



Section 24G Application
July 2019



APPLICATION FOR RECTIFICATION IN TERMS OF SECTION 24G OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998) FOR THE UNLAWFUL COMMENCEMENT OF VEGETATION CLEARANCE AND TOPSOIL DISTURBANCE OF MORE THAN 1 HECTARE, THE CONSTRUCTION OF AN EMBANKMENT WITHIN 32 METERS OF THE GROOT RIVER AND THE DEVELOPMENT OF AN OFF-STREAM STORAGE DAM ON THE FARM ZUURBERG NO. 288, LADISMITH, WESTERN CAPE PROVINCE.



IMPORTANT: Kindly ensure that this checklist is completed and attached to the NEMA SECTION 24G Application.

Please indicate by ticking the following below to serve as confirmation that the required information has been included in the application.

No.	Application Requirements	Please tick for confirmation
1.	Requirements of Preliminary Advertisement (pre-application public participation requirements including register of all I&APs), in accordance with Annexure A, Section D of the Section 24G Fine Regulations. (Note: Failure to meet the Regulation 8 will result in rejection of the application)	X
2.	Application form has been completed and attached, which includes among others:	-
	2.1. A list of all listed activities and/or waste management activities that was triggered when the development activity was commenced with.	X
	2.2. A list of all similarly listed activities in terms of the current EIA regulations (if applicable).	N/A
	2.3. A description of the receiving environment before commences of the activity(ies).	X
	2.4. A description of the receiving environment after commences of the activity(ies).	X
	2.5. All appendices and annexures:	-
	2.5.1. Locality map	X
	2.5.2. Site plans or/and Layout plan	X
	2.5.3. Building plans (if applicable)	N/A
	2.5.4. Colour photographs	X
	2.5.5. Biodiversity overlay map	X
	2.5.6. Permit(s) / license(s) from any other organ of state including service letters from the municipality	N/A
	2.5.7. Public participation information: including a copy of the register of interested and affected parties, the comments and responses report, proof of notices, advertisements, Land owner consent and any other public participation information	X
	2.5.8. Environmental Management Programme	X
	2.5.9. Certified copy of Identity Document of Applicant	X
	2.5.10. Certified copy of the title deed (or title deeds in the case of linear activities)	X
	2.6. Signed declaration forms.	X
3.	Are any specialist assessments required: e.g. Botanical, Hydro-geological, soil, socio-economic?	Y N
	3.1. If yes, has the specialist assessment report been attached to the application?	X
4.	An assessment of the impacts of the activity or activities in terms of the following categories:	-
	• Socio-economic	X
	• Biodiversity	X
	• Sense of place &/or Heritage/ Cultural	X
	• Any pollution or environmental degradation which has been, is being, is being or may be caused	X
5.	A methodology of how the investigation into the impacts associated with the unlawful activity was undertaken.	X
6.	Completed and attached representations of Annexure A, Section A (Directives) in terms of the S24G Fine Regulations: Information/ Representation submitted in terms of any Directives the Minister/ decision maker may issue in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA) s24G(1)(b)(i)-(viii).	X
7.	Completed and attached representations in terms of Annexure A, Section B (Deferral) of the S24G Fine Regulations.	X

**NEMA SECTION 24G APPLICATION
COMPLETENESS CHECKLIST**

8.	Completed and attached representations in terms of Annexure A, Section C, Part 1 (Fine Quantum based on the assessment as specified above (4).	X
	Confirmation that Annexure A, Section C, Part 1 has been completed by an environmental assessment practitioner (EAP)	X
9.	Compliance history of the applicant:	-
	9.1. Completed Annexure A, Section C, Part 2 and 3; namely:	-
	9.1.1. Whether or not administrative enforcement notices, including pre -notices where appropriate, have previously been issued to the applicant in respect of a contravention of section 24F(1) of the NEMA and/or section 20(b) of the National Environmental Management: Waste Act (Act 59 of 2008) (NEM: WA).	N/A
	9.1.2. Whether or not the applicant has previously been convicted in respect of a contravention of section 24F(1) of the Act and /or section 20(b) of the NEM: WA;	N/A
	9.1.3. Whether or not the applicant has previously submitted a section 24G application in respect of an activity or activities which commenced prior to the activity or activities that are the subject of the current application; and	N/A
	9.1.4. Whether the applicant is a firm or a natural person. (see Section 24G Fine Regulations for definition of "firm")	N/A
	9.2. Provided information or whether or not any of the directors of the applicant firm are, or were, at the relevant time, directors of a firm to whom the above (9.1.1. - 9.1.3.) applies;	N/A
9.3. Advise on whether an applicant who is a natural person is, or was, at the relevant time a director of a firm to whom the above (9.1.1.- 9.1.3.) may apply.	N/A	
10.	Consultation with relevant State departments in terms of section 24O(2) & 24O(3) of the NEMA.	-
	10.1 Proof of Consultation with relevant State departments, including, <i>inter alia</i> , notices, adverts etc.	X
	10.2 Copies of comments and responses included in the application.	X
	10.2 Comments and Response report attached to the application.	X
11.	Public Participation Process undertaken in terms of Chapter 6 of the Environmental Impact Assessment Regulations, 2014 ("EIA Regulations, 2014") (GN No. R.326 of 7 April 2017) (if conducted/undertaken)	X



Section 24G Application Form for the consequences of unlawful commencement of listed activity/ies in terms of the:

- **National Environmental Management Act, 1998 (Act No. 107 of 1998), ("NEMA");**
- **National Environmental Management: Waste Act, 2008 (Act 59 of 2008) ("NEM: WA")**

April 2018

Form Number S24GAF/04/2018

Kindly note that:

1. This application must be submitted where a person has commenced with a listed or specified activity without an environmental authorisation in contravention of section 24F(1) of NEMA (i.e. where the person commenced with an activity listed or specified in terms of section 24(2) (a) or (b) of NEMA - the activities contained in the EIA Listing Notices) or has commenced, undertaken or conducted a waste management activity without a waste management licence in terms of section 20 (b) of the NEM:WA.
2. This **Application Form** must be completed for all section 24G applications, by an independent Environmental Assessment Practitioner ("EAP").
3. This Application Form is current as of 01 April 2018. It is the responsibility of the Applicant/EAP to ascertain whether subsequent versions of the Application Form have been published or produced by the competent authority. Note that this Application Form replaces all the previous versions. This updated Application Form must be used for all new applications submitted from 01 April 2018.
4. **The contents of this Application Form includes the following:**
 - PART 1 -**
 - Section A: Background Information**
 - Section B: Activity Information**
 - Section C: Description of Receiving Environment**
 - Section D: Need and Desirability**
 - Section E: Alternatives**
 - Section F: Impact Assessment, Management, Mitigation and Monitoring Measures**
 - Section G: Assessment Methodologies and Criteria, Gaps in Knowledge, underlying Assumptions and Uncertainties**
 - Section H: Recommendations of the EAP**
 - Section I: Representations - Response to an Incident or Emergency Situation**
 - Section J: Public Participation Process**
 - PART 2 -**
 - ANNEXURE A of Fine Regulations**
 - Section A: Directives**
 - Section B: Deferral of the Application**
 - Section C: Quantum of the section 24G fine**
 - Section D: Preliminary advertisement**
 - PART 3 -**
 - Appendices and Declarations**
 - PART 4 -**
 - ANNEXURE B: Waste Management Activity Supporting Information (if relevant)**
5. An independent EAP must be appointed to complete the required sections (in terms of NEMA and its Regulations) of the Application Form on behalf of the applicant; the declaration of independence must be completed by the independent EAP and submitted with this Application Form. If a specialist report is required, the specialist will also be required to complete the declaration of independence.
6. Two hard copies (including the original) and one electronic copy (CD/DVD/Flash drive) of this application form must be submitted.

7. The required information must be typed within the spaces provided. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. The space provided extend as each space is filled with typing. **A legible font type and size must be used when completing the form.** A digital copy of the Application Form is available on the Department's website <https://www.westerncape.gov.za/eadp/>
8. The use of "not applicable" in the Application Form must be done with circumspection.
9. **No faxed or e-mailed application forms will be accepted.**
10. Unless protected by law, all information contained in and attached to this application will become public information on receipt by the competent authority. Please note that, unless exemption has been granted in terms of the National Exemption Regulations published under GN R994 in GG 38303 of 8 December 2014, any Interested and Affected Party should be provided with the information contained in and attached to this Application Form as well as any subsequent information submitted.
11. This Application Form must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department.

PROCESS TO BE FOLLOWED:

- a) **Prior to submission of an Application Form**, the applicant is required to undertake a pre-application public participation process in terms of Regulation 8 of the Regulations relating to the procedure to be followed and criteria to be considered when determining an appropriate fine in terms of section 24G published in the Government Gazette on 20 July 2017, Gazette No 40994, No. R. 698 ("Section 24G Fine Regulations").
- b) Together with the submission of a section 24G Application Form, the form **must include Proof of compliance of with Regulation 8** of the Section 24G Fine Regulations, including, but not limited to, proof of the pre-application advertisement in a local newspaper and register of I&APs.
- c) The Department will acknowledge receipt of the application (within 14 days) and provide the Applicant / EAP with the relevant application reference number to be used in all future correspondence and the application public participation processes.
- d) Upon receipt of the application, the MEC/Competent Authority may direct the applicant in terms of section 24G(1)(i-viii) of the NEMA.
- e) In terms of the provisions of section 24G of NEMA, the applicant must pay an administrative fine up to a maximum of R5 million before the MEC/Competent Authority decides on the application.
- f) The applicant **must within 14 days** of receipt of the determination of the quantum of the fine, ensure that all registered interested and affected parties are notified of the determination of the quantum of the fine, including the reasons and provided with access to the determination.
- g) The administrative fine **must be paid within the time period stipulated** in the determination. Failure to pay the fine within the specified period, will result in the lapse of the application and any partial amounts paid in will not be refunded.
- h) **Proof of payment of the fine must be submitted to the Department.** Upon payment of the administrative fine, the MEC/Competent Authority may-
 - refuse to issue an environmental authorisation; or
 - issue an environmental authorisation to such person to continue, conduct or undertake the activity subject to such conditions as may be deemed necessary, which environmental authorisation shall only take effect from the date on which it has been issued; or
 - direct the applicant to provide further information or take further steps prior to making a decision provided for above;
 - together with the above decision the MEC/Competent Authority may direct a person to rehabilitate the environment within such time and subject to such conditions as may deem necessary or take any other steps necessary under the circumstances.

PLEASE NOTE THE FOLLOWING:

1. Failure to comply with a directive may result in the institution of appropriate legal action as is deemed necessary and as provided for in the legislation.
2. The submission of an application or the granting of an environmental authorisation shall in no way derogate from—

- (a) the environmental management inspector's or the South African Police Services' authority to investigate any transgression in terms of NEMA or any specific environmental management Act;
- (b) the National Prosecuting Authority's legal authority to institute any criminal prosecution.
3. If, at any stage after the submission of an application it comes to the attention of the Minister, Minister for mineral resources or MEC that the applicant is under criminal investigation for the contravention of or failure to comply with section 24F(1) or section 20(b) of the *National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)*, the Minister, Minister for mineral resources or MEC may defer a decision to issue an environmental authorisation until such time that the investigation is concluded and—
- (a) the National Prosecuting Authority has decided not to institute prosecution in respect of such contravention or failure;
- (b) the applicant concerned is acquitted or found not guilty after prosecution in respect of such contravention or failure has been instituted; or
- (c) the applicant concerned has been convicted by a court of law of an offence in respect of such contravention or failure and the applicant has in respect of the conviction exhausted all the recognised legal proceedings pertaining to appeal or review.
4. A person is guilty of an offence if that person:
- Prior to submission of a section 24G application:
 - o fails, in terms of Regulation 8(1), to place a preliminary advertisement in a local newspaper in circulation in the area in which the activity was, or activities were, commenced and on the applicant's website, if any or
 - o fails, in terms of Regulation 8(2), to comply with the advertisement requirements set out in Annexure A, section D or
 - o fails, in terms of Regulation 8(3), to open and maintain a register of interested and affected parties)); or
 - o fails, in terms of Regulation 8(4), to attach to the application form the register of interested and affected parties, which must be included in the report, or form part of the information submitted in terms of section 24G(1) of NEMA.
 - Provides incorrect, false or misleading information in any form, including in any document submitted to a competent authority in terms of the Section 24G Fine Regulations or omits information that may have an influence on the outcome of a recommendation of the fine committee or determination of the competent authority.
5. A person convicted of an offence in terms of these Regulations is liable to a fine not exceeding R5 million or to imprisonment for a period not exceeding 5 years, and in the case of a second or subsequent conviction to a fine not exceeding R10 million or to imprisonment for a period not exceeding 10 years, and in both instances to both such fine and such imprisonment.
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DEPARTMENTAL DETAILS

Department of Environmental Affairs
and Development Planning,
Directorate: Environmental Governance
Attention: Sub-directorate: Rectification
Private Bag X9086
Cape Town, 8000

Registry Office
1st Floor Utilitas Building
1 Dorp Street, Cape Town

Queries should be directed to the Sub-
director: Rectification at:
Tel: (021) 483-5827 Fax: (021) 483-4033

DEPARTMENTAL REFERENCE NUMBER(S) (for official use)

File Reference number (S24G)	
Administrative Fine Reference	

DEPARTMENTAL REFERENCE NUMBER(S) (to be completed by the EAP)

File Reference number (Enforcement), if applicable	14/1/1/E3/6/2/3/L944/18
File reference number (EIA), if applicable:	N/A
File reference number (Waste), if applicable:	N/A
File reference number (Other (specify)):	N/A

View the Department's website on <http://www.westerncape.gov.za/eadp> for the latest version of the documents

PART 1**PROJECT TITLE**

APPLICATION FOR RECTIFICATION IN TERMS OF SECTION 24G OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998) FOR THE UNLAWFUL COMMENCEMENT OF VEGETATION CLEARANCE AND TOPSOIL DISTURBANCE OF MORE THAN 1 HECTARE, THE CONSTRUCTION OF AN EMBANKMENT WITHIN 32 METERS OF THE GROOT RIVER AND THE DEVELOPMENT OF AN OFF-STREAM STORAGE DAM ON THE FARM ZUURBERG NO. 288, LADISMITH, WESTERN CAPE PROVINCE.

RELEVANT REGION IN WHICH THE ACTIVITY COMMENCED

Cross out the appropriate box "☒" in which region the unlawful activity/ies has commenced.

REGION 1 City of Cape Town and West Coast District	REGION 2 Cape Winelands District and Overberg District	REGION 3 Central Karoo District and Eden District
		X

SECTION A: BACKGROUND INFORMATION**1. APPLICANT PROFILE INDEX**

Cross out the appropriate box "☒".

1.1	The applicant is a Natural Person (individual)				
1.2	The applicant is a Firm (i.e. any body incorporated by, or established in terms of, any law as well as any partnership, trust, parastatal or organ of state)				X
1.2.1	If a firm, please tick the relevant box below:				
	Body Corporate	Partnership	Trust	Parastatal	Organ of State
	Directors of a Company	Members of a Board	Other, please specify		

Applicant's details (duplicate this section where there is more than one applicant)	The Sieni Family Trust		
Applicant Name:	The Sieni Family Trust		
RSA Identity Number/ Passport Number of Applicant, if natural person:	N/A		
Name of Firm (if applicable):	The Sieni Family Trust		
Firm Registration Number:	4677/2017		
Contact Person at the Firm:	Clint Neil		
List of all (as applicable at the relevant time):	Please insert the names and RSA ID numbers of the relevant persons below – (In the list below, delete the firms that are not applicable to this application)		
• Trustees of a trust	Name: Huibrecht Barendina Sieni RSA ID No. 430813 0012 084 Name: Francesco Antonio Sieni RSA ID No. 430425 5031 082 Name: Antonia Lombard RSA ID No. 700904 0022 083		
Postal address:	P. O. Box 328		
	Ladismith	Postal code:	6655
Telephone:	N/A	Cell:	072 1713 070 / 072 1948 717
E-mail:	Antonialombard54@gmail.com	Fax:	N/A
Project Consultant	Environamics		
Contact person:	Carli Otte		
Postal address:	P. O. Box 6484		
	Baillie Park	Postal code:	2531
Telephone:	N/A	Cell:	082 220 8651
E-mail:	carli@environamics.co.za	Fax:	086 762 8336
Name of the Environmental Assessment Practitioner ("EAP") responsible for the application:	Marélie Botha		
Company name (if any):	Environamics		
Postal address:	P. O. Box 6484		
	Baillie Park	Postal code:	2531
Telephone:	N/A	Cell:	082 493 5166
E-mail:	marelie@environamics.co.za	Fax:	N/A
EAP Qualifications	BSc Hons Environmental Management		
EAP Registrations/Associations	IAIAsa		
Name of the Landowner:	Sieni Trust		
Name of the contact person for the land owner (if other):	Clint Neil		
Postal address:	P. O. Box 328		
	Ladismith	Postal code:	6655
Telephone:	N/A	Cell:	083 384 3443
E-mail:	clint@atmtowers.com	Fax:	N/A
Person in control of land:	Antonia Lombard		
Contact person:	-		
Postal address:	P. O. Box 328		
	Ladismith	Postal code:	6655
Telephone:	N/A	Cell:	072 1713 070
E-mail:	antonialombard54@gmail.com	Fax:	N/A

Please note:

In instances where there is more than one landowner, please attach a list of landowners with their contact details to the back of this form.

A certified copy of the applicant's (if natural person), alternatively a director's (as defined), Identity Document must be attached to the application.

A certified copy of the title deed of the property/s on which the unlawful listed activity/ies has commenced must be attached to the application.

Municipality in whose area of jurisdiction the activity falls:	Kannaland Municipality		
Contact person, if known:	Municipal Manager: Mr. Reynold Stevens		
Postal address:	P. O. Box 30		
	Ladismith	Postal code:	6655
Telephone:	028 551 8000	Cell:	-
E-mail:	mm@kannaland.gov.za	Fax:	028 551 1766

Please note:

In instances where there is more than one Municipality involved, please attach a list of Municipalities with their respective contact details to the form.

Property location(s):	-33° 33' 7.42" S; 21° 7' 9.74" E
Farm/Erf name(s) & number(s) including portion(s)	Farm Zuurberg No. 288
Property size(s) (m ²)	5 163 803.06
Development footprint size(s) (m ²)	Approximately 20 000m ² (~2 hectares)
SG21 Digit code(s)	C0420000000028800000

Property boundary:

Point	Latitude (S)	Longitude (E)
1	-33 ° 33 ' 7.42 " South	21 ° 7 ' 9.74 " East
2	-33 ° 33 ' 20.01 " South	21 ° 7 ' 47.04 " East
3	-33 ° 33 ' 24.65 " South	21 ° 7 ' 53.8 " East
4	-33 ° 33 ' 27 " South	21 ° 7 ' 52.09 " East
5	-33 ° 33 ' 28.07 " South	21 ° 7 ' 53.76 " East
6	-33 ° 33 ' 29.92 " South	21 ° 7 ' 52.31 " East
7	-33 ° 33 ' 29.72 " South	21 ° 7 ' 48.69 " East
8	-33 ° 33 ' 29.99 " South	21 ° 7 ' 45.94 " East
9	-33 ° 33 ' 28.37 " South	21 ° 7 ' 30.85 " East
10	-33 ° 33 ' 34.51 " South	21 ° 7 ' 22.55 " East
11	-33 ° 33 ' 35.51 " South	21 ° 7 ' 30.94 " East
12	-33 ° 33 ' 36.58 " South	21 ° 7 ' 34.35 " East
13	-33 ° 33 ' 44.67 " South	21 ° 7 ' 34.83 " East
14	-33 ° 33 ' 44.86 " South	21 ° 7 ' 19.43 " East
15	-33 ° 33 ' 43.92 " South	21 ° 6 ' 54.55 " East
16	-33 ° 33 ' 51.53 " South	21 ° 6 ' 50 " East
17	-33 ° 35 ' 4.61 " South	21 ° 7 ' 19.52 " East
18	-33 ° 34 ' 26.59 " South	21 ° 7 ' 8.53 " East

19	-33 ° 34 ' 26.54 " South	21 ° 7 ' 7.76 " East
20	-33 ° 34 ' 35.12 " South	21 ° 7 ' 7.78 " East
21	-33 ° 34 ' 43.36 " South	21 ° 7 ' 10.75 " East
22	-33 ° 34 ' 44.53 " South	21 ° 7 ' 10.09 " East
23	-33 ° 34 ' 45.78 " South	21 ° 7 ' 12.37 " East
24	-33 ° 34 ' 49.81 " South	21 ° 7 ' 33.23 " East
25	-33 ° 34 ' 53.57 " South	21 ° 7 ' 41.23 " East
26	-33 ° 34 ' 54.54 " South	21 ° 7 ' 42.42 " East
27	-33 ° 34 ' 57.27 " South	21 ° 7 ' 43.35 " East
28	-33 ° 35 ' 7.31 " South	21 ° 7 ' 35.86 " East
29	-33 ° 35 ' 13.11 " South	21 ° 7 ' 24.5 " East
30	-33 ° 35 ' 10.82 " South	21 ° 7 ' 0.52 " East
31	-33 ° 34 ' 43.54 " South	21 ° 6 ' 50.86 " East
32	-33 ° 34 ' 29.57 " South	21 ° 5 ' 55.63 " East
33	-33 ° 34 ' 15.76 " South	21 ° 5 ' 39.33 " East
34	-33 ° 33 ' 56.2 " South	21 ° 5 ' 37.4 " East
35	-33 ° 33 ' 35.24 " South	21 ° 7 ' 7.97 " East

The co-ordinates for the site boundary are:

Point	Latitude (S)	Longitude (E)
1	-33 ° 33 ' 8.2 " South	21 ° 7 ' 10.39 " East
2	-33 ° 33 ' 14.05 " South	21 ° 7 ' 27.3 " East
3	-33 ° 33 ' 15.86 " South	21 ° 7 ' 32.4 " East
4	-33 ° 33 ' 20.17 " South	21 ° 7 ' 46.23 " East
5	-33 ° 33 ' 23.65 " South	21 ° 7 ' 51.64 " East
6	-33 ° 33 ' 29.32 " South	21 ° 7 ' 47.54 " East
7	-33 ° 33 ' 29.44 " South	21 ° 7 ' 45.68 " East
8	-33 ° 33 ' 27.7 " South	21 ° 7 ' 30.93 " East
9	-33 ° 33 ' 34.66 " South	21 ° 7 ' 21.51 " East
10	-33 ° 33 ' 35.87 " South	21 ° 7 ' 30.32 " East
11	-33 ° 33 ' 36.84 " South	21 ° 7 ' 33.71 " East
12	-33 ° 33 ' 44.49 " South	21 ° 7 ' 34.18 " East
13	-33 ° 33 ' 45.4 " South	21 ° 7 ' 29.31 " East

14	-33 ° 33 ' 35.43 " South	21 ° 7 ' 8.53 " East
15	-33 ° 33 ' 8.53 " South	21 ° 7 ' 10.39 " East

Please note:

Where numerous properties/sites are involved (e.g. linear activities), attach a list of property descriptions and street addresses to the consultation form.

