BASIC ASSESSMENT REPORT
IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED)

October 2017

PROJECT TITLE

NEW AGRICULTURAL DEVELOPMENT: CORNER FARM (PORTION 7 OF FARM NO. 466, CALEDON)

16 April 2018

REPORT TYPE CATEGORY	REPORT REFERENCE NUMBER	DATE OF REPORT
Pre-Application Basic Assessment Report (if applicable)[1]	1271/17/PA	23/02/2018
Draft Basic Assessment Report	1271/17BDAR	16/04/2018

Notes:

1. In terms of Regulation 40(3) potential or registered interested and affected parties, including the Competent Authority, may be provided with an opportunity to comment on the Basic Assessment Report prior to submission of the application but must again be provided an opportunity to comment on such reports once an application has been submitted to the Competent Authority. The Basic Assessment Report released for comment prior to submission of the application is referred to as the "Pre-Application Basic Assessment Report". The Basic Assessment Report made available for comment after submission of the application is referred to as the "Draft Basic Assessment Report". The Basic Assessment Report together with all the comments received on the report which is submitted to the Competent Authority for decision-making is referred to as the "Final Basic Assessment Report".

2. In terms of Regulation 19(1)(b) if significant changes have been made or significant new information has been added to the Draft Basic Assessment Report , which changes or information was not contained in the Draft Basic Assessment Report consulted on during the initial public participation process, then a Final Basic Assessment Report will not be submitted, but rather a "Revised Basic Assessment Report", which must be subjected to another public participation process of at least 30 days, must be submitted to the Competent Authority together with all the comments received.

DEPARTMENTAL REFERENCE NUMBER(S)

Pre-application reference number:	16/3/3/6/7/1/E4/5/1/1274/17
File reference number (EIA):	
NEAS reference number (EIA):	
File reference number (Waste):	
NEAS reference number (Waste):	
File reference number (Air Quality):	
NEAS reference number (Air Quality):	
File reference number (Other):	
NEAS reference number (Other):	

CONTENT AND GENERAL REQUIREMENTS

Note that:

1. The content of the Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), any subsequent Circulars, and guidelines must be taken into account when completing this Basic Assessment Report Form.
2. This Basic Assessment Report is the standard report format which, in terms of Regulation 16(3) of the EIA Regulations, 2014 (as amended) must be used in all instances when preparing a Basic Assessment Report for Basic Assessment applications for an environmental authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA")and the EIA Regulations, 2014 (as amended) and/or a waste management licence in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) ("NEM:WA"), and/or an atmospheric emission licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA") when the Western Cape Government: Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority/Licensing Authority.
3. This report form is current as of October 2017. It is the responsibility of the Applicant/ Environmental Assessment Practitioner ("EAP") to ascertain whether subsequent versions of the report form have been released by the Department. Visit the Department's website at **http://www.westerncape.gov.za/eadp** to check for the latest version of this checklist.
4. The required information must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The tables may be expanded where necessary.
5. The use of "not applicable" in the report must be done with circumspection. All applicable sections of this report form must be completed. Where "not applicable" is used, this may result in the refusal of the application.
6. While the different sections of the report form only provide space for provision of information related to one alternative, if more than one feasible and reasonable alternative is considered, the relevant section must be copied and completed for each alternative.
7. Unless protected by law, all information contained in, and attached to this report, will become public information on receipt by the competent authority. If information is not submitted with this report due to such information being protected by law, the applicant and/or EAP must declare such non-disclosure and provide the reasons for believing that the information is protected.
8. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this report must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.
9. This Report must be submitted to the Department and the contact details for doing so are provided below.
10. Where this Department is also identified as the Licencing Authority to decide applications under NEM:WA or NEM:AQA, the submission of the Report must also be made as follows, for-
    - Waste management licence applications, this report must also (*i.e.,* another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (tel: 021-483-2756 and fax: 021-483-4425) at the same postal address as the Cape Town Office.
    - Atmospheric emissions licence applications, this report must also be (*i.e.*, another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (tel: 021 483 2798 and fax: 021 483 3254) at the same postal address as the Cape Town Office.

DEPARTMENTAL DETAILS

CAPE TOWN OFFICE		GEORGE REGIONAL OFFICE
REGION 1 **(City of Cape Town & West Coast District)**	**REGION 2** **(Cape Winelands District & Overberg District)**	**REGION 3** **(Central Karoo District & Eden District)**
Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1) Private Bag X 9086 Cape Town, 8000 Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town Queries should be directed to the Directorate: Development Management (Region 1) at: Tel.: (021) 483-5829 Fax: (021) 483-4372	Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 2) Private Bag X 9086 Cape Town, 8000 Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town Queries should be directed to the Directorate: Development Management (Region 2) at: Tel.: (021) 483-5842 Fax: (021) 483-3633	Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530 Registry Office 4th Floor, York Park Building 93 York Street George Queries should be directed to the Directorate: Development Management (Region 3) at: Tel.: (044) 805-8600 Fax: (044) 805 8650

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ACRONYMS USED IN THIS BASIC ASSESSMENT REPORT AND APPENDICES:

BAR	Basic Assessment Report
BGCMA	Breede Gouritz Catchment Management Agency
CBA	Critical Biodiversity Area
DEA	National Department of Environmental Affairs
DEA&DP	Western Cape Government: Environmental Affairs and Development Planning
DWS	National Department of Water and Sanitation
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ESA	Ecological Support Area
HWC	Heritage Western Cape
I&APs	Interested and Affected Parties
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:AQA	National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
NEM:ICMA	National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008)
NEM:WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
PPP	Public Participation Process

DETAILS OF THE APPLICANT

Applicant / Organisation / Organ of State:	Vacation Station (Pty) Ltd		
Contact person:	Mr Wilmer Ferreira		
Postal address:	P.O. Box 43, Grabouw		
Telephone:	(021) 859 7536	Postal Code:	7160
Cellular:	082 457 8482	Fax:	(086) 604 2029
E-mail:	cornerfarm@twk.co.za		

DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

Name of the EAP organisation:	Eco Impact Legal Consulting (Pty) Ltd		
Person who compiled this Report:	Lauren Abrahams		
EAP Reg. No.:	SACNASP 100126/12		
Contact Person (if not author):	NA		
Postal address:	P.O. Box 45070, Claremont		
Telephone:	(021) 671 1660	Postal Code:	7735
Cellular:	NA	Fax:	(021) 671 9976
E-mail:	admin@ecoimpact.co.za		
EAP Qualifications:	B Tech Oceanography: Cape Peninsula University of Technology (2010)		

Please provide details of the lead EAP, including details on the expertise of the lead EAP responsible for the Basic Assessment process. Also attach his/her Curriculum Vitae to this BAR.

