



**Western Cape
Government**

Environmental Affairs and
Development Planning

**DIRECTORATE: DEVELOPMENT MANAGEMENT
REGION 1**

EIA REFERENCE: 16/3/3/1/F1/11/2038/19

NEAS REFERENCE: WCP/EIA/0000625/2019

ENQUIRIES: AYESHA HAMDULAY

DATE: 2019 11 13

The Manager
Knapdaar Boerdery
P O Box 613
PIKETBERG
7320

Attention: Mr Gerrit J. van der Merwe

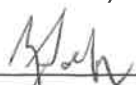
Tel./Fax: (022) 912 4811

Dear Sir

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) ("NEMA") AND THE ENVIRONMENTAL IMPACT ASSESSMENT ("EIA") REGULATIONS, 2014 (AS AMENDED): THE PROPOSED EXPANSION OF AN EXISTING DAM AND ASSOCIATED INFRASTRUCTURE ON THE REMAINDER OF PORTION 5 AND ON PORTION 7 OF THE FARM ZUUREFONTEIN NO. 139, PIKETBERG

1. With reference to the above application, this Department hereby notifies you of its decision to **grant** Environmental Authorisation, attached herewith, together with the reasons for the decision.
2. In terms of Regulation 4 of the EIA Regulations, 2014 (as amended), you are hereby instructed to ensure, within fourteen (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 Appeal Regulations, 2014 (as amended), which prescribes the appeal procedure to be followed. This procedure is summarized in the attached Environmental Authorisation.

Yours faithfully


MR ZAAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT – REGION 1

Copied to: Ms Mische Molife

(PBPS)

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www.westerncape.gov.za/eadp



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ENQUIRIES: AYESHA HAMDULAY

DATE OF ISSUE: 2019 -11- 13

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 ("EIA") REGULATIONS, 2014 (AS AMENDED): THE PROPOSED EXPANSION OF AN EXISTING DAM AND ASSOCIATED INFRASTRUCTURE ON THE REMAINDER OF PORTION 5 AND PORTION 7 OF THE FARM ZUUREFONTEIN NO. 139, PIKETBERG

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

DECISION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in section B below with respect to the preferred Alternative that is described in the Basic Assessment Report ("BAR") received by this Department on 27 September 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

Knapdaar Boerdery
C/O Mr Gerrit J. van der Merwe
P O Box 613
PIKETBERG
7320

Tel./Fax: (022) 912 4811

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

B. LISTED ACTIVITIES AUTHORISED

Listed Activity	Project Description
<p>Government Notice No. R.983 (as amended):</p> <p>Activity Number: 19 Activity Description: <i>"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; but excluding where such infilling, depositing, dredging, excavation, removal or moving—</i></p> <ul style="list-style-type: none"> <i>(a) will occur behind a development setback;</i> <i>(b) is for maintenance purposes undertaken in accordance with a maintenance management plan;</i> <i>(c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;</i> <i>(d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</i> <i>(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."</i> 	<p>The development proposal entails the removal or moving, dredging or excavation, infilling or depositing of material of more than 10 cubic metres from a watercourse for the expansion of the existing Zuurefontein Dam on Portions 5 and 7 of the Farm Zuurefontein No. 139, Piketberg</p>
<p>Government Notice No. R.983 (as amended):</p> <p>Activity Number: 48 Activity Description: <i>"The expansion of—</i></p> <ul style="list-style-type: none"> <i>(i) infrastructure or structures where the physical footprint is expanded by 100 square metres or more; or</i> <i>(ii) dams or weirs, where the dam or weir, including infrastructure and water surface area, is expanded by 100 square metres or more;</i> <p><i>where such expansion occurs—</i></p> <ul style="list-style-type: none"> <i>(a) within a watercourse;</i> <i>(b) in front of a development setback; or</i> <i>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;</i> <p><i>excluding—</i></p> <ul style="list-style-type: none"> <i>(aa) the expansion of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;</i> <i>(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;</i> 	<p>The development proposal entails the expansion of the existing Zuurefontein Dam on Portions 5 and 7 of the Farm Zuurefontein No. 139, Piketberg by more than 100m² within a watercourse.</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>Government Notice No. R.983 (as amended):</p> <p>Activity Number: 66</p> <p>Activity Description:</p> <p>"The expansion of a dam where—</p> <p>(i) the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, was originally 5 metres or higher and where the height of the wall is increased by 2,5 metres or more; or</p> <p>(ii) where the high-water mark of the dam will be increased with 10 hectares or more."</p>	<p>The development proposal entails the expansion of the existing Zuurefontein Dam on Portions 5 and 7 of the Farm Zuurefontein No. 139, Piketberg, where the highest part of the dam wall is being increased by more than 2.5 metres and where the high-water mark of the dam will be increased with more than 10 hectares.</p>
<p>Government Notice No. R.985 (as amended):</p> <p>Activity Number: 12</p> <p>Activity Description:</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>i. Western Cape</p> <p>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;</p> <p>ii. Within critical biodiversity areas identified in bioregional plans;</p> <p>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;</p> <p>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>	<p>The development proposal entails the clearance of more than 300m² of Critically Endangered Swartland Shale Renosterveld and Swartland Silcrete Renosterveld for the expansion of the existing Zuurefontein Dam on Portions 5 and 7 of the Farm Zuurefontein No. 139, Piketberg.</p>