Street address:	N/A		
Magisterial District or Town:	Ladismith		
Closest City/Town:	Ladismith	Distance	14 km NE
Zoning of Property:	Agriculture		

Please note:

In instances where there is more than one zoning applicable, please attach a list or map of the properties indicating their respective zoning to the Application Form.

Was the property rezoned after commencement of activities?	YES	NO
If yes, what was the previous zoning?	N/A	
Is a rezoning application required?	YES	NO
Is a consent use application required?	YES	NO

Locality map:	<p>A locality map must be attached to the Application Form as an appendix. The scale of the locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map. The map must indicate the following:</p> <ul style="list-style-type: none"> • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow; • a legend; • the prevailing wind direction; and • GPS co-ordinates (Indicate the position of the proposed activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS-84 spheroid in a national or local projection)
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Landowner(s) Consent:	<p>If the applicant is not the owner or person in control of the land on which the activity has been undertaken, he/she must obtain written consent from all landowners or persons in control of the land (of the site and all alternative sites). This must be attached to this document as Appendix G. Such consent must indicate whether or not the owner or person in control of the land would support approval of the application and that the land need not be rehabilitated.</p> <p>Note: The consent of the landowner or person in control of the land is not required for: a) linear activities; b) an activity directly related to prospecting or exploration of a mineral and petroleum resource or extraction and primary processing of a mineral resource; or c) strategic integrated projects ("SIPs") as contemplated in the Infrastructure Development Act, 2014 [Act No. 23 of 2014].</p>
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2. APPLICATION HISTORY

(Cross out the appropriate box "X" and provide a description where required).

Has any national, provincial or local authority considered any development applications on the property previously?	Yes	No
If so, please give a brief description of the type and/or nature of the application/s as well as a reference number, if applicable: (In instances where there was more than one application, please attach a list of these applications)		
N/A		
Which authority considered the application:		
N/A		
Has any one of the previous application/s on the property been approved or refused?	Yes	No
If so provide a list of the successful and unsuccessful application/s and the reasons for decision(s).		
N/A		
Provide detail on the period of validity of decision and expiry dates of the above applications/ permits etc.		
N/A		

SECTION B: ACTIVITY INFORMATION

1. ACTIVITIES APPLIED FOR

I hereby apply in terms of section 24G of the National Environmental Management Act (Act 107 of 1998) for the regularisation of the unlawful commencement or continuation of the listed or waste management activities as specified in Section B:1 below.

Applicant (Full names): _____

Signature: _____

Place: _____

Date: _____

EAP (Full names): MARELIE BOTHASignature: Place: STEYNSRUSDate: 28/09/2019

All listed activities associated with the development must be indicated below.

1.1 Applicable EIA listed activities

ECA EIA Contraventions: between 08 September 1997 and end of 09 May 2002			
Activities commenced with on or after 08 September 1997 and before end 09 May 2002: EIA regulations promulgated in terms of the ECA, Act 73 of 1989			
Government Notice No ("GN") R1182 Activity No(s):	Describe the relevant listed activity/ies in writing as per GN No. 1182 of 1997	Describe the portion of the development as per the project description that relates to the applicable listed activity.	State the date of commencement of each activity
ECA EIA Contraventions: between 10 May 2002 and end of 02 July 2006			
Activities unlawfully commenced with on or after 10 May 2002 and before end 02 July 2006: EIA regulations promulgated in terms of the ECA, Act 73 of 1989,			
NEMA EIA Contraventions: between 03 July 2006 and end of 01 August 2010			
Activities unlawfully commenced with on or after 03 July 2006 and before end 01 August 2010: EIA regulations promulgated in terms of the NEMA			
GN R386 Activity No(s): (Listing Notice 1 of 2006)	Describe the relevant listed activity/ies in writing as per GN No. R. 386 of 2006 ("NEMA 2006 Basic Assessment listed activity/ies")	Describe the portion of the development as per the project description that relates to the applicable listed activity.	State the date of commencement of each activity
Government Notice No. R387 Activity No(s): (Listing Notice 2 of 2006)	Describe the relevant listed activity/ies in writing as per GN No. R. 387 of 2006 ("NEMA 2006 Scoping/EIA listed activity/ies")	Describe the portion of the development as per the project description that relates to the applicable listed activity.	State the date of commencement of each activity
NEMA EIA Contraventions: between 02 August 2010 and end of 07 December 2014			
Activities unlawfully commenced with on or after 02 August 2010 and before end 07 December 2014: EIA regulations promulgated in terms of the NEMA, Act 107 of 1998,			
GN No. R. 544 Activity No(s): (Listing Notice 1 of 2010)	Describe the relevant listed activity(ies) in writing as per GN No. R. 544 of 2010 ("NEMA 2010 Basic Assessment listed activity/ies")	Describe the portion of the development as per the project description that relates to the applicable listed activity.	State the date of commencement of each activity
GN No. R. 545 Activity No(s): (Listing Notice 2 of 2010)	Describe the relevant listed activity/ies in writing as per GN No. R. 545 of 2010. (NEMA 2010 Scoping/EIA listed activity/ies")	Describe the portion of the development as per the project description that relates to the applicable listed activity.	State the date of commencement of each activity
GN No. R. 546 Activity No(s): (Listing Notice 3 of 2010)	Describe the relevant listed Activity(ies) in writing as per GN No. R. 546 of 2010	Describe the portion of the development as per the project description that relates to the applicable listed activity.	State the date of commencement of each activity
NEMA EIA Contraventions: on or after 08 December 2014			

SECTION B: ACTIVITY INFORMATION

I. ACTIVITIES APPLIED FOR

I hereby apply in terms of section 24G of the National Environmental Management Act (Act 107 of 1998) for the regularisation of the unlawful commencement or continuation of the listed or waste management activities as specified in Section B:1 below.

Applicant (Full names): Antonia Lombard Signature: Lombard

Place: Leidsmith Date: 27/08/2019

EAP (Full names): _____ Signature: _____

Place: _____ Date: _____

All listed activities associated with the development must be indicated below.

1.1 Applicable EIA listed activities

ECA EIA Contraventions: between 08 September 1997 and end of 09 May 2002			
Activities commenced with on or after 08 September 1997 and before end 09 May 2002: EIA regulations promulgated in terms of the ECA, Act 73 of 1989			
Government Listing No. (ENR 1997 Act No. 150)	Description of the relevant EIA regulation in writing as per ENR No. 150 of 1997	Description of the portion of the development of the project description that relates to the applicable listed activity	State the date of commencement of each activity
ECA EIA Contraventions: between 10 May 2002 and end of 02 July 2006			
Activities unlawfully commenced with on or after 10 May 2002 and before end 02 July 2006: EIA regulations promulgated in terms of the ECA, Act 73 of 1989			
NEMA EIA Contraventions: between 03 July 2006 and end of 01 August 2010			
Activities unlawfully commenced with on or after 03 July 2006 and before end 01 August 2010: EIA regulations promulgated in terms of the NEMA			
ENR EIA Activity No. (Listing Notice 1 of 2006)	Description of the relevant EIA regulation in writing as per ENR No. 38 of 2006 (NEMA 2006 Regulations listed below)	Description of the portion of the development of the project description that relates to the applicable listed activity	State the date of commencement of each activity
Government Listing No. (ENR Act No. 107 of 2006) (Listing Notice 2 of 2006)	Description of the relevant EIA regulation in writing as per ENR No. 107 of 2006 (NEMA 2006 Regulations listed below)	Description of the portion of the development of the project description that relates to the applicable listed activity	State the date of commencement of each activity
NEMA EIA Contraventions: between 02 August 2010 and end of 07 December 2014			
Activities unlawfully commenced with on or after 02 August 2010 and before end 07 December 2014: EIA regulations promulgated in terms of the NEMA, Act 107 of 1998			
ENR EIA Activity No. (Listing Notice 1 of 2010)	Description of the relevant EIA regulation in writing as per ENR No. 144 of 2010 (NEMA 2010 Regulations listed below)	Description of the portion of the development of the project description that relates to the applicable listed activity	State the date of commencement of each activity
ENR EIA Activity No. (Listing Notice 2 of 2010)	Description of the relevant EIA regulation in writing as per ENR No. 145 of 2010 (NEMA 2010 Regulations listed below)	Description of the portion of the development of the project description that relates to the applicable listed activity	State the date of commencement of each activity
ENR EIA Activity No. (Listing Notice 3 of 2010)	Description of the relevant EIA regulation in writing as per ENR No. 146 of 2010 (NEMA 2010 Regulations listed below)	Description of the portion of the development of the project description that relates to the applicable listed activity	State the date of commencement of each activity
NEMA EIA Contraventions: on or after 08 December 2014			

Activities unlawfully commenced with on or after 08 December 2014: EIA regulations promulgated in terms of the NEMA, Act 107 of 1998,			
GN No. R. 327 Activity No(s): (Listing Notice 1 of 2014)	Describe the relevant listed activity(ies) in writing as per GN No. R.327 of 2014 ("NEMA 2014 Basic Assessment listed activity/ies")	Describe the portion of the development as per the project description that relates to the applicable listed activity.	State the date of commencement of each activity
Activity 12 (ii) (c)	"The development of structures or infrastructure with a physical footprint of 100 square meters or more, where such development occurs, if no setback exists, within 32 metres of a watercourse, measured from the edge of the watercourse."	Development of a soil and rock embankment infrastructure within 32 metres of the Groot River.	June 2017
Activity 13	"The development of facilities or infrastructure for off-stream storage of water, including dams or reservoirs, with a combined capacity of 50 000 cubic metres or more..."	Unlawful dam development of a dam with a capacity of 50 000m ² or more.	June 2017
Activity 27	"The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation..."	Vegetation clearance of more than 1 hectare of indigenous vegetation for agricultural purposes.	June 2017
GN No. R. 325 Activity No(s): (Listing Notice 2 of 2014)	Describe the relevant listed activity(ies) in writing as per GN No. R.325 of 2014 ("NEMA 2014 Scoping/EIA listed activity/ies")	Describe the portion of the development as per the project description that relates to the applicable listed activity.	State the date of commencement of each activity
GN No. R. 324 Activity No(s): (Listing Notice 3 of 2014)	Describe the relevant listed activity(ies) in writing as per GN No. R.324 of 2014	Describe the portion of the development as per the project description that relates to the applicable listed activity.	State the date of commencement of each activity

Please ensure that you have provided the similarly listed activities if the listed activities were commenced before the period the EIA Regulations came into effect, i.e. before 08 December 2014.

1.2 Applicable Waste Management Activities

List the relevant waste management activity/ies applied for:

Waste Management Activity Contraventions: On or after 03 July 2007 up to end of 28 November 2013			
Activities unlawfully commenced with in terms of GNR 718 of 03 July 2009 under the National Environmental Management Waste Act, Act 59 of 2008			
GN No. 718 – Category A Activity No(s):	Describe the relevant <u>Category A</u> waste management activity/ies in writing.	Describe the portion of the development as per the project description that relates to the applicable waste activity.	State the date of commencement of each activity
GN No. 718 – Category B Activity No(s):	Describe the relevant <u>Category B</u> waste management activity/ies in writing.	Describe the portion of the development as per the project description that relates to the applicable waste activity.	State the date of commencement of each activity

Waste Management Activity Contraventions: On or after 29 November 2013			
Activities unlawfully commenced with in terms of GNR 921 of 29 November 2013 under the National Environmental Management Waste Act, Act 59 of 2008,			
GN No. 921 – Category A Activity No(s):	Describe the relevant <u>Category A</u> waste management activity/ies in writing.	Describe the portion of the development as per the project description that relates to the applicable waste activity.	State the date of commencement of each activity
GN No. 921 – Category B Activity No(s):	Describe the relevant <u>Category B</u> waste management activity/ies in writing.	Describe the portion of the development as per the project description that relates to the applicable waste activity.	State the date of commencement of each activity

Please note:

The National Department of Environmental Affairs is the competent authority for activities regarded as hazardous waste. Such activities must be indicated as hazardous waste in the abovementioned lists.

Only those activities listed above shall be considered for authorisation. The onus is on the applicant to ensure that all applicable listed activities are included in the application. If a specific listed activity is not included in an Environmental Authorisation, an application for amendment or a new application for Environmental Authorisation will have to be submitted.

1.3 Activities listed similarly in terms of the EIA Regulations

Kindly indicate the listed activities in terms of the EIA Regulations that is listed similar to the unlawfully commenced activities. The descriptions provided below must clearly state why the activity/development is still similarly listed in terms of the EIA Regulations, 2014.

The similarly listed activities in terms of the EIA Regulations promulgated in terms of the NEMA, Act 107 of 1998,		
GN No. R. 327 Activity No(s): (Listing Notice 1 of 2014)	Describe the relevant listed activity(ies) in writing as per GN No. R.327 of 2014 ("NEMA 2014 Basic Assessment listed activity/ies")	Describe the portion of the development as per the project description that relates to the applicable listed activity.
Activity 12 (ii) (c)	"The development of structures or infrastructure with a physical footprint of 100 square meters or more, where such development occurs, if no setback exists, within 32 metres of a watercourse, measured from the edge of the watercourse."	Development of a soil and rock embankment infrastructure within 32 metres of the Groot River.
Activity 13	"The development of facilities or infrastructure for off-stream storage of water, including dams or reservoirs, with a combined capacity of 50 000 cubic metres or more..."	Unlawful dam development of a dam with an alleged capacity of 50 000m ³ or more (according to the applicant the capacity of the dam is 24 000m ³).
Activity 27	"The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation..."	Vegetation clearance of more than 1 hectare for agricultural purposes.
GN No. R. 325 Activity No(s): (Listing Notice 2 of 2014)	Describe the relevant listed activity(ies) in writing as per GN No. R.325 of 2014 ("NEMA 2014 Scoping/EIA listed activity/ies")	Describe the portion of the development as per the project description that relates to the applicable listed activity.
GN No. R. 324 Activity No(s): (Listing Notice 3 of 2014)	Describe the relevant listed activity(ies) in writing as per GN No. R.324 of 2014	Describe the portion of the development as per the project description that relates to the applicable listed activity.

Please note:

Where approvals for the activity have been obtained in terms of any other legislation (e.g. National Water Act, Act 36 of 1998), certified copies of such approvals must be attached to this form.

2. ACTIVITY DESCRIPTION

(Cross out the appropriate box "☒" and provide a description where required).

Is/are the activity(ies) complete or is/are the activity(ies) still to be completed?	Completed	Incomplete
(a) Is/was the project a new development or an upgrade of an existing development? Also indicate the date (e.g. 2 August 2010) when the activity commenced <u>as well as</u> the original date of commencement if the application is an upgrade.	New	Upgrade
The Sieni Trust had existing agricultural activities on the farm Zuurberg No. 288, with existing water rights. Due to the persistent drought in the Western Cape, they had to consider alternative farming and irrigation methods. They cleared an area of natural vegetation to plant Almond trees that would save water using drip irrigation and constructed a dam that would accumulate lawfully allocated canal water. Date of commencement is June 2017.		

(b) Clearly describe the activity and associated infrastructure commenced with, indicating what has been completed and what still has to be completed.

More than 1 hectare of indigenous vegetation was cleared for the cultivation of almond trees. The planting of the almond trees still has to be completed. A rock and soil embankment within 32 metres of the Groot River was also constructed to ensure that the new Almond orchard will not be damaged should the Groot River flood. A dam with a capacity of more than 50 000m³ was also constructed to accumulated the farm's legally allocated water to be used for drip irrigation. A pump house and associated channels have also been constructed as part of the infrastructure for the dam.

(c) Please provide details of all components of the activity and attach diagrams (e.g. architectural drawings or perspectives, engineering drawings, process flow charts etc.).

Buildings	YES	NO
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Provide brief description:

As part of the construction of the dam an irrigation dam pump house was also constructed.

Infrastructure (e.g. roads, power and water supply/ storage)	YES	NO
--------------------------------------------------------------	-----	----

Provide brief description:

An irrigation dam was constructed with a storage capacity of more than 50 000m³.

Processing activities (e.g. manufacturing, storage, distribution)	YES	NO
-------------------------------------------------------------------	-----	----

Provide brief description:

The farm has an existing storage and processing shed.

Storage facilities for raw materials and products (e.g. volume and substances to be stored)	YES	NO
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Provide brief description

N/A

Storage and treatment facilities for solid waste and effluent generated by the project	YES	NO
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Provide brief description

N/A

(d) Other activities (e.g. water abstraction activities, crop planting activities)	YES	NO
------------------------------------------------------------------------------------	-----	----

Provide brief description

Indigenous vegetation has been cleared to make way for the additional crop planting activities. Approximately 5 400 almond trees were planted, which makes use drip irrigation.

3. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical spatial size of the activity as well as associated infrastructure (footprints):	~36 000 m ²
Indicate the area that has been transformed / cleared to allow for the activity as well as associated infrastructure	~36 000 m ²
Total area:	36 000 m ²

4. SITE ACCESS

Was there an existing access road?	YES	NO
If NO, what was the distance over which the new access road was built? Please indicate the length and width of the new road.	length	m
	width	m
Describe the type of access road constructed:		
The farm has an existing gravel road.		

Please Note:

Indicate the position of the access road on the site plan (See Section 5 below)

5. SITE PHOTOGRAPHS

Colour photographs of the site and its surroundings (taken of the site and from the site), both before (if available) and after the activity commenced, with a description of each photograph, must be attached to this application. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide past and recent aerial photographs. It should be supplemented with additional photographs of relevant features on the site. Date and source of photographs must be included. Photographs must be attached as an **appendix** to this form.

Please note:

Should the relevant photographs not be included in the application, the application may be deemed insufficient and further information in this regard will be requested.

6. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

Please list all legislation, policies and/or guidelines that were or are relevant to this activity.

LEGISLATION	ADMINISTERING AUTHORITY	TYPE Permit/ license/ authorisation/comment	DATE (if already obtained):
The National Environmental Management Act(NEMA) – Act 107 of 1998, as amended	Department of Environmental Affairs (National Level) and Western Cape Department of Environmental Affairs & Development Planning (Provincial Level)	Application for the rectification and continuation of listed activities commenced unlawfully, in terms of Section 24G of NEMA.	Application in progress (this application)
The Environmental Impact Assessment Regulations 2014, as amended	Western Cape Department of Environmental Affairs and Development Planning	Application in terms of Section 24G of NEMA for the rectification and continuation of listed activities commenced unlawfully.	Application in progress (this application)
National Water Act, Act 36 of 1998	Department of Water Affairs	Water Use license required in terms of Section 21 for the storing of water, and in terms of Section 21 (c) and (i) for the soil and rock embankment on the banks of the Groot River.	Licensing in progress
National Water Act, 1998 – Section 120 and Dam Safety Regulations (GN R 139, 24 February 2012)	Department of Water Affairs	Registration and Classification of dam for safety purposes.	Licensing in progress
National Heritage Resources Act, Act 25 of 1999	Heritage Authority: Western Cape	Notice of Intention to Develop submitted for further instruction. HWC indicated that Section 38 of the NHRA does not apply and no Heritage Impact Assessment or further mitigation is required.	Awaiting comment

POLICY/ GUIDELINES	ADMINISTERING AUTHORITY
Kannaland Municipality Spatial Development Framework (2013)	Kannaland Municipality
Kannaland Municipality Draft Integrated Development Plan (2017 – 2018)	Kannaland Municipality
Western Cape Provincial Spatial Development Framework (2014)	Western Cape Government
Western Cape Provincial Spatial Development Framework - Rural Land Use Planning & Management Guidelines (2019)	Western Cape Government
Guideline on Public Participation (2013)	Western Cape Department of Environmental Affairs & Development Planning
Guideline on Need and Desirability (2013)	Western Cape Department of Environmental Affairs & Development Planning
Guideline for Involving Heritage Specialists in EIA Processes (2005)	Western Cape Department of Environmental Affairs & Development Planning
Guideline for Involving Biodiversity Specialists in EIA Processes (2005)	Western Cape Department of Environmental Affairs & Development Planning
Summary of Legal Requirements for Prospective and Existing Dam Owners (22 May 2012)	Department of Water Affairs

7. APPLICATIONS IN TERMS OF NEMA AND SPECIFIC ENVIRONMENTAL MANAGEMENT ACTS ("SEMAs")

If not specifically applied for in terms of this application, does the development require an application for a waste management license in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)?	YES	NO
If yes, has an application been submitted to the licensing authority?	YES	NO

Does the proposed project require an application for a water use license in terms of the National Water Act, 1998 (Act No. 36 of 1998)?	YES	NO
If yes, has an application been submitted to the licensing authority?	YES	NO
If no, please provide evidence of existing water use rights (if applicable) with this application form.	YES	NO
Does the proposed project require an application for an atmospheric emissions license in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)?	YES	NO
If yes, has an application been submitted to the licensing authority?	YES	NO
Does the proposed project require an application in terms of the National Environmental Management: Integrated Coastal Management Act ("NEM: ICMA")?	YES	NO
If yes, has an application been submitted to the relevant competent authority?	YES	NO
If yes, provide more details of the application submitted/to be submitted in terms of the NEM: ICMA		

8. APPLICATIONS IN TERMS OF OTHER LEGISLATION

Is any permission, licence or other approval required in terms of any other legislation? (Please tick)	YES	NO
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If yes, please complete the table below:

Type of approval required (List the applicable legislation & approval required):	Name of the authority responsible for administering the applicable legislation	Application submitted (Yes / No)	Status of application (e.g. pending/ granted/ refused)
Water Use License	Department of Water and Sanitation	No	To be submitted

SECTION C: DESCRIPTION OF RECEIVING ENVIRONMENT

Site/Area Description

For linear activities (pipelines, etc.) as well as activities that cover very large sites, it may be necessary to complete copies of this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area which is covered by each copy No. on the site plan.

Section C Copy No. (e.g. 1, 2, or 3):

1. THE GEOLOGICAL FORMATIONS UNDERLYING THE SITE (Tick the appropriate box)

GRANITE		QUARTZITE	
SHALE	X	DOLOMITE	
SANDSTONE	X	DOLERITE	
OTHER (specify)			

2. GRADIENT OF THE SITE

Indicate the general gradient of the site(s) (cross out the appropriate box).

Flat	Flatter than 1:10	1:10 – 1:5	Steeper than 1:5
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3. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site (cross out ("X") the appropriate boxes).

Ridge/line	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front	Other
If other, please describe: N/A									

4. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

4.1 GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE (PRE-COMMENCEMENT)

Is the site(s) located on or near any of the following (cross out ("X") the appropriate boxes)?

Shallow water table (less than 1.5m deep)	YES	NO	UNSURE
Seasonally wet soils (often close to water bodies)	YES	NO	UNSURE
Unstable rocky slopes or steep slopes with loose soil	YES	NO	UNSURE
Dispersive soils (soils that dissolve in water)	YES	NO	UNSURE
Soils with high clay content	YES	NO	UNSURE
Any other unstable soil or geological feature	YES	NO	UNSURE
An area sensitive to erosion	YES	NO	UNSURE

4.2 GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE (POST-COMMENCEMENT)

Shallow water table (less than 1.5m deep)	YES	NO	UNSURE
Seasonally wet soils (often close to water bodies)	YES	NO	UNSURE
Unstable rocky slopes or steep slopes with loose soil	YES	NO	UNSURE
Dispersive soils (soils that dissolve in water)	YES	NO	UNSURE
Soils with high clay content	YES	NO	UNSURE
Any other unstable soil or geological feature	YES	NO	UNSURE
An area sensitive to erosion	YES	NO	UNSURE

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department. (Information in respect of the above will often be available at the planning sections of local authorities. Where it does not exist, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

5. SURFACE WATER

5.1 SURFACE WATER (PRE-COMMENCEMENT)

Indicate the surface water present on and or adjacent to the site and alternative sites (cross out ("X") the appropriate boxes)?