Ms Lauren Abrahams

Lauren Abrahams has completed her professional registration in terms of section 20(3) (b) of the Natural Scientific Professions Act, 2003 (Act 27 of 2003) as a Candidate Natural Scientist in the field of practice Biological Science (Registration number 100126/12). She obtained her B Tech in Oceanography at the Cape Peninsula University of Technology in 2010.

Lauren has trained as an Environmental Assessment Practitioner since July 2015 and has been involved in the compilation, coordination and management of Basic Assessment Reports, Environmental Impact Assessments, Environmental Management Programmes, Waste Licence Applications, Water Use Licence Applications and Baseline Biodiversity Surveys for numerous clients.

EXECUTIVE SUMMARY OF THE BASIC ASSESSMENT REPORT:

The development is proposed on portion 7 of Farm No. 466 situated in Elgin Valley approximately 14km south east from Grabouw. The property is bordered by agricultural activities on the west and northern boundaries and the Houwhoek Nature Reserve (World Heritage Site) on the southern and eastern boundaries. Currently there is 31ha of irrigated cultivated land on the property, consisting of 26ha of apples and 5ha of pears.

Vegetation Clearing - LA 1 (PREFERRED)

Four additional sites (sites A - D) were identified on portion 4 of Farm No. 466 for the establishment and cultivation of apple orchards (see Appendix A1). Following the exclusion of the identified no-go areas (indicated by the green polygons labelled as buffers on the SDP - Appendix B1) by the appointed specialists the proposed Sites A - D have a collective development footprint of 16.5ha. The apple orchards will be irrigated with surface water abstracted from the dam located on the property. An application for the additional water rights has been submitted to BGCMA.

Vegetation Clearing - LA 2

Four additional sites (sites A - D) were identified on portion 4 of Farm No. 466, with a collective development footprint of 19.6ha (see Appendix B2), for the establishment and cultivation of apple orchards.

Upgrading of Drainage Line Crossing

The existing drainage line crossing located between sites A and B must be upgraded to ensure access to site B. The design and specifications of the crossing to be approved by BGCMA. The crossing design must allow for free flow and be able to accommodate the 1:50 year flood event without causing erosion, eroding itself or being washed away.

Please note that the applicable section 21 application in terms of the NWA has been submitted to BGCMA - through consultation with BGCMA the design specifications for the upper drainage line crossing will be determined. The application is still in process. Please see BGCMA's comments in Appendix F of the Draft BAR.

Alternatives

Location Alternatives - The property is zoned as Agriculture 1, and as such the primary land use for the proposed development site would be agricultural related activities in this instance cultivation of crops. The proposed development is consistent with the proposed land use activities as manifested in the local IDP and SDF.

Activity Alternatives - The proposed development is considered to be the only reasonable and feasible activity for the proposed sites and the activity is consistent with the property's zoning as Agriculture 1. As such the primary land use for the proposed development site would be agricultural related activities in this instance cultivation of crops. The proposed development is consistent with the proposed land use activities as manifested in the local IDP and SDF.

Layout Alternatives -

Vegetation Clearing:

Layout Alternative 1 [LA 1] (PREFERRED) ~ *Clearing, establishment and cultivation of apple orchards on sites A - D with a collective development footprint of 16.5ha.*

This layout alternative is preferred as it takes into account the recommendations and mitigation measures in the specialist studies by the implementation of no-go areas as delineated in the specialist reports to protect the sensitive botanical and wetland areas adjacent to development sites A, B and D.

Layout Alternative 2 - [LA 2] ~ *Clearing, establishment and cultivation of apple orchards on sites A - D with a collective development footprint of 19.6ha.*

This layout is NOT preferred as the margins of the proposed development areas A, B and D intersect sensitive botanical and wetland areas. The layout does not exclude the no-go areas as delineated by the specialist reports and will therefore severely impact on the adjacent sensitive botanical and wetland areas.

Drainage Line Crossing:

Alternative 1 - Upper Crossing (PREFERRED)

Upgrading the existing upper drainage line crossing will have the least potential impacts and maintenance requirements. The design and specifications of the crossing to be approved by BGCMA. The crossing design must allow for free flow and be able to accommodate the 1:50 year flood event without causing erosion, eroding itself or being washed away.

Please note that the applicable section 21 application in terms of the NWA has been submitted to BGCMA - through consultation with BGCMA the design specifications for the upper drainage line crossing will be determined. The application is still in process. Please see BGCMA's comments in Appendix F of the Draft BAR.

Alternative 2 - Lower Crossing

This crossing compared to the preferred crossing above would have a much larger affect / impact on the drainage line and would require much more maintenance should it be considered. This crossing was constructed at one of the widest points in the drainage line and has since washed away at the eastern end of the crossing and can no longer be used. This upgrading of this crossing would require more infrastructure / infill to be placed in the watercourse to create a structure that would be safe and would not be washed away in a flood event. As such this alternative should not be considered as viable.

Technology Alternatives - No feasible or reasonable technological alternatives exist for the activities proposed.

Operational Alternatives - The EMPr and MMP has been developed taking into account all of the mitigation measures and recommendations included in the specialist studies (Freshwater Ecological Impact Assessment; Risk Assessment; and Botanical Impact Assessment). The EMPr and MMP will provide specific guidelines to avoid negative impacts and to mitigate any unavoidable negative impacts. The Vegetation clearing is to be done is strict adherence to the EMPr especially in terms of the demarcation of the no-go areas to protect sensitive areas. Best practices together with the EMPr and MMP are encouraged during the operational phase of the project to avoid negative impacts associated with the activity.

