

**EIA REFERENCE NUMBER:** 16/3/3/1/F2/4/2048/20  
**NEAS REFERENCE NUMBER:** WCP/EIA/0000818/2020  
**ENQUIRIES:** Mr. R. Chambeau  
**DATE OF ISSUE:** 20 September 2021

The Director  
ALG Boerdery  
P.O. Box 8  
**CITRUSDAL**  
7340

**For Attention: Ms. G. van der Merwe**

Tel: (022) 921 3439  
E-mail: [gretchen@algestate.com](mailto:gretchen@algestate.com)

Dear Madam

**APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): THE PROPOSED DEVELOPMENT OF THE SWARTVLEI DAM AND ASSOCIATED INFRASTRUCTURE ON THE REMAINDER OF PORTION 1 OF FARM NO. 494, CLANWILLIAM.**

1. With reference to the above application, this Department hereby notifies you of its decision to **grant** Environmental Authorisation, 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 decision on the application, that all registered interested and affected parties ("I&APs") are provided with access to the decision 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 summarised hereunder.

Yours faithfully

**MR. ZAAHIR TOEFY**  
**DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)**

Copies to: (1) Mr. P. Badenhorst (GroenbergEnviro (Pty) Ltd)  
(2) Ms. T. Oberholzer (GroenbergEnviro (Pty) Ltd)  
(3) Mr. A. Booysen (Cederberg Municipality)

E-mail: [pbps@iafrica.com](mailto:pbps@iafrica.com)  
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## ENVIRONMENTAL AUTHORISATION

### APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): THE PROPOSED DEVELOPMENT OF THE SWARTVLEI DAM AND ASSOCIATED INFRASTRUCTURE ON THE REMAINDER OF PORTION 1 OF FARM NO. 494, CLANWILLIAM.

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 Site Alternative 1 (i.e. the Preferred Alternative), described in the Basic Assessment Report ("BAR") dated 04 June 2021.

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

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

The Director  
ALG Boerdery  
c/o Ms Grettchen van der Merwe  
P.O. Box 8  
**CITRUSDAL**  
7340

Tel: (022) 921 3439  
Email: [grettchen@algestate.com](mailto:grettchen@algestate.com)

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

## B. ACTIVITY AUTHORISED

Listed Activity	Activity/Project Description
<p>Listing Notice 1 of the EIA Regulations, 2014, (as amended):</p> <p>Activity Number: 13 Activity Description:</p> <p><i>“The development of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50 000 cubic metres or more, unless such storage falls within the ambit of Activity 16 in Listing Notice 2 of 2014.”</i></p>	<p>The proposed development entails the development of a dam for the storage of water with a capacity of 50 000 m<sup>3</sup> or more.</p>

The abovementioned list is hereinafter referred to as “the listed activity”.

The holder is herein authorised to undertake the following alternative that includes the listed activity relating to the authorised development. The proposed development will consist of:

The authorised development entails the development of the Swartvlei Dam on the Remainder of Portion 1 of Farm No. 494, Clanwilliam.

The proposed dam will have the following dimensions:

- Wall crest: 3 m
- Wall Length: 479.8 m
- Wall height: 4 m (with 0.9 m freeboard)

The proposed dam will have a capacity of approximately 74 390 m<sup>3</sup> and will have a development footprint (including wall) of approximately 4.34 ha in extent at full capacity.

The development will occur on the eastern side of the property on land previously transformed by agricultural practices. No additional infrastructure (such as a pipeline) will be required, as an existing pipeline from an existing borehole (where the water will be sourced from) will be used. The current access to the site is via an existing entry on an unnamed road.

## C. SITE DESCRIPTION AND LOCATION

The authorised listed activities will be undertaken on the Remainder of Portion 1 of Farm No. 494, Clanwilliam.

The 21-digit Surveyor General code for the proposed site is:

Remainder of Portion 1 of Farm No. 494, Clanwilliam	C0200000000049400001
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Site co-ordinate for the proposed site is:

Middle point	32° 40' 26.85" South	19° 03' 3.89" East
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Refer to Annexure 1: Locality Plan and Annexure 2: Site Development Plan.

