



EIA REFERENCE: 16/3/3/1/E4/11/1083/18
NEAS REFERENCE: WCP/EIA/0000514/2018
ENQUIRIES: Ms. S. Adams
DATE OF ISSUE: 06.08.2019

The Board of Directors
SAB Maltings (Pty) Ltd
P. O. Box 27
CALEDON
7230

Attention: Mr. Marcelo Otto

Tel: 028 214 3202
Fax: 028 214 3297

Dear Sir

APPLICATION FOR ENVIRONMENTAL AUTHORISATION AND THE ADOPTION OF A MAINTENANCE MANAGEMENT PLAN ("MMP") IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): ESTABLISHMENT OF AN AGRICULTURAL DEVELOPMENT ON FARM NO'S. 338 AND 339, THE REMAINDER OF FARM NO. 340, THE REMAINDER OF PORTIONS 1, 8, 9 AND 35 OF FARM NO. 341, AND PORTION 11 OF FARM NO. 341, GRABOUW

1. With reference to the above application, the Department hereby notifies you of its decision to **grant** Environmental Authorisation and **adopt** the Maintenance Management Plan, 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 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 Appeal Regulations, 2014, which prescribes the appeal procedure to be followed. This procedure is summarized in the attached Environmental Authorisation.

Yours faithfully

MR ZAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT – REGION 1

Cc: (1) N Coertzen (Pieter Badenhorst Professional Services CC)
(2) J Viljoen (Theewaterskloof Municipality)
(3) Mr. J. Roberts (DWS: Western Cape Region)
(4) Mr. R. le Roux (BGCMA)
(5) Mr. C. van der Walt (Department of Agriculture)

Fax: (086) 672 1916
Fax: (028) 214 1289
E-mail: robertsj@dws.gov.za
E-mail: rleroux@bgcma.co.za
Fax: (021) 808 5092

6th Floor, 1 Dorp Street, Cape Town, 8001
Tel: +27 21 483 0773 Fax: +27 21 483 3098
Email: Saa-rah.Adams@westerncape.gov.za

Private Bag X9086, Cape Town, 8000
www.westerncape.gov.za/eadp



EIA REFERENCE: 16/3/3/1/E4/11/1083/18

NEAS REFERENCE: WCP/EIA/0000514/2018

ENQUIRIES: Ms. S. Adams

DATE OF ISSUE:

ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION AND THE ADOPTION OF A MAINTENANCE MANAGEMENT PLAN ("MMP") IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): ESTABLISHMENT OF AN AGRICULTURAL DEVELOPMENT ON FARM NO'S. 338 AND 339, THE REMAINDER OF FARM NO. 340, THE REMAINDER OF PORTIONS 1, 8, 9 AND 35 OF FARM NO. 341, AND PORTION 11 OF FARM NO. 341, GRABOUW

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 Activity Alternative A1, described in the amended Final Basic Assessment Report ("BAR"), dated July 2019.

In terms of the NEMA, viz, the EIA Regulations, 2014 (as amended) (in Government Gazette No. 40772 of 7 April 2017) the Competent Authority hereby **adopts the Maintenance Management Plan ("MMP")** for the construction of the instream Kloof Dam in a tributary of the Jakkals River, included in the amended Final BAR dated July 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

Korteshoven
% Mr. Craig Jackson
P. O. Box 216

GRABOUW

7160

Tel: 072 148 5094

E-mail: craig@korteshoven.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 12 The development of—</p> <ul style="list-style-type: none">(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or(ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs— <p>(a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; —</p> <p>excluding—</p> <ul style="list-style-type: none">(aa) the development of infrastructure or structures within existing ports or harbour that will not increase the development footprint of the port or harbour;(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;(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;(dd) where such development occurs within an urban area;(ee) where such development occurs within existing roads, road reserves or railway line reserves; or(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>The proposal entails the construction of the new Kloof instream dam which will exceed 100 square meters, within a watercourse.</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>but excluding where such infilling, depositing, dredging, excavation, removal or moving—</p> <ol style="list-style-type: none"> a. will occur behind a development setback; b. is for maintenance purposes undertaken in accordance with a maintenance management plan; c. falls within the ambit of activity 21 in this Notice, in which case that activity applies; d. occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or 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. 	<p>The construction of the dam will take place within a stream which will require movement of material exceeding 10m³.</p>
<p>EIA Regulations Listing Notice 3 of 2014: Activity 12: The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <ol style="list-style-type: none"> i. Western Cape <ol style="list-style-type: none"> i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; ii. Within critical biodiversity areas identified in bioregional plans; iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or 	<p>The Kloof Dam site is partially comprised of Kogelberg Sandstone Fynbos, an ecosystem categorised as Critically Endangered in terms of NEMBA, 2004, and the development of the dam would require the removal thereof.</p>