Perennial River	YES	NO	UNSURE
Non-Perennial River	YES	NO	UNSURE
Permanent Wetland	YES	NO	UNSURE
Seasonal Wetland	YES	NO	UNSURE
Artificial Wetland	YES	NO	UNSURE
Estuarine / Lagoonal wetland	YES	NO	UNSURE

5.2 SURFACE WATER (POST-COMMENCEMENT)

Indicate the surface water present on and or adjacent to the site and alternative sites (cross out ("X") the appropriate boxes)?

Perennial River	YES	NO	UNSURE
Non-Perennial River	YES	NO	UNSURE
Permanent Wetland	YES	NO	UNSURE
Seasonal Wetland	YES	NO	UNSURE
Artificial Wetland	YES	NO	UNSURE
Estuarine / Lagoonal wetland	YES	NO	UNSURE

6. VEGETATION AND/OR GROUNDCOVER

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult <http://bgis.sanbi.org.za> or BGIShelp@sanbi.org.za. Information is also available on compact disc ("cd") from the Biodiversity-GIS Unit, Ph (021) 799 8738. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as an **appendix** to this form.

6.1 VEGETATION AND/OR GROUNDCOVER (PRE-COMMENCEMENT)

Cross out ("X") the block and describe (where applicable) the vegetation types / groundcover present on the site before commencement of the activity.

Indigenous Vegetation - good condition	X	Indigenous Vegetation with scattered aliens	X	Indigenous Vegetation with heavy alien infestation	X
Describe the vegetation type above: Vachellia karroo riparian woodland & stream This vegetation unit occurs in the area of the soil embankment and the vegetation clearance. The Groot River represents the only major drainage channel in the project area. The Groot River and its tributaries are characterized as non-perennial drainage channels with dense riparian woodland that varies from natural to degraded along its banks.		Describe the vegetation type above: Euphorbia mauritanica – Ruschia - Galenia africana succulent shrubveld This vegetation unit occurs on the gravelly to sandy soils of the project area along the foot slopes of outcrops and hills. The areas represent the location of the off-stream storage dam.		Describe the vegetation type above: Man-made canals & surrounding Vachellia karroo woodland This vegetation unit represent the man-made canals that were constructed many years ago to divert water into the canals for irrigation purposes. The area is still considered a low sensitivity area due to the degraded state of the vegetation and man-made canals. Therefore, no detailed analysis of the vegetation is included considering that these areas represent low sensitivity areas.	
Provide ecosystem status for above: High		Provide ecosystem status for above: Medium		Provide Ecosystem status for above: Low	
Indigenous Vegetation in an ecological corridor or along a soil boundary / interface: Natural riparian woodland, floodplains and in-channel vegetation.		Veld dominated by alien species: Natural succulent shrubveld in a slightly degraded state closer to roads and infrastructure due to dust.		Distinctive soil conditions (e.g. Sand over shale, quartz patches, limestone, alluvial deposits, termitaria etc.) – describe: The results indicate that the agricultural potential of soils on the proposed development area is mostly low (shallow, soils or very sandy to sandy clay soils with limited suitability for grazing).	
Bare soil None		Building or other structure: None		Sport field: None	
Other (describe below)		Cultivated land:		Paved surface: None	

	None	
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(a) Highlight the applicable pre-commencement biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category.

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NAR)	<p>According to the Ecological and Riparian Assessment (Appendix H), the development does not fall within a CBA or ESA. The project site is not within close proximity to any Protected Areas Network and National Protected Areas Expansion Strategy (NPAES).</p> <p>No Important Bird Areas (IBA) is located within close proximity to the project area, with the closest IBA located to the north namely the Swartberg Mountains.</p> <p>The list of national Threatened Ecosystems has been gazetted (NEM:BA: National list of ecosystems that are threatened and in need of protection) and result in several implications in terms of development within these areas. Areas were delineated based on as fine a scale as possible and are defined by one of several assessments. These areas are essential for conservation of the country's ecosystems as well as meeting conservation targets. The proposed development site is not located within any listed ecosystem. Two listed ecosystems are located to the South (Muscadel Riviere) and North (Montagu Shale Renosterveld) of the project area.</p> <p>Following the ecological surveys, the classification of the study area into different sensitivity classes and development zones was based on information collected at various levels on different environmental characteristics. Factors which determined sensitivity classes were as follows:</p> <ul style="list-style-type: none"> • Presence, density and potential impact of development on rare, endemic and protected plant species; • Conservation status of vegetation units; • Soil types, soil depth and soil clay content; • Previous land-use; • State of the vegetation in general as indicated by indicator species. <p>Below included is the sensitivity map for the different areas (refer to figure 1). Only criteria applicable to the specific vegetation units were used to determine the sensitivity of the specific unit.</p> <p>Considering the sensitivity map the following can be concluded:</p> <ul style="list-style-type: none"> • The development of the croplands and berm that forms part of the 24G application impeded on the riparian woodland of the Groot River; • The off-stream dam development impacted on already degraded areas and succulent shrubveld with a Medium Sensitivity.

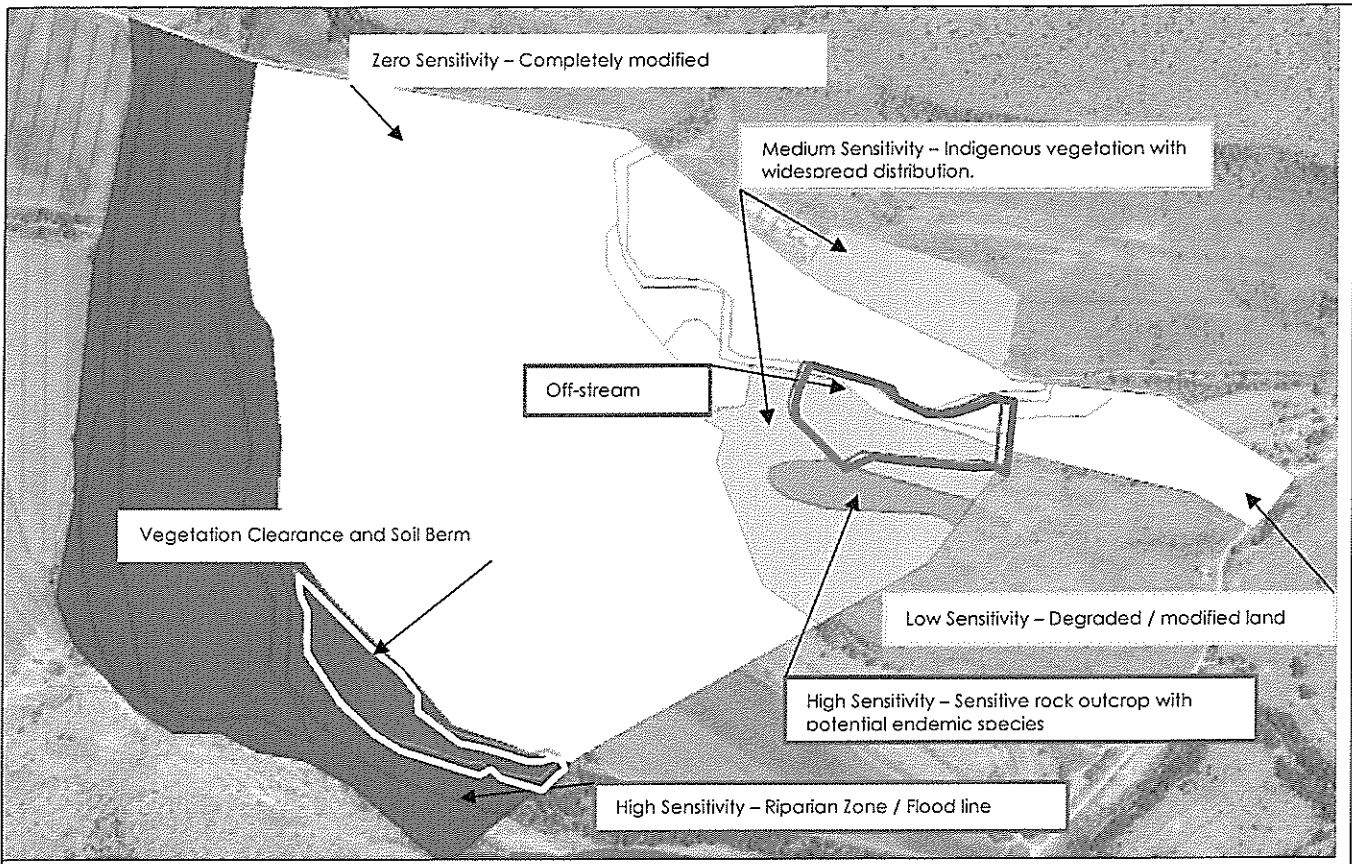


Figure 1: Sensitivity Map

(b) Highlight and describe the habitat condition on site.

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing/harvesting regimes etc).
Natural	50 %	Natural riparian woodland, floodplains and in-channel vegetation.
Near Natural (includes areas with low to moderate level of alien invasive plants)	40 %	Natural succulent shrubveld in a slightly degraded state closer to roads and infrastructure due to dust.
Degraded (includes areas heavily invaded by alien plants)	5%	This vegetation unit represent the man-made canals that were constructed many years ago to divert water into the canals for irrigation purposes. The area is still considered a low sensitivity area due to the degraded state of the vegetation and man-made canals.
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	5 %	

(c) Complete the table to indicate:

- (i) the type of vegetation, including its ecosystem status, that was previously present on the site; and
- (ii) whether an aquatic ecosystem was previously present on site.

Ecosystem threat status as per the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	Terrestrial Ecosystems				Aquatic Ecosystems			
	Critical	Endangered	Vulnerable	Least Threatened	Wetland (including rivers, depressions, channelled and un-channelled wetlands, flats, seeps pans, and artificial wetlands)			Estuary
	YES	NO	UNSURE		YES	NO	YES	NO

(d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

VEGETATION UNITS

- Euphorbia mauritanica – Ruschia - Galenia africana succulent shrubveld**

This vegetation unit occurs on the gravelly to sandy soils of the project area along the footslopes of outcrops and hills. The areas represent the location of the 24G off stream storage dam. This typical succulent shrubveld associated with red-yellow soils on undulating terrain is dominated by species such as *Euphorbia mauritanica*, *Cotyledon orbiculata*, *Salsola* species, *Crassula* species and *Ruschia* species.

State of the vegetation:	Natural succulent shrubveld in a slightly degraded state closer to roads and infrastructure due to dust.
Need for rehabilitation	Low
Conservation priority	Medium
Characteristics	Low succulent shrubveld on undulating sandy to gravelly footslopes
Soils & Geology	Shallow to medium depth red-yellow apedal soils of the Hutton / Glenrosa soil form derived from shale.
Dominant spp.	<i>Euphorbia mauritanica</i> , <i>Cotyledon orbiculata</i> , <i>Salsola</i> species, <i>Crassula</i> species
Density of woody layer	Trees: <1% (avg. height: 3-6m) Succulent shrubs: 20-40% (avg. height: 1-2m)
Density of herbaceous layer	Grasses: 15-20% (avg. height: 0.8-1.2m) Forbs: 5-10% (avg. height: 0.8m)
Sensitivity	Medium
Red data species	None observed
Protected species	None observed



- Vachellia karroo riparian woodland & stream**

The Groot River represents the only major drainage channel in the project area. The Groot River and its tributaries are characterized as non-perennial drainage channels with dense riparian woodland that varies from natural to degraded along its banks. The substrate in the channel is largely composed of river sand with some medium sized rocks along some areas of the channel and banks. The river itself plays an important role as a source of water to various organisms. The channel is often dominated by *Phragmites australis* as seen in the figure below. Otherwise, no vegetation grows in the channel itself other than the edges of the channel where riparian woodland occurs.

The drainage channels are classified as non-perennial channels by the National Wetland Classification System (Sanbi, 2009). A channel (river, including the banks) is an open conduit with clearly defined margins that (i) continuously or periodically contains flowing water, or (ii) forms a connecting link between two water bodies. Dominant water sources include concentrated surface flow from upstream channels and tributaries, diffuse surface flow or interflow, and/or groundwater flow. Water moves through the system as concentrated flow and usually exits as such but can exit as diffuse surface flow because of a sudden change in gradient. Unidirectional channel-contained horizontal flow characterises the hydrodynamic nature of these units. As a result of the erosive forces associated with concentrated flow, channels characteristically have relatively obvious active channel banks.

In some areas of the project areas, floodplains occur adjacent to the drainage channels. The floodplains can be described as a flat or nearly flat land adjacent a stream or river that stretches from the banks of its channel to the base of the enclosing valley walls and experiences flooding during periods of high discharge. It includes the floodway, which consists of the stream channel (in this case the Groot River) and adjacent areas (riparian woodland) that carry flood flows, and the flood fringe.

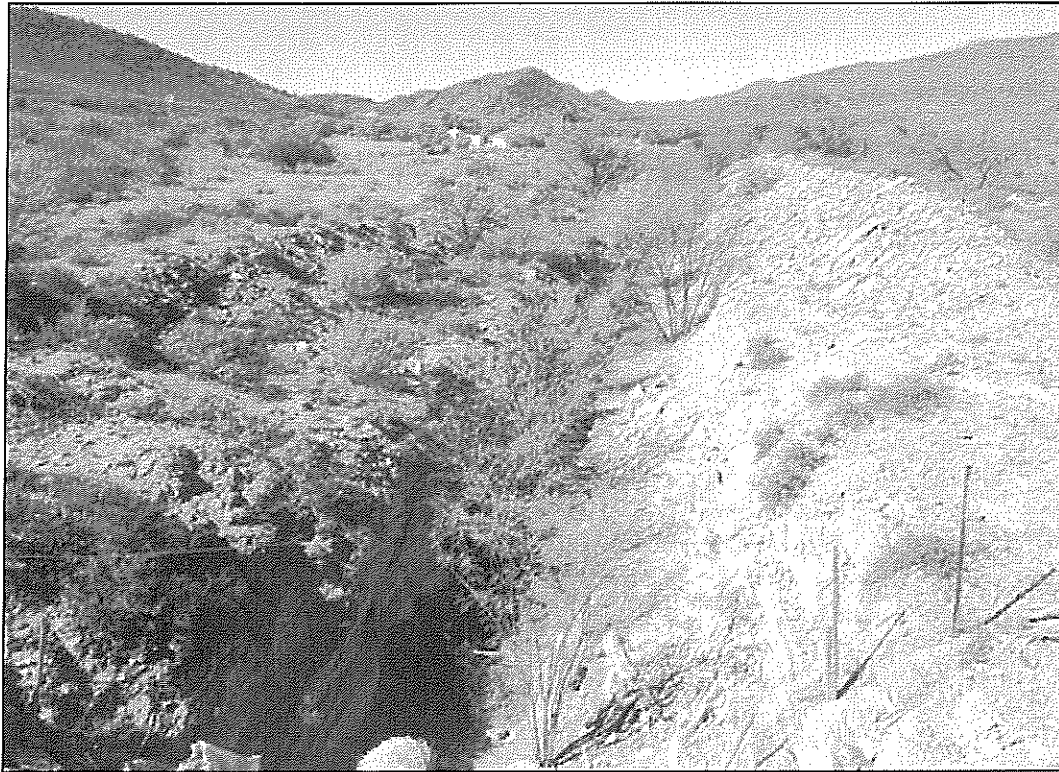
“Riparian habitat” includes the physical structure and associated vegetation of the areas associated with a watercourse which are commonly characterised by alluvial soils, and which are inundated or flooded to an extent and with a frequency sufficient to support vegetation of species with a composition and physical structure distinct from those of adjacent land areas. Riparian areas commonly reflect the high-energy conditions associated with the water flowing in a water channel, whereas wetlands generally display more diffuse flow and are lower energy environments.

State of the vegetation:	Natural riparian woodland, floodplains and in-channel vegetation.
Conservation priority	High
Characteristics	Classified as a channel which also includes the riparian woodland. Clearly defined banks and seasonal pools form inside the channel that provides foraging and breeding habitat to various fauna species. Main channel is sandy with some pebble rock and alluvium.
Density of woody layer	Riparian woodland Trees: 15-25% (avg. height: 3-6m) Shrubs: 2-5% (avg. height: 1-2m)
Density of herbaceous layer	Grasses: 30-40% (avg. height: 0.8-1.2m) Forbs: 1-2% (avg. height: 0.8m)
Sensitivity	High – classified as a channel that forms part of the riparian zone
Red data species	None observed
Protected species	None observed



• **Man-made canals & surrounding *Vachellia karroo* woodland**

This vegetation unit represent the man-made canals that were constructed many years ago to divert water into the canals for irrigation purposes. The canals have become colonised over time by woody species such as *Vachellia karroo*, *Schinus molle*, *Ziziphus mucronata* and *Rhigozum obovatum* (see photograph below). The area is still considered a low sensitivity area due to the degraded state of the vegetation and man-made canals. Therefore, no detailed analysis of the vegetation is included considering that these areas represent low sensitivity areas.



6.2 VEGETATION AND/OR GROUNDCOVER (POST-COMMENCEMENT)

Cross out ("☒") the block **and** describe (where required) the vegetation types / groundcover present on the site after commencement of the activity.

Indigenous Vegetation - good condition	<input checked="" type="checkbox"/>	Indigenous Vegetation with scattered aliens	<input checked="" type="checkbox"/>	Indigenous Vegetation with heavy alien infestation	<input checked="" type="checkbox"/>
<p>Describe the vegetation type above:</p> <p><i>Vachellia karroo</i> riparian woodland & stream</p> <p>This vegetation unit occurs in the area of the soil embankment and the vegetation clearance. The Groot River represents the only major drainage channel in the project area. The Groot River and its tributaries are characterized as non-perennial drainage channels with dense riparian woodland that varies from natural to degraded along its banks.</p>		<p>Describe the vegetation type above:</p> <p><i>Euphorbia mauritanica</i> – <i>Ruschia</i> - <i>Galenia africana</i> succulent shrubveld</p> <p>This vegetation unit occurs on the gravelly to sandy soils of the project area along the foot slopes of outcrops and hills. The areas represent the location of the 24G off stream dam.</p>		<p>Describe the vegetation type above:</p> <p>Man-made canals & surrounding <i>Vachellia karroo</i> woodland</p> <p>This vegetation unit represent the man-made canals that were constructed many years ago to divert water into the canals for irrigation purposes.</p> <p>The area is still considered a low sensitivity area due to the degraded state of the vegetation and man-made canals. Therefore, no detailed analysis of the vegetation is included considering that these areas represent low sensitivity areas.</p>	
<p>Provide ecosystem status for above:</p> <p>High</p>		<p>Provide ecosystem status for above:</p> <p>Medium</p>		<p>Provide Ecosystem status for above:</p> <p>Low</p>	

Indigenous Vegetation in an ecological corridor or along a soil boundary / interface: Natural riparian woodland, floodplains and in-channel vegetation.	Veld dominated by alien species: Natural succulent shrubveld in a slightly degraded state closer to roads and infrastructure due to dust.	Distinctive soil conditions (e.g. Sand over shale, quartz patches, limestone, alluvial deposits, termitaria etc.) – describe: None
Bare soil Yes, more than 1 hectare has been cleared for and replaced with cultivated land.	Building or other structure: Yes, a dam with a capacity of more than 50 000m ³ has been constructed and includes a small pump house.	Sport field: None
Other (describe below)	Cultivated land: None	Paved surface: None

(a) Highlight and describe the post-construction habitat condition on site.

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing/harvesting regimes etc).
Natural	30 %	Natural riparian woodland, floodplains and in-channel vegetation.
Near Natural (includes areas with low to moderate level of alien invasive plants)	30 %	Natural succulent shrubveld in a slightly degraded state closer to roads and infrastructure due to dust.
Degraded (includes areas heavily invaded by alien plants)	10 %	This vegetation unit represent the man-made canals that were constructed many years ago to divert water into the canals for irrigation purposes. The area is still considered a low sensitivity area due to the degraded state of the vegetation and man-made canals.
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	30 %	An area in excess of 1 hectare of indigenous vegetation has been transformed into cultivated lands, a rock and soil embankment to limit future flood destruction to the cultivated lands was constructed as well as an irrigation dam with a capacity of more than 50 000m ³ .

(b) How have the vegetation and/or aquatic ecosystem(s) present on site (including any important biodiversity features identified on site (e.g. threatened species and special habitats)) been affected by the commencement of the listed activity(ies)?

According to the Ecological and Riparian Assessment (refer to annexures H3), it is evident from the distribution of biodiversity, presence of threatened species and sites of scientific interest, that the most sensitive areas that occur in the direct vicinity of the developments are the riparian zone associated with the Groot River and the rocky outcrop areas. Sections of the riparian zone were completely modified by the land clearance activities. The developments modified and will modify the natural vegetation and faunal habitats, although the significance was found to be lower than expected in certain areas and the developments will in fact prevent potential future spreading of alien species. The development had a definite impact on the ecosystem, although it varies from low to high depending on the specific vegetation unit. Rehabilitation and monitoring of the area should be ongoing future actions.

6.3 VEGETATION / GROUNDCOVER MANAGEMENT

(a) Describe any mitigation/management measures that were adopted and the adequacy of these:

The following mitigation / management measures were adopted during the commencement of the activities:

- The removal of the indigenous plants only occurred on the footprint area of the orchards. No vegetation was cleared on adjacent areas;
- Pesticide use to non-persistent, immobile pesticides have been limited and applied in accordance with label and application permit directions and stipulations for terrestrial and aquatic applications;
- Existing facilities (e.g., access roads) were used to the extent possible to minimize the amount of new disturbance;
- Development activities has remained within defined orchards and the road servitudes. No disturbance has occurred outside these areas;
- Further impact has been prevented in the corridor zone of 32 meters surrounding the riparian zone;
- Cover disturbed soils as completely as possible, using vegetation or other materials;
- Stringent erosion and dust control practices were put in place;
- All excess or waste material or chemicals was removed from the development sites and discarded in an

- environmentally friendly way;
- Spill kits are on-hand to deal with spills immediately;
- Implement standard dust control measures on access roads to the orchards; and
- Invader and weed control measures were put in place.

Mitigation measures that were adopted by the owner during the development of the off-stream storage dam, the soil berm and the clearance of vegetation for the orchard is deemed adequate when considering the scale of the project.

7. LAND USE OF THE SITE (PRE-COMMENCEMENT)

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the activity/ies.

Untransformed area	Low density residential	Medium density residential	High density residential	Informal residential
Retail	Commercial & warehousing	Light industrial	Medium industrial	Heavy industrial
Power station	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Tourism & Hospitality facility
Open cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical centre	School	Tertiary education facility	Church	Old age home
Sewage treatment plant	Train station or shunting yard	Railway line	Major road (4 lanes or more)	Airport
Harbour	Sport facilities	Golf course	Polo fields	Filling station
Landfill or waste treatment site	Plantation	Agriculture	River, stream or wetland	Nature conservation area
Mountain, koppie or ridge	Museum	Historical building	Graveyard	Archaeological site
Other land uses (describe):				

(a) Please provide a description.

