enlarged Kloof Dam will have the following specifications:

- Storage capacity: 480 000m<sup>3</sup>
- Wall height: 32m
- Crest length: 305m
- Development footprint: 5,25ha

**C. SITE DESCRIPTION AND LOCATION**

The listed activities will be undertaken on the remainder of Farm No. 218 and Portions 72, 81, 86 and 87 of Farm Bosjesmans Valley No. 218, Worcester, at the following co-ordinates:

Expanded Kloof Dam:

Latitude (S)	Longitude (E)
33° 33' 06.81"	19° 17' 10.00"

In-stream dams to be decommissioned:

Werkers Dam:

Latitude (S)	Longitude (E)
33° 33' 06.70"	19° 16' 03.37"

Creche Dam:

Latitude (S)	Longitude (E)
33° 33' 07.27"	19° 15' 50.34"

Existing weirs/diversion structures to be removed:

Weir:

Latitude (S)	Longitude (E)
33° 33' 10.13"	19° 16' 58.17"

Diversion structure/weir:

Latitude (S)	Longitude (E)
33° 33' 14.12"	19° 16' 42.21"

Culverts to be constructed:

R1:

Latitude (S)	Longitude (E)
33° 33' 09.30"	19° 17' 06.72"

R2:

Latitude (S)	Longitude (E)
33° 33' 10.41"	19° 16' 58.16"

R3:

Latitude (S)	Longitude (E)
33° 33' 12.14"	19° 16' 51.78"

R4:

Latitude (S)	Longitude (E)
33° 33' 12.93"	19° 16' 45.87"

R5:

Latitude (S)	Longitude (E)
33° 32' 54.84"	19° 16' 26.49"

R6:

Latitude (S)	Longitude (E)
33° 33' 00.56"	19° 16' 14.64"

R7:

Latitude (S)	Longitude (E)
33° 33' 02.18"	19° 16' 08.06"

R8:

Latitude (S)	Longitude (E)
33° 33' 07.20"	19° 15' 48.28"

R9:

Latitude (S)	Longitude (E)
33° 33' 13.53"	19° 15' 38.88"

400mm diameter pipeline to be constructed:

Starting Point

Latitude (S)	Longitude (E)
33° 33' 09.33"	19° 17' 06.50"

Middle Point

Latitude (S)	Longitude (E)
33° 33' 11.72"	19° 16' 53.62"

End Point:

Latitude (S)	Longitude (E)
33° 33' 14.17"	19° 16' 41.46"

The SG digit codes are: C08500000000021800000  
C08500000000021800072  
C08500000000021800081  
C08500000000021800086  
C08500000000021800087

Refer to Annexure 1: Locality Map and Annexure 2: Site Development Plan.

The above is hereinafter referred to as "**the site**".

#### D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Cedarberg Environmental Assessment Practice  
% Ms. S. de Kock  
P. O. Box 367  
**PRIESKA**  
8940

Cell: (082) 679 6780  
Fax: (087) 234 3434

#### E. CONDITIONS OF AUTHORISATION

##### Scope of authorisation

1. The holder is authorised to undertake the listed activities specified in Section B above in accordance with, and restricted to, Design Alternative 1 and Location Alternative 1 described in the BAR dated 7 January 2019 at the site as described in Section C above.
2. The holder must commence with the listed activities on site within a period of **five (5) years** from the date of issue of this Environmental Authorisation.
3. The development must be concluded within **10 years** from the date of commencement of the first listed activity.
4. The holder shall be responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.
5. Any changes to, or deviations from the scope of the alternative described in Section B above must be accepted or approved, in writing, by the Competent Authority before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the Competent Authority may request information, in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.

### **Written notice to the Competent Authority**

6. Seven calendar days' notice, in writing, must be given to the Competent Authority before commencement of construction activities. The notice must:

- 6.1 make clear reference to the site details and EIA Reference number given above; and
- 6.2 include proof of compliance with the following conditions described herein:

Conditions: 7, 10 and 12

### **Notification and administration of appeal**

7. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision–

- 7.1 notify all registered Interested and Affected Parties ("I&APs") of –
  - 7.1.1 the outcome of the application;
  - 7.1.2 the reasons for the decision as included in Annexure 3;
  - 7.1.3 the date of the decision; and
  - 7.1.4 the date when the decision was issued.