The EMPr and MMP serve as guidelines for activities during construction and operational phases to minimise the activities negative impacts.

The No-Go Option - The No-Go option will result in the site remaining as is presently. The property is zoned as Agriculture 1, and as such the primary land use for the proposed development site would be agricultural related activities in this instance the cultivation of commercial crops. The proposed development is consistent with the proposed land use activities as manifested in the local IDP and SDF.

Should the drainage line crossing not be implemented then access to site B would not be possible. This will reduce the farms capacity for the cultivation of apple orchards which will negatively affect the provision of permanent jobs for the community.

Summary of the key EIA findings

Positive:

- Employment opportunities (construction and operational)

Negative:

- Soil erosion and dust
- Increase in stormwater runoff
- Loss of threatened plant populations
- Impact on sensitive environments (drainage line, wetlands etc.)
- Impact of the proposed development on archaeological, paleontological and heritage remains

The No-Go option will result in the site remaining as is presently.

Summary of Positive Negative Impacts:

VEGETATION CLEARING: LAYOUT ALTERNATIVE 1 [LA 1] (PREFERRED)

DEVELOPMENT PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

OPERATIONAL PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

DECOMMISSIONING AND CLOSURE PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

VEGETATION CLEARING: LAYOUT ALTERNATIVE 2 - [LA 2]

DEVELOPMENT PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

OPERATIONAL PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

DECOMMISSIONING AND CLOSURE PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

DRAINAGE LINE CROSSING: ALTERNATIVE 1 - UPPER CROSSING (PREFERRED)

DEVELOPMENT PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

OPERATIONAL PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

DECOMMISSIONING AND CLOSURE PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)

- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

DRAINAGE LINE CROSSING: ALTERNATIVE 2 - LOWER CROSSING

DEVELOPMENT PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

OPERATIONAL PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

DECOMMISSIONING AND CLOSURE PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

SECTION A: PROJECT INFORMATION

1. ACTIVITY LOCATION

Location of all proposed sites:	The property is located approximately 14 km south east of Grabouw in Elgin Valley. The property is bordered by agricultural activities on the west and northern boundaries and the Houwhoek Nature Reserve (World Heritage Site) on the southern and eastern boundaries.
Farm / Erf name(s) and number(s) (including Portions thereof) for each proposed site:	Farm 7/466, Caledon
Property size(s) in m^2 for each proposed site:	80.4941ha
Development footprint size(s) in m^2:	Approximately 16.5 ha
Surveyor General (SG) 21 digit code for each proposed site:	C01300000000046600007

2. PROJECT DESCRIPTION

(a) Is the project a new development? If "NO", explain:

YES	~~NO~~

NA

(b) Provide a detailed description of the scope of the proposed development (project).

The proposed development consists of clearing of indigenous vegetation for the establishment of approximately 16.5ha of apple orchards. The proposal also includes the upgrading of the existing upper river crossing between sites A and B.

Please note: This description must relate to the listed and specified activities in paragraph (d) below.

(c) Please indicate the following periods that are recommended for inclusion in the environmental authorisation:

(i)	the period within which commencement must occur,	5 years
(ii)	the period for which the environmental authorisation should be granted and the date by which the activity must have been concluded, where the environmental authorisation does not include operational aspects;	10 years
(iii)	the period that should be granted for the non-operational aspects of the environmental authorisation; and	10 years
(iv)	the period that should be granted for the operational aspects of the environmental authorisation.	Unlimited

Please note: The Department must specify the abovementioned periods, where applicable, in an environmental authorisation. In terms of the period within which commencement must occur, the period must not exceed 10 years and must not be extended beyond such 10 year period, unless the process to amend the environmental authorisation contemplated in regulation 32 is followed.

(d) List all the listed activities triggered and being applied for.

Please note: The onus is on the applicant to ensure that all the applicable listed activities are applied for and assessed as part of the EIA process. Please refer to paragraph (b) above.

EIA Regulations Listing Notices 1 and 3 of 2014 (as amended):

Listed Activity No(s):	Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 1 (GN No. R. 983)	Describe the portion of the development that relates to the applicable listed activity as per the project description.	Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational.
19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;	The existing "upper" drainage line crossing between sites A and B must be upgraded to ensure access to site B.	Expansion and Operational
27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation.	The proposal is for the clearing of indigenous vegetation on sites A, B, C, and D with a collective area of approximately 16.5 ha for the establishment of apple orchards.	Development
48	The expansion of- (i) infrastructure or structures where the physical footprint is expanded by 100 square metres or more; or (ii) dams or weirs, where the dam or weir, including infrastructure and water surface area, is expanded by 100 square metres or	The existing "upper" drainage line crossing between sites A and B must be upgraded to ensure access to site B.	Expansion

	more; where such expansion occurs- (a) within a watercourse;		
Listed Activity No(s):	Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 3 (GN No. R. 985)	Describe the portion of the development that relates to the applicable listed activity as per the project description.	Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational.
12	The clearance of an area of 300 square metres or more of indigenous vegetation i. Western Cape i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; ii. Within critical biodiversity areas identified in bioregional plans;	The proposal is for the clearing of indigenous vegetation on sites A, B, C, and D with a collective area of approximately 16.5 ha for the establishment of apple orchards.	Development

Waste management activities in terms of the NEM: WA (GN No. 921):

Category A Listed Activity No(s):	Describe the relevant Category A waste management activity in writing as per GN No. 921	Describe the portion of the development that relates to the applicable listed activity as per the project description
NA	NA	NA

Note: If any waste management activities are applicable, the **Listed Waste Management Activities Additional Information Annexure** must be completed and attached to this Basic Assessment Report as **Appendix I.**

Atmospheric emission activities in terms of the NEM: AQA (GN No. 893):

Listed Activity No(s):	Describe the relevant atmospheric emission activity in writing as per GN No. 893	Describe the portion of the development that relates to the applicable listed activity as per the project description.
NA	NA	NA

(e) Provide details of all components (including associated structures and infrastructure) of the proposed development and attach diagrams (*e.g.,* architectural drawings or perspectives, engineering drawings, process flowcharts, *etc*.).

