



**REFERENCE:** 16/3/3/1/E4/5/1037/18  
**NEAS REFERENCE:** WCP/EIA/0000428/2018  
**ENQUIRIES:** Arabel McClelland  
**DATE OF ISSUE:** 2018 -11- 23

The Trustees  
PP Mong Trust  
P.O. Box 52  
VILLIERSDORP  
6848

**Attention: Mr. B. Mong**

Tel: (028) 841 4608  
Fax: (028) 841 4685

Dear Sir

**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): PROPOSED EXPANSION OF THE KLIPKRAAL DAM, REPAIR OF AN EXISTING IN-STREAM DAM AND DEVELOPMENT OF ASSOCIATED PIPELINES AND INFRASTRUCTURE ON FARM POPLAR GROVE NO. 936, FARM NO. 828 AND PORTIONS 10 AND 15 OF THE FARM POPLAR GROVE NO. 105, CALEDON**

1. With reference to the above application, the Department hereby notifies you of its decision to **grant** Environmental Authorisation and to **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 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, which prescribes the appeal procedure to be followed. This procedure is summarised in the attached Environmental Authorisation.

Yours faithfully

**DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)**  
**DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING**

CC: (1) Ms. A. Groenewald (Doug Jeffery Environmental Consultants)

(2) Mr. J. Viljoen (Theewaterskloof Municipality)

(3) Ms. C. Rampartab (CapeNature)

(4) Mr. R. Le Roux (Breede Gouritz Catchment Management Agency)

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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): PROPOSED EXPANSION OF THE KLIPKRAAL DAM, REPAIR OF AN EXISTING IN-STREAM DAM AND DEVELOPMENT OF ASSOCIATED PIPELINES AND INFRASTRUCTURE ON FARM POPLAR GROVE NO. 936, FARM NO. 828 AND PORTIONS 10 AND 15 OF THE FARM POPLAR GROVE NO. 105, CALEDON**

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 Department herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in section B below with respect to the preferred Alternative (Alternative 2 - Option 3A), as described in the Basic Assessment Report ("BAR"), dated September 2018.

In terms of the NEMA, viz, the EIA Regulations, 2014 (as amended) and Listing Notices 1 and 3 (published in Government Gazette No. 40772 of 7 April 2017) the Competent Authority hereby **adopts** the Maintenance Management Plan ("MMP") submitted as part of the application for Environmental Authorisation.

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

PP Mong Trust  
c/o Mr. Bertus Mong  
P.O. Box 52

6<sup>th</sup> Floor, 1 Dorp Street, Cape Town, 8001  
Tel: +27 21 483 2660 Fax: +27 21 483 3098  
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Private Bag X9086, Cape Town, 8000  
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**VILLIERSDORP**

6848

Tel: (028) 841 4608

Fax: (028) 841 4685

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

**B. LIST OF ACTIVITIES AUTHORISED**

<b>Listed Activity</b>	<b>Activity/Project Description</b>
<p>Listing Notice 1 -</p> <p><b>Activity Number: 12</b></p> <p>The development of—</p> <ul style="list-style-type: none"> <li>(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres in size;</li> <li>(ii) <b>infrastructure or structures with a physical footprint of 100 square metres or more;</b></li> </ul> <p>where such development occurs—</p> <ul style="list-style-type: none"> <li>(a) <b>within a watercourse;</b></li> <li>(b) in front of a development setback; or</li> <li>(c) <b>if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; —</b></li> </ul> <p>excluding—</p> <ul style="list-style-type: none"> <li>(aa) the development 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 development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;</li> <li>(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;</li> <li>(dd) where such development occurs within an urban area; or</li> <li>(ee) where such development occurs within existing roads, road reserves or railway line reserves; or</li> <li>(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.</li> </ul>	<p>The proposal entails the installation of pipelines and infrastructure with a physical footprint that will exceed 100m<sup>2</sup> within 32m of a watercourse.</p>
<p>Listing Notice 1 -</p> <p><b>Activity Number: 19</b></p> <p>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</p>	<p>The proposal entails the infilling and depositing of more than 10m<sup>3</sup> of material into, and the dredging, excavation, removal and moving of soil and sand of more than 10m<sup>3</sup> from the Klipkraal Dam, and the repair and reinstatement of the</p>