7.2 draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations, 2014 (as amended) detailed in Section G below;

7.3 draw the attention of all registered I&APs to the manner in which they may access the decision; and

- 7.4 provide the registered I&APs with:
  - 7.4.1 the name of the holder (entity) of this Environmental Authorisation;
  - 7.4.2 name of the responsible person for this Environmental Authorisation;
  - 7.4.3 postal address of the holder;
  - 7.4.4 telephonic and fax details of the holder;
  - 7.4.5 e-mail address, if any, of the holder; and
  - 7.4.6 contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the 2014 National Appeals Regulations (as amended).

8. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the applicant notifies the registered I&APs of this decision. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided i.e. the listed activities, including site preparation, must not commence until the appeal is decided.

### **Management of activity**

9. The draft Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.



10. The Maintenance Management Plan ("MMP") submitted as part of the final BAR must be amended and submitted to the Department for approval, prior to the commencement of construction activities. The amended MMP must include the description of maintenance activities required for the proposed enlarged dam, pipeline crossing or the culverts. In addition, method statements describing the manner in which maintenance will be undertaken for the aforementioned structures and infrastructure. The amended MMP must include the following:
  - 10.1 Removal of sediment/debris build up within the dam and at newly constructed culverts;
  - 10.2 Maintenance activities associated with the possible repair to the dam, culverts and pipeline; and
  - 10.3 Measures such as reshaping of bed and banks caused by erosion.
11. The EMPr must be included in all contract documentation for all phases of implementation.

### **Monitoring**

12. The holder must appoint a suitably experienced environmental control officer ("ECO"), or site agent where appropriate, before commencement of any land clearing or construction activities to ensure compliance with the EMPr and the conditions contained herein.
13. A copy of the Environmental Authorisation, EMPr, audit reports and compliance monitoring reports must be kept at the site of the authorised activity, and must be made available to anyone on request, including on a publicly accessible website.
14. Access to the site referred to in Section C must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.

### **Auditing**

15. In terms of Regulation 34 of the NEMA EIA Regulations, 2014 (as amended), the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation, the EMPr and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Report must be prepared by an independent person and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014 (as amended).

The ECO must conduct fortnightly site audits. Bi-monthly ECO Audit Reports must be submitted to the Competent Authority for the construction phase. The final Environmental Audit Report must be submitted to the Competent Authority three months after construction is completed.

The holder must, within 7 days of the submission of each of the above-mentioned reports to the Competent Authority, notify all potential and registered I&APs of the submission and make the report available to anyone on request and on a publicly accessible website (if applicable).

10. The Maintenance Management Plan ("MMP") submitted as part of the final BAR must be amended and submitted to the Department prior to the commencement of construction activities. The amended MMP must include the description of maintenance activities required for the proposed enlarged dam, pipeline crossing or the culverts. In addition, method statements describing the manner in which maintenance will be undertaken for the aforementioned structures and infrastructure. The amended MMP must include the following:
  - 10.1 Removal of sediment/debris build up within the dam and at newly constructed culverts;
  - 10.2 Maintenance activities associated with the possible repair to the dam, culverts and pipeline; and
  - 10.3 Measures such as reshaping of bed and banks caused by erosion.
11. The EMPr must be included in all contract documentation for all phases of implementation.

### **Monitoring**

12. The holder must appoint a suitably experienced environmental control officer ("ECO"), or site agent where appropriate, before commencement of any land clearing or construction activities to ensure compliance with the EMPr and the conditions contained herein.
13. A copy of the Environmental Authorisation, EMPr, audit reports and compliance monitoring reports must be kept at the site of the authorised activity, and must be made available to anyone on request, including on a publicly accessible website.
14. Access to the site referred to in Section C must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.

### **Auditing**

15. In terms of Regulation 34 of the NEMA EIA Regulations, 2014 (as amended), the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation, the EMPr and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Report must be prepared by an independent person and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014 (as amended).

The ECO must conduct fortnightly site audits. Bi-monthly ECO Audit Reports must be submitted to the Competent Authority for the construction phase. The final Environmental Audit Report must be submitted to the Competent Authority three months after construction is completed.