<p>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></p>	
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The abovementioned list is hereinafter referred to as "**the listed activities**".

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

The expansion of an existing farm dam and associated infrastructure on the Remainder of Portion 5 and Portion 7 of the Farm Zuurefontein No. 139, Piketberg.

The existing Zuurefontein Dam expansion will entail the following:

- The Zuurefontein Dam with an existing storage capacity of approximately 287 000m³ will be expanded to a new storage capacity of approximately 961 000m³ and will adhere to the following parameters:
 - A wall height of approximately 15.2m from approximately 10.5m;
 - A Full Supply Level ("FSL") of approximately 961 000m³ from approximately 287 000m³;
 - Crest length of approximately 350m from approximately 228m; and
 - The existing crest width of approximately 4m will remain unchanged;
 - A flood area of approximately 18ha from approximately 7.6ha.

The existing Zuurefontein Dam expansion will include the following associated infrastructure:

- The upgrading of the upstream core trench through the central stream section;
- The lengthening of the existing 315mm diameter outlet pipe by approximately 36m;
- The lengthening of the existing 110mm diameter brack-pipe and basin drainage system;
- The relocation of the existing 3m wide spillway overflow and discharge channel on the left flank; and
- The development of a new downstream rock toe; and
- The development of an upstream berm and drainage pipeline of approximately 600m in length in order to divert runoff water away from the dam basin and connect to the existing outlet at the dam wall.

C. SITE DESCRIPTION AND LOCATION

The listed activities will be undertaken on the Remainder of Portion 5 and Portion 7 of the Farm Zuurefontein No. 139, Piketberg.

The SG 21 digit codes for the said land parcels are as follows:

Land Parcel	SG 21 digit code
Remainder of Portion 5 of the Farm Zuurefontein No. 139, Piketberg	C05800000000013900005
Portion 7 of the Farm Zuurefontein No. 139, Piketberg	C05800000000013900007

The co-ordinates of the site are given below:

Site	Latitude (S)	Longitude (E)
Zuurefontein Dam	32° 50' 33.33" South	18° 34' 29.78" East

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

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

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Pieter Badenhorst Professional Services CC
C/O Mische Molife / Pieter Badenhorst
P O Box 1058
WELLINGTON
7654

Cell: 081 371 9289

Fax: 086 476 7139

E. CONDITIONS OF ENVIRONMENTAL 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 described in Section B above.
2. The holder must commence with the listed activities within the stipulated validity period which this Environmental Authorisation is granted for, or this Environmental Authorisation shall lapse and a new application for Environmental Authorisation must be submitted to the competent authority.
3. This Environmental Authorisation is granted for–
 - 3.1. A period of five (5) years, from the date of issue, during which period the holder must commence with the authorised listed activities; and
 - 3.2. A period of ten (10) years, from the date the holder commenced with the authorised listed activities, during which period the authorised listed activities for the development phase, must be concluded.
4. The listed activities that have been authorised must only be carried out on the site described in Section C above in terms of the approved Environmental Management Programme ("EMPr").
5. The holder shall be responsible for ensuring compliance with the conditions by any person acting on his behalf, including an implementing agent, sub-contractor, employee or any person rendering a service to the holder.
6. Any changes to, or deviations from the scope of the alternative described in section B above must be approved, in writing, by the Competent Authority before such changes or deviations may be implemented. In assessing whether or not to grant such approval, 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

7. A written notice of seven (7) calendar days must be given to the Competent Authority before construction work can be commenced with.
 - 7.1. The notice must make clear reference to the site details and EIA Reference number given above.