<p>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> <p>(a) will occur behind a development setback;</p> <p>(b) is for maintenance purposes undertaken in accordance with a maintenance management plan;</p> <p>(c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;</p> <p>(d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</p> <p>(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>	<p>balancing dam, both of which are considered in-stream dams. The installation of pipeline crossings and erosion control measures at discharge points into the tributaries will also result in the infilling and removal of material from watercourses.</p>
<p>Listing Notice 1 -</p> <p><b>Activity Number: 48</b></p> <p>The expansion of—</p> <p>(i) <b>infrastructure or structures where the physical footprint is expanded by 100 square metres or more;</b> or</p> <p>(ii) <b>dams or weirs, where the dam or weir, including infrastructure and water surface area, is expanded by 100 square metres;</b></p> <p>where such expansion occurs—</p> <p>(a) <b>within a watercourse;</b></p> <p>(b) in front of a development setback; or</p> <p>(c) <b>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 expansion 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 expansion 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 expansion occurs within an urban area; or</p> <p>(ee) where such expansion occurs within existing roads, road reserves or railway line reserves.</p>	<p>The proposal entails the expansion of the existing Klipkraal Dam by 6.1ha as well as the repair and reinstatement of the existing in-stream balancing dam.</p>
<p>Listing Notice 1 -</p> <p><b>Activity Number: 66</b></p> <p>The expansion of a dam where—</p> <p>(i) <b>the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the</b></p>	<p>The existing 17.7m high dam wall of the Klipkraal Dam will be raised by 4.3m to a total height of 22m.</p>

<p><b>wall, was originally 5 metres or higher and where the height of the wall is increased by 2,5 metres or more;</b> or (ii) where the high-water mark of the dam will be increased with 10 hectares or more.</p>	
<p>Listing Notice 3 -</p> <p><b>Activity Number: 12</b></p> <p>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> <p><b>(i) Western Cape:</b></p> <ol style="list-style-type: none"> <li>i. <b>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;</b></li> <li>ii. <i>Within critical biodiversity areas identified in bioregional plans;</i></li> <li>iii. <i>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; or</i></li> <li>iv. <i>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.</i></li> <li>v. <i>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.</i></li> </ol>	<p>The expansion of the existing Klipkraal Dam and repair and reinstatement of the existing balancing dam will result in the inundation of areas of approximately 3750m<sup>2</sup> and 5000m<sup>2</sup> respectively, which contains remnants of Western Rûens Shale Renosterveld, an ecosystem type categorised as Critically Endangered in terms of NEMBA.</p>

The abovementioned list is hereinafter referred to as "**the listed activities**".

The holder is herein authorised to undertake the following alternative that includes the listed activities as it relates to the development:

The expansion of the existing Klipkraal Dam, repair of an existing in-stream balancing dam, and the installation of pipelines linking the Klipkraal Dam to the existing pipeline from the Houtveld Dam, and from the Klipkraal Dam to the balancing dam. The proposal will entail the following main components:

- Enlargement of the existing in-stream Klipkraal Dam by approximately 569 000m<sup>3</sup>. The Full Supply Level surface area will be increased by 6.1ha and the 17.7m high dam wall will be raised by 4.3m to a total height of 22m, with a total development footprint of approximately 20 000m<sup>2</sup>. A spillway channel will be excavated on the left abutment.

- Repair and reinstatement of the 49 000m<sup>3</sup> in-stream balancing dam located to the north-east of the Klipkraal Dam. The Full Supply Level of this dam will be approximately 1ha.
- An additional new 315mm diameter pipeline, approximately 950m in length, from the existing Houtveld Dam pipeline to the Klipkraal Dam.
- A new 250mm diameter pipeline, approximately 1250m in length, connecting the Klipkraal Dam to the balancing dam.
- Relocation of the existing pump house, pumps and power line with transformer further downstream of the Klipkraal Dam.
- Upgrade of channels for storm water runoff and discharge into the Klipkraal Dam and the unnamed tributary of the Bot River, including establishment of erosion control measures at discharge points.

### C. SITE DESCRIPTION AND LOCATION

The listed activities will be undertaken on Portions 10 and 15 of Farm no. 105, Farm no. 828, and Farm Poplar Grove no. 936, Villiersdorp.