The holder must, within 7 days of the submission of each of the above-mentioned reports to the Competent Authority, notify all potential and registered I&APs of the submission and make the report available to anyone on request and on a publicly accessible website (if applicable).

## **Specific Conditions**

16. Should any heritage remains be exposed during excavations or any other actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape. Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape.

Heritage remains include: meteorites, archaeological and/or paleontological remains (including fossil shells and trace fossils); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artefacts and bone remains; structures and other built features with heritage significance; rock art and rock engravings; and/or graves or unmarked human burials including grave goods and/or associated burial material.

17. A qualified archaeologist and/or palaeontologist must be contracted where necessary (at the expense of the holder) to remove any heritage remains. Heritage remains can only be disturbed by a suitably qualified heritage specialist working under a directive from the relevant heritage resources authority.

## **F. GENERAL MATTERS**

1. Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.
2. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.
3. If the holder does not commence with the listed activities within the period referred to in Condition 2, this Environmental Authorisation shall lapse for that activity, and a new application for Environmental Authorisation must be submitted to the Competent Authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment in this regard must be made to the Competent Authority prior to the expiry date of the Environmental Authorisation.
4. The holder must submit an application for amendment of the Environmental Authorisation to the Competent Authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for Amendment in terms of Part 1 of the EIA Regulations, 2014 (as amended) must be submitted.

Please note that an amendment is not required if there is a change in the contact details of the holder. In this case, the Competent Authority must only be notified of such changes.

5. The manner and frequency for updating the EMPr is as follows:  
Amendments to the EMPr must be done in accordance with Regulations 35 to 37 of the EIA Regulations, 2014 (as amended) or any relevant legislation that may be applicable at the time.

## G. APPEALS

Appeals must comply with the provisions contained in the National Appeal Regulations 2014 (as amended).

1. An appellant (if the holder of the decision) must, within 20 (twenty) calendar days from the date on which notification of the decision was sent to the holder by the Competent Authority –
  - 1.1. submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 (as amended) to the Appeal Administrator; and
  - 1.2. submit a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.
2. An appellant (if NOT the holder of the decision) must, within 20 (twenty) calendar days from the date on which the holder of the decision sent notification of the decision to the registered I&APs–
  - 2.1. submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 (as amended) to the Appeal Administrator; and
  - 2.2. submit a copy of the appeal to the holder of the decision, any registered I&AP, any Organs of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.
3. The holder of the decision (if not the appellant), the decision-maker that issued the decision, the registered I&AP and the Organs of State must submit their responding statements, if any, to the appeal authority and the appellant within 20 (twenty) calendar days from the date of receipt of the appeal submission.
4. The appeal and the responding statement must be submitted to the address listed below:

By post:                      Western Cape Ministry of Local Government, Environmental Affairs and  
Development Planning  
Private Bag X9186  
CAPE TOWN  
8000

By facsimile:              (021) 483 4174; or

By hand:                      Attention: Mr Jaap de Villiers (Tel: 021 483 3721)  
Room 809  
8<sup>th</sup> Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

**Note:** For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to Jaap.DeVilliers@westerncape.gov.za.

5. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from Appeal Authority at: Tel. (021) 483 3721, E-mail Jaap.DeVilliers@westerncape.gov.za or URL <http://www.westerncape.gov.za/eadp>.

#### H. DISCLAIMER

The Western Cape Government, the Local Authority, committees or any other public authority or organisation appointed in terms of the conditions of this Environmental Authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is appreciated.

Yours faithfully

  
\_\_\_\_\_

**MR. ZAAHIR TOEFY**

**DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)**

**DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING**

DATE OF DECISION: \_\_\_\_\_

CC: (1) Ms. S. de Kock (Cedarberg Environmental Assessment Practice)  
(2) Mr. J. Barnard (Witzenberg Municipality)  
(3) Ms. E. Rossouw (BGCMA)  
(4) Mr. C. van der Walt (Department of Agriculture)  
(5) Ms. P. Huntly (CapeNature)

Fax: (087) 234 3434  
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Fax: (021) 866 1523

**ANNEXURE 1: LOCALITY MAP**



Figure 1: Locality map indicating the location of the enlarged dam.