7.2. The notice must include proof of compliance with the following conditions described herein:

Conditions: 8, 9, 13 and 25

Notification of Environmental Authorisation and Administration of Appeal

8. The holder must in writing, within fourteen (14) calendar days of the date of this decision–
 - 8.1. notify all registered Interested and Affected Parties ("I&APs") of –
 - 8.1.1. the decision reached on the application;
 - 8.1.2. the reasons for the decision as included in Annexure 4;
 - 8.1.3. the date of the decision; and
 - 8.1.4. the date when the decision was issued.
 - 8.2. draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeal Regulations, 2014 (as amended) detailed in Section G below;
 - 8.3. draw the attention of all registered I&APs to the manner in which they may access the decision;
 - 8.4. provide the registered I&APs with the:
 - 8.4.1. name of the holder (entity) of this Environmental Authorisation,
 - 8.4.2. name of the responsible person for this Environmental Authorisation,
 - 8.4.3. postal address of the holder,
 - 8.4.4. telephonic and fax details of the holder,
 - 8.4.5. e-mail address, if any, of the holder,
 - 8.4.6. 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 National Appeals Regulations, 2014 (as amended).

Commencement

9. The listed activities, including site preparation, must not be commenced with within (20) twenty calendar days from the date the applicant notified the registered I&APs of this decision.
10. 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.

Management of Activity

11. The EMPr (submitted with the BAR to this Department on 27 September 2019), inclusive of a Maintenance Management Plan is hereby approved and must be implemented.
12. The EMPr must be included in all contract documentation for all phases of implementation.

Monitoring

13. The holder must appoint a suitably experienced Environmental Control Officer ("ECO") before the listed activities can be commenced with, to ensure compliance with the EMPr and the conditions contained herein.

14. A copy of the Environmental Authorisation, EMPr, ECO reports, audit reports and compliance monitoring reports must be kept at the contractor's site office, and must be made available to any authorised official of the Competent Authority on request.
15. 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 the reports for the purposes of assessing and/or auditing compliance with the conditions contained herein.

Auditing

16. In terms of Regulation 34 of the EIA Regulations, 2014 (as amended), the holder of this Environmental Authorisation must, for the period during which this Environmental Authorisation and EMPr remain valid, conduct environmental audits. The audit reports must be prepared by an independent person and must contain all the information required in Appendix 7 of the EIA Regulations, 2014 (as amended).

In addition, the environmental audit report, must –

- 16.1. provide verifiable findings, in a structured and systematic manner, on–
 - 16.1.1. level of compliance with the conditions of the Environmental Authorisation and the EMPr and whether this is sufficient or not; and
 - 16.1.2. the extent to which the avoidance, management and mitigation measures provided for in the EMPr achieve the objectives and outcomes of the EMPr and highlight whether this is sufficient or not;
 - 16.2. identify and assess any new impacts and risks as a result of undertaking the activity;
 - 16.3. evaluate the effectiveness of the EMPr;
 - 16.4. identify shortcomings in the EMPr;
 - 16.5. identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr;
 - 16.6. indicate the date on which construction work was commenced with and completed or in the case where the authorised development is incomplete, the progress of the authorised development and rehabilitation;
 - 16.7. include a photographic record of the site applicable to the audit; and
 - 16.8. be informed by the ECO reports.
17. The first environmental audit must be undertaken within three (3) months of the authorised listed activities being commenced with. Subsequent environmental audits must be undertaken once a year during the construction phase of the authorised development. The final environmental audit report must be submitted to the Competent Authority within one calendar month of the final environmental audit being undertaken.
 18. The holder must, within seven (7) calendar days of the submission of the audit report to the Competent Authority, notify all registered I&APs of the submission and make the audit report available to any registered I&AP on request.

Specific Conditions

19. Should any heritage remains be exposed during excavations or any other actions on the site, this 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 disturbed further 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 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.