v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.	
---	--

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 construction of the Kloof Dam, with a storage capacity of 22 000m³, the establishment of approximately 17ha of cultivated areas on previously disturbed land and the construction of a 160mm diameter, 0.6km long, PVC pipeline from the existing pump house to the new Kloof Dam. The pipeline will pass the railway line and N2 road through existing culverts.

C. SITE DESCRIPTION AND LOCATION

The proposal will be undertaken across various properties located in Grabouw, namely Farm no's 338 and 339, the remainder of Farm no. 340, the remainder of Portions 1, 8, 9 and 35 of Farm no. 341, and Portion 11 of Farm no. 341.

The co-ordinates of the cultivated areas:

Block 3	34°11'36.46"S	19° 7'58.17"E
Block 4	34°11'41.10"S	19° 7'55.25"E
Block 5	34°11'45.99"S	19° 7'54.01"E
Block 6	34°11'49.06"S	19° 7'50.67"E
Block 7	34°11'51.61"S	19° 7'53.61"E
Block 8	34°11'51.15"S	19° 8'1.04"E
Block 9	34°11'54.02"S	19° 8'8.22"E
Block 10	34°11'53.58"S	19° 8'14.13"E
Block 11	34°11'51.66"S	19° 8'18.99"E
Block 12	34°11'53.84"S	19° 8'29.58"E
Block 13	34°11'55.39"S	19° 8'27.55"E
Block 14	34°11'57.70"S	19° 8'34.44"E

The co-ordinates of the Kloof Dam: 34° 11' 52.95" S; 19° 7' 45.95" E

The co-ordinates of the new pipeline:

34°11' 46.98" S	19° 7' 50.65" E
34°11' 51.58" S	19° 7' 57.56" E
34°11' 53.43" S	19° 7' 50.30" E
34°11' 51.73" S	19° 7' 48.12" E

The SG digit codes are: C01300000000033800000
C01300000000033900000
C013000000000340000000
C01300000000034100001
C01300000000034100008
C01300000000034100009

Refer to Annexure 1: Depicting the location of the Kloof Dam in relation to the town of Grabouw and the N2 highway. Annexure 2: Site Layout Plan depicting the preferred alternative (herewith authorised) which includes the delineated wetland buffer area, 17ha of cultivation area blocks, the Kloof Dam and the construction of a new 160 mm diameter PVC pipeline (0.6 km length) from the existing pump house to the new Kloof Dam.

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

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Pieter Badenhorst Professional Services
% Ms. Nerine Coertzen
P. O. Box 1058
WELLINGTON
7654

Tel: 081 371 9289
Fax: 086 672 1916

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, respect to Alternative A1 for the new Kloof Dam, which includes the development of 17ha of new cultivation areas and a pipeline as described in the amended Final BAR dated July 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, 8, 9, 11 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 must be amended to include an invasive species management plan, erosion control measures and a rehabilitation plan as recommend by the botanical specialist, for areas of degraded Elgin Shale Fynbos. These plans must be appended to the EMPr and must be re-submitted to and approved by the Competent Authority prior to commencement of construction activities.