## ANNEXURE 2: SITE DEVELOPMENT PLAN

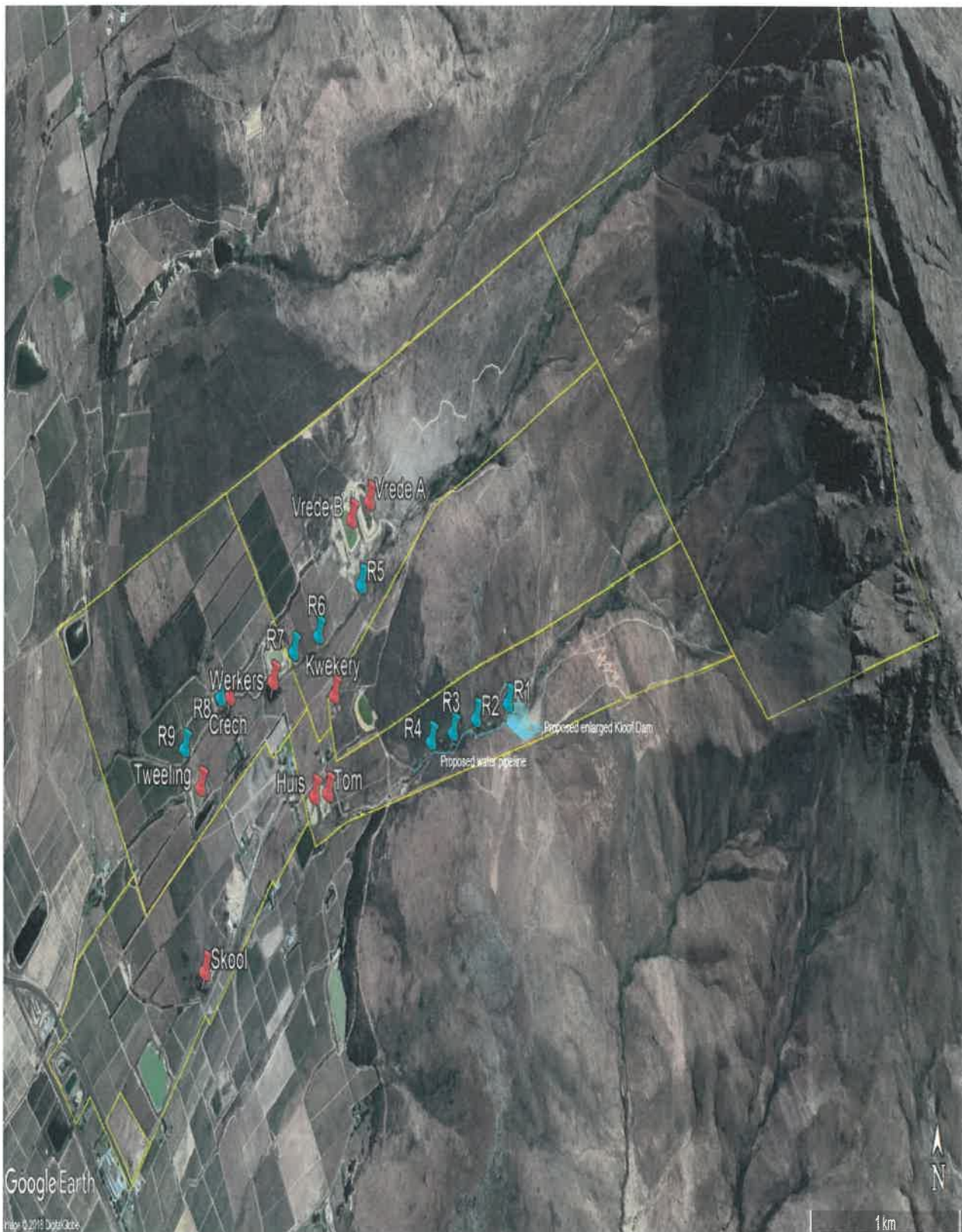


Figure 2: Indicates the location of the culverts (light blue polygons) to be constructed, the dams to be decommissioned (red polygons) and the new pipeline (blue line).