Buildings Provide brief description below:	~~YES~~	NO
NA		
Infrastructure (*e.g.,* roads, power and water supply/ storage) Provide brief description below:	YES	~~NO~~
There are two existing drainage line crossings between sites A and B, it is proposed that the upper crossing be upgraded to the required specifications as approved by BGCMA. The design must allow for free flow and be able to accommodate the 1:50 year flood event without causing erosion, eroding itself or being washed away. The materials to be used and design of the formal drainage line crossing must also not lead to erosion of the crossing and surrounds. Please note that the applicable section 21 application in terms of the NWA has been submitted to BGCMA - through consultation with BGCMA the design specifications for the upper drainage line crossing will be determined. The application is still in process. Please see BGCMA's comments in Appendix F of the Draft BAR.		
Processing activities (*e.g.,* manufacturing, storage, distribution) Provide brief description below:	~~YES~~	NO
NA		
Storage facilities for raw materials and products (*e.g.,* volume and substances to be stored)	~~YES~~	NO

Provide brief description below:		
NA		
Storage and treatment facilities for effluent, wastewater or sewage: Provide brief description below:	~~YES~~	NO
NA		
Storage and treatment of solid waste Provide brief description below:	~~YES~~	NO
NA		
Facilities associated with the release of emissions or pollution. Provide brief description below:	~~YES~~	NO
NA		
Other activities (*e.g.,* water abstraction activities, crop planting activities) – Provide brief description below:	YES	~~NO~~
The clearing of indigenous vegetation on sites A - D, with a collective area of 16.5ha for the establishment and cultivation of apple orchards. The orchards are to be irrigated with surface water abstracted form the registered dam on the property.		

3. PHYSICAL SIZE OF THE PROPOSED DEVELOPMENT

(a) Property size(s): Indicate the size of all the properties (cadastral units) on which the development proposal is to be undertaken	80.4941ha	m^2
(b) Size of the facility: Indicate the size of the facility where the development proposal is to be undertaken	NA	m^2
(c) Development footprint: Indicate the area that will be physically altered as a result of undertaking any development proposal (*i.e.,* the physical size of the development together with all its associated structures and infrastructure)	Approximately 16.5 ha	m^2
(d) Size of the activity: Indicate the physical size (footprint) of the development proposal	Approximately 16.5 ha	m^2
(e) For linear development proposals: Indicate the length (L) and width (W) of the development proposal	(L) NA	m
	(W) NA	m
(f) For storage facilities: Indicate the volume of the storage facility	NA	m^3
(g) For sewage/effluent treatment facilities: Indicate the volume of the facility (Note: the maximum design capacity must be indicated	NA	m^3

4. SITE ACCESS

(a) Is there an existing access road?	YES	~~NO~~
(b) If no, what is the distance in (m) over which a new access road will be built?		m

(c) Describe the type of access road planned:

NA

Please note: The position of the proposed access road must be indicated on the site plan.

5. DESCRIPTION OF THE PROPERTY(IES) ON WHICH THE LISTED ACTIVITY(IES) ARE TO BE UNDERTAKEN AND THE LOCATION OF THE LISTED ACTIVITY(IES) ON THE PROPERTY

5.1 Provide a description of the property on which the listed activity(ies) is/are to be undertaken and the location of the listed activity(ies) on the property, as well as of all alternative properties and locations (duplicate section below as required).

The development is proposed on portion 7 of Farm No. 466 situated in Elgin Valley approximately 14km south east from Grabouw. The property is bordered by agricultural activities on the west and northern boundaries and the Houwhoek Nature Reserve (World Heritage Site) on the southern and eastern boundaries. Currently there is 31ha of irrigated cultivated land on the property, consisting of 26ha of apples and 5ha of pears.

Vegetation Clearing - LA 1 (PREFERRED)
Four additional sites (sites A - D) were identified on portion 4 of Farm No. 466 for the establishment and cultivation of apple orchards (see Appendix A1). Following the exclusion of the identified no-go areas (indicated by the green polygons labelled as buffers on the SDP - Appendix B1) by the appointed specialists the proposed Sites A - D have a collective development footprint of 16.5ha. The apple orchards will be irrigated with surface water abstracted from the dam located on the property. An application for the additional water rights has been submitted to BGCMA.

Vegetation Clearing - LA 2
Four additional sites (sites A - D) were identified on portion 4 of Farm No. 466, with a collective development footprint of 19.6ha (see Appendix B2), for the establishment and cultivation of apple orchards.

Upgrading of Drainage Line Crossing
The existing drainage line crossing located between sites A and B must be upgraded to ensure access to site B. The design and specifications of the crossing to be approved by BGCMA. The crossing design must allow for free flow and be able to accommodate the 1:50 year flood event without causing erosion, eroding itself or being washed away.

Please note that the applicable section 21 application in terms of the NWA has been submitted to BGCMA - through consultation with BGCMA the design specifications for the upper drainage line crossing will be determined. The application is still in process. Please see BGCMA's comments in Appendix F of the Draft BAR.

Coordinates of all the proposed activities on the property or properties (sites):	**Latitude (S):** (deg.; min.; sec)			**Longitude (E):** (deg.; min.; sec.)		
Site A	34°	14'	13.75"	19°	7'	29.30"
Site B	34°	14'	13.53"	19°	7'	44.92"
Site C	34°	14'	36.18"	19°	7'	7.69"
Site D	34°	14'	40.62"	19°	6'	59.73"
Drainage line crossing (Upper) - preferred	34°	14'	7.29"	19°	7'	42.94"
Drainage line crossing (lower)	34°	14'	11.56"	19°	7'	37.45"

Note: For land where the property has not been defined, the coordinates of the area within which the development is proposed must be provided in an addendum to this report.