The Farm Zuurberg No. 288 was used for cultivation and livestock grazing. The Groot River runs through the farm as well as man-made canals with pre-existing water allocation and rights. Onion seeds for export purposes is also being cultivated on the farm, but due to the persistent drought, the area is not conducive to extensive livestock farming or cultivation activities that require large quantities of water.

8. LAND USE CHARACTER OF SURROUNDING AREA (PRE-COMMENCEMENT)

Cross out ("X") the block that reflects the past land uses and/or prominent features that occur/red within +/- 500m radius of the site and neighbouring properties if these are located beyond 500m of the site. **Please note:** The Department may request specialist input/studies depending on the nature of the land use character of the area and impact(s) of the activity/ies.

Untransformed area	Low density residential	Medium density residential	High density residential	Informal residential
Retail	Commercial & warehousing	Light industrial	Medium industrial	Heavy industrial
Power station	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Tourism & Hospitality facility
Open cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical centre	School	Tertiary education facility	Church	Old age home
Sewage treatment plant	Train station or shunting yard	Railway line	Major road (4 lanes or more)	Airport
Harbour	Sport facilities	Golf course	Polo fields	Filling station
Landfill or waste treatment site	Plantation	Agriculture	River, stream or wetland	Nature conservation area
Mountain, koppie or ridge	Museum	Historical building	Graveyard	Archaeological site
Other land uses (describe):				

9. LAND USE CHARACTER OF SURROUNDING AREA (POST-COMMENCEMENT)

Cross out ("☒") the block that reflects the current land uses and/or prominent features that occur(s) within +/- 500m radius of the site and neighbouring properties if these are located beyond 500m of the site. **Please note:** The Department may request specialist input/studies depending on the nature of the land use character of the area and impact(s) of the activity/ies.

Untransformed area	Low density residential	Medium density residential	High density residential	Informal residential
Retail	Commercial & warehousing	Light industrial	Medium industrial	Heavy industrial
Power station	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Tourism & Hospitality facility
Open cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical centre	School	Tertiary education facility	Church	Old age home
Sewage treatment plant	Train station or shunting yard	Railway line	Major road (4 lanes or more)	Airport
Harbour	Sport facilities	Golf course	Polo fields	Filling station
Landfill or waste treatment site	Plantation	Agriculture	River, stream or wetland	Nature conservation area
Mountain, Toppie or ridge	Museum	Historical building	Graveyard	Archaeological site
Other land uses (describe):				

10. SOCIO-ECONOMIC CONTEXT

10.1 SOCIO-ECONOMIC CONTEXT (PRE-COMMENCEMENT)

Describe the pre-commencement social and economic characteristics of the community in order to provide baseline information.

According to the Kannaland Municipality IDP 2017/2022 (KLM IDP, 2017) the Municipality is a Category B Municipality situated in the Western Cape Province, 325 kilometres from Cape Town. The municipality covers an area of 4, 758 square kilometres in the Little Karoo, stretching from the Swartberg in the north to the Langeberg in the south, and from the Anysberg in the west to the Gamkaberg in the east. It is drained by the Groot River and the Gourits River. It borders on the Prince Albert municipality to the north, the Oudtshoorn Municipality to the east, the Hessequa Municipality to the south and the Swellendam and Langeberg Municipalities to the west.

The Kannaland Local Municipality is situated within the Eden District Municipality which lies in the Western Cape Province. The main urban area within the Kannaland Municipality is Ladismith, which as of 2011 has a population of 7, 127. Ladismith is at the foot of the Swartberg Mountains, as is Zoar (population 4, 659) and Califzorp (population 4, 284) to the east. Vanwyksdorp (population 833) is further south in the valley of the Groot River. Ladismith serves as an agricultural service centre for the surrounding agricultural areas. Ladismith Cheese and Parmalat, two dairy factories, are amongst the most prominent industries in the town. The town is located below the Swartberg Mountains in the central Northern parts of the Kannaland Municipality along the R62.

According to the 2015 Socio-Economic analysis the municipality has a population of 25, 094 people in 6, 749 households. The 2011 Census reported that 84.6 per cent describe themselves as "Coloured", 9.9 per cent as "White", and 4.7 per cent as "Black African". The first language of 95.4 per cent of the population is Afrikaans, while 2.5 per cent speak English.

10.2 SOCIO-ECONOMIC CONTEXT (POST-COMMENCEMENT)

Describe the post commencement social and economic characteristics of the community in order to determine any change. Where differences between pre- and post-commencement exist, state which are as a result of the activity(ies) for which rectification is being applied for.

The activity being applied for directly contributes to the Municipality's vision of economic growth through agriculture and processing expansion.

11. HISTORICAL AND CULTURAL ASPECTS

- (a) Please be advised that every application for Environmental Authorisation including an application for a Waste Management Licence, must include, where applicable the investigation, assessment and evaluation of the impact of any proposed listed or specified activity on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), excluding the national estate contemplated in section 3(2)(i)(vi) and (vii) of that Act.

Please be further advised that if section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), is applicable to your application, then you are requested to furnish this Department with written comment from Heritage Western Cape as part of your public participation process. Section 38 of the Act states as follows: "38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

- (a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
 - (i) exceeding 5 000 m² in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning of a site exceeding 10 000 m² in extent; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development."

- (b) The impact on any national estate referred to in section 3(2), excluding the national estate contemplated in section 3(2)(i)(vi) and (vii), of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), must also be investigated, assessed and evaluated. Section 3(2) states as follows: "3(2) Without limiting the generality of subsection (1), the national estate may include—
- (a) places, buildings, structures and equipment of cultural significance;
 - (b) places to which oral traditions are attached or which are associated with living heritage;
 - (c) historical settlements and townscapes;
 - (d) landscapes and natural features of cultural significance;
 - (e) geological sites of scientific or cultural importance;
 - (f) archaeological and palaeontological sites;
 - (g) graves and burial grounds, including—
 - (i) ancestral graves;
 - (ii) royal graves and graves of traditional leaders;
 - (iii) graves of victims of conflict;
 - (iv) graves of individuals designated by the Minister by notice in the Gazette;
 - (v) historical graves and cemeteries; and
 - (vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
 - (h) sites of significance relating to the history of slavery in South Africa;
 - (i) movable objects, including—
 - (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - (ii) objects to which oral traditions are attached or which are associated with living heritage;
 - (iii) ethnographic art and objects;
 - (iv) military objects;
 - (v) objects of decorative or fine art;
 - (vi) objects of scientific or technological interest; and
 - (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996)."

Is section 38 of the National Heritage Resources Act, 1999, applicable to the development?		YES	NO
		UNCERTAIN	
if YES, explain:	Heritage specialist input into the Environmental Impact Assessment (EIA) process is essential to ensure that, through the management of change, developments still conserve our heritage resources. It is also a legal requirement for certain development categories which may have an impact on heritage resources. Since the activity that has been commenced will change the character of a site exceeding 5 000 m ² in extent, a heritage impact assessment has been conducted – refer to Appendix H2. The heritage component of the EIA is provided for in the National Environmental Management Act, (Act 107 of 1998) and endorsed by section 38 of the National Heritage Resources Act (NHRA - Act 25 of 1999).		
Did/does the development impact on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999?		YES	NO
		UNCERTAIN	
if YES, explain:			
Was any building or structure older than 60 years affected in any way?		YES	NO
		UNCERTAIN	
if YES, explain:			

Please Note:

If uncertain, the Department may request that specialist input be provided. If, yes, a copy of the Notice of Intent submitted to Heritage Western Cape must be submitted with this form.

12. COASTAL ASPECTS (SEAFRONT/SEA ENVIRONMENT)

(a) Is the site(s) located within any of the following areas? (highlight the appropriate boxes).

If the site or alternative site is closer than 100m to such an area, please provide the approximate distance in (m).

AREA	YES	NO	UNSURE	If "YES": Distance to nearest area (m)
An area within 100m of the high water mark of the sea	YES	NO	UNSURE	
An area within 100m of the high water mark of an estuary/lagoon	YES	NO	UNSURE	
An area within the littoral active zone	YES	NO	UNSURE	
An area in the coastal public property	YES	NO	UNSURE	
Major anthropogenic structures	YES	NO	UNSURE	
An area within a Coastal Protection Zone	YES	NO	UNSURE	
An area seaward of the coastal management line	YES	NO	UNSURE	
An area within the high risk zone (20 years)	YES	NO	UNSURE	
An area within the medium risk zone (50 years)	YES	NO	UNSURE	
An area within the low risk zone (100 years)	YES	NO	UNSURE	
An area below the 5m contour	YES	NO	UNSURE	
An area within 1km from the high water mark of the sea	YES	NO	UNSURE	
A rocky beach	YES	NO	UNSURE	
A sandy beach	YES	NO	UNSURE	

(b) If any of the answers to the above is "YES" or "UNSURE", specialist input may be requested by the Department. (The 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

13. REGIONAL PLANNING CONTEXT

Is the activity permitted in terms of the property's existing land use rights? The farm Zuurberg No. 288 is zoned for agricultural purposes.	YES	NO	Please explain
Will the activity be in line with the following? Provincial Spatial Development Framework (PSDF)	YES	NO	Please explain
As per the Western Cape PSDF (2014): "Despite the importance of secondary and tertiary economic activities, agriculture remains the backbone of the provincial economy. Farming in the Western Cape covers some 11.5m hectares, and contributes almost 21% of the country's agricultural production. The agricultural sector comprises: 6 682 commercial farmers, 9 844 smallholder farmers, and some 201 230 farm workers. Outside the metro region agricultural production and agro-processing of the following products underpins local economies: • Animals and animal products (i.e. poultry, cattle, sheep, ostrich, and pigs) are produced throughout the province. Agriculture and the agro-processing industry have substantial competitive advantage in relation to the other provinces and in terms of export growth. The sector is in transition from a reliance on cheap and unskilled labour to one characterised by fewer, more skilled and better paid workers (FARE 2013). "This sector is currently subject to intense structural change which should be navigated carefully in the interests of inclusive growth. Furthermore, the impact of climate change and a potential carbon tax regime in future need to be discounted in efforts to develop this sector. Exports and the development of the local agro-processing industries as a source of local demand for agricultural products should be the focus of developmental policies" (PERO 2013, p80)."			
Urban edge / Edge of Built environment for the area The farm is situated approximately 14 km from the town of Ladismith.	YES	NO	Please explain
Integrated Development Plan of the Local Municipality	YES	NO	Please explain
According to the Kannaland Municipality IDP 2017/2022, there is remarkable potential for growth in South Africa and the Western Cape in particular. Kannaland is ideally located to be the central hub for growth in the Klein-Karoo, especially in respect of agriculture processing and regional agricultural services wishing to expand to this region. In an increasingly competitive world, the only way Kannaland will be able to share in exponential growth from neighbouring regions is by building on its strengths, and ensuring it does not misappropriate resources in support of investments that will not be competitive into the future (KLM IDP, 2017). The activity being applied for directly contributes to the Municipality's vision of economic growth through agriculture and processing expansion.			
Spatial Development Framework of the Local Municipality	YES	NO	Please explain
According to the Kannaland Municipality SDF (2013), agricultural employment, although also declining in line with its economic			

sector contribution, makes an even bigger contribution to jobs (43%) than to Gross Value Added (GVA) (value) (32%). Thus, it can be considered to punch above its weight and agriculture is also a major contributor to the Manufacturing sector and to Exports, either directly or via Manufacturing.

The Spatial Development Framework for the municipality comprises the following elements:

- Bio-regions;
- Spatial Planning Categories (SPCs) for Land Use Management;
- Sustaining the Economy;
- Major Infrastructure Projects;
- Major Tourism Destinations;
- Settlement Hierarchy;
- Urban Related Development;
- Climate Change;
- Urban Design Guidelines;
- Potential Rural Nodes and Periodic Rural Markets;
- Settlement Hierarchy and Structure.

The Spatial Development Framework Map has been included in Appendix J – Supporting Information.

Approved Structure Plan of the Municipality	YES	NO	Please explain
There is no approved structure plan to date.			
An Environmental Management Framework (EMF) adopted by the Department	YES	NO	Please explain
The Municipality has no EMF in place.			
Any other Plans	YES	NO	Please explain
N/A			

SECTION D: NEED AND DESIRABILITY

Please Note: Before completing this section, first consult this Department's *Guideline on Need and Desirability* (March 2013) available on the Department's website (<http://www.capegateway.gov.za/eaddp>).

1. Was the activity permitted in terms of the property's land use rights at the time of commencement?	YES	NO	Please explain
The farm Zuurberg No. 288 is zoned for agricultural purposes.			

2. Was the activity in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES	NO	Please explain
<p>As per the Western Cape PSDF (2014): "Despite the importance of secondary and tertiary economic activities, agriculture remains the backbone of the provincial economy. Farming in the Western Cape covers some 11.5m hectares, and contributes almost 21% of the country's agricultural production. The agricultural sector comprises: 6 682 commercial farmers, 9 844 smallholder farmers, and some 201 230 farm workers. Outside the metro region agricultural production and agro-processing of the following products underpins local economies:</p> <ul style="list-style-type: none"> • Animals and animal products (i.e. poultry, cattle, sheep, ostrich, and pigs) are produced throughout the province. <p>Agriculture and the agro-processing industry have substantial competitive advantage in relation to the other provinces and in terms of export growth. The sector is in transition from a reliance on cheap and unskilled labour to one characterised by fewer, more skilled and better paid workers (FARE 2013). "This sector is currently subject to intense structural change which should be navigated carefully in the interests of inclusive growth. Furthermore, the impact of climate change and a potential carbon tax regime in future need to be discounted in efforts to develop this sector. Exports and the development of the local agro-processing industries as a source of local demand for agricultural products should be the focus of developmental policies" (PERO 2013, p80)."</p>			
(b) Urban edge / Edge of Built environment for the area	YES	NO	Please explain
The farm is situated approximately 14 km from the town of Ladismith.			
(c) Integrated Development Plan and Spatial Development Framework of the Local Municipality (e.g. would the approval of this application have compromised the integrity of the existing approved and credible municipal IDP and SDF?)	YES	NO	Please explain
<p>The activity being applied for directly contributes to the Municipality's vision of economic growth through agriculture and processing expansion.</p> <p>According to the Kannaland Municipality SDF (2013), agricultural employment, although also declining in line with its economic sector contribution, makes an even bigger contribution to jobs (43%) than to Gross Value Added (GVA) (value) (32%). Thus, it can be considered to punch above its weight and agriculture is also a major contributor to the Manufacturing sector and to Exports, either directly or via Manufacturing.</p>			

Therefore, the approval of this activity would not compromise the Municipalities IDP or SDF and are in line with the proposed development strategies of the municipality.			
(d) Approved Structure Plan of the Municipality	YES	NO	Please explain
There is no approved structure plan to date.			

(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application have compromised the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO	Please explain
The Municipality has no EMF in place.			
(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain
N/A			

3. Was the land use (associated with the activity for which rectification is sought) considered within the timeframe intended by the existing approved Spatial Development Framework (SDF) agreed to by the relevant environmental authority (i.e. was the development in line with the projects and programmes identified as priorities within the relevant IDP)?	YES	NO	Please explain
<p>The development commenced in 2018 and the IDP was adopted in 2017 and as per the Western Cape PSDF (2014): "Despite the importance of secondary and tertiary economic activities, agriculture remains the backbone of the provincial economy." Farming in the Western Cape covers some 11.5m hectares, and contributes almost 21% of the country's agricultural production. The agricultural sector comprises: 6 682 commercial farmers, 9 844 smallholder farmers, and some 201 230 farm workers Outside the metro region agricultural production and agro-processing of the following products underpins local economies:</p> <ul style="list-style-type: none"> • Animals and animal products (i.e. poultry, cattle, sheep, ostrich, and pigs) are produced throughout the province. <p>Agriculture and the agro-processing industry have substantial competitive advantage in relation to the other provinces and in terms of export growth. The sector is in transition from a reliance on cheap and unskilled labour to one characterised by fewer, more skilled and better paid workers (FARE 2013). "This sector is currently subject to intense structural change which should be navigated carefully in the interests of inclusive growth. Furthermore, the impact of climate change and a potential carbon tax regime in future need to be discounted in efforts to develop this sector. Exports and the development of the local agro-processing industries as a source of local demand for agricultural products should be the focus of developmental policies" (PERO 2013, p80)."</p>			

4. Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) have occurred here when activities commenced?	YES	NO	Please explain
<p>In order to ensure successful, sustainable agricultural practices on the farm the construction of the dam was required to accumulate all the farm's allocated canal water so that the water may be used for drip irrigation to minimise evaporation and conserve water in the drought-stricken region. The area of indigenous vegetation cleared was done to expand the farm's capacity and was utilised for the cultivation of an almond orchard. The soil and rock embankment constructed within 32 metres of the Groof River, was done to ensure that the newly cultivated almond orchard would not wash away during a flooding event.</p>			

5. Did the community/area need the activity and the associated land use concerned (was it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES	NO	Please explain
<p>In order to ensure sustainable agricultural practises on the farm it was required to construct a dam for the irrigation of crops and farming of animals.</p>			

6. Were the necessary services with adequate capacity available (at the time of commencement), or was additional capacity created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the Application Form / additional information as an appendix , where applicable.)	YES	NO	Please explain
<p>No additional services from the municipality were required. The farm also has lawfully allocated water rights.</p>			

7. Is/was this development provided for in the infrastructure planning of the municipality, and if not, what was/will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must	YES	NO	Please explain
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be attached to the Application Form / additional information as an appendix, where applicable.)			
No additional services from the municipality were required.			

8. Was this project part of a national programme to address an issue of national concern or importance?	YES	NO	Please explain
<p>The issues of climate change and its impact on food security are increasingly recognised in different parts of the world, including Africa. Africa is epitomised as the most vulnerable continent to climate changes. Other studies also project that Africa is highly vulnerable to climate changes (World Bank, 2016). The studies mainly found that climate changes have a severe impact on agricultural land, which ultimately affects food security (Masipa, 2016).</p> <p>South Africa is not immune to these impacts. It is worth noting that global population is continuing to rise and the rates at which climate change and production of agriculture and food have been increasing are not equal. The World Food Programme (WFP 2016) report shows that crop production yield per hectare is, on average, increasing at a rate below that of global populations, implying that food production, which has been unable to meet global demand, will struggle to do so in the immediate future, leaving millions of people and numerous countries facing the stark reality of having reduced food security.</p> <p>The South African economy grew by 1.3% in 2017, exceeding National Treasury's expectation of 1.0% growth announced during the National Budget Speech in February 2017. The strengthening in economic activity in 2017 was partly driven by the agriculture, forestry and fisheries sectors recovering from one of the worst droughts in recent history. In 2017, the sectors' contribution to the GDP was 2.4% (DAFF, 2019).</p> <p>The total volume of South African agriculture production for 2017 was estimated at 62.9 million tonnes compared to 50.8 million tonnes in 2016. This represented a 24% increase in production, which was attributed to the bumper summer crop harvest following good rainfalls during the season.</p> <p>Agriculture plays an important role in the process of economic development and can contribute significantly to household food security (DAFF, 2019). The activity therefore commenced to sustain agricultural development for the farm Zuurberg No. 288 and contribute to food security in South Africa.</p>			

9. Did location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the land use on this site within its broader context.)	YES	NO	Please explain
<p>Due to the low rainfall rate in the Karoo region, the dam, accumulating allocated canal water, would be the only feasible option of creating a sustainable water source to be utilised for drip irrigation on the newly and existing cultivated lands as to conserve water by minimising evaporation.</p> <p>The dam's location was influenced by the proximity to the water canal, it's central position to all the croplands that require irrigation and the area already being degraded to some extent.</p>			

10. How did/does the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?	YES	NO	Please explain
<p>According to the Ecological and Riparian Wetland Assessment (Appendix H3), a sensitivity analyses was conducted to identify the most suitable site for the development. From these investigations and ecological surveys, the following main observations was made:</p> <ul style="list-style-type: none"> The succulent shrubveld on the slightly undulating terrain have a Medium Sensitivity. The development had impacts on these areas to a limited extent, although the only potential significant impact was the potential loss of individual plants; and The riparian woodland has a High Sensitivity and should be preserved as an important fauna a flora habitat. The vegetation clearance along the riparian zone had a major impact. <p>No red data plant species were found on the site due to the state of the vegetation and physical environment of the larger area mostly not being suitable for any of the red data plant species that may be found in the area.</p>			

11. How did/does the development impact on people's health and wellbeing (e.g. in terms of noise, odours, visual character and sense of place, etc.)?	YES	NO	Please explain
<p>The activity does not provide a negative impact on the community's wellbeing, since it doesn't result in any noise, odours, visual impacts or changes in the sense of place. It is agricultural activities in an area characterised by agricultural land uses.</p>			

12. Did/does the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?	YES	NO	Please explain
<p>The property is zoned as agriculture. No unacceptable opportunity cost is involved with the construction of a dam or clearing of vegetation for agricultural lands. The property owner required more effective irrigation methods.</p>			

13. What were the cumulative impacts (positive and negative) of the land use associated with the activity applied for?	YES	NO	Please explain
<p><u>Positive Impacts:</u></p> <ul style="list-style-type: none"> Agricultural fields are able to be watered regularly, which increases the success rate of the crops grown on the farm. This is particularly important as the Karoo area receives very little mean annual rainfall. So, the positive cumulative impact will be increased agricultural produce to contribute the national GDP. The allocated canal water is now being utilised to its full potential by storing it and making use of drip irrigation, rather than flood irrigation as less water is being wasted through run-off or evaporation. No water is being abstracted from the Groot River to fill the dam. <p><u>Negative Impacts:</u></p> <ul style="list-style-type: none"> The clearance of vegetation has resulted in the loss of indigenous vegetation, increased risk of soil erosion, dust pollution, and loss of habitat. These impacts would have been experienced far greater during the initial construction of the dam. Impeding the bed of the banks can impact on the vegetation downstream of the dam. 			