The co-ordinates of the dam sites are:

	<b>Latitude</b>	<b>Longitude</b>
Klipkraal Dam	34° 5' 4.20" South	19° 11' 47.70" East
Balancing Dam	34° 4' 50.91" South	19° 12' 11.38" East

The co-ordinates of the pipeline route from the existing Houtveld Dam pipeline to the Klipkraal Dam are:

	<b>Latitude</b>	<b>Longitude</b>
Start point	34° 5' 8.48" South	19° 11' 46.99" East
Middle point	34° 5' 19.00" South	19° 11' 44.16" East
End point	34° 5' 31.02" South	19° 11' 40.35" East

The co-ordinates of the pipeline route from the Klipkraal Dam to the Balancing Dam are:

	<b>Latitude</b>	<b>Longitude</b>
Start point	34° 4' 49.71" South	19° 12' 11.25" East
Middle point	34° 4' 48.55" South	19° 11' 53.70" East
End point	34° 5' 6.48" South	19° 11' 45.29" East

The SG digit code is: C0130000000010500010  
 C0130000000010500015  
 C01300000000082800000  
 C01300000000093600000

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

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

## D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Doug Jeffery Environmental Consultants  
c/o Ms. Adél Groenewald  
P.O Box 44  
**KLAPMUTS**  
7625

Tel: (021) 875 5272  
Fax: (086) 660 2635

## 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 preferred Alternative (Alternative 2 - Option 3A), described in the BAR, dated September 2018, on 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 **five (5) 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 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.
  - 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, 12 and 19.

## **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;
  - 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 notified 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 MMP, contained in Appendix 7C of the EMPr, 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 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 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 and the EMPr and submit Environmental Audit Reports to the Competent Authority. The 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 holder must undertake an environmental audit (quarterly for the duration of the construction phase) and submit Environmental Audit Reports to the Competent Authority (once every six months during the construction phase). The final Environmental Audit Report must be submitted to the Competent Authority (six months after operation commenced).

The holder must, within 7 days of the submission of the report 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 palaeontological remains (including fossil shells and trace fossils); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; 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.

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.

18. Prior to commencement of any land clearing or construction activities associated with the Klipkraal and balancing dams, a search and rescue operation must be undertaken within the development footprint, with particular attention on the areas to be inundated and identification and translocation of any Species of Conservation Concern. The search and rescue operation must be undertaken by a suitably qualified and experienced horticulturalist, botanist or restoration ecologist. The outcome of the search and rescue operation must be submitted to this Department and CapeNature within three months of completion.
19. The construction phase disturbance footprint must be limited as far as possible with the construction area clearly demarcated before commencement of any construction activities, particularly with respect to the working corridors applicable to the two sections of pipeline and buffer along the affected sections of the watercourses. Construction areas must be strictly adhered to. All areas beyond the construction footprint must be considered as no-go areas.
20. Construction of pipeline crossings of watercourses must be undertaken during the drier months of the year.
21. Upon completion of the construction phase, rehabilitation of the dam walls, disturbed riparian areas immediately up- and downstream of the dams, and pipeline crossings, must be undertaken in consultation with a suitably qualified and experienced ecological specialist. This must include revegetation with appropriate locally occurring indigenous vegetation, along with concurrent removal of all alien invasive species.
22. The Storm Water Management Plan, dated August 2017, as compiled by Ingerop, must be implemented with the recommendations contained therein complied with prior to the establishment of the new agricultural areas.

## **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 a listed activity 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, 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



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

DATE OF DECISION: 23/11/2018

CC: (1) Ms. A. Groenewald (Doug Jeffery Environmental Consultants)  
(2) Mr. J. Viljoen (Theewaterskloof Municipality)  
(3) Ms. C. Rampartab (CapeNature)  
(4) Mr. R. Le Roux (Breede Gouritz Catchment Management Agency)

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**ANNEXURE 1: LOCALITY MAP**

# Klipkraal Dam Project

1:50000 Topo Map

## Legend

-  Klipkraal Dam
-  Balancing Dam

Site Coordinates:  
34° 05' 04.20" S  
19° 11' 47.70" E

Datum: WGS84

Projection: Geographic

Source: 3419AA; 3419AB

Scale: 1:50 000 (on A3)