The said section of land is hereinafter referred to as “**the site**”.

## D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

GroenbergEnviro (Pty) Ltd.  
c/o Mr. P. Badenhorst / Ms. Therina Oberholzer  
P.O. Box 1058  
**WELLINGTON**  
7654

Tel.: (021) 873 7228

Email: [pbps@iafrica.com](mailto:pbps@iafrica.com) / [therina@groenbergenviro.co.za](mailto:therina@groenbergenviro.co.za)

## 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 the Site Alternative 1 (i.e. the Preferred Alternative) described in the BAR dated 04 June 2021 on the site described in Section C above.
2. The holder must commence with the listed activities on the site within a period of **five (5) years** from the date of issue of this Environmental Authorisation.
3. The development/construction activities must be **concluded** within **ten (10) years** from the date of commencement of the listed activities.
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 alternatives described in section B above must be 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. A minimum of 7 (seven) calendar days' notice, in writing must be given to the Competent Authority before commencement of development activities.
  - 6.1. The notice must make clear reference to the site details and EIA Reference number given above.
  - 6.2. The notice must also include proof of compliance with the following conditions described herein:

Conditions: 7, 8, 11 and 15.2.2.

### 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 Appeal 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;
  - 7.4. Provide the registered I&APs with:
    - 7.4.1. 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,
    - 7.4.6. the 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 National Appeal Regulations, 2014 (as amended).
  8. The listed activities, including site preparation, must not be commenced with within 20 (twenty) calendar days from the date the holder 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 activity, including site preparation, must not be commenced with until the appeal is decided.

### **Management of activity**

9. The Environmental Management Programme ("EMPr") (compiled by GroenbergEnviro (Pty) Ltd and dated June 2021) submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.
10. The EMPr must be included in all contract documentation for all phases of implementation.

### **Monitoring**

11. The holder must appoint a suitably experienced Environmental Control Officer ("ECO") before commencing with development activities to ensure compliance with the provisions of the EMPr and the conditions contained in this Environmental Authorisation.
12. A copy of the Environmental Authorisation, EMPr, Environmental Audit Reports and compliance monitoring reports must be kept on the site of the authorised listed activity during the development phase, whereafter it must be kept at the office of the applicant and must be made available to any authorised person on request.
13. Access to the site referred to in Section C above must be granted and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see these for the purpose of assessing and/or monitoring compliance with the conditions contained herein.

### **Auditing**

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

- 14.1. The holder must undertake an environmental audit within 3 (three) months of the commencement of the listed activities and submit an Environmental Audit Report to the Competent Authority upon completion of the environmental audit.
- 14.2. A final Environmental Audit Report must be submitted to the Competent Authority within 1 (one) month after the completion of the development/construction activities.
- 14.3. The holder must, within 7 (seven) days of the submission of the Environmental Audit Report to the Competent Authority, notify all potential and registered I&APs of the submission and make the report available to a authorised person on request.

### **Specific conditions**

15. 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 ("HWC").
  - 15.1. Heritage remains include: meteorites, archaeological and/or palaeontological remains (including fossil shells and trace fossils); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; stone artifacts 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.
  - 15.2. In accordance with the Heritage Impact Assessment ("HIA") (compiled by Mr. Jonathan Kaplan of ACRM and dated November 2020), the recommendations of the HIA (as endorsed by HWC (in their correspondence dated 19 February 2021)), must be implemented:
    - 15.2.1. The Fossil Find Protocol must be implemented during the excavation activities; and
    - 15.2.2. Archaeological monitoring of the excavation of the dam basin with the collection of Stone Age material must be implemented under a work plan issued by HWC. Proof of submission of the work plan to HWC must be submitted prior to the commencement of the excavation activities.
16. Employment opportunities must be afforded to the local community (as far as possible) during all phases of the proposed development.