5.2 Provide a description of the area where the aquatic or ocean-based activity(ies) is/are to be undertaken and the location of the activity(ies) and alternative sites (if applicable).

NA

Coordinates of the boundary /perimeter of all proposed aquatic or ocean-based activities (sites) (if applicable):	**Latitude (S):** (deg.; min.; sec)			**Longitude (E):** (deg.; min.; sec)		
	°	'	"	°	'	"
	°	'	"	°	'	"
	°	'	"	°	'	"
	°	'	"	°	'	"

5.3 For a linear development proposal, please provide a description and coordinates of the corridor in which the proposed development will be undertaken (if applicable).

NA

For linear activities:	**Latitude (S):** (deg.; min.; sec)			**Longitude (E):** (deg.; min.; sec)		
• Starting point of the activity	°	'	"	°	'	"
• Middle point of the activity	°	'	"	°	'	"
• End point of the activity	°	'	"	°	'	"

Note: For linear development proposals longer than 1000m, please provide an addendum with co-ordinates taken every 250m along the route. All important waypoints must be indicated and the GIS shape file provided digitally.

5.4 Provide a location map (see below) as **Appendix A** to this report that shows the location of the proposed development and associated structures and infrastructure on the property; as well as a detailed site development plan / site map (see below) as **Appendix B** to this report; and if applicable, all alternative properties and locations. The GIS shape files (.shp) for maps / site development plans must be included in the electronic copy of the report submitted to the competent authority.

Locality Map:	The scale of the locality map must be at least 1:50 000. For linear development proposals 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: • 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; • a linear scale; • the prevailing wind direction (during November to April and during May to October); and • GPS co-ordinates (to indicate the position of the 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 WGS84 spheroid in a national or local projection). For an ocean-based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken. Coordinates must be provided in degrees, minutes and seconds using the Hartebeesthoek94; WGS84 co-ordinate system.

Site Plan:	Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following:
	• The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be indicated on the plan, preferably together with a linear scale.
	• The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan.
	• The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be indicated on the site plan.
	• The position of each element of the application as well as any other structures on the site must be indicated on the site plan.
	• Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the development must be indicated on the site plan.
	• Servitudes and an indication of the purpose of each servitude must be indicated on the site plan.
	• Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to):
	  o Watercourses / Rivers / Wetlands - including the 32 meter set back line from the edge of the bank of a river/stream/wetland;
	  o Flood lines (*i.e.,* 1:100 year, 1:50 year and 1:10 year where applicable;
	  o Ridges;
	  o Cultural and historical features;
	  o Areas with indigenous vegetation (even if degraded or infested with alien species).
	• Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted.
	• North arrow
	
	A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.
	
	The GIS shape file for the site development plan(s) must be submitted digitally.

6. SITE PHOTOGRAPHS

Colour photographs of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. 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 a recent aerial photograph. Photographs must be attached as **Appendix C** to this report. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.

SECTION B: DESCRIPTION OF THE RECEIVING ENVIRONMENT

Site/Area Description

For linear development proposals (pipelines, *etc*.) as well as development proposals 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 B and indicate the area that is covered by each copy on the Site Plan.

1. GRADIENT OF THE SITE

Indicate the general gradient of the sites (highlight the appropriate box).

Site A	Flat	~~Flatter than 1:10~~	~~1:10 – 1:4~~	~~Steeper than 1:4~~
Site B	Flat	~~Flatter than 1:10~~	~~1:10 – 1:4~~	~~Steeper than 1:4~~
Site C	Flat	~~Flatter than 1:10~~	~~1:10 – 1:4~~	~~Steeper than 1:4~~
Site D	Flat	~~Flatter than 1:10~~	~~1:10 – 1:4~~	~~Steeper than 1:4~~
Drainage Line Crossing	Flat	~~Flatter than 1:10~~	~~1:10 – 1:4~~	~~Steeper than 1:4~~

2. LOCATION IN LANDSCAPE

(a) Indicate the landform(s) that best describes the site (highlight the appropriate box(es).

Site A	~~Ridgeline~~	~~Plateau~~	~~Side slope of hill / mountain~~	~~Closed valley~~	Open valley	~~Plain~~	~~Undulating plain/low hills~~	~~Dune~~	~~Sea-front~~
Site B	~~Ridgeline~~	~~Plateau~~	~~Side slope of hill / mountain~~	~~Closed valley~~	Open valley	~~Plain~~	~~Undulating plain/low hills~~	~~Dune~~	~~Sea-front~~
Site C	~~Ridgeline~~	~~Plateau~~	~~Side slope of hill / mountain~~	~~Closed valley~~	Open valley	~~Plain~~	~~Undulating plain/low hills~~	~~Dune~~	~~Sea-front~~
Site D	~~Ridgeline~~	~~Plateau~~	~~Side slope of hill / mountain~~	~~Closed valley~~	Open valley	~~Plain~~	~~Undulating plain/low hills~~	~~Dune~~	~~Sea-front~~
Drainage Line Crossing	~~Ridgeline~~	~~Plateau~~	~~Side slope of hill / mountain~~	~~Closed valley~~	Open valley	~~Plain~~	~~Undulating plain/low hills~~	~~Dune~~	~~Sea-front~~

(b) Provide a description of the location in the landscape.

The property is located in an open valley. The areas identified for vegetation clearing occur on the slopes of the northern and southern boundaries of the property respectively. Existing drainage line crossings are located on the drainage line between sites A and B .

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

(a) Is the site(s) located on or near any of the following (highlight the appropriate boxes)?

Sites A, B and D

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~~
An area adjacent to or above an aquifer.	~~YES~~	NO	~~UNSURE~~
An area within 100m of a source of surface water	YES	~~NO~~	~~UNSURE~~
An area within 500m of a wetland	YES	~~NO~~	~~UNSURE~~
An area within the 1:50 year flood zone	~~YES~~	NO	~~UNSURE~~
A water source subject to tidal influence	~~YES~~	NO	~~UNSURE~~

Site C

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~~
An area adjacent to or above an aquifer.	~~YES~~	NO	~~UNSURE~~
An area within 100m of a source of surface water	~~YES~~	NO	~~UNSURE~~
An area within 500m of a wetland	~~YES~~	NO	~~UNSURE~~
An area within the 1:50 year flood zone	~~YES~~	NO	UNSURE
A water source subject to tidal influence	~~YES~~	NO	~~UNSURE~~

(b) If any of the answers to the above is "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. The 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

(c) Indicate the type of geological formation underlying the site.