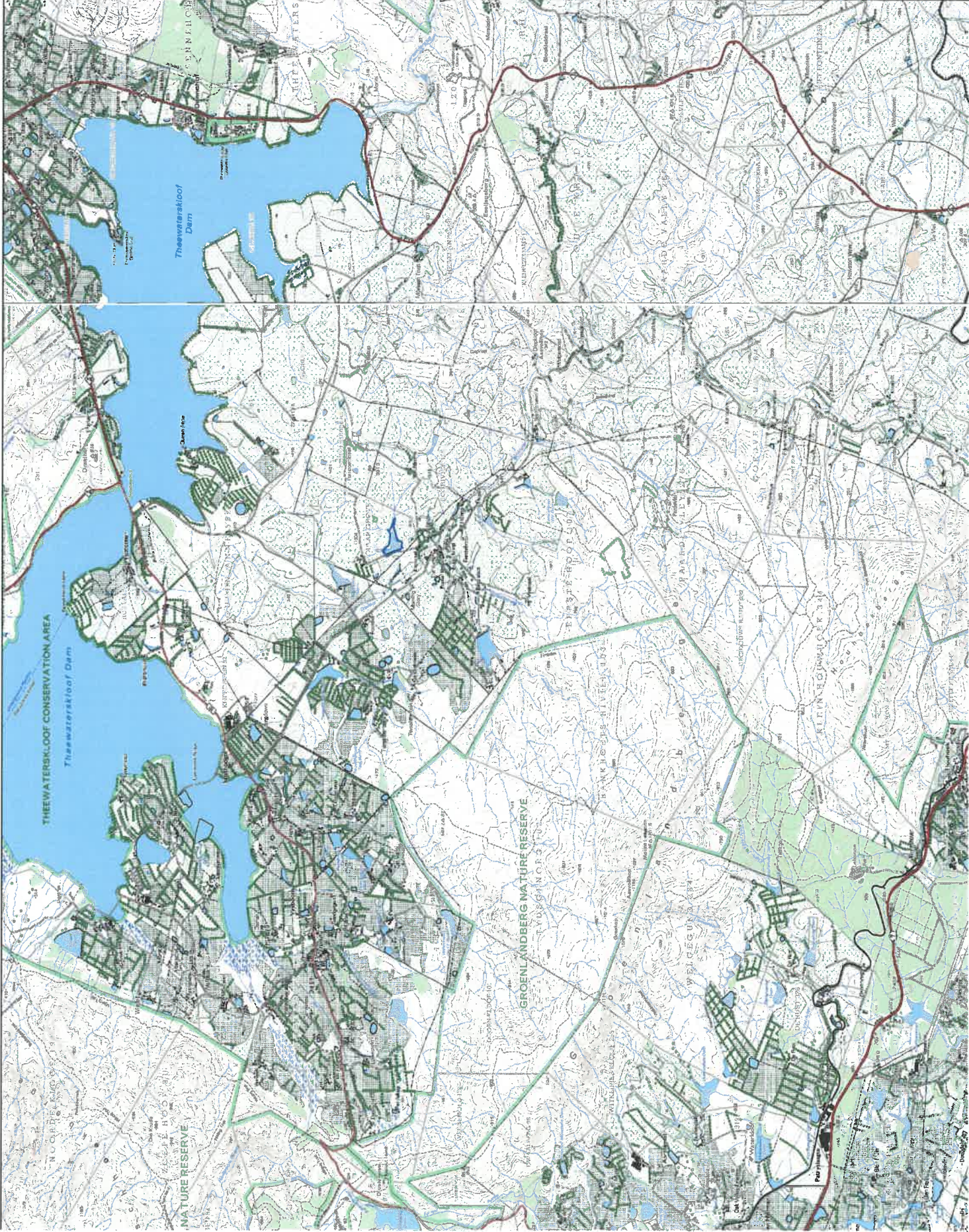
Date: SEPTEMBER 2017

DJEC Ref. 2016/64

Prepared by:



DOUG JEFFREY  
ENVIRONMENTAL CONSULTANTS



**ANNEXURE 2: SITE PLAN**

# Klipkraal Dam Project

Site Plan  
Alternative 2 (Preferred Alternative)



## Legend

- Farm Portions
- Klipkraal Dam - Option 3A**
- Klipkraal Dam Wall Centreline
- Klipkraal Dam Wall
- Klipkraal Dam Raised Full Supply Level (FSL)
- Balancing Dam**
- Balancing Dam Wall Centreline
- Balancing Dam FSL
- Balancing Dam Wall
- Associated Infrastructure**
- Proposed relocation of existing 250mm Ø pipe from Houveld Dam
- Proposed 250mm Ø pipeline to balancing dam
- Proposed 315 mm Ø pipeline
- Proposed Stormwater Drain
- Extension of Existing Road
- New Pump Station Location
- Existing Roads & Pipelines**
- Existing Road
- Existing 300mm Ø pipe from Houveld Dam
- Existing 250mm Ø pipe from Houveld Dam

**Site Coordinates:**  
34° 05' 04.20" S  
19° 11' 47.70" E

**Datum:** WGS84  
**Projection:** Geographic

**Scale:** 1:5 000 (on A3)



**Date:** 22 June 2018  
**DJEC Ref:** 2016/64

Prepared by:



DOUG JEFFERY  
Environmental Consultants (Pty) Ltd.