## **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 specified 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. An application for amendment of the Environmental Authorisation must be submitted 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 made 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 must –
  - 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 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 Organ 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 Organ 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 form/s must be submitted by means of one of the following methods:

By post: Attention: Mr. M. Venter  
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. M. Venter (Tel: 021 483 3721)  
Room 809  
8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

5. The prescribed appeal form, as well as assistance regarding the appeal processes is obtainable from the office of the appeal authority/ at: Tel. (021) 483 3721, E-mail [DEADP.Appeals@westerncape.gov.za](mailto:DEADP.Appeals@westerncape.gov.za) or URL <http://www.westerncape.gov.za/eadp>.

## H. DISCLAIMER

The Western Cape Government, the holder, 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 greatly appreciated.

Yours faithfully

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**MR. ZAAHIR TOEFY**  
**DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)**

**DATE OF DECISION: 20 September 2021**

Copies to: (1) Mr. P. Badenhorst (GroenbergEnviro (Pty) Ltd)  
(2) Ms. T. Oberholzer (GroenbergEnviro (Pty) Ltd)  
(3) Mr. A. Booyesen (Cederberg Municipality)

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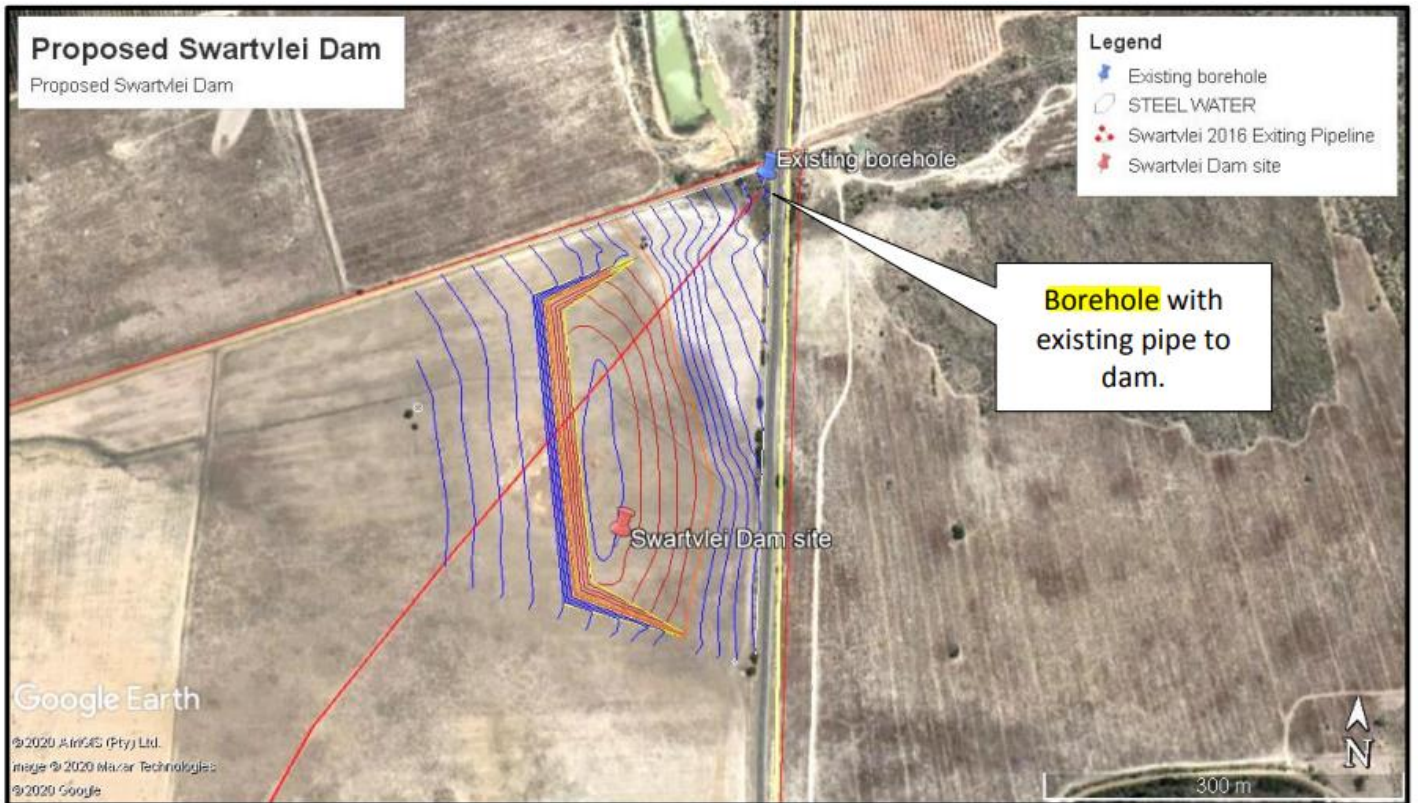
## ANNEXURE 1: LOCALITY MAP