14. Is/was the development the best practicable environmental option for this land/site?	YES	NO	Please explain
<p>Due to the persistent drought in the region, the farmer did not have a choice but to consider drip irrigation in order to sustain the agricultural activities on the farm. Drip irrigation uses less water and in a more efficient way. That being said, alternative locations for the expansion of the farming activities outside the riparian habitat would have been a better environmental option.</p>			

15. What are/were the benefits to society in general and to the local communities?	Please explain		
<p>The dam or agricultural lands itself does not benefit the local community; however, agricultural practices on the farm benefit the local community by offering employment for the locals and crops.</p>			

16. Any other need and desirability considerations related to the activity?	Please explain		
<p>Due to the low mean annual rainfall experienced in the area, the dam on farm Zuurberg No. 288 provides water for agricultural activities to continue even through drought conditions. The additional agricultural lands on the farm will also increase the farms productivity, ensuring sustainable farming practises while making use of drip irrigation.</p>			

17. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA were taken into account:
<p>The purpose of Section 23 of NEMA is to promote the application of appropriate environmental management tools to ensure the integrated environmental management of activities. The general objectives were considered by undertaking the following:</p> <ul style="list-style-type: none"> An Environmental Assessment Practitioner/ EAP and relevant specialists were appointed to assess the significance of the construction of the dam on the surrounding environment. All significant impacts on the environment have been identified and assessed. To avoid further negative impacts on the environment, the EAP's recommendations must be adhered to. Monitoring and management must be undertaken in accordance with the EAP's recommendations, including all specialist recommendations, and an approved Environmental Management Programme (EMPr) and environmental authorisation if the activity is approved by the environmental authority. <p>A EMPr is attached as Appendix I. The applicant must in compliance with the EMPr and the Biodiversity and Wetland Assessment incorporating Alien Invasive Plant Removal Measures and a Biodiversity and Wetland Survey and ensure that the removal of the alien species is undertaken according to the freshwater specialist's and Biodiversity specialist's recommendations and proper environmental management practices.</p> <ul style="list-style-type: none"> Lastly, a full Public Participation Process (PPP) has been and will continue to be undertaken as per the S24G fine Regulations and the EIA Regulations 2014 as amended; which allows sufficient opportunity for public consultation.

18. Please describe how the principles of environmental management as set out in section 2 of NEMA were taken into account:

Section 2 of the NEMA provides principles of environmental management to serve as a framework for environmental management implementation and decision making. There are 19 of the basic or main principles, namely: the anthropocentric principle; the sustainable development principle; the integration principle; the environmental justice principle; the equitable access principle; the cradle-to-grave principle; the public participation principle; the responsiveness principle; the informed community principle; the impact assessment principle; the worker protection principle; the openness and transparency principle; the co-operative governance principle; the conflict resolution principle; the global and International responsibility principle; the public trust principle; the polluter pays principle; the woman and youth involvement principle; and the flagged ecosystem principle.

The main and applicable principles of environmental management as set out in Section 2 of NEMA emphasize the following:

- The Anthropocentric principle: established by s 2(2) of NEMA is that environmental management must place people and their needs at the forefront of its concern, and serve their physical, physiological, developmental, cultural and social interests equitably.

Environmental degradation can be mitigated successfully through the implementation of the EMP. I&APs and Stakeholders are allowed the opportunity to consider and submit comments and can become involved in the process, thereby ensuring that all people's needs, rights and concerns will be addressed through this process.

- The Sustainable development principle: established by s 2(3)-(4) of NEMA, the point of departure is the deceptively simplistic legislative directive that development must be socially, environmentally, and economically sustainable, to which the legislator added that sustainable development requires the consideration of all relevant factors.

The proposed activities are considered socially, environmentally, and economically sustainable provided all mitigation measures are implemented. All relevant factors taken into account are as follows:

- Consideration for ecosystem disturbance and loss of biodiversity.
- Pollution and environmental degradation.
- The potential environmental degradation has been considered and mitigation measures proposed.
- Landscape disturbance.
- The proposed activities are considered in line with the current character of the area.
- Avoidance, minimization and remedying of environmental impacts.
- The potential environmental degradation has been considered and mitigation measures proposed.

- The Responsiveness principle: established by s 2(4)(g) of NEMA, decisions must take into account the interests, needs and values of all Interested and Affected Parties, and this includes recognizing all forms of knowledge, including traditional and ordinary knowledge.

This process provides potential Interested & Affected Parties (I&APs) and other key stakeholders with sufficient opportunity for review, comment and provide input into the process. Details of the Public Participation Process undertaken are included in Appendix G of this report.

- The Openness and transparency principle: established by s 2(4)(k) of NEMA, decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law.

Registered I&APs are all provided with access to the relevant documentation.

SECTION E: ALTERNATIVES

Please Note: Before completing this section, first consult this Department's *Guideline on Alternatives* (March 2013) available on the Department's website (<http://www.capegateway.gov.za/eadp>).

"Alternatives", in relation to an activity, means different means of meeting the general purposes and requirements of the activity, which may include alternatives to –

- (a) the property on which, or location where, it is to undertake the activity/the activity was undertaken;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

The NEMA prescribes that the procedures for the investigation, assessment and communication of the (potential) consequences or impacts of activities on the environment must, *inter alia*, with respect to every application for environmental authorisation –

- ensure that the general objectives of integrated environmental management laid down in NEMA and the National Environmental Management Principles set out in NEMA are taken into account; and (where applicable)
- include an investigation of the potential consequences or impacts of the alternatives to the activity on the environment and assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity.

The general objective of integrated environmental management is, *inter alia*, to "identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management" set out in NEMA.

1. In the sections below, please provide a description of any considered alternatives and alternatives that were found to be feasible and reasonable.

Please note:

- Detailed written proof of the investigation of alternatives must be provided. If no reasonable or feasible alternative exists, a motivation must be provided.
- Alternatives considered for a Section 24G application are used to determine if the development was the best practicable alternative (environmentally, socially and economically) for the site or property.
- In respect of a section 24 application, the option of not implementing the activity ("no-go"), includes the option of ceasing the activity, not implementing continuation of the activity, refusal of the commenced activity and complete rehabilitation of the affected site.

(a) Property and location/site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

No site alternatives were considered, since the clearance of the vegetation for crops were an expansion of already existing crop lands were the required infrastructure were readily available. Any alternative sites may have potentially had a more significant impact on indigenous vegetation due to for example endemic succulent species on the rocky outcrops together with the additional disturbances to extend the required infrastructure to any alternative site.

No site alternatives were considered for the construction of the dam since the site is located on the gravelly to sandy soils of the project area along the footslopes of outcrops and hills. This typical succulent shrubveld associated with red-yellow soils on undulating terrain is dominated by species such as *Euphorbia mauritanica*, *Cotyledon orbiculata*, *Salsola* species, *Crassula* species and *Ruschia* species. The state of the vegetation in this area was already in a slightly degraded state since it is closer to roads and infrastructure.

(b) Activity alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

The only activity alternative with regards to the construction of the dam would be the no-go alternative and continuing making use of flood irrigation, which is less effective and saves less water the drip irrigation.

Since the almond trees have already been planted, it will not be financially feasible to consider any activity alternatives with regards to the types of crops to be cultivated.

(c) Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

It is not feasible to consider design or layout alternatives for the dam or the cleared area since the activities is already completed and any design or layout alternatives may result in additional environmental impacts.

(d) Technology alternatives (e.g. to reduce resource demand and resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts or detailed motivation if no reasonable or feasible alternatives exist:

Drip irrigation is the preferred irrigation method since it limits the wastage of water sources. The construction of the dam will also maximise the use of lawfully allocated water and will ensure the sustainability of farming activities on the farm.

(e) Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

Mitigation measures should focus on avoiding erosion along the Groot river.

(f) The option of ceasing the activity (the refusal of the activity(ies) and/or rehabilitation of the site):

If the use of the dam is ceased then the use of the water allocated to the farm will be limited, which will in turn limit agricultural production and the sustainability of the farming activities. The farmer would once again have to make use of other watering techniques which are less sustainable in that more water is wasted. However, downstream water users will once again have access to water that is not used by the farm Zuurberg 288.

If the area cleared for cultivation is ceased, it will result in a huge financial loss for the applicant since the activity has already been completed. The farming activities will also be less productive. On the other hand the area will be rehabilitated and the sensitive area will remain protected.

(g) Any other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

None.

(h) Please provide a summary of the alternatives investigated and the outcomes of such investigation:

Please note: If no feasible and reasonable alternatives exist, the description and proof of the investigation of alternatives, together with motivation of why no feasible or reasonable alternatives exist, must be provided.

The investigation of alternative locations, activities and designs were limited since the activities have already been completed and any alternatives would at this stage result in additional environmental impacts. The dam is located in an area that is already slightly degraded. Drip irrigation is the preferred irrigation method since it limits the wastage of water sources. The construction of the dam will also maximise the use of lawfully allocated water and will ensure the sustainability of farming activities on the farm.

The no-go alternative will have severe negative impacts on the sustainability of the farming activities.

SECTION F: IMPACT ASSESSMENT, MANAGEMENT, MITIGATION AND MONITORING MEASURES

Please note, the impacts identified below refer to general impacts commonly associated with development activities. The list below is not exhaustive and may need to be supplemented. Where required, please append the information on any additional impacts to this application.

Please note: The information in this section must be duplicated for all the feasible and reasonable alternatives (where relevant).

1. PLEASE DESCRIBE THE MANNER IN WHICH THE DEVELOPMENT HAS IMPACTED ON THE FOLLOWING ASPECTS:

(a) Geographical and physical aspects:

Geology and Soil Types

The area is classified by Miscellaneous land classes, undifferentiated deep soil deposits and the underlying geology consists of Alluvium mainly covering siltstone, shale and sandstone of the Bokkeveld and Witte-berg Groups.

Topography and Drainage

The ecosystem integrity of surface waters has responded to different environmental impacts within the Gauteng Province and integrity scores range between poor and fair for the majority of systems studied within the Rivers Health Programme. Furthermore, it would seem that due to impacts on quality of water and flow regimes, the desired ecological state for the majority of systems could never again attain states higher than fair. Major rehabilitation of river banks, alien tree removal and removal of impoundments would be required to achieve this. The latter would not easily be attained due to the scarcity of water resources within the region and the critical need for water storage mechanisms.

The project area is characterised by slightly undulating plains with the Groot River bisecting the area. The topography across the site is slightly undulating with the average elevation of 400 mamsl. The site is located within the J11J quaternary catchment and is situated in the Gouritz Water Management Area. Drainage occurs as sheet-wash towards the major rivers.

Climate

The Mean Annual Precipitation (MAP) for the Ladismith region is 209mm of rain per year, with rainfall occurring throughout the year. It receives the lowest rainfall (10mm) in January and the highest (23mm) in March. The monthly distribution of average daily maximum temperatures shows that the average midday temperatures for Ladismith range from 16.6°C in July to 29.6°C in January. The region is the coldest during July when the mercury drops to 3.2°C on average during the night.

(b) Biological aspects:

Has the development impacted on critical biodiversity areas (CBAs) or ecological support areas (ESAs)?	YES	NO
If yes, please describe:		
N/A		
Has the development impacted on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)?	YES	NO
If yes, please describe:		
In the case of the major channel, the riparian woodland (were the cropland and soil berm is located) of the area is mostly dense thickets. The impact on the drainage channels should be avoided considering it to be an important corridor for the remaining fauna of the area. Typical indigenous woody species of the riparian include <i>Vachellia karroo</i> , <i>Ziziphus mucronata</i> and <i>Searsia lancea</i> .		
Has the development impacted on any populations of threatened plant or animal species, and/or on any habitat that may contain a unique signature of plant or animal species?	YES	NO

If yes, please describe:	
N/A	
Please describe the manner in which any other biological aspects were impacted:	
<ul style="list-style-type: none"> • Destruction or disturbance to sensitive ecosystems leading to reduction in the overall extent of a particular habitat; • Increased soil erosion; • Impairment of the movement and/or migration of animal species resulting in genetic and/or ecological impacts; • Destruction/permanent loss of individuals of rare, endangered, endemic and/or protected species; • Soil and water pollution through spillages; & • Establishment and spread of declared weeds and alien invader plants. 	

(c) Socio-Economic aspects:

What was the capital value of the activity on completion?	R900 000.00
What is the (expected) yearly income or contribution to the economy that is/will be generated by or as a result of the activity?	R2 000 000 turn over within 5 years on almond harvest
Has/will the activity have contributed to service infrastructure?	YES NO
How many new employment opportunities were/will be created in the construction phase of the activity?	~15
What was the value of the employment opportunities during the construction phase?	R148 000.00
What percentage of this accrued to previously disadvantaged individuals?	100%
How was this ensured and monitored (please explain):	
Local people of the area was used for labour.	
How many permanent new employment opportunities were/will be created during the operational phase of the activity?	3
What is the current/expected value of the employment opportunities during the first 10 years?	R2 200 000.00
What percentage of this accrued/will accrue to previously disadvantaged individuals?	100%
How was/will this be ensured and monitored (please explain):	
Local people were employed as permanent staff.	
Any other information related to the manner in which the socio-economic aspects was/will be impacted:	
None.	

(d) Cultural and historic aspects:

<p><u>Historical / Colonial Period and recent times</u></p> <p>A number of Colonial Period farmsteads occur around the project area and on the farm Zuurberg. A Colonial Period occupation site was documented in the project area along the eastern periphery of an area demarcated for clearing for future agricultural fields (S33.555014° E21.127859°). At the site the following were noted:</p> <ul style="list-style-type: none"> • A plastered up rectangular building, measuring approximately 3m x 8m constructed in a n architectural style common to workers quarters in the region occur here. • At middens containing material culture such as glass fragments and glass objects, ceramic (porcelain), rusted metal as well as faunal remains. <p>Generally, the site might be associated with the later phases of settlement of the farm, which was proclaimed in 1832 since material culture such as bottle fragments and porcelain clearly indicate a late Colonial Period provenience. Since the site is, according to indications, older than 60 years it is a protected heritage resource. However, the dwelling does not display unique architectural characteristics as these kinds of buildings occur frequently around farmsteads in the region and the site is of moderate-low significance.</p> <p>An analysis of historical aerial imagery and archive maps of areas subject to this assessment suggests that the project area seems to have been subjected to agricultural activities during the past centuries potentially sterilising the area of heritage remains. This inference was confirmed during an archaeological site assessment where it was noted that much of the project area had been transformed by agriculture. However, a Historical Period dwelling and a scatter of Stone Age archaeological material was noted in more pristine areas in the project area.</p>

2. WASTE AND EMISSIONS

(a) Waste (including effluent) management

Did the activity produce waste (including rubble) during the construction phase?	YES	NO
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type?	m ³	
Does the activity produce waste during its operational phase?	YES	NO
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type?	m ³	

Where and how was/will the waste be treated / disposed of (describe)?		
Has the municipality or relevant authority confirmed that sufficient capacity exists for treating / disposing of the waste (to be) generated by this activity(ies)? If yes, provide written confirmation from Municipality or relevant authority	YES	NO
Does/will the activity produce waste that is/will be treated and/or disposed of at another facility other than into a municipal waste stream?	YES	NO
If yes, has this facility confirmed that sufficient capacity exists for treating / disposing of the waste (to be) generated by this activity(ies)? Provide written confirmation from the facility and provide the following particulars of the facility:	YES	NO
Does the facility have an operating license? (If yes, please attach a copy of the license.)	YES	NO
Facility name:		
Contact person:		
Postal address:		
	Postal code:	
Telephone:	Cell:	
E-mail:	Fax:	

Describe the measures that were/will be taken to reduce, reuse or recycle waste:

(b) Emissions into the atmosphere

Does/will the activity produce emissions that will be disposed of into the atmosphere?	YES	NO
If yes, does it require approval in terms of relevant legislation?	YES	NO
Describe the emissions in terms of type and concentration and how it is/will be treated/mitigated:		

3. WATER USE

Please indicate the source(s) of water for the activity by ticking the appropriate boxes)

Municipal	Water board	Groundwater	River, Stream, Dam or Lake	Other	The activity did/does/will not use water
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If water was extracted from a groundwater source, river, stream, dam, lake or any other natural feature, please indicate the volume that was extracted per month:	0m³
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Please provide proof of assurance of water supply (e.g. Letter of confirmation from municipality / water user associations, yield of borehole) – **Included in Appendix J**

Did/does the activity require a water use permit / license from DWA?	YES	NO
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If yes, please submit a certified copy of the water use permit/license or submit the necessary application to Department of Water Affairs and attach proof thereof to this application, whichever is applicable.

A water use license application has not yet been submitted.

Describe the measures that were/ will be taken to reduce water demand, and measures to reuse or recycle water:

Drip irrigation is being implemented on the farm and has the following advantages:

- Fertilizer and nutrient loss is minimized due to a localized application and reduced leaching;
- Water application efficiency is high if managed correctly;
- Field levelling is not necessary;
- Fields with irregular shapes are easily accommodated;
- Recycled non-potable water can be safely used.;
- Moisture within the root zone can be maintained at field capacity;
- Soil type plays a less important role in the frequency of irrigation;
- Soil erosion is lessened;
- Weed growth is lessened;
- Water distribution is highly uniform, controlled by the output of each nozzle;
- Labour cost is less than other irrigation methods;

- Variation in supply can be regulated by regulating the valves and drippers;
- Fertigation can easily be included with minimal waste of fertilizers;
- Foliage remains dry, reducing the risk of disease; and
- Usually operated at lower pressure than other types of pressurized irrigation, reducing energy costs.

4. POWER SUPPLY

Please indicate the source of power supply e.g. Municipality / Eskom / Renewable energy source

Eskom power is supplied on the farm to pump water from the dam for irrigation of lands.

If power supply is not available, where will power be sourced from?
 Renewable energy sources in the form of Photovoltaic Solar Panels are being considered as a future installation on the farm.

5. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:
 N/A

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:
 N/A

6. DESCRIPTION AND ASSESSMENT OF THE SIGNIFICANCE OF IMPACTS prior to and after MITIGATION

Please note:

- While sections are provided for impacts on certain aspects of the environment and certain impacts, the sections should also be copied and completed for all other impacts.
- Mitigation measures that were implemented and mitigation measures that are to be implemented should be clearly distinguished.

(a) Impacts that resulted from the planning, design and construction phases (briefly describe and compare the impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that occurred as a result of the planning, design and construction phases.

Impacts on geographical and physical aspects: Negative Impact	
Nature of impact:	Removal of topsoil, erosion & soil compaction for the construction of the dam, a berm and the expansion of fields for crops within 32-metres of the Groot River.
Extent and duration of impact:	Limited to the site (1) for the short-term (1) duration of the construction period.
Probability of occurrence:	Definite (4).
Degree to which the impact can be reversed:	Partly reversible (2).
Degree to which the impact may cause irreplaceable loss of resources:	Marginal loss of resources (2).
Cumulative impact prior to mitigation:	Low cumulative impact (1).
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	11 x 3 (High Magnitude) = 33 Negative Medium Impact
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	Before
	<ul style="list-style-type: none"> • Ensure the amount of bare soil exposed is minimized by staging earthworks in phases and leaving as much ground cover intact as possible during construction.
	After

	<ul style="list-style-type: none"> • Soil should be handled when dry during removal and placement to reduce the risk of compaction; • Minimize the amount of land disturbance and develop and implement stringent erosion and dust control practices. Control dust on construction sites and access roads using water-sprayers. • Spillages or leakages must be treated according to an applicable procedure as determined by a plan of action for the specific type of disturbance; <p>Other mitigation measures are stipulated in the Soil Potential Report (Appendix H).</p>
Cumulative impact post mitigation:	Low cumulative impact.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Negative low impact

Impact on biological aspects: Negative Impact

Nature of impact:	Destruction and fragmentation of habitat due to the constructed of a berm, removal of indigenous vegetation and off stream storage dam.
Extent and duration of impact:	Long term (3) impact isolated to the site (1).
Probability of occurrence:	Definite (4).
Degree to which the impact can be reversed:	Irreversible (4).
Degree to which the impact may cause irreplaceable loss of resources:	Significant loss of resources (3).
Cumulative impact prior to mitigation:	Medium cumulative impact (2).
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	16 x 3 (High Magnitude) = 48 Negative Medium Impact
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	<p><u>Before</u></p> <ul style="list-style-type: none"> • Disturbances in close vicinity of the development (periphery) should be limited to the smallest possible area in order to protect species habitat; • The removal of the indigenous plants should only occur on the footprint area of the orchards. No vegetation should be cleared on adjacent areas; • Ensure protection of important resources by establishing protective buffers to exclude unintentional disturbance. All possible efforts must be made to ensure as little disturbance as possible to the sensitive habitats on site during development.
	<p><u>After</u></p> <ul style="list-style-type: none"> • Concurrent rehabilitation of disturbed areas should be an ongoing process of all exposed areas especially on the area surrounding the riparian zone; • Implement standard dust control measures on access roads to the orchards. • The land owner is responsible for the control of weeds and invader plants within the development site for the duration of the development phase. Alien invasive tree species listed by the CARA regulations should be eradicated; • Control involves killing the plants present, killing the seedlings which emerge, and establishing and managing an alternative plant cover to limit re-growth and re-invasion. Weeds and invader plants will be controlled in the manner prescribed for that category by the CARA or in term of Working for Water Guidelines; • Rehabilitate disturbed areas as quickly as possible to reduce the area where invasive species would be at a strong advantage and most easily able to establish; • Institute a monitoring programme to detect alien invasive species early, before they become established and, in the

	case of weeds, before the release of seeds. Once detected, an eradication/control programme should be implemented.
Cumulative impact post mitigation:	Negligible cumulative impact.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Negative Low Impact.

Impacts on socio-economic aspects: Positive Impact	
Nature of impact:	Temporary employment opportunities during construction.
Extent and duration of impact:	Limited to the Local area (2) for the short term (1) duration of the construction phase.
Probability of occurrence:	Definite (4).
Degree to which the impact can be reversed:	Completely reversible (1).
Degree to which the impact may cause irreplaceable loss of resources:	No loss of resources (1).
Cumulative impact prior to mitigation:	Medium Cumulative Impact (2) Increased job security may contribute to improved living standards and social wellbeing.
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	11 x 2 (Medium Magnitude) = 22 Low Positive Impact
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Positive Low Impact

Impacts on cultural-historical aspects:	
Nature of impact:	Impact could involve displacement or destruction of Historical Period structures and material along in the project area footprint.
Extent and duration of impact:	Local extent (2) with a Permanent (4) duration.
Probability of occurrence:	Possible (2).
Degree to which the impact can be reversed:	Irreversible (4).
Degree to which the impact may cause irreplaceable loss of resources:	Marginal loss of resources (2).
Cumulative impact prior to mitigation:	Low cumulative impact (1).
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	15 x 1 (Low magnitude) = Low Negative Impact
Degree to which the impact can be mitigated:	High
Proposed mitigation:	<p><u>Before/After</u></p> <ul style="list-style-type: none"> To locate previously undetected heritage remains / graves as soon as possible after disturbance so as to maximize the chances of successful rescue/mitigation work.
Cumulative impact post mitigation:	No cumulative impact is anticipated.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Negative Low Impact

Noise Impacts: Negative low impact	
Nature of impact:	Noise pollution caused by construction machinery.
Extent and duration of impact:	The extent is limited to the site (1) and the duration of the impact is

	short term (1) and will only occur during the construction phase.
Probability of occurrence:	Probable (3).
Degree to which the impact can be reversed:	Completely reversible (1).
Degree to which the impact may cause irreplaceable loss of resources:	No loss of resources (1).
Cumulative impact prior to mitigation:	Low cumulative impact (1)
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	8 x 1 (Low Magnitude) = 8 Low Negative Impact
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	<p><u>Before</u></p> <ul style="list-style-type: none"> Machines should be fitted with silencers and noise absorption materials to decrease the noise levels. Operation only to take place between 7:00 and 18:00 to minimise noise disturbance.
Cumulative impact post mitigation:	No cumulative impacts are expected post mitigation.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Negative Low Impact

Visual impacts / Sense of Place:	
Nature of impact:	The sense of place will not be impacted.
Extent and duration of impact:	
Probability of occurrence:	
Degree to which the impact can be reversed:	
Degree to which the impact may cause irreplaceable loss of resources:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	

(b) Impacts that result from the operational phase (briefly describe and compare impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the operational phase.