### KLIPKRAAL DAM, OPTION 3A

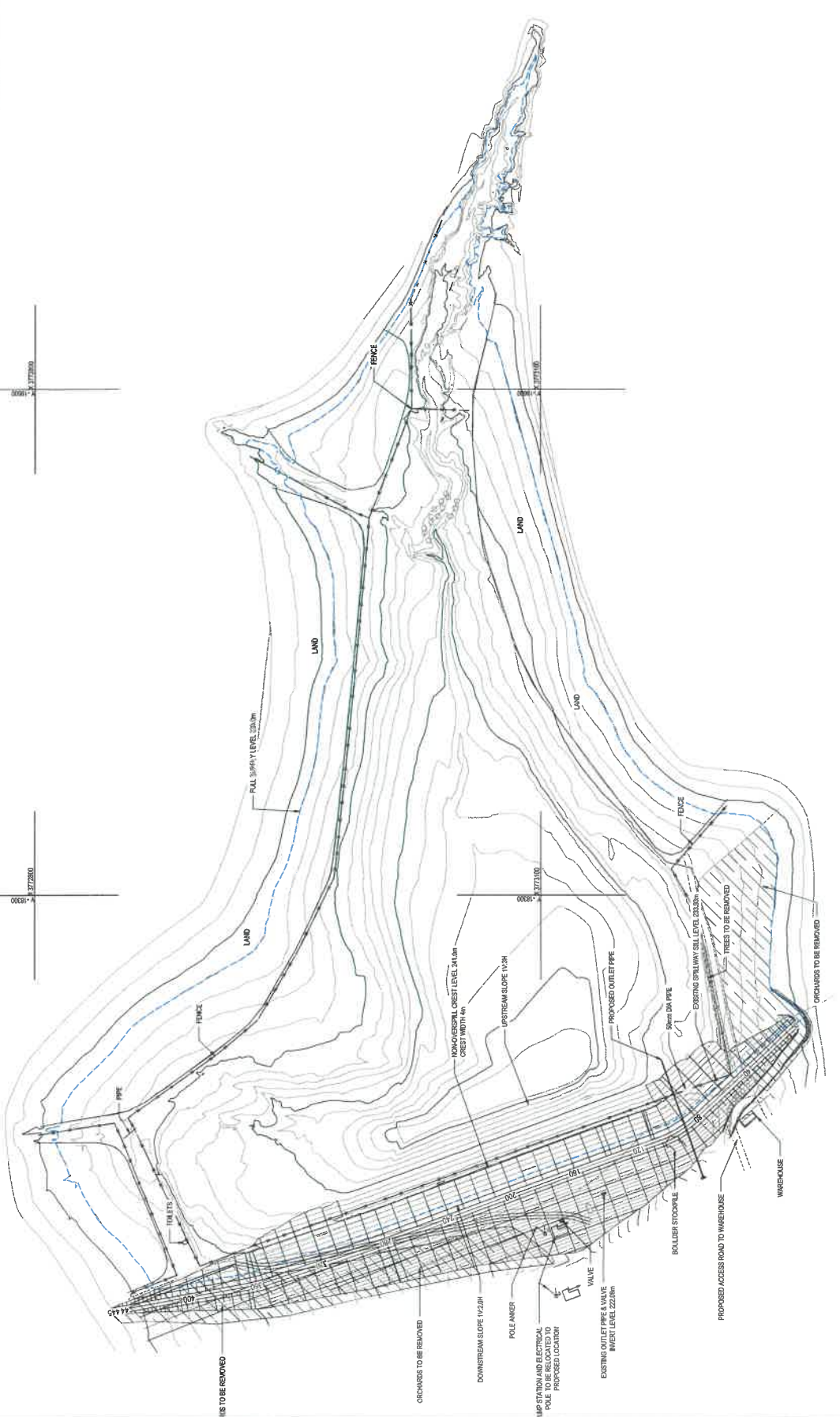
- 1. NOCL: 241.0 m
- 2. FSL: 230.0 m
- 3. FREEBOARD: 2 m
- 4. WATER SURFACE AREA: 12.6 ha
- 5. CAPACITY: 883 000 m<sup>3</sup>
- 6. CREST LENGTH: 456 m
- 7. MAX. DAM HEIGHT: 22.0 m
- 8. UPSTREAM SLOPE: 1V/3H
- 9. DOWNSTREAM SLOPE: 1V/2H
- 10. MAIN BASIN LEVEL: 224 m

#### ADDITIONAL NOTES:

- 12. SURVEYED BY TOSHEM & BURGER ON 16-08-2016.
- 13. CONTOUR INTERVAL: 1.0 m
- 14. PROJECTION: WGS 84 UTM
- 15. GROUND CONTROL POINTS:

NAME	Y	X	Z
D1	-15775210	377078510	235.000
O1	-15738400	3770507500	234.880
HCI	-151933442	3772523208	237.785
HCC	-15215232	3772292368	237.625
HCC3	-15881133	3770364282	241.771
HCC4	-15856415	3770692206	240.649
HCC5	-15827259	3770692206	234.665
HCC1	-151822425	3771991898	233.030

LEGEND	
	WET LANDS AND BURBS
	THREE LINE
	ELECTRICITY POLES
	1:1 SPRAY LEVEL
	1:2 SLOPE
	1:1.5 SLOPE
	1:1.25 SLOPE
	1:1.5 SLOPE
	1:1.25 SLOPE
	1:1.5 SLOPE
	1:1.25 SLOPE



DESIGNED BY: H. BOTHA	DESIGNED CHECKED BY: DJ. HAGEN
PROJECT NO.: CC132800	DATE: OCT 2016
REVISION: A	REVISION: A

RAISING OF KLIPKRAAL DAM  
 PLAN LAYOUT OF OPTION 3A  
 SCALE: 1:1500  
 DRAWING SIZE: A1

INGEROP Consulting for Infrastructure  
 115 BLOEMFONTEIN AVENUE, SUITE 101  
 SANDTON, JOHANNESBURG, 2008

PP MONEY TRUST

GENERAL NOTES  
 NO DIMENSIONS OR LEVELS TO BE VALIDATED  
 THE POSITION OF ALL EXISTING SERVICES ARE  
 APPROXIMATE AND BE UNDERSTANDING THE EXACT  
 SERVICE LOCATIONS, SEE EXISTING PLAN

FOR INFORMATION

ORIGINAL SCALE

NO.	DATE	FOR INFORMATION	REVISION



## **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 20 June 2018, and the EMPr and MMP submitted together with the BAR on 18 September 2018;
- 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 the National Environmental Management Act, 1998 (Act No. 107 of 1998);
- d) The comments received from I&APs and responses to these, included in the BAR, dated September 2018; 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 in 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 between 21 and 23 February 2018;
- placement of notice boards, on 21 February 2018, in a public location in close proximity to the site where the listed activities are to be undertaken;
- making the pre-application BAR available to I&APs for public review from 23 February 2018;
- the placing of a newspaper advertisement in the 'Die Burger' on 23 February 2018;
- making the in-process draft BAR available to I&APs for public review from 27 June 2018.

The Department is satisfied that the Public Participation Process that was followed met the minimum legal requirements and all the comments raised and responses thereto were included in the comments and response report.

Specific alternatives, management and mitigation measures have been considered in this Environmental Authorisation, EMPr and MMP to adequately address the concerns raised.

## 2. Alternatives

Various options to enlarge the existing Klipkraal Dam were evaluated by the project engineers by considering the cost implications of orchard loss, removal of silt under the enlarged dam footprint, relocation of the pump station and power line, and storage capacity. The evaluation took into consideration the design requirements for dams of this scale, which must adhere to dam safety regulations. Ultimately, two options were taken forward for investigation in the environmental application process, referred to as Option 2B (Alternative 1) and Option 3A (Alternative 2 and the preferred alternative). These options relate only to the design and layout of the dam wall for the Klipkraal Dam. Therefore, the remaining components of the proposal, namely the repair of the balancing dam, proposed pipelines and infrastructure, are identical for both alternatives.

### Alternative 1 (Option 2B)

The expansion of the existing Klipkraal Dam, repair and reinstatement of an existing in-stream balancing dam, and the installation of pipelines linking the Klipkraal Dam to the existing pipeline from the Houtveld Dam, and from the Klipkraal Dam to the balancing dam. This proposal entails enlarging the Klipkraal Dam by approximately 564 000m<sup>3</sup> by means of building a flank embankment. The proposed enlargement would increase the inundation area of the dam by approximately 5.3ha. The dam wall would be raised by 4.3m to a total height of 22m, with a development footprint of approximately 30 000m<sup>2</sup>.

This alternative is not preferred for the following reasons:

- The proposal is a less economical option due to the increase in material required to construct the flank wall with a water/wall ratio of 4.32, as opposed to a ratio of 5.48 for the preferred alternative.
- The total development footprint of the dam wall layout is significantly larger when compared to the preferred alternative.
- The wall design and greater footprint will result in the loss of a larger tract of cultivated land.