The proposed site is located on the Remainder of Portion 1 of Farm No. 494, Clanwilliam.



## ANNEXURE 2: SITE PLAN

Site plan for the proposed construction of dam.



## ANNEXURE 3: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, inter alia, the following:

- a) The information contained in the application form dated 08 October 2020 and received by the competent authority on 12 October 2020, the BAR dated and received by the competent authority on 04 June 2021 and amended EMPr dated June 2021 and received by the competent authority on 18 June 2021;
- b) Relevant information contained in the Departmental information base, including, the Guidelines on Public Participation, Alternatives and Exemptions (dated March 2013);
- c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the NEMA;
- d) The comments received from I&APs and responses to these, included in the BAR dated 04 June 2021;
- e) The balancing of negative and positive impacts and proposed mitigation measures; and
- f) 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 in the consideration of the application for environmental authorisation. A summary of the issues which, according to the competent authority, were the most significant reasons for the decision, is set out below.

### 1. Public Participation

The public participation process ("PPP") was undertaken in accordance with an approved Public Participation Plan (dated September 2020) and entailed the following:

- Identification of and engagement with Interested and Affected Parties ("I&APs");
- Fixing a notice board on the site where the listed activity is to be undertaken on 02 November 2020;
- Giving written notice to the owners and occupiers of land adjacent to the site where the listed activity is to be undertaken, the municipality and ward councilor, and the various organs of state having jurisdiction in respect of any aspect of the listed activities on 28 October 2020;
- The placing of a newspaper advertisement in the "Ons Kontrei" on 30 October 2020 and 16 April 2021;
- Making the draft BAR available to I&APs for comment from 02 November 2020 to 02 December 2020;
- The draft BAR was made available electronically on the Environmental Assessment Practitioner's website ([www.groenberg.co.za](http://www.groenberg.co.za)).
- The revised draft BAR was distributed via electronic mail and registered post (where necessary) to all registered I&AP's and neighbours for the additional 30-day commenting period, from 17 April 2021 until 19 May 2021.

All of the concerns raised by I&APs were responded to and adequately addressed during the public participation process. This Department is satisfied that the PPP that was followed met the minimum legal requirements and all the comments and responses report thereto were included in the comments and responses report. Specific management and mitigation measures have been considered in this Environmental Authorisation and in the EMPr to adequately address the concerns raised.

### 2. Alternatives

Two site alternatives and the "no-go" alternative were identified and assessed.

### Site Alternative 1 (the Preferred Alternative – herewith authorised)

Site Alternative 1 entails the development of the Swartvlei Dam on the Remainder of Portion 1 of Farm No. 494, Clanwilliam.

The proposed dam will have the following dimensions:

- Wall crest: 3 m
- Wall Length: 479.8 m
- Wall height: 4 m (with 0.9 m freeboard)

The proposed dam will have a capacity of approximately 74 390 m<sup>3</sup> and will have a development footprint (including wall) of approximately 4.34 ha in extent at full capacity.

The development will occur on the eastern side of the property on land previously transformed by agricultural practices. No additional infrastructure (such as a pipeline) will be required, as an existing pipeline from an existing borehole (where the water will be sourced from) will be used. The current access to the site is via an existing entry on an unnamed road.

Site Alternative 1 is deemed the Preferred Alternative since the proposed dam will be located on an area previously transformed by agricultural activities. The proposed site will be easily accessible via the existing road and no additional infrastructure is required to pump water from the existing borehole on the property to the proposed dam. In addition, the proposed site is not botanically sensitive and will not impact on any watercourses.