10. The MMP adopted as part of this Environmental Authorisation must be implemented.
11. The EMPr and MMP 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, MMP and the conditions contained herein.
13. A copy of the Environmental Authorisation, EMPr, MMP, 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: Mr Marius Venter (Tel: 021 483 2659)
Room 809
8th 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 Marius.Venter@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: DEADP.Appeals@westerncape.gov.za or visit: 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: 06/08/2019

Copies to:

- 1) Ms. N Coertzen (Pieter Badenhorst Professional Services CC)
- 2) Mr. J Viljoen (Theewaterskloof Municipality)
- 3) Mr. J. Roberts (DWS: Western Cape Region)
- 4) Mr. R. le Roux (BGCMA)
- 5) Mr. C. van der Walt (Department of Agriculture)
- 6) Ms. C Rampartab (CapeNature)

Fax: (086) 672 1916

Fax: (028) 214 1289

E-mail: robertsj@dws.gov.za

E-mail: rleroux@bgcma.co.za

Fax: (021) 808 5092

Fax: (021) 866 1523

ANNEXURE 1: LOCALITY MAP

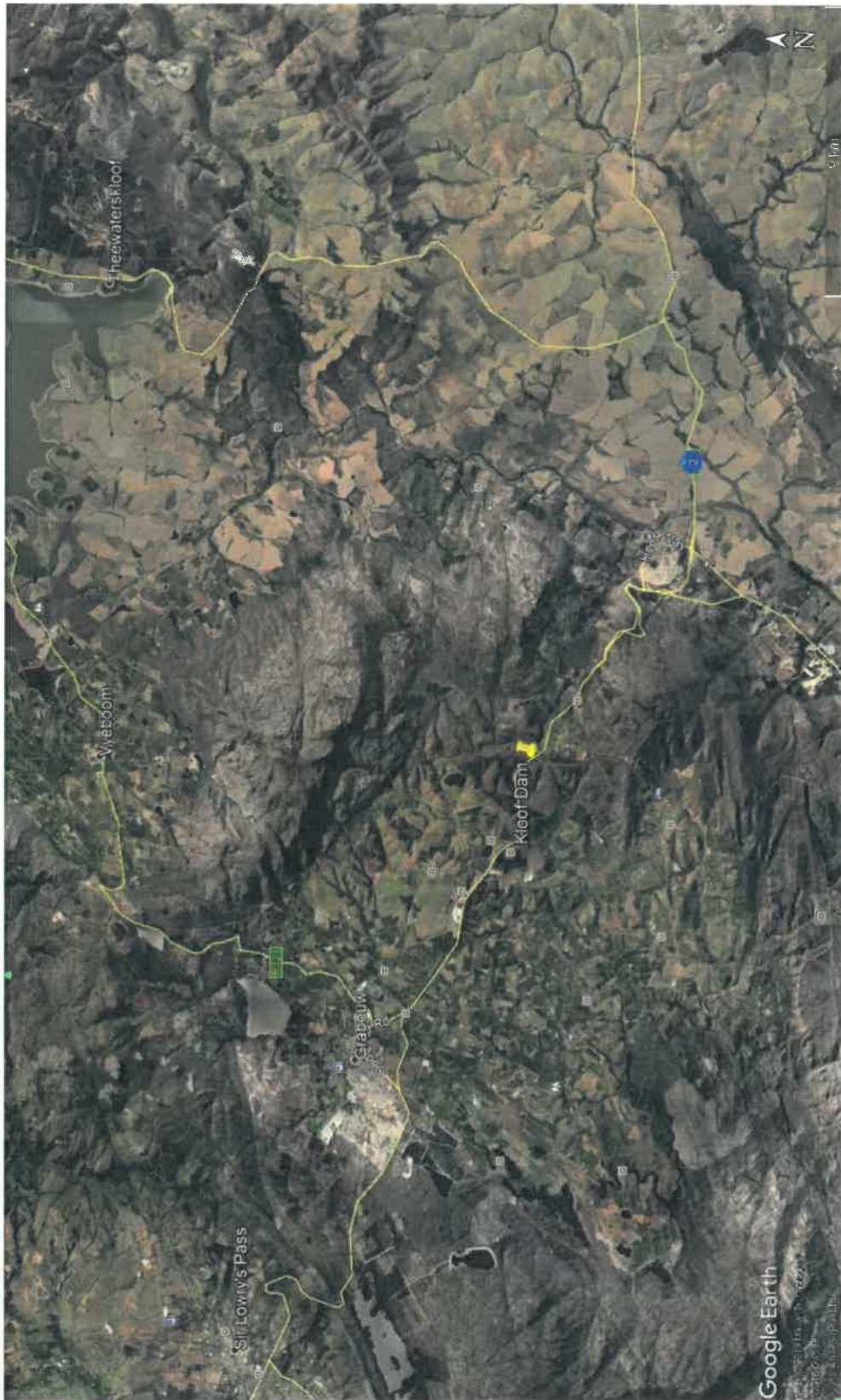


Figure 1: Depicting the location of the Kloof Dam in relation to the town of Grabouw and the N2 highway.

ANNEXURE 2: SITE LAYOUT PLAN



Figure 2: Site Layout Plan depicting the preferred alternative (herewith authorised) which includes the delineated wetland buffer area, 17ha of cultivation area blocks, the Kloof Dam and the construction of a new 160 mm diameter PVC pipeline (0.6 km length) from the existing pump house to the new Kloof Dam.

ANNEXURE 3: 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 22 October 2018, the draft BAR dated November 2018, the final BAR dated April 2019, the amended EMPr and MMP submitted together with the amended Final BAR dated July 2019;
- 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 final BAR dated April 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;
- 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 31 October 2018 and 2 November 2018;
- the placing of a newspaper advertisement in the *'Theewaterskloof & Kaap Agulhas Gazette'* on 30 October 2018;
- fixing of a notice board at the entrance of the farm on 2 November 2018; and
- making the draft BARs available to I&APs for public review from 5 November 2018 and 12 March 2019.

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 EMPr and in the MMP, 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

2.1 Location Alternatives

Two location alternatives were investigated for the Kloof and Berg Balancing Dam:

Kloof Dam:

Alternative S1 (preferred) – This alternative entails the construction of the new Kloof dam within an unnamed tributary of the Jakkals River.

Alternative S2 – This alternative entails the expansion of an existing dam upstream of the preferred location.

Alternative S1 is preferred as the area that once comprised of Kogelberg Sandstone Fynbos, has been destroyed by a fire with only remnants of indigenous vegetation remaining. The area is highly disturbed and is actively maintained and rehabilitated by removing alien vegetation. The site is partially comprised of indigenous vegetation which will be removed as a result of the construction of the Kloof Dam.

Berg Balancing Dam:

Alternative S3- This alternative entails the construction of a new dam on the slope of a hill, next to an existing access road.

Alternative S4- This alternative entails the construction of a new dam within a watercourse adjacent to the preferred location.

These alternatives are no longer preferred as the Berg Balancing Dam is located in an area comprised of intact Kogelberg Sandstone Fynbos, an ecosystem categorised as critically endangered in terms of Section 52 of NEMBA, 2004. The development of the balancing dam would require the removal of sensitive indigenous vegetation.

2.2 Activity Alternatives

Two activity alternatives were considered for the proposed development:

Alternative A1 (herewith approved)

This alternative entails the construction of the Kloof Dam, establishment of cultivated areas and construction of a pipeline with the following details:

1. Construction of the Kloof dam, with storage capacity 22 000m³;
2. Development of 17ha cultivation areas; and
3. Construction of a pipeline from the existing pump house to the new Kloof Dam.

Kloof Dam

It is proposed that the Kloof Dam be constructed on the preferred site alternative S1 (as described above) and according to the preferred layout/design alternative L3 (as described below).

Cultivation Areas

After receipt of comments from CapeNature, a 32m wetland buffer has been provided for around the wetland area, where no cultivation will take place. The cultivation areas are now restricted to previously disturbed areas and amounts to 17ha.

Pipeline

An existing pipeline will be utilized. From the pump house, a new 160 mm diameter PVC pipeline (0.6 km length) will be constructed to connect the existing pump house to the new Kloof Dam.

This pipeline will pass the railway line and N2 road through existing culverts. The peak throughput for the pipelines will be less than 120 litres per second.