Impacts on the geographical and physical aspects: Negative Low	
Nature of impact:	Water shortage as a result of the diversion of water into an off stream storage dam and the associated social impacts and impact on the sustainability of farming activities in the region.
Extent and duration of impact:	Site (1) extent for the long term (4) of the project.
Probability of occurrence:	Unlikely (1), since legally allocated water will now simply be stored and wastage prevented.
Degree to which the impact can be reversed:	Completely reversible (1)
Degree to which the impact may cause irreplaceable loss of resources:	No loss of resources (1).
Cumulative impact prior to mitigation:	Negligible (1) Cumulative impact
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	9 x 1 (Low magnitude) = 9 Low negative impact

Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	Mitigation measures not needed since only legally allocated water will be stored.
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Negative Low Impact

Impacts on the geographical and physical aspects: Negative Low	
Nature of impact:	Flow modification due to the construction of the rock and soil embankment (berm) within 32-metres of the Groot River and the construction of an off stream storage dam.
Extent and duration of impact:	Local (2) extent for the long term (4) of the project.
Probability of occurrence:	Possible (2), during the flooding of the Groot River.
Degree to which the impact can be reversed:	Barely reversible (3).
Degree to which the impact may cause irreplaceable loss of resources:	Marginal loss of resources (2).
Cumulative impact prior to mitigation:	Low (1) Cumulative impact
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	14 x 2 (Medium magnitude) = 28 Low negative impact
Degree to which the impact can be mitigated:	No mitigation available.
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Negative Low Impact

Impact on biological aspects: Negative Impact	
Nature of impact:	Loss of natural habitat and the associated impacts of invasive plant species.
Extent and duration of impact:	The extent is limited to the site (1) for the long term (4) of the project.
Probability of occurrence:	Probable (3).
Degree to which the impact can be reversed:	Barely reversible (3).
Degree to which the impact may cause irreplaceable loss of resources:	Marginal loss of resources (2).
Cumulative impact prior to mitigation:	Low Cumulative impact (1).
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	14 x 2 (Medium magnitude) = 28 Negative Low Impact
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	<p><u>After</u></p> <ul style="list-style-type: none"> Limit pesticide use to non-persistent, immobile pesticides and apply in accordance with label and application permit directions and stipulations for terrestrial and aquatic applications; Poisons for the control of problem animals should rather be avoided since the wrong use thereof can have disastrous consequences for the raptors (refer to Appendix B) occurring in the area. The use of poisons for the control of rats, mice or other vermin should only be used after approval from an ecologist; Further impact should prevent in the corridor zone of 32 meters surrounding the riparian zone; and An Alien Invasive Plant Removal Programme must form part

	of the EMP and must be implemented. The area must be continuously maintained throughout the lifespan of the project.
Cumulative impact post mitigation:	Low cumulative impact.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Negative Low Impact

Impacts on the socio-economic aspects:	
Nature of impact:	Safety hazard associated with the dam wall and potential damage to downstream infrastructure and erosion.
Extent and duration of impact:	Local (2) extent with a short term (1) effect.
Probability of occurrence:	Possible (2).
Degree to which the impact can be reversed:	Barely reversible (3).
Degree to which the impact may cause irreplaceable loss of resources:	Significant loss of resources (3).
Cumulative impact prior to mitigation:	Negligible cumulative impact (1)
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	12 x 3 (High magnitude) = 36 Negative medium impact
Degree to which the impact can be mitigated:	High
Proposed mitigation:	The dam should be registered and classified and a safety certificate obtained in terms of the National Water Act.
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Negative Low Impact

Impacts on the socio-economic aspects:	
Nature of impact:	Increased agricultural production (food security) and additional job creation.
Extent and duration of impact:	Local (2) extent with a long term (3) effect.
Probability of occurrence:	Probable (3).
Degree to which the impact can be reversed:	Partly reversible (3).
Degree to which the impact may cause irreplaceable loss of resources:	No loss of resources (1).
Cumulative impact prior to mitigation:	Negligible cumulative impact (1)
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	13 x 1 (Low magnitude) = 13 Positive low impact
Degree to which the impact can be mitigated:	No mitigation required.
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Positive Low Impact

Impacts on the cultural-historical aspects:	
Nature of impact:	No cultural-historical impacts are foreseen during the operational phase of the project.
Extent and duration of impact:	
Probability of occurrence:	
Degree to which the impact can be reversed:	
Degree to which the impact may cause irreplaceable loss of resources:	

Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	

Noise impacts:	
Nature of impact:	No noise impacts are foreseen during the operational phase of the project except day to day agricultural activities.
Extent and duration of impact:	
Probability of occurrence:	
Degree to which the impact can be reversed:	
Degree to which the impact may cause irreplaceable loss of resources:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	

Visual impacts / Sense of Place:	
Nature of impact:	The sense of place will not be impacted as the farm and area are notorious for small scale agricultural activities.
Extent and duration of impact:	
Probability of occurrence:	
Degree to which the impact can be reversed:	
Degree to which the impact may cause irreplaceable loss of resources:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	

(c) Impacts that may result from the decommissioning and closure phase (briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase.

It is not foreseen that the activities will be decommissioned within the near future. But should the dam and croplands be decommissioned, it can have negative impacts relating to the loss of productive agricultural land, which will have an impact on food security and job loss but will have a positive impact on the environment, which will be restored to its natural state.

(d) Any other impacts:

Potential impact:	Decommissioning of the dam & croplands
Nature of impact:	Loss of food security
Extent and duration of impact:	Limited to the Local area (2) in the Long term (3)
Probability of occurrence:	Definite (4).
Degree to which the impact can be reversed:	Reversible (1).
Degree to which the impact may cause irreplaceable loss of resources:	No loss of resources (1).
Cumulative impact prior to mitigation:	Medium Cumulative Impact (3) Loss of productive agricultural land can have a cumulative impact on food security in the region, province and country.

Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	14 x 2 (Medium Magnitude) = 28 Low Negative Impact
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Negative Low Impact

Potential impact:	Decommissioning of the dam & croplands
Nature of impact:	Job loss
Extent and duration of impact:	Limited to the Local area (2) in the Short term (1)
Probability of occurrence:	Definite (4).
Degree to which the impact can be reversed:	Reversible (1).
Degree to which the impact may cause irreplaceable loss of resources:	No loss of resources (1).
Cumulative impact prior to mitigation:	Low Cumulative Impact (2)
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	11 x 2 (Medium Magnitude) = 22 Low Negative Impact
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Negative Low Impact

Potential impact:	Decommissioning of the dam & croplands
Nature of impact:	Rehabilitation of environment
Extent and duration of impact:	Limited to the Site (1) in the Long term (3)
Probability of occurrence:	Definite (4).
Degree to which the impact can be reversed:	Reversible (1).
Degree to which the impact may cause irreplaceable loss of resources:	No loss of resources (1).
Cumulative impact prior to mitigation:	Low Cumulative Impact (2).
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	12 x 2 (Medium Magnitude) = 24 Low Positive Impact
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Positive Low Impact

Please note: If any of the above information is not available, specialist input may be requested.

7. SPECIALIST INPUTS/STUDIES AND RECOMMENDATIONS

Please note: Specialist inputs/studies that will be undertaken as part of this application. These specialist inputs/studies must take into account the Department's relevant Guidelines on the Involvement of Specialists in EIA Processes available on the Department's website (<http://www.capegateway.gov.za/eadp>). A summary of all the specialist inputs/studies must be provided with the additional information.

Specialist inputs/studies and recommendations:

The following specialist studies have been conducted:

1. Ecological and Riparian Impact Assessment (see Annexure?)
2. Land capability and Soil Assessment
3. Archaeological Impact Assessment
4. Aquatic Assessment

Ecological and Riparian Impact Assessment

Following the investigation and ecological impact of the cleared land, the following conclusions can be made:

All aspects of the environment, especially living organisms, are vulnerable to disturbance of their habitat. The development had a definite impact on the vegetation and faunal habitats on the footprint areas to a varying extent according to the state of the environment (vegetation and fauna habitats) and sensitivity analysis conducted for the site.

Most sensitive sections: It is evident from the distribution of biodiversity, presence of threatened species and sites of scientific interest, that the most sensitive areas that occur in the direct vicinity of the developments are the riparian zone associated with the Groot River and the rocky outcrop areas. Sections of the riparian zone were completely modified by the land clearance activities. Any potential impacts and rehabilitation actions should strive to eliminate negative impacts on the riparian zone.

Most sensitive habitats: Many threatened species are riparian species, linked to these habitats either for breeding, feeding or shelter. Major impacts on riverine areas should be avoided wherever possible during rehabilitation actions and the aim should rather be to improve this area as a faunal habitat through rehabilitation. Existing hydrodynamics must be protected to ensure that water regimes are maintained and this should be addressed in a rehabilitation plan if the development is not approved.

Monitoring of threatened species: Some isolated endemic and protected species have been recorded in region. The EMPR for the development should highlight the conservation status of these species and note that steps must be undertaken in conjunction with conservation authorities to protect or translocate any populations encountered during project actions and future monitoring. Ecological monitoring is recommended considering that this project is a 24G application and due to the presence of endemic fauna and flora occurring in the larger area surrounding the site.

The importance of rehabilitation and implementation of mitigation processes to prevent any negative impacts on the environment after the construction phase should be considered a high priority. The proposed site surrounding the development is in an already degraded state before commencement of the activities in question.

A sensitivity analyses was conducted to identify the most suitable site for the development. From these investigations and ecological surveys, the following main observations was made (included in figure below):

- The succulent shrubveld on the slightly undulating terrain have a Medium Sensitivity. The development had impacts on these areas to a limited extent, although the only potential significant impact was the potential loss of individual plants. Monitoring and rehabilitation of these areas in close proximity to the croplands should be an ongoing process.
- The riparian woodland has a High Sensitivity and should be preserved as important fauna and flora habitats. The area should be rehabilitated considering that the vegetation clearance along the riparian zone had a major impact;

No red data plant species were found on the site due to the state of the vegetation and physical environment of the larger area mostly not being suitable for any of the red data plant species that may be found in the area.

Some potential rare fauna may occur in the area, and specific mitigation measures need to be implemented to ensure that the impact of the development on the species' habitat will be low. Specific mitigation relating to red data fauna includes the following:

- Disturbances in close vicinity of the development (periphery) should be limited to the smallest possible area in order to protect species habitat; and
- Corridors are important to allow fauna to move freely between the areas of disturbance. The riparian woodland and drainage channel linking the site to the Groot River play an important role in this regard and therefore habitat fragmentation for smaller mammals, birds and herpetofauna will be minimal. No further suggested vegetation clearance in the Riparian area.

A number of impacts the development had on the fauna and flora of the site were identified and assessed. A few of these were assessed as having potentially medium or high significance without any mitigation measures or rehabilitation, including the following:

- Destruction or disturbance to sensitive ecosystems leading to reduction in the overall extent of a particular habitat;
- Increased soil erosion;
- Impairment of the movement and/or migration of animal species resulting in genetic and/or ecological impacts;
- Destruction/permanent loss of individuals of rare, endangered, endemic and/or protected species;
- Soil and water pollution through spillages;
- Establishment and spread of declared weeds and alien invader plants; and
- Air pollution through dusts and fumes from construction vehicles (construction phase)

Mitigation measures are provided that would reduce these impacts from a higher to a lower significance. Furthermore, the layout plan of the developments had impacts that vary from lower (degraded shrubveld area) to high (riparian woodland areas) on the ecosystem.

Conclusion

The developments modified and will modify the natural vegetation and faunal habitats, although the significance was found to be lower than expected in certain areas and the developments will in fact prevent potential future spreading of alien species. The importance of rehabilitation and implementation of a monitoring plan to prevent negative impacts on the environment should be considered a high priority. Detailed rehabilitation plans should be compiled as guidance documents for the owner of the farm.

Any future development on the site should aim at avoiding impacts on sensitive areas such as riverine areas. Where sensitive areas of natural vegetation cannot be avoided, a number of mitigation measures have been recommended to minimise impacts. Negative impacts can be minimised by strict enforcement and compliance with an Environmental Management Programme which takes into account the recommendations for managing impacts detailed above.

The development had a definite impact on the ecosystem, although it varies from low to high depending on the specific vegetation unit. Rehabilitation and monitoring of the area should be ongoing future actions.

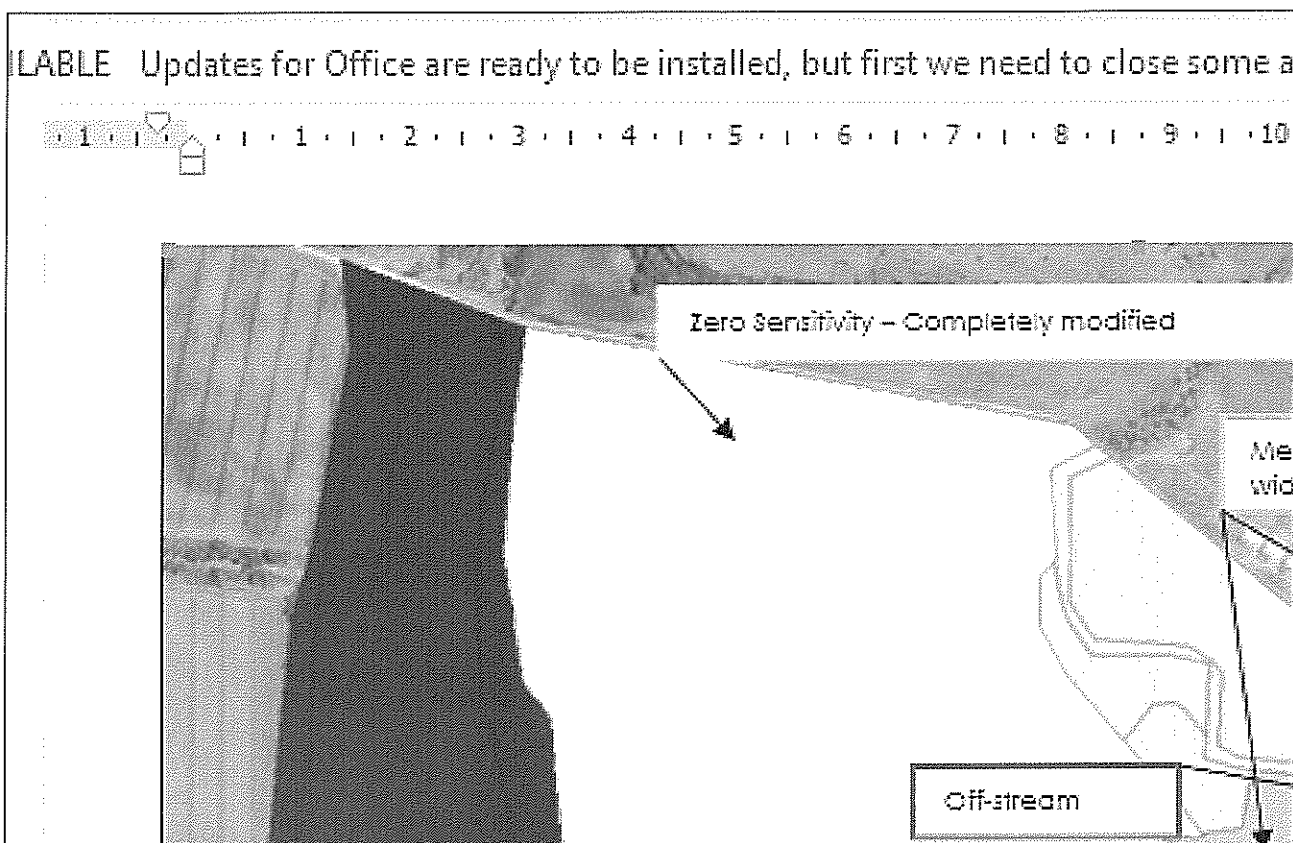


Figure: Sensitivity Map

Land capability and Soil Assessment

- By definition, based on Part 1 of the Regulation of Conservation of Agricultural Resources Act 43 of 1983, the development area for the croplands and constructed off stream storage dam on the Farm Zuurberg in the Western Cape Province can be classified as having Low potential soils as a result of the following: The sandy nature, shallow soil depth and arid climate (MAP below 300mm) makes the potential to cultivate crops under arable conditions basically impossible, especially considering that the sandy soils have a low water holding capacity unsuitable for arable agriculture. Therefore, the site should be classified as not suitable for arable agriculture due to its physical characteristics. However, crop cultivation such as orchards can be sustained provided under irrigation; and
- The grazing capacity of the land would allow limited grazing of the area.

The results indicate that the agricultural potential of the soil on the development area is mostly low (shallow, soils or very sandy to sandy clay soils with limited suitability for grazing). The results obtained from the study were done after field observations were done to verify the soil potential classified by the Department of Agriculture on a small scale. The site should subsequently be considered as moderate to low potential grazing land with low potential for arable agriculture considering the climatic conditions, soil physical characteristics and size of land potentially available. The only viable option would be irrigated crop cultivation (orchards) or limited grazing under the climatic conditions.

Archaeological Impact Assessment

The history of Western Cape is reflected in a rich archaeological landscape. The province is well known for its contribution to Stone Age research and various South African archaeological cultures have derived their names from cave sites along the south and east coast. Significantly, the intensive utilization of marine resources by San hunter-gatherers (dating from as old as 6 000 years ago), Khoi pastoralists and KhoiSan (dating from the past 1 800 years in the region), manifests in the archaeological record through hundreds of shell middens (large piles of marine shell) dating to the terminal Pleistocene and Holocene that litter coastal areas along the Western Cape. In addition, European farmers, settling in the area since the 17th century, divided up the landscape into a number of farms, which even today form the framework for agricultural, residential and other forms of development. Similarly, portions of the project area have been transformed as a result of historical crop farming and rural settlement but rock outcrops, mountain slopes and summits remain pristine. A study of aerial photos taken prior to the construction of the dam indicates that some areas currently covered by constructed dams and cleared lands, have already been transformed for farming prior to development on the farm. During the site assessment, heritage receptors were noted in areas demarcated for site clearing and zones surrounding the existing dam. The following general recommendations are made based on general observations in the project area.

- A low-density scatter of Middle Stone Age (MSA) and Later Stone Age (LSA) material was found on a small rise in an area demarcated for site clearing for agricultural fields. The MSA lithics, which occur on the surface of deep sands, include formal tools such as broken points, scrapers and blades. The transformed nature of the local landscape has resulted in a loss of primary context and as such, the scientific value of the artefacts has largely been lost. However, it is recommended that any development activities be monitored in order to avoid the destruction of previously undetected Stone Age occurrences.
- A Colonial Period occupation site with a clayed-up building and a midden was recorded in an area demarcated for site clearing for agricultural fields. The site is probably older than 60 years and a protected heritage resource but the dwelling does not display unique architectural characteristics as these kinds of buildings occur frequently around farmsteads in the region and the site is of moderate-low significance. However, a destruction permit should be obtained prior to any alteration to the dwelling or destruction of the site.
- Considering the localised nature of heritage remains, the general monitoring of the development progress of the two new dams by an ECO is recommended for all stages of the project. Should any subsurface palaeontological, archaeological or historical material, or burials be exposed during construction activities, all activities should be suspended and the archaeological specialist should be notified immediately.
- It is essential that cognizance be taken of the larger archaeological landscape of the area in order to avoid the destruction of previously undetected heritage sites. It should be stated that the possibility of undetected archaeological remains occurring elsewhere in the project area should not be excluded. Burials and historically significant structures dating to the Colonial Period occur on farms in the area and these resources should be avoided during all phases of construction and development, including the operational phases of the development.

Since the intrinsic heritage and social value of graves and cemeteries are highly significant, these resources require special management measures. Should human remains be discovered at any stage, these should be reported to the Heritage Specialist and relevant authorities (SAHRA) and development activities should be suspended until the site has been inspected by the Specialist. The Specialist will advise on further management actions and possible relocation of human remains in accordance with the Human Tissue Act (Act 65 of 1983 as amended), the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925), the National Heritage Resources Act (Act no. 25 of 1999) and any local and regional provisions, laws and by-laws pertaining to human remains. A full social consultation process should occur in conjunction with the mitigation of cemeteries and burials.

In addition to these site-specific recommendations, careful cognizance should be taken of the following:

- As Palaeontological remains occur where bedrock has been exposed, all geological features should be regarded as sensitive.
- Water sources such as drainage lines, fountains and pans would often have attracted human activity in the past. As Stone Age material the larger landscape should be regarded as potentially sensitive in terms of possible subsurface deposits.

General Comments and Conditions

The Archaeological Impact Assessment indicated that the larger heritage horizon encompasses rich and diverse archaeological landscapes and cognizance should be taken of heritage resources and archaeological material that might be present in surface and sub-surface deposits. If, during construction, any possible archaeological material culture discoveries are made, the operations must be stopped and a qualified archaeologist be contacted for an assessment of the find.

If such site were to be encountered or impacted by any proposed developments, recommendations contained in this report, as well as endorsement of mitigation measures as set out by the South African Heritage Resources Agency (SAHRA), the National Resources Act and the CRM section of ASAPA will be required.

It must be emphasised that the conclusions and recommendations expressed in this archaeological heritage sensitivity investigation are based on the visibility of archaeological sites/features and may not therefore, represent the area's complete archaeological legacy. Many sites/features may be covered by soil and vegetation and might only be located during sub-surface investigations. If subsurface archaeological deposits, artefacts or skeletal material were to be recovered in the area during construction activities, all activities should be suspended and the archaeological specialist should be notified

immediately (cf. NHRA (Act No. 25 of 1999), Section 36 (6)). It must also be clear that Archaeological Specialist Reports will be assessed by the relevant heritage resources authority (SAHRA).

Aquatic Assessment

The results of the Present Ecological Status assessment for the Groot River indicate largely modified conditions within the reach. The modified conditions can largely be attributed to riparian habitat quality impacts stemming from agricultural activities (indigenous vegetation removal), flow modifications due to abstraction, and water quality modifications due to runoff. During the site investigation conducted in October 2018, impacts to instream habitat, marginal zones, banks, riparian zones and floodplain were observed. According to comparative analyses from 2013 and 2018 aerial imagery, a total 2 hectares of vegetation was cleared along the Groot River. This excludes areas such as access route to site G2, and additional vegetation clearing observed within the instream and riparian zones.

Should the Section 24G application be successful, it is recommended that mitigation and remedial measures taken to stabilise banks, revegetate cleared areas not farmed, and rehabilitate instream areas modified as identified in Section 6. Furthermore, should farming continue within the affected area, best practice methodologies should be implemented to minimise risk to the Groot River system. A flood management plan should be in place to minimise further modifications to the reach.

Should the Section 24G application be unsuccessful, it is recommended that an extensive rehabilitation process be undertaken. Due to the modified areas being within the floodplain, the risk of extensive modifications of the rehabilitated areas are high should flooding occur prior to the stabilisation of revegetated and reshaped areas. Therefore, a flood management plan should be in place prior to initiation of the rehabilitation process.

Mitigation and rehabilitation plans have been provided within the report. Furthermore, due to the nature of the activities undertaken, proximity to the Groot River (furthermore being within a floodplain), and associated risks identified, a monitoring plan is recommended to determine any further modifications to the Groot River. Of particular concern is potential modifications to the riverine area during flooding conditions.