### Site Alternative 2

Site Alternative 2 is situated south of Site Alternative 1 (i.e. the Preferred Alternative) on Remainder of Portion 1 of Farm No. 494, Clanwilliam. The proposed development would have entailed the development of an instream dam and associated pipeline infrastructure.

However, due to the fact that the proposed dam on Site Alternative 2 would have been located over a perennial river and has been mapped as a Critical Biodiversity Area and Ecological Support Area, Site Alternative 2 was deemed unfeasible from a biodiversity perspective. The potential impacts associated with the proposed dam on Site Alternative 2 would have resulted in significantly higher negative impacts when compared to Site Alternative 1.

### “No-Go” Alternative

The “no-go” alternative entails maintaining the “status quo”. The “no-go” alternative was not deemed to be a reasonable or feasible alternative given that the proposed site will continue to operate at a lower agricultural potential. There would be no temporary job creation during the construction phase or potential permanent job creation, with no positive socio-economic spin-offs. In addition, the location of the proposed development is on previously transformed land. Since the proposed development will not result in unwarranted impacts, the “no-go” alternative was not warranted.

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

### **3.1. Activity Need and Desirability**

The proposed site is zoned for agriculture and has been previously used for agricultural activities more than 10 years ago. The proposed site is currently used for small scale grazing and general storing. The proposed development will therefore optimise the use of the land to its higher potential and will result in positive benefits to the applicant and the local community. The proposed dam will also provide water storage facilities and aid in food security during drought periods that may be experienced in the Western Cape.

The proposed development will contribute positively to the local economy will provide a limited number of employment opportunities. As the Local Economic Development system aims to improve the performance of the local economy, the proposed development supports it. The proposed development encourages business stability and growth for the farm, which in turn leads to job security and creation.

### 3.2. Agricultural Impacts

According to the Screening Report (generated from the Screening Tool developed by the National Department of Environmental Affairs and dated 08 April 2020) the proposed site was mapped to be located in a high sensitivity area from an agricultural perspective. Based on the site sensitivity verification undertaken by the Environmental Assessment Practitioner, the sensitivity was disputed and deemed to be of low sensitivity. The proposed was previously used for agricultural purposes and is zoned as agricultural land. The specific site for the dam is currently only being used for grazing. The construction of the dam will not only benefit the agricultural activities on the farm, but the placement will also not reduce agricultural crop production.

The Western Cape Department of Agriculture indicated (in their correspondence dated 15 June 2021) that they support agricultural development that is sustainable in the long term and is regulated in terms of the applicable legislation. Risk management and the abstraction of winter water for storage, is supported in principle.

### 3.3. Botanical Impacts

No botanical impacts are anticipated since the proposed site is located on an area previously used for agricultural activities. Potential botanical impacts are therefore anticipated to be of very low negative significance.

### 3.4. Freshwater impacts

There are no freshwater features and/or watercourses located within close proximity to the proposed site. Water for the dam will be abstracted from an existing borehole on the property. Existing pipeline infrastructure will be used to pump water from the borehole to the proposed dam. No freshwater impacts are therefore anticipated.

### 3.5. Existing water use rights allocation

The Citrusdal Water Users Association confirmed (in their correspondence dated 11 April 2019) that the water allocated to the property is approximately 882 060m<sup>3</sup> of which approximately 450 000m<sup>3</sup> has been used. The proposed dam with a capacity of approximately 74 390m<sup>3</sup> is therefore still within the existing water use allocation.

In addition, the Department of Water and Sanitation indicated (in their correspondence dated 18 May 2021) that no abstraction should take place in the Olifants River during dry period (November – March) and that water can only be abstracted from June – 31 October each year to preserve the Olifants River Ecology, when the Clanwilliam dam is full and/or when the inflow into the Clanwilliam dam exceeds 12m<sup>3</sup>/s.