This is the preferred alternative for the following reasons:

- The proposed dam will be able to store the proposed amount of water that the applicant is undergoing a Water Use License Application for, namely 11 700m³/a.
- This alternative does not include the construction of the balancing dam. By only constructing the Kloof Dam, the existing pipeline can be utilised to a large degree, and construction of the new pipeline is limited to the section extending from the existing pump house to the new Kloof Dam.
- This alternative excludes the two northern cultivation areas which are located in environmentally sensitive areas. This alternative has been amended to restrict the establishment of the 17ha of cultivation areas to previously disturbed land.

Alternative A2:

This alternative entails the construction of the Kloof Dam, construction of the balancing dam, establishment of cultivated areas and construction of a pipeline with the following details:

1. The construction of Kloof Dam (22 000m³);
2. The construction of a balancing dam (6 000m³);
3. The development of new cultivation areas (17.66ha); and
4. The construction of a pipeline.

Kloof Dam

It is proposed that the Kloof Dam (22 000m³) be constructed on the preferred site alternative S1 (as described above) as well as the preferred layout/design alternative L3 (as described below).

Balancing Dam

It is proposed that the balancing dam (6 000m³) will be constructed within areas mapped as Kogelberg Sandstone Fynbos, which is an ecosystem categorised as Critically Endangered in terms of Section 52 of the NEMBA, 2004. The botanical specialist found that the site "contained mostly intact Kogelberg Sandstone Fynbos with one species of conservation concern (SCC) noted in the area".

Cultivation areas

The cultivation areas that form part of this alternative include two cultivation blocks (block 1 and 2) located within a Critical Biodiversity Area 2 and Ecological Support Area 2 as well as within a Mountain Catchment Area (Protected Area).

Pipeline:

The existing diversion weir and the depot dam (currently used to store the 2500m³ required to cultivate 2ha of land), are connected via an existing 110 mm diameter asbestos cement ("AC") pipeline. This alternative proposes to redirect the AC pipeline to the dam and includes the construction of a new 110 mm diameter PVC pipeline from the Kloof Dam to the existing AC pipeline.

There is also an existing 160mm diameter PVC pipeline from the depot dam to the existing pump house. This alternative includes the construction of a new 160mm diameter PVC pipeline from the existing pump house to the Kloof Dam.

This alternative is not preferred for the following reasons:

- Two of the agricultural blocks (block 1 & 2) fall within environmentally sensitive areas.

- The balancing dam occurs within an intact area of Kogelberg Sandstone Fynbos and falls within a Mountain Catchment Area (Protected Area).
- This alternative does not allow for a 32m buffer around the wetland area.

Design Alternatives

Three design alternatives were considered for the construction of the Kloof Dam:

Design Alternatives	Maximum Storage Capacity (m ³)	Maximum Wall Height (m)	Maximum Wall Length (m)	Surface Area at FSL (ha)	Water/wall ratio	R/m ³ storage
L1	15 770	4.8	80	0.7	4.65	28.97
L2	8.794	5	65	0.4	2.61	51.85
3 (herewith approved)	22 000	4.7	87	0.8	4.90	22.00

- Design Alternative L1 does not meet the full capacity requirements of the applicant and is not preferred as it is not economically feasible.
- Design Alternative L2 will lead to the inundation of natural vegetation, does not meet the desired storage capacity requirements and is not economically feasible in this regard.
- Design Alternative 3 is preferred as it is the most economically feasible option with the highest water/wall ratio of 4.9 and limits the upstream inundation of natural vegetation when compared to Alternative L2.

Two design alternatives were considered for the construction of the Berg Balancing Dam:

Design Alternatives	Maximum Storage Capacity (m ³)	Maximum Wall Height (m)	Maximum Wall Length (m)	Surface Area at FSL (ha)	Water/wall ratio	R/m ³ storage
A	6 321	4.9	157	0.2	1.19	83.60
B	4 080	4.9	161	0.2	1.28	110.60

The construction of the Berg Balancing Dam is not preferred as it is located in an area comprised of intact critically endangered indigenous vegetation and the construction of the dam would require the removal of this indigenous vegetation.