Source: Soils and Geology (ENPAT). https://gis.elsenburg.com/apps/cfm/#. 16/02/2018.

Site A and B:

~~Granite~~	~~Shale~~	~~Sandstone~~	Quartzite	~~Dolomite~~	~~Dolorite~~	Other (describe)

Provide a description.

Sites A and B consists of a combination of land types Gb10 and Ib101.

Geology:

Gb10 is classified as:

In the west quartzitic sandstone of the Wagen Drift Formation, Witteberg Group. In the east sandstone of the Skurweberg and Rietvlei Formation, Table Mountain Group. Siltstone, mudstone and sandstone of the Klipbokkop Formation, Bokkeveld Group, occurs in the north.

Ib101 is classified as:

Mainly quartzitic sandstone of the Peninsula Formation and in the west of the Rietvlei Formation, Table Mountain Group.

Soil:

Gb10 is classified as:

Soils with a diagnostic ferrihumic horizon, predominantly shallow (Houwhoek form).

Ib101 is classified as:

Miscellaneous land classes, rocky areas with miscellaneous soils.

Site C:

~~Granite~~	~~Shale~~	~~Sandstone~~	Quartzite	~~Dolomite~~	~~Dolorite~~	Other (describe)

Provide a description.

Site C consists of land type Ib101.

Geology:

Mainly quartzitic sandstone of the Peninsula Formation and in the west of the Rietvlei Formation, Table Mountain Group.

Soil:

Miscellaneous land classes, rocky areas with miscellaneous soil.

Site D:

~~Granite~~	~~Shale~~	~~Sandstone~~	Quartzite	~~Dolomite~~	~~Dolorite~~	Other (describe)
Provide a description.						
Site D consists of a combination of land types Ib101 and Fa101. **Geology:** Ib101 is classified as: Mainly quartzitic sandstone of the Peninsula Formation and in the west of the Rietvlei Formation, Table Mountain Group. Fa172 is classified as: Mainly quartzitic sandstone of the Rietvlei Formation, Table Mountain Group with shale of the Bokkeveld Group. **Soil:** Ib101 is classified as: Rocky areas Description: Rock with limited soils Depth: < 450 mm Clay: < 15% Fa172 is classified as: Soils with limited pedological development. Description: Soils with minimal development, usually shallow on hard or weathering rock, with or without intermittent diverse soils. Lime rare or absent in the landscape Depth: >= 450 mm and < 750 mm Clay: >= 15% and < 35%						

4. SURFACE WATER

(a) Indicate the surface water present on and or adjacent to the site and alternative sites (highlight the appropriate boxes)?

Site A:

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 / Lagoon	~~YES~~	NO	~~UNSURE~~

Site B:

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 / Lagoon	~~YES~~	NO	~~UNSURE~~

Site C:

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 / Lagoon	~~YES~~	NO	~~UNSURE~~

Site D:

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 / Lagoon	~~YES~~	NO	~~UNSURE~~

(b) Provide a description.

Sites A and B have the most significant wetland characteristics associated with the natural and man-made drainage lines and dam located mainly along the north-western and southern borders of the proposed development sites. These wetlands, drainage lines and dam have also been mapped as Ecological Support Areas (Res) in the latest Western Cape Biodiversity Spatial Plan (2017) as well as artificial and natural Wetland Freshwater Priority Areas (NFEPAs).

The wetland indicator species within sites A and B as recorded on site are species such as *Capeochloa cincta*, *Carpha glomerata, Drosera capensis, Platycaulis callistachyus and Erica perspicua* which is locally abundant. These wetland and drainage line areas have also been invaded by *Acacia longifolia*, but not in dense stands.

The instream and riverbank habitat integrity of the drainage line which separates sites A and B (northwestern border of site B) is still in a mostly natural and stable condition except for the two man-made river crossings which were historically constructed to gain access to site B. This drainage has an average width of approximately 15m. The lower lying crossing just above the dam at site B was constructed by infilling the drainage line with a gravel crossing of about 30m long and 10m wide. This crossing was therefore constructed at one of the widest points in the drainage line and has since washed away at the eastern end of the crossing and can no longer be used. Another infilled stream crossing was created at the top of the drainage line which is about 8m long and 5m wide, this crossing was created at a narrowest point in the drainage line and is therefore the preferred crossing in terms of minimizing potential impacts and maintenance requirements.

The wetlands and drainage line areas remaining within and along the borders of site A have been significantly transformed and modified due to previous mining of sand and gravel and vineyard plantations. The higher lying section of the drainage line running along the northwestern border of the site has no remaining wetland characteristics, but is still important in maintaining hydrological connectivity of the drainage line originating from the Houwhoek mountains which feeds the lower lying wetlands areas on site.

There is no evidence of any wetlands conditions or drainage lines at site C.

A narrow channelled drainage line runs along the south-eastern border of site D. The average width of the drainage line is approximately 2m wide. Some wetland indicator species such as *Zantedeschia aethiopica* is located within the channelled drainage line, and due to the channelization taking place several years ago (more than 10) the instream habitat integrity and stability of the drainage line is relatively good.

****See Freshwater Ecological Impact Assessment, Eco Impact Legal Consulting, 2017. Appendix G2.***

5. THE SEAFRONT / SEA

(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).

6. BIODIVERSITY

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 proposed development. To assist with the identification of the biodiversity occurring on site and the ecosystem status, consult http://bgis.sanbi.org or BGIShelp@sanbi.org . Information is also available on compact disc ("cd") from the Biodiversity-GIS Unit, Tel.: (021) 799 8698. 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) must be provided as an overlay map on the property/site plan as **Appendix D** to this report.