The Western Cape Department of Agriculture indicated (in their correspondence dated 15 June 2021) supports the recommendations of the Department of Water and Sanitation, with stricter abstraction mitigation measures. Although the recommendations of the Western Cape Department of Agriculture and the Department of Water and Sanitation have been included in the amended EMPr dated June 2021, the abstraction of water will be regulated in terms of the Water Use Licence Application required in terms of the National Water Act, 1998 (Act No. 36 of 1998).

### 3.5. Heritage and Palaeontological impacts

A Notice of Intent to Development was submitted to Heritage Western Cape. Heritage Western Cape indicated (in their correspondence dated 17 November 2020) that a Heritage Impact Assessment ("HIA") that satisfies the provisions of Section 38(3) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) be undertaken and submitted to Heritage Western Cape for consideration. Heritage Western Cape requested that the HIA has specific reference to the potential impacts to archaeological heritage resources and the potential impacts to palaeontological heritage resources.

A HIA (dated November 2020 and compiled by Jonathan Kaplan of ACRM) and Palaeontological Impact Assessment ("PIA") (dated December 2020 and compiled by Dr. John Almond of Natura Viva cc) was therefore undertaken to assess the sensitivity of archaeological and palaeontological resources within the proposed site, to determine the potential impacts on such resources, and to avoid and/or minimise such impacts by means of management and/or mitigation measures (if required).

A dispersed scatter of Early Stone Age ("ESA") tools was recorded during a field assessment of the proposed site. Most of the tools were encountered alongside an old borrow pit on the western edge of the development footprint area of the proposed dam. Several tools were also noted among spoil dumps. A few isolated tools were recorded over the remainder of the site. The majority of the tools comprised large, chunks, minimal cores, broken cortex cobbles, large irregular cores, and several large miscellaneous retouched/modified flakes. Two bifaces/handaxes were also found. The specialist indicated that the tools have most likely been brought to the surface by ploughing activities and from below the cover sands when the borrow pit was excavated. No organic remains such as pottery, bone or ostrich eggshell was found during the field inspection by the specialist.

From an archaeological perspective, the specialist indicated that due to the relatively small number disturbed and degraded context in which the tools were found means that collectively, the archaeological resources have been graded as having low (Grade IIIc) significance. The specialist therefore recommended that archaeological monitoring be undertaken during excavation activities.

From a palaeontological perspective, the specialist indicated that the dam footprint is underlain at depth by potentially fossiliferous Early Devonian marine bedrocks of the Lower Bokkeveld Group, that are generally highly weathered in this region and that in practice are probably of low palaeontological sensitivity near surface. According to the paleontology specialist, given the small footprint of the proposed dam as far as the excavation of bedrocks and superficial sediments are concerned, 'significant impacts on scientifically important, irreplaceable fossil biotas within the (probably highly-weathered) Bokkeveld Group bedrocks and the overlying alluvial deposits are considered to be unlikely'. Pending the chance discovery of substantial new fossil remains during excavations for the dam, no further specialist palaeontological studies or mitigation are recommended.

Heritage Western Cape ("HWC") indicated (in their correspondence dated 19 February 2021) that the Archaeological and Meteorites Committee endorsed the HIA and its recommendations by Mr. Kaplan (dated November 2020) and the PIA by Dr. Almond (dated December 2020). The recommendations of the specialist have been included as a condition in this Environmental Authorisation and in the EMPr.

### 3.6. Dust, Noise and Visual Impacts

No significant dust, noise and visual impacts are anticipated. Potential dust, noise and visual impacts associated with the proposed development will be mitigated by the implementation of the mitigation measures included in the EMPr.

The development will result in both negative and positive impacts.

Negative Impacts include:

- Potential visual, dust and noise impacts during the construction phase;
- Potential loss of heritage, archaeological and cultural resources; and
- Some grazing area will be lost.

Positive impacts include:

- The proposed development will provide some employment opportunities during the construction phase;
- A secure supply of water will be available in the event of a drought; and
- The proposed development will aid in food security.

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

The National Environmental Management 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 National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

You are reminded of your general duty of care towards the environment in terms of Section 28(1) of the NEMA which states: "*Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment.*"

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