20. A qualified archaeologist and/or paleontologist 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.
21. The Western Cape has recently experienced a severe drought and had been declared a disaster area. In light of the above, water must be used wisely during all phases of development. No potable water must be used as far as possible for construction activity during the development phase and alternative methods to save water must be implemented.
22. The recommendations contained in the '*Freshwater Assessment for the Proposed Dam Enlargement on Remainder of Portion 5 of the Farm 139 Zuurefontein, near Piketberg*' compiled by BlueScience dated June 2019, must be implemented (attached hereto as Annexure 3).
23. An integrated waste management approach, which is based on waste minimisation and incorporates reduction, recycling, re-use and disposal, where appropriate, must be employed.
24. The holder of the Environmental Authorisation must ensure that adequate training is provided in the appropriate language to all on-site personnel, to help ensure that the conditions of the Environmental Authorisation are complied with and the EMPr requirements are met;
25. The exact boundary of the development footprint must be clearly demarcated before the authorised listed activities can be commenced with. All construction work must, as far as possible, be limited to within the authorised development footprint.
26. All earthworks and soil disturbance for the development proposal must, as far as possible, be restricted to dryer, summer months.
27. The construction area must be rehabilitated and re-vegetated with suitable locally indigenous vegetation to reduce the risk of erosion in the unnamed tributary upon completion of the development phase.
28. Water must only be abstracted from the Boesmans River during the wet winter months, as per the recommendations contained in the freshwater specialist report compiled by BlueScience dated June 2019.
29. Prior to departure/closure from the site, the contractor must ensure that all rubble, debris, cement deposits/residue, effluent, wash-off, building materials, builder's infrastructure, signage, machinery etc., associated with the development proposal and contractors' camp are removed and the affected areas are cleaned appropriately.

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 any Condition of this Environmental Authorisation or EMPr may render the holder liable for criminal prosecution.
3. If the holder does not commence with the listed activities within the period referred to in Condition 3, this Environmental Authorisation shall lapse, 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 lodged with the Competent Authority.
4. An application for amendment of the Environmental Authorisation must be submitted to the Competent Authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for Amendment in terms of Part 1 of the EIA Regulations, 2014 (as amended) must be submitted.
5. Please note that an amendment of the Environmental Authorisation is not required for a change in the contact details of the holder. In such a case, the Competent Authority must only be notified of such changes.
6. The manner and frequency for updating the EMPr must be as follows:
 - 6.1. Amendments to the EMPr must be made in accordance with Regulations 35 to 37 of GN No. R.982 (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 twenty (20) calendar days from the date the 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 twenty (20) calendar days from the date the holder of the decision sent notification of the decision to the registered I&APs–
 - 2.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations, 2014 (as amended) to the Appeal Administrator; and
 - 2.2 Submit a copy of the appeal to the holder of the decision, any registered I&AP, any Organ of State with interest in the matter and the decision-maker, *i.e.*, the Competent Authority that issued the decision.
3. The holder of the decision (if not the appellant), the decision-maker that issued the decision, the registered I&AP and the Organ of State must submit their responding statements, if any, to the Appeal Authority and the appellant within twenty (20) 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 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 at the address listed above and/or via e-mail to DEADP.Appeals@westerncape.gov.za.

5. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from the Appeal Authority at: Tel.: (021) 483 3721, E-mail: DEADP.Appeals@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 successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is greatly appreciated.

Yours faithfully



MR ZAAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT – REGION 1

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

DATE OF DECISION: 13/1/2019

Copied to: Ms Mische Molife

(Pieter Badenhorst Professional Services)

Fax: (086) 476 7139

FOR OFFICIAL USE ONLY:

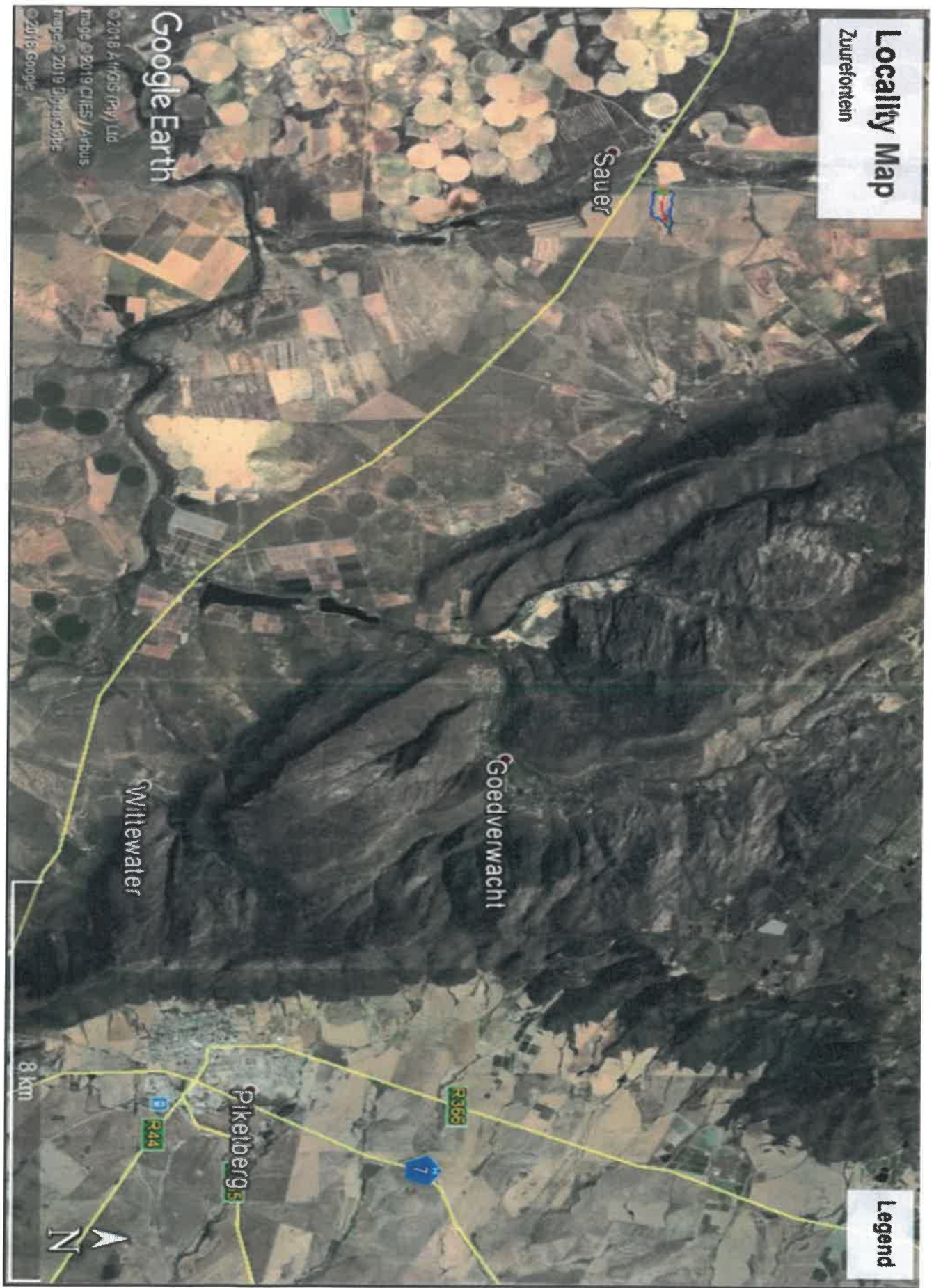
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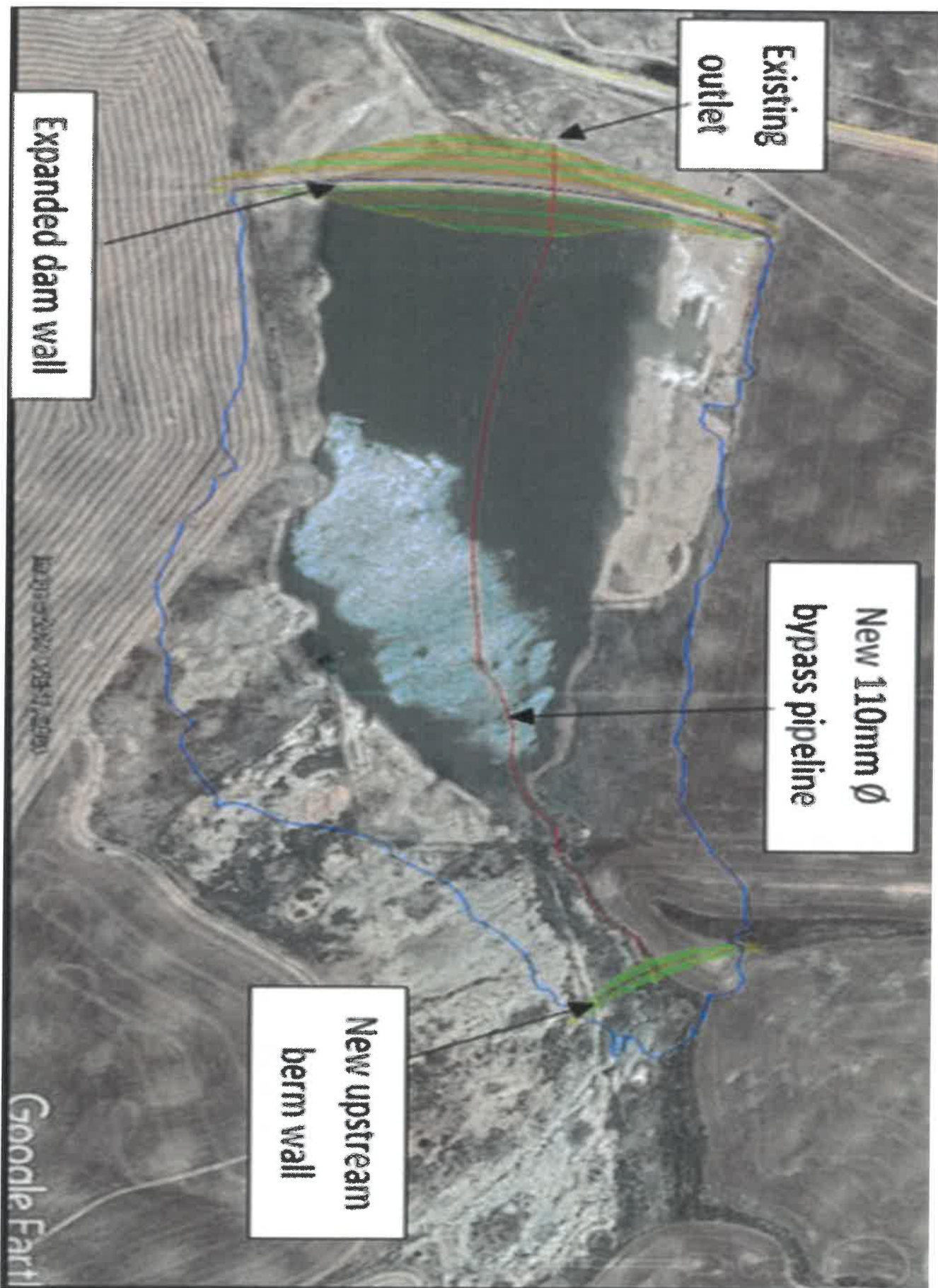
NEAS EIA REFERENCE NUMBER:

WCP/EIA/0000625/2019

ANNEXURE 1: LOCALITY PLAN(S)



ANNEXURE 2: SITE MAP(S)



ANNEXURE 3: FRESHWATER IMPACT SPECIALIST RECOMMENDATIONS

The loss of instream and riparian habitat and modification to the bed or banks of the unnamed tributary at the proposed dam site are likely to have a very limited impact. There is also a very small potential during the construction phase of the dam for some impairment of the surface water quality to occur as a result of disturbance of the riverbanks during the construction phase. Construction activities should take place during the dry months. During the construction phase of the project, the impact on the riparian zone of the river system and its tributary should be kept to a minimum. There should be adequate onsite management of the potential impacts of the construction activities by means of an approved Environmental Management Plan to ensure any potential water quality impacts are minimised.

After the construction phase, the riparian area should be rehabilitated and the area re-vegetated with suitable vegetation. The Boesmans River channel and the channel be maintained clear of invasive alien plants. A 30m buffer strip retained from the top of the stream bank of the Boesmans River and 20m from the centre of stream for the tributaries, to protect these aquatic habitats from the surrounding land use activities. These mitigation measures should also be applied to the Kuilders River within the property.

Only surplus winter flows should be abstracted from the Boesmans Rivers during the period April/May to October/November. Operational rules have been compiled that stipulate when water can be abstracted from the river after taking into consideration the EWR (approximately 20% of the winter flow) and downstream user

requirements. This will be managed through the installation of a low wall with sharp crested weir plates at the R399 road bridge that can indicate the minimum flow requirement before abstraction can take place.

Monitoring in support of the recommended operational rules should be undertaken at least on a monthly basis as well as of monitoring of the water abstracted from the river, volume of water stored and the volume of water used. It is also recommended that there should be measures put in place by the DWS to start to control upstream water use through monitoring of the river flow as well as volumes being abstracted by the other water users in the catchment.

The risk of the proposed activities altering the ecological integrity of the aquatic features, based on the risk assessment undertaken, is considered to be moderate to low. The proposed enlargement of the dam will need to be authorised by means of water use license. An integrated water use licence application will need to be submitted for the increased water storage in terms of the Section 21 (b) water use, as well as well as the associated Section 21 (c) and (i) water uses.

Compliance with the environmental flow requirements, particularly during the low flow season, maintenance of the recommended river buffer zones, as well as ongoing control of invasive alien trees within the river corridor on the property, is considered to be essential in order to maintain the ecological condition of the downstream river system and its associated FEPA wetland area in the recommended ecological categories of C/D (moderately to largely modified) for the Boesmans River and a D category (largely modified) for the minor tributary.