(a) Highlight the applicable biodiversity planning categories of all areas on preferred and alternative sites and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category. Also describe the prevailing level of protection of the Critical Biodiversity Area ("CBA") and Ecological Support Area ("ESA") (how many hectares / what percentages are formally protected).

****See Botanical Impact Report, Regalis Environmental Services, 2017. Appendix G1.***

Sites A and B:

Systematic Biodiversity Planning Category	~~CBA~~	ESA	~~Other Natural Area ("ONA")~~	~~No Natural Area Remaining ("NNR")~~
If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan and the conservation management objectives	The fynbos vegetation at sites A and B consists of a very similar flora. Both sites were heavily disturbed previously. Site A was ploughed previously, but not tilled for a number of years (about 3 years). A number of species re-established here from seed, e.g. several species of serotinous Proteaceae that blew in from the adjacent nature reserve after the recent fire. Most of site B was heavily disturbed several years ago probably when soil was removed to construct the adjacent dam. A small part of site A and the southern boundary of site B consists of wetlands, with indicator species such as *Capeochloa cincta*, *Carpha glomerata, Drosera capensis, Platycaulis callistachyus, Erica perspicua*, etc. locally abundant. These wetland areas have been invaded by *Acacia longifolia*, but not in dense stands.			
Describe the site's CBA/ESA quantitative values (hectares/percentage) in relation to the prevailing level of protection of CBA and ESA (how many hectares / what percentages are formally protected locally and in the province)	A total of 119 plant species were recorded on sites A and B, most of these species occurred in small undisturbed patches within these two sites. This probably represents about 70-80% of the total number of species that occur in the affected areas. Many of the seedlings found were too small to identify with certainty (especially the Ericaceae). Only two of the species recorded are threatened species, *Diastella thymelaeiodes ssp. thymelaeiodes* (status = Near Threatened) and *Otholobium thomii* (status = Endangered). It is unlikely that any other			

	threatened plant species occur at these two sites. Impacts of the proposed development can be easily mitigated by means of limiting the development outside water drainage areas, wetlands and the sites where threatened species are present. The threatened species fortunately all occur immediately next to the water drainage areas. The only mitigation action hence required is that establishment of the proposed apple orchards at sites A and B must ensure that the sensitive areas indicated on Map 4 (Botanical Impact Report) are not negatively affected during the construction and operational phases. This mitigation action will also ratify the recommendation for the intersected ESA2 area.

Sites C and D:

Systematic Biodiversity Planning Category	~~CBA~~	~~ESA~~	~~Other Natural Area ("ONA")~~	~~No Natural Area Remaining ("NNR")~~
If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan and the conservation management objectives	Both the renosterveld sites at C and D also consist of previously ploughed areas. Both areas have not been tilled for a number of years (about 3-5 years).			
Describe the site's CBA/ESA quantitative values (hectares/percentage) in relation to the prevailing level of protection of CBA and ESA (how many hectares / what percentages are formally protected locally and in the province)	A total of 57 species were recorded on these two sites, most of which are indigenous 'weedy' species. No threatened species were noted, or are expected to occur on these two sites.			

Drainage Line Crossing:

Systematic Biodiversity Planning Category	~~CBA~~	ESA	~~Other Natural Area ("ONA")~~	~~No Natural Area Remaining ("NNR")~~
If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan and the conservation management objectives	This drainage line has been mapped as Ecological Support Areas (Res) in the latest Western Cape Biodiversity Spatial Plan (2017). The instream and riverbank habitat integrity of the drainage line is still in a mostly natural and stable condition except for the two man-made river crossings which were historically constructed to gain access to site B.			
Describe the site's CBA/ESA quantitative values (hectares/percentage) in relation to the prevailing level of protection of CBA and ESA (how many hectares / what percentages are formally protected locally and in the province)	The only development activity allowed within these areas is the upgrade and maintenance associated with the higher lying drainage line crossing to gain access to site B. Before the drainage line crossing is upgraded a design that meets the required specifications approved by BGCMA must be submitted and approved for this crossing. The design must allow for free flow and be able to accommodate the 1:50 year flood event without causing erosion, eroding itself or being washed away. The materials to be used and design of the formal drainage line crossing must also not lead to erosion of the crossing and surrounds.			

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

Sites A and B:

Habitat Condition	**Percentage of habitat condition class (adding up to 100%) and area of each in square metre (m^2)**		**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	38%	50229m^2	A total of 119 plant species were recorded on sites A and B, most of these species occurred in small undisturbed patches

			within these two sites.
Near Natural (includes areas with low to moderate level of alien invasive plants)	19%	24344m²	A small part of site A and the southern boundary of site B consists of wetlands, with indicator species such as *Capeochloa cincta*, *Carpha glomerata, Drosera capensis, Platycaulis callistachyus, Erica perspicua*, etc. locally abundant. These wetland areas have been invaded by *Acacia longifolia*, but not in dense stands.
Degraded (includes areas heavily invaded by alien plants)	%	m²	NA
Transformed (includes cultivation, dams, urban, plantation, roads, *etc.*)	43%	56150m²	Site A was ploughed previously, but not tilled for a number of years (about 3 years). A number of species re-established here from seed, e.g. several species of serotinous Proteaceae that blew in from the adjacent nature reserve after the recent fire. Most of site B was heavily disturbed several years ago probably when soil was removed to construct the adjacent dam.