### Alternative 2 - Preferred Alternative (Option 3A) (Herewith authorised)

The expansion of the existing Klipkraal Dam, repair and reinstatement of an existing in-stream balancing dam, and the installation of pipelines linking the Klipkraal Dam to the existing pipeline from the Houtveld Dam, and from the Klipkraal Dam to the balancing dam. The proposal will entail the following main components:

- Enlargement of the existing in-stream Klipkraal Dam by approximately 569 000m<sup>3</sup>. The Full Supply Level surface area will be increased by 6.1ha and the 17.7m high dam wall will be raised by 4.3m to a total height of 22m, with a total development footprint of approximately 20 000m<sup>2</sup>. A spillway channel will be excavated on the left abutment.
- Repair of the 49 000m<sup>3</sup> in-stream balancing dam located to the north-east of the Klipkraal Dam. The Full Supply Level of this dam will be approximately 1ha.
- An additional new 315mm diameter pipeline, approximately 950m in length, from the existing Houtveld Dam pipeline to the Klipkraal Dam.
- A new 250mm diameter pipeline, approximately 1250m in length, connecting the Klipkraal Dam to the balancing dam.
- Relocation of the existing pump house, pumps and power line with transformer further downstream of the Klipkraal Dam.

- Upgrade of channels for storm water runoff and discharge into the Klipkraal Dam and the unnamed tributary of the Bot River, including establishment of erosion control measures at discharge points.

This alternative is preferred for the following reasons:

- The footprint of the dam wall is approximately 10 000m<sup>2</sup> smaller than Alternative 1.
- As less material is required to build the shorter flank wall of this design, it is deemed more economical.
- No vineyards will be lost as a result of the smaller dam wall.

#### "No-Go" Alternative

The "no-go" option was also investigated and was not preferred as the *status quo* on the property would be maintained. Implementation of the no-go alternative would not allow for the agricultural potential of the land to be fully realised. As a result, it would lead to a lost opportunity towards contributing to the local economic development of the Theewaterskloof Municipal area and achieving the objectives of land reform and water allocation reform, food security, and employment generation.

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

#### 3.1 Activity need and desirability

The properties are zoned for Agriculture and actively farmed, and situated within the agricultural region of Villiersdorp. The properties are primarily used for wheat growing (dryland and irrigation), vineyards, fruit orchards and sheep farming. As such, the proposed expansion and repair of the dams on the property is in line with the agricultural use of the area. Initial feasibility studies undertaken in 2015 for various schemes intended to increase water supply to the Klipkraal Dam, indicated that such additional storage can be supplied from the Houtveld Dam. The purpose of the proposal is to increase the water storage capacity on the farm in order to shift an area of approximately 70ha of dryland cultivation to high-value irrigation cultivation with a secure off-take for produce, including fruit, grapes and vegetables. This will improve the production capacity of the farm, which will in turn support the commodity value chain and food security. The proposed development and expansion of the irrigated areas will have the capability to create an additional 87 primary job opportunities and a further 58 downstream job opportunities, in addition to maintaining the existing employment positions on the farm. The proposal also forms a part of the greater initiative by Two-a-day, whereby 30% of planted land in the group is transferred to BEE shareholding, and permanent farm workers in the group are empowered. Thus, the proposed development will positively contribute to local economic development in the region, which supports the objectives of the Theewaterskloof Municipality's Integrated Development Plan.

#### 3.2 Biophysical Impacts

A Botanical Impact Assessment was undertaken by Johlene Krige, dated 17 July 2017, to inform the proposal, including installation of associated infrastructure and reinstatement of the dysfunctional balancing dam. The increased surface area associated with expansion of the Klipkraal Dam will result in the inundation of largely cultivated fields, although three small patches of terrestrial indigenous vegetation will be flooded by the full supply level footprint. This vegetation is largely degraded and is in poor condition with low ecological viability. One patch of Renosterveld is in a moderate condition. The balancing dam, which currently has a broken dam wall and will result in the reinstatement of a 1ha footprint that was last disturbed more than ten years ago, shows re-

establishment of indigenous vegetation that ranges from poor to good condition. Both dams are within Ecological Support Areas, associated with the watercourses within which they fall. The two sections of new pipelines will cross existing cultivated areas, however, small watercourses will be traversed. The area identified for conversion from dryland cultivation to irrigated cultivation has been previously cultivated and therefore no intact indigenous vegetation or undisturbed areas will be affected by this change in the area cultivated. The portion of land lost below the expanded Klipkraal Dam, which is approximately 0.5ha in extent, currently comprises vineyards. It, therefore, similarly will not contribute towards the total area of indigenous vegetation lost to the proposal. The original vegetation type for the affected area is characterised as Western Rûens Shale Renosterveld, a Critically Endangered ecosystem. No Species of Conservation Concern were noted during the assessment. The potential impact from a botanical perspective is medium to low negative. These impacts are mitigated through implementation of measures linked to erosion control, construction footprint demarcation and strict adherence to no-go areas, construction during the dry season, alien invasive species control as well as retention of top-soil from the dam basins and rehabilitation and stabilisation of the dam walls with indigenous vegetation. Notably, watering will be required to promote rapid establishment of indigenous vegetation on the dam walls, as supported by CapeNature. A search and rescue operation must be undertaken within the development footprints of the Klipkraal and balancing dams, with specific attention to the areas to be inundated, particularly the patch of Renosterveld that is in a moderate condition within the Klipkraal Dam footprint. All mitigation measures proposed by the specialist have been incorporated into the required measures of the EMPr.