With implementation of the above recommended mitigation measures, monitoring and management, there is no reason why the proposed dam enlargement should not be approved.

ANNEXURE 4: REASONS FOR THE DECISION

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

- a) The information contained in the Application Form received by this Department on 11 July 2019, and the EMPr submitted together with the BAR on 27 September 2019;
- b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation, Need and Desirability and Alternatives (dated March 2013);
- c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the NEMA;
- d) The comments received from I&APs and the responses thereto, included in the BAR;
- e) The balancing of negative and positive impacts and proposed mitigation measures; and
- f) No site visit was 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 ("PPP") undertaken during the formal EIA Application process:

- An advertisement was published in the 'Weslander' on 11 July 2019;
- Notices were erected on 15 July 2019 at the site where the listed activities are to be undertaken;
- A notification letter was sent to all registered I&APs on the availability of the consultation BAR for review and comment from 15 July 2019 to 14 August 2019; and
- A copy of the consultation BAR was submitted to the Competent Authority, representatives of the relevant State Departments and other Organs of State. They were requested to provide comment on the consultation BAR as required in terms of the EIA Regulations, 2014 (as amended).

The following authorities were provided with an opportunity to comment on the development proposal:

- The Department of Human Settlements, Water and Sanitation;
- Western Cape Government: Agriculture;
- The West Coast District Municipality;
- The Bergrivier Municipality;
- Heritage Western Cape; and
- Cape Nature.

This Department is satisfied that the PPP followed met the minimum legal requirements.

2. Alternatives

Two dam site alternatives were considered. Site Alternative 1 (Preferred Alternative), meets the required storage capacity for the enlistment of water allocation, is economically feasible and will result in less environmental impacts than Site Alternative 2. Site Alternative 2 entails the construction of a new instream dam, which was considered to be less economically feasible, and will result in greater impacts on freshwater features and watercourse vegetation.

Preferred Alternative (Herewith Authorised)

The expansion of an existing farm dam and associated infrastructure on the Remainder of Portion 5 and Portion 7 of the Farm Zuurefontein No. 139, Piketberg.

The existing Zuurefontein Dam expansion will entail the following:

- The Zuurefontein Dam with an existing storage capacity of approximately 287 000m³ will be expanded to a new storage capacity of approximately 961 000m³ and will adhere to the following parameters:
 - A wall height of approximately 15.2m from approximately 10.5m;
 - A Full Supply Level ("FSL") of approximately 961 000m³ from approximately 287 000m³;
 - Crest length of approximately 350m from approximately 228m; and
 - The existing crest width of approximately 4m will remain unchanged;
 - A flood area of approximately 18ha from approximately 7.6ha.

The existing Zuurefontein Dam expansion will include the following associated infrastructure:

- The upgrading of the upstream core trench through the central stream section;
- The lengthening of the existing 315mm diameter outlet pipe by approximately 36m;
- The lengthening of the existing 110mm diameter brack-pipe and basin drainage system;
- The relocation of the existing 3m wide spillway overflow and discharge channel on the left flank; and
- The development of a new downstream rock toe; and
- The development of an upstream berm and drainage pipeline of approximately 600m in length in order to divert runoff water away from the dam basin and connect to the existing outlet at the dam wall.

No-Go Alternative

The No-Go Option means abandoning the proposal of expanding the existing Zuurefontein Dam on the site. As such, an adequate water supply would not be assured for irrigating crops during the drier summer months and the applicant will not be able to utilize their enlistment of water allocation effectively. Job security for the existing workers will be at risk, as the holder will not be able to gain adequate financial benefits from the crops to continue to employ workers and the threat of an insecure water supply may have serious negative financial implications for the holder. This alternative is therefore clearly undesirable and was abandoned.

3. Key Factors Affecting the Decision

In reaching its decision to grant authorisation for the proposed development, this Department took into account the following:

3.1 Need and Desirability

A water use license issued to Mr Gerrit J. van der Merwe of Knapdaar Boerdery authorises the storage of 394 000m³ of water in a dam within a minor tributary of the Boesmans River and the abstraction of 961 359m³/a of water from the Boesmans River. The proposed Zuurefontein Dam expansion will increase the existing storage capacity of the dam to 961 000m³. The proposed expansion of the existing Zuurefontein Dam allows for the storage of the entire water allocation during the wet winter months and thereby allowing a reduction in the abstraction of water from the Boesmans River during the drier summer months. This allows for an assured supply of water for agricultural purposes on the farm during the drier summer months, as the runoff from the catchment of the existing Zuurefontein Dam becomes too saline for use on the crops. The expansion of the existing Zuurefontein Dam will ensure greater job security for farm workers as well as increase the financial viability of the farms agricultural activities.