8. IMPACT ASSESSMENT SUMMARY

Briefly describe the impacts (as appropriate), significance rating of impacts, mitigation and significance rating of impacts of the activity. This must include an assessment of the significance of all impacts.

Impacts	Significance rating of impacts after mitigation (Low, Medium, Medium-High, High, Very High):
Construction Phase:	
Removal of topsoil, erosion & soil compaction for the construction of the dam.	Negative low impact
Habitat destruction and fragmentation of the constructed berm, croplands and off stream dam.	Negative low impact.
Temporary employment opportunities during construction.	Positive low impact
Impact could involve displacement or destruction of Historical Period structures and material along in the project area footprint.	Negative low impact
Noise pollution caused by construction machinery.	Negative low impact
Operational Phase:	
Water shortage as a result of the diversion of water into an off stream storage dam and the associated social impacts and impact on the sustainability of farming activities in the region.	Negative low impact
Safety hazard associated with the dam wall and potential damage to downstream infrastructure and erosion.	Negative low impact
Flow modification due to the construction of the rock and soil embankment (berm) within 32-metres of the Groot River.	Negative low impact
Loss of natural habitat and the associated impacts of invasive plant species.	Negative low impact.
Increased agricultural production (food security) and additional job creation.	Positive low impact
Decommissioning Phase:	

Loss of food security during decommissioning of project.	Negative low impact
Loss of jobs during decommissioning of project.	Negative low impact
The area will be rehabilitated to its natural state during decommissioning.	Positive low impact

9. SUMMARY OF THE CONSEQUENCES OF/ IMPACTS OF THE UNLAWFULLY COMMENCED ACTIVITY/IES

Please provide a detailed summary of the consequences/impacts of commencement of the activity/ies on the environment.

The clearance of the wetland riparian vegetation where the croplands and soil berm are located had a negative low impact on habitat destruction and fragmentation, and also had a negative low impact on the removal of topsoil, erosion and soil compaction during the construction of the berm, croplands and off-stream dam.

Temporary employment opportunities were created during the construction phase but in turn had had a negative low impact due to noise pollution in the same period.

The new croplands and soil embankment have a negative low impact on the flow modification of the Groot River due to its proximity of 32 metres and in tern also contributes to a loss of natural habitat. The new farming activity will however contribute to food security in the region as well as additional job creation, which will both be lost should the activity be decommissioned.

10. OTHER MANAGEMENT, MITIGATION AND MONITORING MEASURES

(a) Over and above the mitigation measures described above, please indicate any additional management, mitigation and monitoring measures.

- An Environmental Management Programme must be implemented and adhered to.
- An Alien Invasive Plant Removal Programme must form part of the EMPr and must be implemented. The area must be continuously maintained throughout the lifespan of the project.

(b) Describe the ability of the applicant to implement the management, mitigation and monitoring measures.

The applicant will receive the necessary training in the understanding and implementation of the EMPr and will appoint a one of his foremen to undertake environmental inspections.

Please note: A draft ENVIRONMENTAL MANAGEMENT PROGRAMME must be attached to this application as Appendix I.

SECTION G: ASSESSMENT METHODOLOGIES AND CRITERIA, GAPS IN KNOWLEDGE, UNDERLYING ASSUMPTIONS AND UNCERTAINTIES

(a) Please describe adequacy of the assessment methods used.

This Section 24G process is being undertaken with sustainable development as a goal. The assessment identifies the impacts of the activity on the environment and assesses the significance of these, as well as proposed mitigation measures, as required, to ensure positive impacts and/or to reduce anticipated negative impacts to an acceptable level where they could not be avoided. This is to ensure that the activity makes equitable and sustainable use of environmental and natural resources for the benefit of present and future generations. The assessment methods used are adequate for the nature of the application and the site, since it introduces rationality in determining the significance of potential environmental impacts.

(b) Please describe the assessment criteria used.

The environmental assessment aims to identify the various possible environmental impacts that could results from the proposed activity. Different impacts need to be evaluated in terms of its significance and in doing so highlight the most critical issues to be addressed. Significance is determined through a synthesis of impact characteristics which include context and intensity of an impact. Context refers to the geographical scale i.e. site, local, national or global whereas intensity is defined by the severity of the impact e.g. the magnitude of deviation from background conditions, the size of the area affected, the duration of the impact and the overall probability of occurrence, which are aligned with the EIA regulations, 2014 as amended.

Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.

Impact assessment must take account of the nature, scale and duration of impacts on the environment and whether such impacts are positive or negative. Each impact is also assessed according to the project phases:

- planning
- construction
- operation
- decommissioning

Where necessary, the proposal for mitigation or optimisation of an impact should be detailed. A brief discussion of the impact and the rationale behind the assessment of its significance should also be included. The rating system is applied to the potential impacts on the receiving environment and includes an objective evaluation of the mitigation of the impact. In assessing the significance of each impact, the following criteria is used:

RATING SYSTEM		
NATURE		
Include a brief description of the impact of environmental parameter being assessed in the context of the project. This criterion includes a brief written statement of the environmental aspect being impacted upon by a particular action or activity.		
GEOGRAPHICAL EXTENT		
This is defined as the area over which the impact will be experienced.		
1	Site	The impact will only affect the site.
2	Local/district	Will affect the local area or district.
3	Province/region	Will affect the entire province or region.
4	International and National	Will affect the entire country.
PROBABILITY		
This describes the chance of occurrence of an impact.		
1	Unlikely	The chance of the impact occurring is extremely low (Less than a 25% chance of occurrence).
2	Possible	The impact may occur (Between a 25% to 50% chance of occurrence).
3	Probable	The impact will likely occur (Between a 50% to 75% chance of occurrence).
4	Definite	Impact will certainly occur (Greater than a 75% chance of occurrence).
DURATION		
This describes the duration of the impacts. Duration indicates the lifetime of the impact as a result of the proposed activity.		
1	Short term	The impact will either disappear with mitigation or will be mitigated through natural processes in a span shorter than the construction phase (0 – 1 years), or the impact will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0 – 2 years).
2	Medium term	The impact will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (2 – 10 years).
3	Long term	The impact and its effects will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter (10 – 30 years).
4	Permanent	The only class of impact that will be non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered indefinite.
INTENSITY/ MAGNITUDE		
Describes the severity of an impact.		
1	Low	Impact affects the quality, use and integrity of the system/component in a way that is barely perceptible.
2	Medium	Impact alters the quality, use and integrity of the system/component but system/component still continues to function in a moderately modified way and maintains general integrity (some impact on integrity).
3	High	Impact affects the continued viability of the system/component and the quality, use, integrity and functionality of the system or component is severely impaired and may temporarily cease. High costs of rehabilitation and remediation.
4	Very high	Impact affects the continued viability of the system/component and the quality, use, integrity and

		functionality of the system or component permanently ceases and is irreversibly impaired. Rehabilitation and remediation often impossible. If possible rehabilitation and remediation often unfeasible due to extremely high costs of rehabilitation and remediation.
REVERSIBILITY		
This describes the degree to which an impact can be successfully reversed upon completion of the proposed activity.		
1	Completely reversible	The impact is reversible with implementation of minor mitigation measures.
2	Partly reversible	The impact is partly reversible but more intense mitigation measures are required.
3	Barely reversible	The impact is unlikely to be reversed even with intense mitigation measures.
4	Irreversible	The impact is irreversible and no mitigation measures exist.
IRREPLACEABLE LOSS OF RESOURCES		
This describes the degree to which resources will be irreplaceably lost as a result of a proposed activity.		
1	No loss of resource	The impact will not result in the loss of any resources.
2	Marginal loss of resource	The impact will result in marginal loss of resources.
3	Significant loss of resources	The impact will result in significant loss of resources.
4	Complete loss of resources	The impact is result in a complete loss of all resources.
CUMULATIVE EFFECT		
This describes the cumulative effect of the impacts. A cumulative impact is an effect which in itself may not be significant but may become significant if added to other existing or potential impacts emanating from other similar or diverse activities as a result of the project activity in question.		
1	Negligible cumulative impact	The impact would result in negligible to no cumulative effects.
2	Low cumulative impact	The impact would result in insignificant cumulative effects.
3	Medium cumulative impact	The impact would result in minor cumulative effects.
4	High cumulative impact	The impact would result in significant cumulative effects
SIGNIFICANCE		
Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The calculation of the significance of an impact uses the following formula: (Extent + probability + reversibility + irreplaceability + duration + cumulative effect) x magnitude/intensity. The summation of the different criteria will produce a non-weighted value. By multiplying this value with the magnitude/intensity, the resultant value acquires a weighted characteristic which can be measured and assigned a significance rating.		
Points	Impact significance rating	Description
6 to 28	Negative low impact	The anticipated impact will have negligible negative effects and will require little to no mitigation.
6 to 28	Positive low impact	The anticipated impact will have minor positive effects.
29 to 50	Negative medium impact	The anticipated impact will have moderate negative effects and will require moderate mitigation measures.
29 to 50	Positive medium impact	The anticipated impact will have moderate positive effects.
51 to 73	Negative high impact	The anticipated impact will have significant effects and will require significant mitigation measures to achieve an acceptable level of impact.
51 to 73	Positive high impact	The anticipated impact will have significant positive effects.
74 to 96	Negative very high impact	The anticipated impact will have highly significant effects and are unlikely to be able to be mitigated adequately. These impacts could be considered "fatal flaws".
74 to 96	Positive very high impact	The anticipated impact will have highly significant positive effects.

(c) Please describe the gaps in knowledge.

Due to the activity currently being in its operational phase, there is little knowledge of the environment prior to any earthworks and construction. The knowledge of the state of the environment is purely from information conveyed to the EAP by the applicant, literature and GIS reviews.

(d) Please describe the underlying assumptions.

If is assumed that all the information conveyed to the EAP by the applicant and specialists are correct.
The management of this development will be in line with the recommendations in this report, which will be enforced by the

implementation of a detailed Environmental Management Programme and environmental authorisation (if approved).

(e) Please describe the uncertainties.

There are no identified uncertainties.

SECTION H: RECOMMENDATIONS OF THE EAP

In my view (EAP), the information contained in the Application and the documentation attached hereto is sufficient to make a decision in respect of the activity applied for.	YES	NO
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If "NO", list the aspects that should be further assessed through additional specialist input/assessment:

N/A

If "YES", please indicate below whether in your opinion the applicant should be directed to cease the activity or if it should be authorised:

Applicant should be directed to cease the activity:	YES	NO
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Please provide reasons for your opinion

The construction of the dam was done with pure intentions to implement more responsible and sustainable irrigation methods in order to save water. That only the lawfully allocated water is stored in the dam (off stream) and that for these reasons the operation of the dam should not be ordered to cease.

Although the embankment and removal of indigenous vegetation in close proximity to the Groot river is located in a sensitive area, which resulted in environmental impacts it is our opinion that the rehabilitation and relocation of this activity will result in serious financial impacts and additional environmental impacts. It is argued that any additional future impact on the sensitive areas can be avoided or minimised through the implementation of the EMPR.

If you are of the opinion that the activity should be authorised, then please provide any conditions, including mitigation measures that should in your view be considered for inclusion in an authorisation.

- An Environmental Management Programme must be implemented and adhered to;
- The EMPR must include all mitigation measures recommended by the specialists;
- An Alien Invasive Plant Removal Programme must form part of the EMPr and must be implemented; and
- The area must be continuously maintained throughout the lifespan of the project.

SECTION I: REPRESENTATIONS – RESPONSE TO AN INCIDENT OR EMERGENCY SITUATION

This section is only applicable to instances where Section 49A (2) of NEMA applies. Please list all steps that were taken in response to the incident or emergency situation.

N/A

Please note:

Section 30 of NEMA deals with the procedures to be followed for the control of emergency incidents and Section 30A deals with procedures to be followed in the case of emergency situations.

SECTION J: PUBLIC PARTICIPATION

1. PUBLIC PARTICIPATION PROCESS TO BE FOLLOWED

1.1 THE PUBLIC PARTICIPATION PROCESS IN TERMS OF THE SECTION 24G FINE REGULATIONS, 2017

Regulation 8 of the Section 24G Fine Regulations require that all applicants must conduct public participation prior to submission of a section 24G application (as outlined in Annexure A of the Section 24G Fine Regulations - Section D: Preliminary Advertisement).

"The applicant must place a preliminary advertisement in-

(1) A local newspaper in circulation in the area in which the activity was, or activities were, commenced; and on the applicant's website, if any.

(2) This advertisement must comply with the requirements set out in Annexure A, Section D of the Section 24G Fine Regulations, 2017.

(3) The applicant must open and maintain of a register of interested and affected parties.

(4) The register must be attached to the application form and included in the report, or form part of the information submitted in terms of section 24G(1) of the Act, which the register must, as a minimum, contain the names, contact details and addresses of-

(a) all persons who, as a consequence of the public participation process conducted in respect of the application, have submitted written comments or attended meetings with the applicant or any environmental assessment practitioner or other specialist appointed by the applicant to assist with the application;

(b) all persons who have requested the applicant, in writing, to place their names on the register; and

(c) all organs of state that have jurisdiction in respect of the activity to which application relates."

Please provide a summary of the steps followed where public participation was undertaken in accordance with Regulation 8 prior to submission of this Application Form. Ensure that proof of compliance with Regulation 8 is submitted with this Application Form, including, *inter alia*, proof of preliminary advertisement in a local newspaper.

Public participation was undertaken in accordance with Regulation 8 prior to submission of this Application Form. To date the following actions have been taken as part of the public participation process:

- A site notice (refer to Appendix G3):
A site notice was erected on 20 August 2018 and Interested and Affected Parties (I&APs) were encouraged to submit their comments in writing to the EAP by 5 October 2018;
- A press notice (refer to Appendix G4):
A press notice was published in the Hoon newspaper on 7 February 2019 and I&APs were encouraged to submit their comments in writing to the EAP by within 22 days of the notice (28 February 2019); and
- Direct notification and distribution of a background information document (BID) (refer to Appendix G5):
A BID was distributed to all Interested and Affected Parties (I&APs) and government stakeholders in an email dated 2 July 2019. Once again I&APs were encouraged to submit their comments in writing to the EAP by 28 February 2019.
- A register of I&AP (refer to Appendix G1):
A register of I&APs was opened and maintained since August 2018.
- Comments and response report (refer to Appendix G2):
A comments and response report has been compiled and maintained since August 2018.

Please indicate whether the applicant has a website (please tick relevant box): YES NO

If yes, please note that the application information as specified above must have been advertised on such website and proof thereof must accompany this application.

Please note: Annexure A: Section D attached to this Application form must be strictly adhered to.

1.2 THE PUBLIC PARTICIPATION PROCESS IN TERMS OF NEMA EIA REGULATIONS, 2014

As the applicant, you may be directed to conduct the public participation process that fulfils the requirements outlined in Chapter 6 of the EIA Regulations, 2014. In doing so, you must take into account any applicable guidelines published in terms of Section 24J of NEMA, the Department's Circular EADP 0028/2014 on the "One Environmental Management System" and the EIA Regulations, 2014 as well as any other guidance provided by the Department. Note that the public participation requirements are applicable to all proposed sites.

Please highlight the appropriate box below to indicate the public participation process that has been or will be undertaken to give notice of the application to all potential interested and affected parties, including deviations that may be agreed to by the competent authority:

1. In terms of regulation 41 of the EIA Regulations, 2014 -			
(a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of -			
(i) the site where the activity to which the application relates is or is to be undertaken; and	YES	DEVIATION	
(ii) any alternative site	YES	DEVIATION	
(b) giving written notice, in any manner provided for in section 47D of the NEMA, to -			
(i) the occupiers of the site and, if the applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	YES	DEVIATION	N/A

(ii) owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	YES	We were unable to obtain the contact details for two of the surrounding land owners, namely: Portions 1 and 13 of the farm Groot (Ranvier (Soviatiskrans Trust) and Portion 8 of the farm Venterkrans (GM Kruidw).	
(iii) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;	YES	DEVIATION	
(iv) the municipality (Local and District Municipality) which has jurisdiction in the area;	YES	DEVIATION	
(v) any organ of state having jurisdiction in respect of any aspect of the activity; and	YES	DEVIATION	
(vi) any other party as required by the Department;	YES	DEVIATION	N/A
(c) placing an advertisement in -			
(i) one local newspaper; or	YES	DEVIATION	
(ii) any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;	YES	DEVIATION	N/A
(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken	YES	DEVIATION	N/A
(e) using reasonable alternative methods, as agreed to by the Department, in those instances where a person is desirous of but unable to participate in the process due to— (i) illiteracy; (ii) disability; or (iii) any other disadvantage.	YES	DEVIATION	N/A
If you have indicated that "DEVIATION" applies to any of the above, then Section 2. below must be completed.			
NOTE: 2. The NEM: WA requires that a notice must be placed in at least two newspapers.			
If applicable, have/will an advertisement be placed in at least two newspapers?	YES	NO	
If "NO", then an application for exemption from the requirement must be applied for.			

I. Provide a list of all the state departments that has been / will be consulted:		
List of State Depts.	Comment obtained (YES/NO)	If not, provide reasons
Kannaalnd Local Municipality	No	No response to our email dated 2 July 2019.
Kannaalnd Local Municipality Ward Councillor (Ladismith Ward 4)	No	No response to our email dated 2 July 2019.
Western Cape Department of Economic Development, Environment, Conservation and Tourism	No	No response to our email dated 2 July 2019.
The Department of Water Affairs – Western Cape Region	No	No response to our email dated 2 July 2019.
Breede Gouritz Catchment Management Agency	No	No response to our email dated 2 July 2019.
Department of Agriculture- Western Cape	No	No response to our email dated 2 July 2019.
Provincial Heritage Resources Agency (PHRA)-Western Cape	No	No response to our email dated 2 July 2019.
Garden Route District Municipality	No	No response to our email dated 2 July 2019.
Cape Nature	No	No response to our email dated 2 July 2019.

2. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues raised were incorporated, or the reasons for not being incorporated or addressed. (The details of the outcomes of this process, including supporting information must be included in the Comments and Report to be attached to this application as Appendix G.)

The following main issues were raised by I&APs – refer to comments and response report (Appendix G):

Water shortage / draught on associated social impacts:

Mr. Carl Nielsen explained that the rivers in their conservancy are dry despite there having been some rain and snowfall in the winter months. He stated that although this could be related to the drought, they also believe that various illegal activities have contributed to this. Mr. Claassen raised similar concerns and also stated that the cumulative impacts as a result of illegal activities in the area must be considered. Mr. Claassen further raised his concerns that the activities that take place will require the owner to withdraw water from Dwars River and Groot River. The amount of water to be abstracted will not be monitored and it will have a direct effect on the availability of water for farmers downstream. He further noted the impact that the drought has had on the lay down of workers and the associated social impacts.

Mrs. Lisa Murray highlighted that the water flow of the Klein Swart river that flows through their property has stopped since Mr Van der Vyver enlarged his dam in the Dwars River valley. She urged that the situation is getting desperate as property, livelihoods and jobs are radically effected. Mrs. Amy Murray raised similar concerns that the construction of structures has resulted in zero flow in the river despite both rain and snowfall, which is detrimental to the health and use of their land. She requested that further investigation be conducted into the structures and their effect on surrounding and downstream land, since it is illegal, unsustainable and unfair for river flow to be diverted to the benefit of a single land-user.

Clearing of vegetation in floodplain and associated erosion:

Mr. Carl Nielsen stated that their main concern is the clearing of land too close to the river, which in his opinion will have a devastating effect if and when the river floods again. He raised the concern that the next flood, even a minor one, is going to wash over the cleared lands and all that topsoil and silt will end up downstream. Mr. O'Brien raised similar concerns and stated that the previous floods dumped a huge amount of rocks and topsoil in both the river course above the weir/bridge and in the dam. He believes that the reason originated from river banks that had been denuded to increase the size of lands on the river banks.

The location of the dam (and other activities referred to):

Mr. Carl Nielsen asked where the off stream dam is located and whether it includes pipelines and abstraction points.

The need for a water use license:

Mr. Carl Nielsen and Mr. Claassen asked whether the applicant has a water license to fill the off stream dam and the dam itself.

Aquatic ecological impacts:

Mr. Nielson recommended that an aquatic ecologist be appointed to assist with the evaluation of the potential impacts. Mr Claassen stated that *"the river is currently dry since too much water is being abstracted. This has a negative effect on the ecosystem and will also potentially result in negative impacts in the event of a flood."*

Invasive plants:

Mr. Claassen stated that invasive Plants are a problem in the area. The Local farmers confirmed that this is the first time in 85 years that the Groot river did not flow.

Illegal activities not affording the public the opportunity to provide their inputs:

Mr. Claassen stated that the people potentially affected by the illegal activities were not afforded the opportunity to raise their concerns. Mr. O'Brien also stated that as a result of the activity being illegal no independent assessment of flood level, impact and damages caused by floods (including the degree of silting up of the river and dam) has been carried out.

Safety hazard:

Mr. Claassen raised the concern that the dam wall poses a safety hazard and could damage downstream infrastructure. *"If the wall breaks it will also cause erosion. It is uncertain who will be held accountable in such an event and whether a safety certificate was issued. Proper impact study was not done in advance."*

Rules of the Farm Owners Association:

Mr. Nielson furthermore stated that in terms of the rules of the Farm Owners Association, farming is prohibited except as may be provided in any agreement between a member landowner and the Association and that the affected area does not fall under any such agreement and accordingly, should not have been cleared for farming in the first place.

All issues raised were noted and Environamics aimed to address the I&APs concerns as part of the Section 24G application process by assessing the potential impacts and concerns raised. All I&APs were informed that the application will be submitted soon in order to rectify all illegal activities and that specialist studies have been conducted in order to determine the extent of the environmental impacts. The application form will also be made available for their perusal.

3. Provide a summary of any conditional aspects identified / highlighted by any Organs of State, which have jurisdiction in respect of any aspect of the relevant activity.

None.

Please note:

- A list of all the potential interested and affected parties, including the organs of State must be opened, maintained and made available to any person requesting access, in writing, to the register.
- All comments of interested and affected parties on the Application Form and Additional Information must be recorded, responded to and included in the Comments and Responses Report attached as Appendix G to the Application. The Comments and Responses Report must also include a description of the Public Participation Process followed.
- The minutes of any meetings held by the EAP with interested and affected parties and other role players which record the views of the participants must also be submitted as part of the public participation information to be attached to the additional information/Environmental Impact Report as Appendix G.
- Proof of all the notices given as indicated, as well as of notice to the interested and affected parties of the availability of the Application Form/Additional Information must be submitted as part of the public participation information to be attached to the application as Appendix G.

2. REPRESENTATIONS REGARDING DEVIATION FROM PUBLIC PARTICIPATION REQUIREMENTS IN TERMS OF THE EIA REGULATIONS, 2014

Please provide detailed reasons (representations) as to why it would be appropriate not direct you to comply with all of the requirements and to deviate from the requirements of regulation 41 as indicated above.

Not applicable.

3. LIST OF STATE DEPARTMENTS

Section 24(O)(2) obliges the relevant authority to consult with every State department that administers a law relating to a matter affecting the environment when such authority considers an application for an environmental authorisation.