"No-Go" Alternative

The "no-go" alternative was considered and entails the continued operation of the farm which is limited because of the insufficient dam storage capacity. The financial prosperity of the farm is dependent on farming production within the summer months. This alternative is not preferred because the current water storage capacity is 2500m³ and it does not meet the requirements for the long term operational functionality of the farm.

3. Impact Assessment and Mitigation measures

3.1 Activity Need and Desirability

The agricultural production of Korteshoven Farm is currently limited. To increase employment opportunities, the farm requires an increased amount of agricultural land to be cultivated. In order to sustain the increased cultivation areas, the applicant needs to increase the water storage capacity of the farm. Therefore, the construction of a dam with sufficient storage

capacity to accommodate 15 710m³ per annum (the existing lawful use for the farm,) is necessary to improve the economic feasibility of the farm.

3.2 Biodiversity and Biophysical Impacts

Initially, the proposed development was located in an area that contains Elgin Shale Fynbos and Kogelberg Sandstone Fynbos, ecosystems classified as critically endangered in terms of Section 52 of the National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) ("NEMBA"). The outcome of a Botanical Assessment dated March 2018, compiled by Dr. David J. McDonald from Bergwind Botanical Surveys and Tours reported that the vegetation is of high conservation value and the proposed development of the cultivated areas was not supported. Since then the area demarcated for cultivation and the construction of the Kloof Dam was restricted to previously disturbed areas only. The development of the balancing dam falls in an area that contains Kogelberg Sandstone Fynbos, and has since been removed from the preferred alternative. Considering the intact Elgin Shale Fynbos and Kogelberg Shale Fynbos habitat that will not be disturbed as part of the proposal, the cultivation of the highly degraded portions of the farm is seen as acceptable from a botanical perspective and is supported. If all recommended mitigation measures are strictly adhered to, it is the opinion of the botanical specialist that the impact of developing the proposed areas on the property would result in a low to medium negative impact.

The freshwater features within the study area consist of the Jakkals River, a tributary in which the Kloof Dam is to be built as well as a wetland area situated near the agricultural development. According to the freshwater impact assessment dated September 2018, compiled by Jeanne Snyman from everWater, the impact significance of the proposed development on the Jakkals River and associated wetlands, is considered to be low with the implementation of the recommendations and mitigation measures of the specialist (included in the EMPr). A 20m buffer around the wetland area was recommended by the freshwater specialist and resulted in the development of a 32m buffer (supported by Cape Nature) around the wetland area which now forms part of the design layout of the preferred alternative.

Furthermore, a Water Use Licence Application ("WULA") in terms of the National Water Act, 1998 (Act 38 of 1998) will be submitted to the Department of Water and Sanitation, which will assess the water related impacts further.

A MMP has been compiled to address future maintenance activities taking place in the affected watercourses. The maintenance of the structures authorised in this Environmental Authorisation forms part of this MMP. It must be noted that the accepted maintenance activities only relate to the activities described in the MMP. Should any new activities and associated infrastructure, not included in the MMP, require maintenance and if any of the applicable listed activities are triggered, an Environmental Authorisation must be obtained prior to the undertaking of such activities. It remains the responsibility of the proponent to determine if any other listed activities are triggered and to ensure that the necessary Environmental Authorisation is obtained.

The fact that the MMP is adopted by the Competent Authority does not absolve the applicant from its general "duty of care" set out in Section 28(1) of the NEMA, which states that *"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." (Note: When interpreting the "duty of care" responsibility, cognisance must be taken of the principles of sustainability contained in Section 2 of NEMA).

The development will result in both negative and positive impacts.

Negative Impacts:

- Limited critically endangered indigenous vegetation within a largely transformed area will be removed within the construction footprint of the Kloof Dam.
- The development will result in a low negative impact on water quality within the freshwater features on site. However, with the effective implementation of the recommended mitigation measures of the specialist, this impact can be reduced to low.

Positive impacts:

- The proposed development will increase the water storage capacity of the farm which will improve the farm's production.
- Temporary employment opportunities will be created during the construction phase of the development.
- The development will result in the removal of alien vegetation plants within the riparian zone which assists in the ongoing maintenance and rehabilitation of the on-site watercourse and wetlands associated with the Jakkals River.

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.

-----END-----