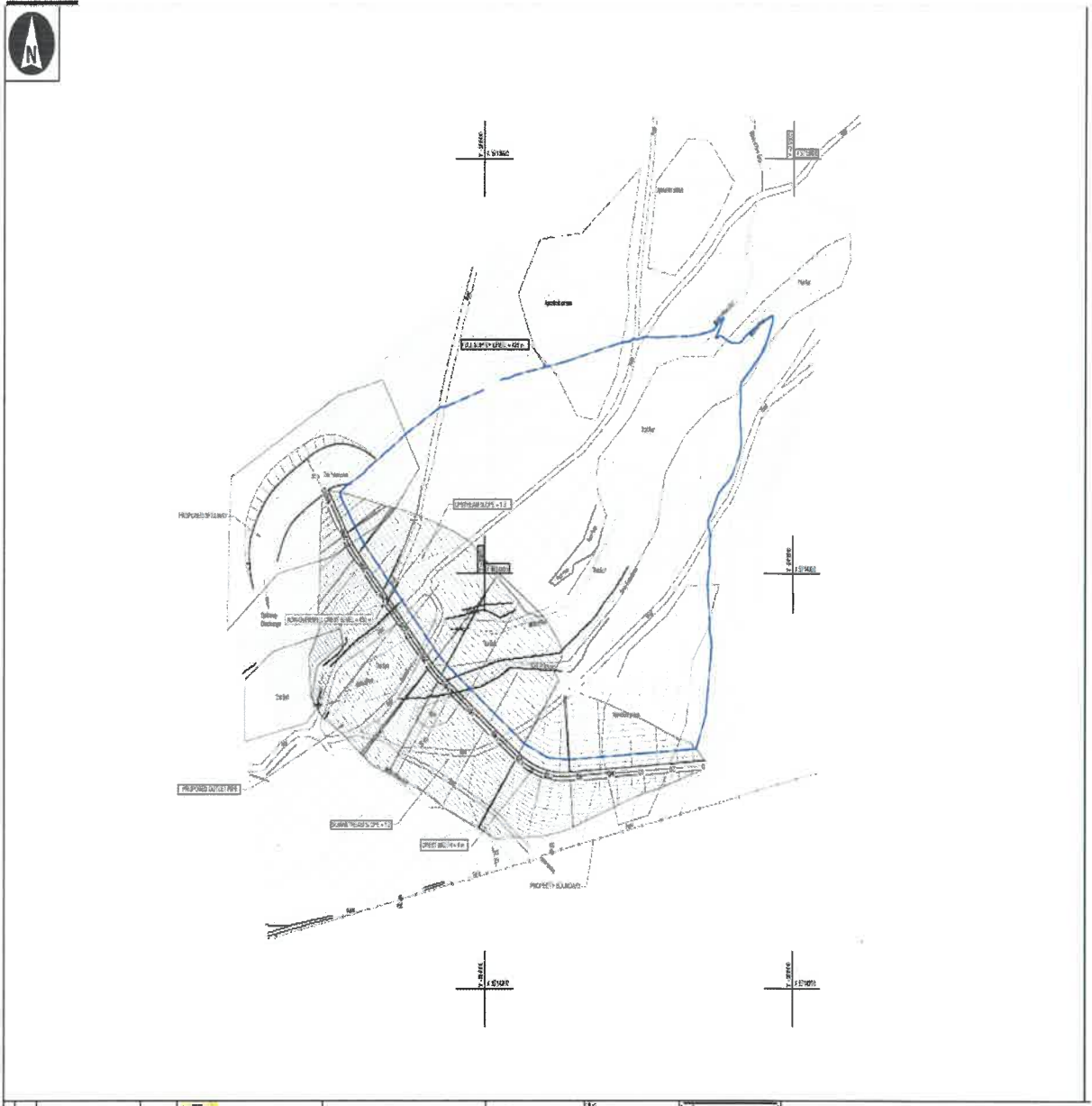


Figure 3: Depicting the site development plan for the expanded dam.



## **ANNEXURE 2: REASONS FOR THE DECISION**

In reaching its decision, the Competent Authority considered, amongst others, the following:

- a) The information contained in the Application Form dated 1 November 2018, the final BAR dated 7 January 2019 and the EMPr submitted together with the final BAR;
- b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation and Alternatives (dated March 2013);
- c) The objectives and requirements of relevant legislation, policies and guidelines, including Section 2 of NEMA;
- d) The comments received from I&APs and responses to these, included in the BAR dated 7 January 2019; and
- e) The balancing of negative and positive impacts and proposed mitigation measures.