3.2 Planning Context

The relevant local authority will determine whether or not the development proposal requires the submission of a land use application to permit the development proposal.

3.3 Municipal Services

The development proposal does not require water supply, wastewater treatment and refuse removal services from the Municipality.

3.4 Biodiversity Impacts

According to the letter of confirmation of the validity of the 2014 botanical survey for the expansion of the existing Zuurefontein Dam compiled by Bergwind Botanical Surveys and Tours cc dated 08 April 2019, the unnamed tributary that will be impacted by the proposed Zuurefontein Dam expansion is no longer mapped as a Critically Biodiversity Area 1 ("CBA1"), instead the watercourse has subsequent to the 2014 botanical assessment been mapped as an Ecological Support Area 2 ("ESA2"). The unnamed tributary that will be impacted by the proposed Zuurefontein Dam expansion is currently deemed less sensitive than was indicated in the 2014 botanical study and the development proposal will therefore cause a less significant loss of watercourse associated biodiversity.

In view of the above, the potential negative impact of the development proposal on biodiversity will be low.

3.5 Freshwater Impacts

According to the freshwater specialist report compiled by BlueScience dated June 2019, the main aquatic features associated with the proposed expansion of the existing Zuurefontein Dam are the Boesmans River, a tributary of the lower Berg River and its minor tributary in which the existing Zuurefontein Dam is located. The Kuilders River is the main tributary of the Boesmans River that joins the river at the existing Zuurefontein Dam.

The riparian habitat of the Boesmans River and the unnamed tributary has been moderately to largely modified, primarily as a result of the removal of indigenous vegetation and the invasion by alien plants. Excavations have also taken place along the banks of the unnamed tributary. The instream habitat integrity of the unnamed tributary is largely natural to moderately modified.

The ecological importance of the lower Boesmans River, which provides habitat for indigenous fish species such as Cape galaxias (*Galaxia zebratus*) and Cape kurper (*Sandelia capensis*) is considered to be moderate to high, while the unnamed tributary is considered to be of low to marginal importance and sensitivity. The largest potential impact of the proposed expansion of the existing instream Zuurefontein Dam on the unnamed tributary is the associated reduction of flow in the Boesmans River. The unnamed tributary in which the dam is constructed is of ephemeral nature.

The loss of instream and riparian habitat and modification to the bed or banks of the unnamed tributary are likely to have a very limited impact. It is proposed to allow the runoff from the catchment to bypass the expanded Zuurefontein Dam and therefore the likely impact of the dam on this unnamed tributary is deemed to be negligible.

3.6 Heritage Resources

Heritage Western Cape confirmed in a letter dated 24 July 2019 that no further action in terms of Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) is required.

The applicant will comply with Conditions 19 and 20 of this Environmental Authorisation. This will help to ensure the protection of any heritage resources that may be encountered on the site.

3.7 Dust and Noise Impacts

The applicant is required to implement the dust and noise control measures contained in the EMPr. The implementation of these measures will help to ensure that the potential dust and noise impacts of the development proposal are adequately mitigated.

3.8 Socio-economic

The proposed development will allow for the creation of some temporary employment opportunities during the development phase as well as skills acquisition.

The proposed development will result in both negative and positive impacts.

Negative impacts include:

- Potential safety related impacts from construction vehicles on road users, adjacent properties and contractors;
- Potential damage to roads by large trucks and other heavy construction vehicles;
- Potential traffic congestion during the development phase;
- Some visual scarring, particularly, but not limited to the development phase; and
- Some noise and dust impacts.

The Competent Authority took into consideration the abovementioned negative impacts and although some impacts cannot altogether be prevented/avoided, they can be mitigated/reduced to acceptable levels.

Positive impacts include:

- The proposed development will create temporary employment opportunities during the development phase; and
- The enlarged dam will make the crops on the farm less vulnerable to droughts, thereby helping to improve the financial viability of the farm and job security for the workers on the farm.

4. National Environmental Management Act, 1998 (Act No. 107 of 1998) 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 activity (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 undertaking of the listed activities can be mitigated to acceptable levels.

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