Provide a list of all the State departments that will be/have been consulted, including the name and contact details of the relevant official.		
State Department	Name of person	Contact details
Kannaland Local Municipality	Municipal Manager: Mr. Reynold Stevens	Tel 028 551 1023 / 8000
		Fax -
		E-mail mm@kannaland.gov.za
Kannaland Local Municipality Ward Councillor (Ladismith Ward 4)	Ms. Aletta Theron	Tel 028 551 1023
		Fax -
		E-mail speaker@kanaland.gov.za
Western Cape Department of Economic Development, Environment, Conservation and Tourism	Mr. Johan Oelofse, Region Manager & Ms. Diana Mouton, Evironmental Law Enforcement - Region 3	Tel 044 805 8601 / 8625
		Fax 044 874 6431
		E-mail johan.oelofse@westerncape.gov.za / diana.mouton@westerncape.gov.za
The Department of Water Affairs – Western Cape Region	Mr Rashid Khan Regional Head: Western Cape	Tel 021 941 6000 / 082 809 2218
		Fax 021 941 6100
		E-mail KhanR@dws.gov.za
Breede Gouritz Catchment Management Agency	Mr. Jannie van Staden	Tel 023 346 8000
		Fax -
		E-mail jstaden@bgcma.co.za
Department of Agriculture- Western Cape	Ms. Ashia Pefersen	Tel 021 808 5111
		Fax 021 808 5000
		E-mail ashiap@elsenburg.com
Provincial Heritage Resources Agency (PHRA)-Western Cape	Dr. Mxolisi Dlamuka	Tel 021 483 9598 / 021 483 5959
		Fax -
		E-mail ceoheritage@westerncape.gov.za
Garden Route District Municipality	The Municipal Manager: Monde Stratu	Tel 044 803 1445
		Fax -
		E-mail mm@gr.gov.za
Cape Nature	Mr. Mbulelo Jacobs	Tel 044 802 5300 / 087 087 3040
		Fax -
		E-mail mjacobs@capenature.co.za

Please note:

A State department consulted in terms of Section 24O(2) of NEMA and Regulations 3(4) and 43(2) must within 30 days from the date of the Department/EAP's request for comment, submit such comment in writing to the Department. The applicant/EAP is therefore required to inform this Department in writing when the application/relevant information is submitted to the relevant State Departments. Upon receipt of this confirmation, this Department will in accordance with Section 24O (2) & (3) of the NEMA inform the relevant State Departments of the commencement date of the 30-day commenting period.

PART 2 – ANNEXURE A TO THE SECTION 24G APPLICATION FORM

SECTION A: DIRECTIVES

Section 24G(1) of NEMA provides that on application by a person who has commenced with a listed or specified activity without an environmental authorisation in contravention of section 24F(1); or a person who has commenced, undertaken or conducted a waste management activity without a waste management licence in terms of section 20(b) of the National Environment Management: Waste Act, 2008 (Act 59 of 2008) ("NEM:WA") the Minister, the Minister responsible for mineral resources or the MEC concerned (or the official to which this power has been delegated), as the case may be, may direct the applicant to-

i	<i>immediately cease the activity pending a decision on the application submitted in terms of this subsection</i>	
ii	<i>investigate, evaluate and assess the impact of the activity on the environment</i>	
iii	<i>remedy any adverse effects of the activity on the environment</i>	
iv	<i>cease, modify or control any act, activity, process or omission causing pollution or environmental degradation</i>	
v	<i>contain or prevent the movement of pollution or degradation of the environment</i>	
vi	<i>eliminate any source of pollution or degradation</i>	
vii	<i>compile a report containing-</i>	
	aa	<i>a description of the need and desirability of the activity</i>
	bb	<i>an assessment of the nature, extent, duration and significance of the consequences for or impacts on the environment of the activity, including the cumulative effects and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity</i>
	cc	<i>a description of mitigation measures undertaken or to be undertaken in respect of the consequences for or impacts on the environment of the activity</i>
	dd	<i>a description of the public participation process followed during the course of compiling the report, including all comments received from interested and affected parties and an indication of how the issues raised have been addressed</i>
	ee	<i>an environmental management programme</i>
viii	<i>provide such other information or undertake such further studies as the Minister, Minister responsible for mineral resources or MEC, as the case may be, may deem necessary.</i>	

You are hereby provided with an opportunity to make representations on any or all of the abovementioned instructions including where you are of the opinion that any of these instructions are not relevant for the purposes of your application setting out the reasons for your assertion. Kindly note further that after taking your representation into account a final directive may be issued.

Please Note:

Notwithstanding the above, subsequent to submission of the application form to the Department, you may be issued with a specific directive in terms of section 24G(1)(i) to (viii), and you will therefore be provided with an opportunity to make further representations as to the specific directive.

The appointed Environmental Assessment Practitioner, on behalf of the applicant, may be directed to compile and submit a report that meets the requirements of section 24G(vii)(aa)-(ee) as specified above.

SECTION B: DEFERRAL OF THE APPLICATION

Section 24G(7) of the NEMA provides that if at any stage after the submission of an application it comes to the attention of the Minister, the Minister responsible for mineral resources or the MEC, that the applicant is under criminal investigation for the contravention of, or failure to comply with, section 24F(1) of the NEMA or section 20(b) of the NEM:WA, the Minister, Minister responsible for mineral resources or MEC may defer a decision to issue an environmental authorisation until such time as the investigation is concluded and-

- (a) the National Prosecuting Authority has decided not to institute prosecution in respect of such contravention or failure;
- (b) the applicant concerned is acquitted or found not guilty after prosecution in respect of which such contravention or failure has been instituted; or
- (c) the applicant concerned has been convicted by a court of law of an offence in respect of such contravention or failure and the applicant has in respect of the conviction exhausted all the recognised legal proceedings pertaining to appeal or review.

Kindly answer the following questions:

<i>Are you, the applicant, being investigated for a contravention of section 24F(1) of the NEMA in respect of a matter that is not subject to this application and in any province in the Republic?</i>	<i>YES</i>	<i>NO</i>	<i>UNCERTAIN</i>
<i>If yes provide details of the offence being investigated and authority conducting the investigation. If uncertain provide details of the activity or activities in relation to which you suspect you may be under investigation.</i>			
<i>Are you, the applicant, being investigated for the contravention of section 20(b) of the NEMWA in respect of a matter that is not subject to this application and in any province in the Republic?</i>	<i>YES</i>	<i>NO</i>	<i>UNCERTAIN</i>
<i>If yes provide details of the offence being investigated and authority conducting the investigation. If uncertain provide details of the activity or activities in relation to which you suspect you may be under investigation.</i>			
<i>Are you, the applicant, being investigated for an offence in terms of section 24F(1) of the NEMA or section 20(b) of the NEMWA in terms of which this application directly relates?</i>	<i>YES</i>	<i>NO</i>	<i>UNCERTAIN</i>
<i>If yes provide details of the offence being investigated and authority conducting the investigation. If uncertain provide details of the activity or activities in relation to which you suspect you may be under investigation.</i>			

If you have answered yes or uncertain to any of the above questions, you are hereby provided with an opportunity to make representations as to why the Minister, Minister responsible for mineral resources or MEC, as the case may be, should not defer the application as he or she is entitled to do under section 24G(7).

SECTION C: QUANTUM OF THE SECTION 24G FINE

In terms of section 24G(4) of the NEMA, it is mandatory for an applicant to pay an administrative fine as determined by the competent authority before the Minister, Minister responsible for mineral resource or MEC may take a decision on whether or not to grant an *ex post facto* environmental authorisation or a waste management licence as the case may be. The quantum of this fine may not exceed R5 million.

Having regard to the factors listed below, you are hereby afforded with an opportunity to make representations in respect of the quantum of the fine and as to why the competent authority should not issue a maximum fine of R5 million.

Please note that Part 1 of this section must be completed by an independent environmental assessment practitioner after conducting the necessary specialist studies, copies of which must be submitted with this completed application form.

Please also include in your representations whether or not the activities applied for in this application (if more than 1) are in your view interrelated and provide reasons therefor.

PART 1: THE IMPACTS OR POTENTIAL IMPACTS OF THE ACTIVITY/ACTIVITIES

Index	Socio Economic Impact	Place an "x" in the appropriate box
	Description of variable	
	The activity is not giving, has not given and will not give rise to any negative socio-economic impacts	X
	The activity is giving, has given, or could give rise to negative socio-economic impacts, but highly localised	
	The activity is giving, has given, or could give rise to significant negative socio-economic and regionalized impacts	
	The activity is resulting, has resulted or could result in wide-scale negative socio-economic impacts.	
	Motivation:	

Index	Biodiversity Impact	Place an "x" in the appropriate box
	Description of variable	
	The activity is not giving, has not given and will not give rise to any impacts on biodiversity	
	The activity is giving, has given or could give rise to localised biodiversity impacts	X
	The activity is giving, has given or could give rise to significant biodiversity impacts	
	The activity is, has or is likely to permanently / irreversibly transform/ destroy a recognised biodiversity 'hot-spot' or threaten the existence of a species or sub-species.	
	Motivation:	

Index	Sense of Place Impact and / or Heritage Impact	Place an "x" in the appropriate box
	Description of variable	
	The activity is in keeping with the surrounding environment and / or does not negatively impact on the affected area's sense of place and /or heritage	X
	The activity is not in keeping with the surrounding environment and will have a localised impact on the affected area's sense of place and/or heritage	
	The activity is not in keeping with the surrounding environment and will have a significant impact on the affected area's sense of place and/ or heritage	
	The activity is completely out of keeping with the surrounding environment and will have a significant impact on the affected area's sense of place and/ or heritage	
	Motivation: The area and its surrounds are characterised by small agricultural activities that form part of the area's sense of place.	

Index	Pollution Impact	Place an "x" in the appropriate box
	Description of variable	
	The activity is not giving, has not given and will not give rise to any pollution.	X
	The activity is giving, has given or could give rise to pollution with low impacts.	

The activity is giving, has given or could give rise to pollution with moderate impacts.	
The activity is giving, has given or could give rise to pollution with high impacts.	
The activity is giving, has given or could give rise to pollution with major impacts.	
Motivation:	

PART 2: COMPLIANCE HISTORY AND KNOWLEDGE OF THE APPLICANT

Index	Previous administrative action (i.e. administrative enforcement notices) issued to the applicant in respect of a contravention of section 24F(1) of the National Environmental Management Act and/or section 20(b) of the National Environmental Management Waste Act	Place an "x" in the appropriate box
Description of variable		
	Administrative action was previously taken against the applicant in respect of the abovementioned provisions.	N/A
	No previous administrative action was taken against the applicant but previous administrative action was taken against a firm(s) on whose board one or more of the applicant's directors sit or sat at the relevant time when the administrative action was taken.	N/A
	Administrative action was not previously taken against the applicant in respect of the abovementioned provisions.	N/A
Explanation of all previous administrative action taken in respect of the above:		

Index	Previous Convictions in terms of section 24F(1) of the National Environmental Management Act and/or section 20(b) of the National Environmental Management Waste Act	Place an "x" in the appropriate box
Description of variable		
	The applicant was previously convicted in terms of either or both of the abovementioned provisions.	N/A
	No previous convictions have been secured against the applicant but a conviction has been secured against a firm(s) on whose board one or more of the applicant's directors sit or sat at the relevant time; or a conviction was secured against a director of the applicant in his or her personal capacity.	N/A
	The applicant has not previously been convicted in terms of either or both of the abovementioned provisions.	N/A
Explanation of all previous convictions in respect of the above:		

Index	Number of section 24G applications previously submitted by the applicant	Place an "x" in the appropriate box
Description of variable		
	Previous applications in terms of section 24G of NEMA were submitted by the applicant.	N/A
	No previous applications have been submitted by the applicant but a previous application(s) have been submitted by a firm(s) on whose board one or more of the applicant's directors sit or sat at the relevant time.	N/A
	No previous applications have been submitted by the applicant but the applicant sat on the board of a firm that previously submitted an application.	N/A
Explanation in respect of all previous applications submitted in terms of section 24G:		

PART 3: APPLICANT'S PERSONAL CIRCUMSTANCES

Index	Applicant's legal persona	Place an "X" in the appropriate box
Description of variable		
	The applicant is a natural person.	
	The applicant is a firm.	X
	Describe the firm: A trust	

Index	Any other relevant information that the applicant would like to be considered.
	<p>Motivate and explain fully:</p> <p>The farmer will not abstract water from the Groot River. The farm has lawfully allocated water (~8 cubic feed per second for approximately 4 days). The amount of water available in the Floriskraal dam is calculated and distributed accordingly to farmers using existing channels. The Sieni Family Trust use to get water approximately five times annually. The dam was constructed in order to capture the allocated water. Rather than using flood irrigation, the farmer will now use water more sparingly through storing it and making use of drip irrigation. Furthermore, the farm Zuurberg 288 is the end user of the channel and no water will be withheld from other users.</p> <p>Taking the above into account, we are of the opinion that the applicant did not act maliciously with the commencement of the activities. He is a farmer in a drought stricken area, who tried to maximise the use of existing lawful water rights while also adopting more water saving irrigation methods (drip irrigation) to water his crops. The removal of indigenous vegetation especially within the sensitive areas near the river was unfortunately done as a result of unawareness of the authorisations that should be obtained.</p>

NOTE: An explanation as to why the applicant did not obtain an environmental authorisation and/or waste management licence must be attached to this application.

SECTION D: PRELIMINARY ADVERTISEMENT

When submitting this application form, the applicant must attach proof that the application has been advertised in at least one local newspaper in circulation in the area in which the activity was commenced, and on the applicant's website, if any.

The advertisement must state that the applicant commenced a listed or specified activity or activities or waste management activity or activities without the necessary environmental authorisation and/or waste management licence and is now applying for *ex post facto* approval. It must include the following:

- the date;
- the location;
- the applicable legislative provision contravened; and
- the activity or activities commenced with without the required authorisation.

Interested and affected parties must be provided with the details of where they can register as an interested and affected party and / or submit their comment. At least 20 days must be provided in which to do so.

This advertisement shall be considered as a preliminary notification and the competent authority may direct the applicant to undertake further public participation and advertising after receipt of this application form.

NOTE: Unless protected by law, all information contained in and attached to this application form may become public information on receipt by the competent authority. This application must be attached to any documentation or information submitted by an applicant further to section 24G(1).

PART 3 -

APPENDICES

The following appendices must, where applicable, be attached to this form:

Appendix		Tick the box if Appendix is attached
Appendix A:	Locality map	X
Appendix B:	Site plan(s)	X
Appendix C:	Building plans (if applicable)	N/A
Appendix D:	Colour photographs	X
Appendix E:	Biodiversity overlay map	X
Appendix F:	Permit(s) / license(s) from any other organ of state including service letters from the municipality	N/A
Appendix G:	Public participation information: including a copy of the register of interested and affected parties, the comments and responses report, proof of notices, advertisements, Land owner consent and any other public participation information as required in Section J above.	X
Appendix H:	Specialist Report(s), if any	X
Appendix I:	Environmental Management Programme	X
Appendix J:	Supporting documents relating to compliance/enforcement history of the applicant, including but not limited to, Pre-compliance/compliance notices, Pre-directives/directives etc.	X
Appendix K:	Certified copy of Identity Document of Applicant	X
Appendix L:	Certified copy of the title deed (or title deeds in the case of linear activities)	X
Appendix M:	Any Other (if applicable) (describe)	None

Where an application has been made in terms of the waste management activities, please complete and annex Annexure 1 as in the following:

Annexures for waste listed activity/ies supporting information		Tick the box if Annexure is attached
Annexure 1	Waste listed activities supporting information (as in prescribed attached form)	
Other	(please list accordingly)	

DECLARATIONS**THE APPLICANT**

Note: Duplicate this section where there is more than one applicant

- I, Antonia Lombard, in my personal capacity or duly authorised as Steni Familie Trust (state capacity) by Steni Familie Trust hereto hereby declare/affirm that all the information contained in this application to be true and correct, and that I:
 - am fully aware of my responsibilities in terms of the National Environmental Management Act of 1998 (Act No. 107 of 1998) ("NEMA"), the Environmental Impact Assessment Regulations, 2014 ("EIA Regulations") in terms of NEMA, the National Environmental Management: Waste Act, 2008 (Act 59 of 2008) ("NEM:WA") and all relevant specific environmental management Act(s), and that failure to comply with these requirements may constitute an offence in terms of the environmental legislation;
 - appointed the environmental assessment practitioner as indicated above, which meet all the requirements in terms of Regulation 13 of the EIA Regulations to act as the Independent Environmental Assessment Practitioner for this application;
 - have provided the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
 - am aware that I may be issued with a directive and that I must comply with such a directive;
 - am fully aware of the administrative fine to be paid before a decision, with respect to the continuation of the listed activity(ies), will be made;
 - will be responsible for the costs incurred in complying with the environmental legislation including but not limited to –
 - o costs incurred in connection with the appointment of the environmental assessment practitioner or any specialist appointed in terms of Regulation 13 of the EIA Regulations;
 - o costs incurred in respect of the undertaking of any process required in terms of this application;
 - o costs in respect of any prescribed fee payable in respect of this application;
 - o costs in respect of specialist reviews, if the competent authority decides to recover costs;
 - o the provision of security to ensure compliance with the applicable management and mitigation measures; and
 - o fine costs
 - am responsible for complying with the conditions that might be attached to any decision(s) issued by the competent authority;
 - have the ability to implement the applicable management, mitigation and monitoring measures; and
 - hereby indemnify, the government of the Republic of South Africa, the competent authority and all its officers, agents and employees, from any liability arising out of, inter alia, the content of any report, any procedure or any action for which the applicant or environmental assessment practitioner is responsible.
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (

Please Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.

Antonia Lombard
Signature of the applicant:

Antonia Lombard
Name:

Steni Familie Trust
Name of Firm (if applicable):

27 Augustus 2019
Date:

THE INDEPENDENT ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

I MARLENE BOHA....., as the appointed independent environmental practitioner ("EAP") hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that I:

- act/ed as the independent EAP in this application;
- regard the information contained in this application to be true and correct, and
- do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the the National Environmental Management Act of 1998 (Act No. 107 of 1998) ("NEMA"), the Environmental Impact Assessment Regulations, 2014 ("EIA Regulations") in terms of NEMA, the National Environmental Management: Waste Act, 2008 (Act 59 of 2008) ("NEM:WA") and the relevant specific environmental management Act(s);
- have and will not have any vested interest in the proposed activity proceeding;
- have disclosed, to the applicant and competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the NEMA, the EIA Regulations, the NEM:WA and any specific environmental management Act(s);

I am able to meet the responsibilities in terms of NEMA, the EIA Regulations (specifically in terms of Regulation 13 of the EIA Regulations, 2014) and any specific environmental management Act, and am fully aware that failure to comply with these requirements may constitute and result in disqualification;

- have ensured that information containing all relevant facts in respect of the application was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments;
- have ensured that the comments of all interested and affected parties were considered, recorded and submitted to the competent authority in respect of the application;
- have kept a register of all interested and affected parties that participated in the public participation process; and
- have provided the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations

Note: The terms of reference must be attached.



Signature of the environmental assessment practitioner:

ENVIRONAMICS

Name of company:

28/09/2019

Date:

PART 4 -

ANNEXURE B - SUPPORTING INFORMATION WHERE THE ACTIVITY BEING APPLIED FOR IS A LISTED WASTE MANAGEMENT ACTIVITY/IES (IF RELEVANT)

1. WASTE QUANTITIES

Indicate or specify types of waste and list the estimated quantities (expected to be) managed daily (should you need more columns; you are advised to add more)

Note: In this case of hazardous waste, the National Department of Environmental Affairs is the relevant competent authority to consider the 24G application.

Non-hazardous waste	Total waste handled (tonnes per day)

Source of information supplied in the table above Mark with an "X"

Determined from volumes

Determined with weighbridge/scale

Estimated

1.1. Recovery, Reuse, Recycling, treatment and disposal quantities:

Indicate the applicable waste types and quantities expected to be disposed of and salvaged annually:

TYPES OF WASTE	MAIN SOURCE (NAME OF COMPANY)	QUANTITIES		ON-SITE RECOVERY REUSE RECYCLING TREATMENT OR DISPOSAL	OFFSITE RECOVERY REUSE RECYCLING TREATMENT OR DISPOSAL	OFFSITE DISPOSAL
		Tons/ Month	M ³ / Month	Method & Location	Method & Location and Contractor details	

2. GENERAL

Prevailing wind direction (e.g. NWW)

November – April

May - October

The size of population to be served by the facility:

	Mark with "X"	Comment
0-499		
500-9,999		
10,000-199,999		
200,000 upwards		

LANDFILL PARAMETERS (If applicable)

The method of disposal of waste:

Land-building Land-filling Both

The dimensions of the disposal site in metres

	At commencement	After rehabilitation

The total volume for the disposal of waste on the site:

Volume Available	Mark with "X"	Source of information (Determined by surveyor/ Estimated)
Up to 99		
100-34 999		
35 000- 3,5 million		
>3,5 million		

The total volume already used for waste disposal on the site:

(a) Will the waste body be covered daily	Yes	No
(b) Is sufficient cover material available	Yes	No
(c) Will waste be compacted daily	No	No

If the answers (a) and/or (b) are No, what measures will be employed to prevent the problems of burning or smouldering of waste and the generation of nuisance?

The Salvage method

Mark with an "X" the method to be used.

At source	<input type="checkbox"/>
Recycling installation	<input type="checkbox"/>
Formal salvaging	<input type="checkbox"/>
Contractor	<input type="checkbox"/>
No salvaging planned	<input type="checkbox"/>

Fatal flaws for the site:

Indicate which of the following apply to the facility for a waste management activity:

Within a 3000m radius of the end of an airport landing strip	Yes	No
Within the 1 in 50-year flood line of any watercourse	Yes	No
Within an unstable area (fault zone, seismic zone, dolomitic area, sinkholes)	Yes	No
Within the drainage area or within 5 km of water source	Yes	No
Within the drainage area or within 5 km of water source	Yes	No
Within an area adjacent to or above an aquifer	Yes	No
Within an area with shallow bedrock and limited available cover material	Yes	No

Within 100 m of the source of surface water	Yes	No
Within 1km from the wetland	Yes	No

Indicate the distance to the boundary of the nearest residential area
 Indicate the distance to the boundary of the industrial area

metres
metres

Wettest six months of the year

November- April

May -October

For the wettest six-month period indicated above, indicate the following for the preceding 30 years

	Total rainfall for 6 months	Total rainfall for 6 months	Total rainfall for 6 months
For the 1st wettest year			
For the 2nd wettest year			
For the 3rd wettest year			
For the 4th wettest year			
For the 5th wettest year			
For the 6th wettest year			
For the 7th wettest year			
For the 8th wettest year			
For the 9th wettest year			
For the 10th wettest year			

Location and depth of ground water monitoring boreholes:

Codes of the boreholes	Borehole locality	Depth (m)	Latitude	Longitude
			o "	o "
			o "	o "
			o "	o "
			o "	o "
			o "	o "
			o "	o "
			o "	o "

Location and depth of landfill gas monitoring test pit:

Codes of the boreholes	Borehole locality	Latitude	Longitude
		o "	o "
		o "	o "
		o "	o "
		o "	o "
		o "	o "

		o "	o "
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