No site visits were conducted. The Competent Authority had sufficient information before it to make an informed decision without conducting a site visit.

All information presented to the Competent Authority was taken into account during the consideration of the application for Environmental Authorisation. A summary of the issues that were considered to be the most significant for the decision is set out below.

### **1. Public Participation**

The public participation process included:

- identification of and engagement with I&APs;
- fixing a notice board at the site where the listed activities are to be undertaken on 4 September 2018;
- giving written notice to the owners and occupiers of land adjacent to the site where the listed activities are to be undertaken, the municipality and ward councillor, and the various Organs of State having jurisdiction in respect of any aspect of the listed activities, on 4 September 2018 and 1 November 2018;
- the placing of a newspaper advertisement in the 'Worcester Standard' on 6 September 2018; and
- making the pre-application draft BAR available to I&APs for public review from 6 September 2018 and the in-process draft BAR from 6 November 2018.

All the concerns raised by I&APs were responded to and addressed during the public participation process. Specific management and mitigation measures have been considered in this Environmental Authorisation and EMPr, in order to address the concerns raised.

The Competent Authority notes the Environmental Assessment Practitioner's responses to the issues raised during the public participation process and has included appropriate conditions in this Environmental Authorisation and in the EMPr.

## 2. Alternatives

Two location alternative dam sites were investigated, with both dams having a capacity of 480 000m<sup>3</sup>, the locations are discussed below:

### Location Alternative 1 (Herewith Authorised):

This alternative entails the expansion of the existing in-stream Kloof dam within the Bobbejaans River on Portion 81 of Farm Bosjesmans Valley No. 218. Nine existing dams will be decommissioned, a new pipeline will be constructed, culverts over the Bobbejaans River and the ephemeral stream will be constructed and the removal of both the existing weir downstream of the existing Kloof Dam and the weir/diversion structure located further downstream of the aforementioned weir.

This location is preferred because Geotechnical sampling and testing undertaken confirmed that the core material within the dam basin is acceptable. The catchment of the Bobbejaans River has sufficient water available to fill the enlarged dam.

### Location Alternative 2:

This alternative entails the expansion of an existing dam (Vrede Dam B) on Portion 87 of Farm Bosjesmans Valley No. 218.

This location is not preferred since the Geotechnical sampling and testing revealed that the material within the dam basin is more dispersive resulting in stability problems, hence the current leaking of the existing two dams. The catchment of this dam site does not have sufficient water to fill the enlarged dam and it would be more expensive to construct compared to Location Alternative 1.

Two design alternatives dictated by the position of the centreline of the dam, was investigated for the expansion of the in-stream dam within the Bobbejaans River. The position and design specifications are discussed below:

### Design Alternative 1 (Herewith Authorised):

This alternative entails expanding in-stream, by positioning the dam centreline upstream of the existing dam, which results in the design specifications:

- Dam wall height: 32m
- Capacity: 480 000m<sup>3</sup>
- Crest length: 305m
- Flooded area at FSL: 3,8ha
- Development footprint: 5,2ha

This alternative is preferred because approximately 40-50% of the area within the dam basin has been previously cultivated, it meets the required storage capacity and acceptable core material. Additionally, this option is not limited by the boundary of the property.

### Design Alternative 2:

This alternative entails expanding in-stream, by positioning the dam centreline downstream of the existing dam, which results in the design specifications

- Dam wall height: 16m
- Capacity: 155 000m<sup>3</sup>

- Crest length: 214m
- Flooded area at FSL: 1,9ha
- Flooded area at FSL: 2,6ha

This alternative is not preferred because it will not achieve the desired storage capacity because the size of the dam will be limited by the southern property boundary.

#### "No-Go" Alternative

The "no-go" option was considered and is not preferred, because the ongoing and unsuccessful maintenance/repair of leaking dams will prevail. The availability of water during the summer months will not be achieved and there will be no improvement in terms of water resource management and water use on the property.