A Freshwater Impact Assessment was compiled in June 2017 by BlueScience to identify and assess the potential impact of the proposed water scheme on the receiving freshwater environment. The proposal has the potential to impact upon the Droëloop River, two unnamed streams upstream of the Klipkraal Dam, the unnamed stream downstream of the dam and the unnamed stream on which the balancing dam is located, all of which are tributaries of the upper Bot River. The streams are moderately to largely modified, attributable to encroachment of agricultural activities into the riparian area, alien invasive species and flow and channel modifications. The streams are considered to range in ecological importance and sensitivity from low to moderate. The potential impacts, such as flow modification, disturbance and loss of aquatic habitat and water impairment, are considered low with mitigation. Mitigation includes the implementation of a 10m buffer from the top of the banks of the watercourses to ensure the pipeline and agricultural areas do not result in the loss of aquatic habitat, adherence to no-go areas incorporating riparian zones, rehabilitation of pipeline crossings and revegetation, rescuing of plants from the area to be inundated by the Klipkraal and balancing dams, rehabilitation of the banks of the streams downstream of the two dams and maintenance of low flow in the streams. In addition, runoff analysis has confirmed sufficient flow remains in the Houtveld Dam tributary, which ultimately feeds the scheme, to provide for the Ecological Water Requirements and allow for flow contribution, importantly also in the low flow period of the year. Operational rules have been compiled for the dams by the project engineers, which are appended to the EMPr and form a crucial implementation requirement of the proposed water scheme, in conjunction with metering, monitoring and reporting to the delegated water authority. The mitigation measures have been carried through to the EMPr, MMP and conditions of this Environmental Authorisation, where appropriate.

Furthermore, a MMP for the affected watercourses on site, including invasive alien vegetation management as a component of ongoing works, has been compiled to address future routine maintenance activities. 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 their "duty of care" responsibility, cognisance must be taken of the principles of sustainability contained in Section 2 of NEMA).

As the dams are in-stream dams, and therefore defined as watercourses, and watercourses are impacted by the proposal, in conjunction with additional water rights, water use and storage thereof, water uses in terms of Section 21 of the National Water Act, 1998 (Act No. 36 of 1998) ("NWA") will apply. Application for a Water Use Licence was submitted to the Department of Water and Sanitation's delegated authority, the Breede Gouritz Catchment Management Agency, on 6 February 2017. Furthermore, the Klipkraal Dam is registered and classified as a Category II dam in terms of dam safety with an application for the registration and classification of the proposed dam enlargement, including the design application, being submitted to the delegated water authority.

The development will result in both negative and positive impacts.

**Negative Impacts:**

- The proposed development will result in construction related impacts such as dust, visual impacts and noise during the construction period.
- The proposed works within the dams and watercourses will negatively impact the freshwater ecosystems, resulting in a loss of aquatic habitat, disturbance and modification to flow, bed and banks.
- Areas of indigenous vegetation and terrestrial habitat will be lost during establishment of the dams and associated infrastructure with an associated impact on ecological processes.
- Construction-related activities may impact water quality, introduce contaminants and result in erosion and sedimentation.
- Maintenance-related work in the dams, on the embankments and erosion control and storm water management measures may result in disturbance within the freshwater ecosystems.

**Positive impacts:**

- The development will provide temporary employment opportunities during the construction phase.
- Increased water storage capacity in the Klipkraal Dam will allow establishment of an additional 70ha of irrigated cultivated crops, improving the production capacity of the farm.
- Reinstatement of the balancing dam will allow irrigation of cultivated areas under gravity in order to decrease energy related operating costs of the scheme.
- The improved crop potential associated with the availability of irrigation water will enable the creation and maintenance of employment opportunities on the farm, support local economic development and facilitate land and water allocation reform projects.

- Implementation of the MMP will result in ongoing management of the affected watercourses, including alien clearing.

#### **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.

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