### **3. Impact Assessment and Mitigation measures**

#### 3.1 Activity Need and Desirability

At present, irrigation water is stored in various dams across the properties owned by the applicant. Some of these dams are leaking, even though attempts have been made to repair and maintain these, it was unsuccessful. The purpose of the proposal is to decommission nine of the dams and expand the Kloof Dam to secure and increase the efficiency of water storage on the property. The proposed development will promote water efficiency and enhance the economic viability of the farm. The expanded dam will reduce pumping costs since the irrigation will be gravity fed. No additional water rights will be required since the proposal is restricted to the storage of water for which water rights have already been granted. Furthermore, the development is consistent with the surrounding land use, with in-stream storage dams providing the requisite water supply to support the farming activities.

#### 3.2 Biodiversity and Biophysical Impacts

According to the Botanical Impact Assessment dated 3 April 2017, compiled by Nick Helme of Nick Helme Botanical Surveys, the dam site comprises Breede Shale Fynbos, an ecosystem classified as least threatened in terms of Section 52 of the National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) ("NEMBA"). The site does not form part of a critical biodiversity area and approximately 1,2ha within the dam footprint has been previously cultivated. Most of the area was burnt by a wild fire in February 2016, which altered the vegetation composition on site. Four bulb species of conservation concern were recorded within or close to the dam and pipeline area, however, all four bulbs have significantly larger populations and are well presented within the property. Through the implementation of the EMPr (accepted in Condition 9), impacts on vegetation will be limited.

According to the Freshwater Resource Ecological Assessment dated January 2017 (amended January 2018), compiled by Scientific Aquatic Services cc, two watercourses and one hillslope seep wetland were identified in the study area. The present ecological state of the perennial Bobbejaans River and ephemeral have been largely modified through abstraction and water diversion. The Bobbejaans River has a high ecological importance and sensitivity and the ephemeral stream is considered to be of moderate importance. Currently, during the drier months, there is no flow downstream of the diversion weir within the Bobbejaans river, with the weir only overflowing during the wetter winter months. The hillslope seep wetland's present ecological state is moderate, with a moderately high ecological importance and sensitivity. The hillslope seep wetland is hydrologically connected to the ephemeral stream, however, gully formation has resulted in less seepage to the hillslope seep, which has significantly impacted the hydraulic

regime. The expanded dam will have no impact on the hillslope seep and the ephemeral stream will only be impacted by the decommissioning activities and construction of culverts over the stream. Through the implementation of the EMPr (accepted in Condition 9), removal of both diversion/weir structures, decommissioning of in-stream dams and the specific design of the expanded dam, the ecological functioning of the ephemeral drainage line and Bobbejaans River, downstream of the enlarged dam will be improved.

In addition, CapeNature has agreed with the findings and mitigation measures as stipulated in the Freshwater Resource Ecological Assessment and Botanical Impact Assessment and has no objection with respect to the location of the proposed dam expansion.

Furthermore, a Water Use Licence Application ("WULA") in terms of the National Water Act, 1998 (Act 38 of 1998) has been submitted to the Breede Gouritz Catchment Management Agency, for the proposed expanded dam, decommissioning of dams and construction of culverts.

The development will result in both negative and positive impacts.

**Negative Impacts:**

- Limited vegetation within the new dam footprint will be removed.
- Impacts to the Bobbejaans River are anticipated, however, adequate mitigation measures have been included in the EMPr and the removal of the existing weir/diversion structures will improve the ecological functioning downstream of the expanded dam.

**Positive impacts:**

- The proposed development will increase the efficiency of water storage on the farm i.e. the utilisation of allocated water rights to its full potential.
- The management of both water resources and water use will be improved.
- Temporary employment opportunities will be created during the construction phase.
- There will be a reduction in pumping costs since the irrigation will be gravity fed
- The ecological functioning of the Bobbejaans River downstream of the dam will be improved.
- Leaking dams will be decommissioned, which avoids continuous funds being spent to repair and maintain the dams.
- The availability of irrigation water during the summer months will no longer be a concern.

#### **4. National Environmental Management Act Principles**

The NEMA Principles (set out in Section 2 of the NEMA, which apply to the actions of all Organs of State, serve as guidelines by reference to which any Organ of State must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures; and
- the selection of the best practicable environmental option.

## 5. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMPr, the Competent Authority is satisfied that the proposed listed activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the NEMA and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

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