Sites C and D:

Habitat Condition	**Percentage of habitat condition class (adding up to 100%) and area of each in square metre (m²)**		**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	100%	59596m²	Both the renosterveld sites at C and D also consist of previously ploughed areas. Both areas have not been tilled for a number of years (about 3-5 years). A total of 57 species were recorded on these two sites, most of which are indigenous 'weedy' species. No threatened species were noted, or are expected to occur on these two sites.
Near Natural (includes areas with low to moderate level of alien invasive plants)	%	m²	NA
Degraded (includes areas heavily invaded by alien plants)	%	m²	NA
Transformed (includes cultivation, dams, urban, plantation, roads, *etc.*)	%	m²	NA

Drainage Line Crossing:

Habitat Condition	**Percentage of habitat condition class (adding up to 100%) and area of each in square metre (m²)**		**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	90%	m²	The instream and riverbank habitat integrity of the drainage line which separates sites A and B (northwestern border of site B) is still in a mostly natural and stable condition except for the two man-made river crossings which were historically constructed to gain access to site B. This drainage has an average width of approximately 15m.
Near Natural (includes areas with low to moderate level of alien	%	m²	NA

invasive plants)			
Degraded (includes areas heavily invaded by alien plants)	%	m^2	NA
Transformed (includes cultivation, dams, urban, plantation, roads, *etc.*)	10%	m^2	The lower lying crossing just above the dam at site B was constructed by infilling the drainage line with a gravel crossing of about 30m long and 10m wide. This crossing was therefore constructed at one of the widest points in the drainage line and has since washed away at the eastern end of the crossing and can no longer be used. Another infilled stream crossing was created at the top of the drainage line which is about 8m long and 5m wide, this crossing was created at a narrowest point in the drainage line and is therefore the preferred crossing in terms of minimizing potential impacts and maintenance requirements.

(c) Complete the table to indicate:
(i) the type of vegetation present on the site, including its ecosystem status; and
(ii) whether an aquatic ecosystem is present on/or adjacent to the site.

Sites A and B:

Terrestrial Ecosystems		**Description of Ecosystem, Vegetation Type, Original Extent, Threshold (ha, %), Ecosystem Status**
Ecosystem threat status as per the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	Critically	Kogelberg Sandstone Fynbos
	~~Endangered~~	
	~~Vulnerable~~	
	~~Least Threatened~~	

Sites C and D:

Terrestrial Ecosystems		**Description of Ecosystem, Vegetation Type, Original Extent, Threshold (ha, %), Ecosystem Status**
Ecosystem threat status as per the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	Critically	Elgin Shale Fynbos
	~~Endangered~~	
	~~Vulnerable~~	
	~~Least Threatened~~	

Sites A and B:

Aquatic Ecosystems						
Wetland (including rivers, depressions, channelled and unchannelled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
YES	~~NO~~	~~UNSURE~~	~~YES~~	NO	~~YES~~	NO

Site C:

Aquatic Ecosystems		
Wetland (including rivers, depressions, channelled and unchannelled wetlands, flats, seeps pans, and artificial wetlands)	Estuary	Coastline

~~YES~~	NO	~~UNSURE~~	~~YES~~	NO	~~YES~~	NO

Site D:

Aquatic Ecosystems						
Wetland (including rivers, depressions, channelled and unchannelled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
YES	~~NO~~	~~UNSURE~~	~~YES~~	NO	~~YES~~	NO

(d) Provide a description of the vegetation type and/or aquatic ecosystem present on the site, including any important biodiversity features/information identified on the site (e.g. threatened species and special habitats). Clearly describe the biodiversity targets and management objectives in this regard.

See Specialist Studies in Appendix G.

Terrestrial Vegetation Characteristics:

The vegetation within the proposed development areas consists of mainly Kogelberg Sandstone Fynbos (status = Critically Endangered) in sites A and B and Elgin Shale Fynbos (status = Critically Endangered) in sites C and D (see Appendix D).

The fynbos vegetation at sites A and B consists of a very similar flora. Both sites were heavily disturbed previously. Site A was ploughed previously and the upper reach were excavated for gravel, but has not been tilled for a number of years now (about 3 years). A number of species re-established here from seed, e.g. several species of *Serotinous proteaceae*, that blew in from the adjacent nature reserve after the recent fire. Most of site B was heavily disturbed several years ago, but several species has also been re-established on the site. During the botanical impact assessment, as was conducted by Mr. Jan Vlok during December 2017 a total of 119 different plant species were recorded on sites A and B, most of these species occurred in small undisturbed patches within these two sites which remain primarily along and within the drainage lines and associated wetland areas. This probably represents about 70-80% of the total number of species that occur in the affected areas. Only two of the species recorded are threatened species, *Diastella thymelaeiodes* ssp. *thymelaeiodes* (status = Near Threatened and *Otholobium thomii* (status = Endangered) which was recorded immediately adjacent to the drainage line areas. It is unlikely that any other threatened plant species occur at these two sites. There is a clear dominance of pioneer species such as *Athanasia trifurcate* at site A, and graminoids (Cyperaceae, Poaceae and Restionaeae) at site B.

Both the renosterveld sites at C and D also consist of previously ploughed areas. Both areas have not been tilled for a number of years (about 3-5 years). A total of 57 species were recorded during the botanical survey on these two sites most of which are indigenous 'weedy' species. No threatened species were noted, or are expected to occur on these two sites. There are clear indicators of disturbance at site C such as *Stoebe plumosa* and *Anthospermum aethiopicum*. And on site D the dominant disturbance indicator plants are *Helichrysum cymosum* and *H. pandurifolium*.

Wetland/drainage line Characteristics on Site:

Sites A and B have the most significant wetland characteristics associated with the natural and man-made drainage lines and dam located mainly along the northwestern and southern borders of the proposed development sites. These wetlands, drainage lines and dam have also been mapped as Ecological Support Areas (Res) in the latest Western Cape Biodiversity Spatial Plan (2017) as well as artificial and natural Wetland Freshwater Priority Areas (NFEPAs).

The wetland indicator species within sites A and B as recorded on site are species such as *Capeochloa cincta*, *Carpha glomerata, Drosera capensis, Platycaulis callistachyus and Erica perspicua* which is locally abundant. These wetland and drainage line areas have also been invaded by *Acacia longifolia*, but not in dense stands.

The instream and riverbank habitat integrity of the drainage line which separates sites A and B (northwestern border of site B) is still in a mostly natural and stable condition except for the two man-made river crossings which were historically constructed to gain access to site B. This drainage has an average width of approximately 15m. The lower lying crossing just above the dam at site B was constructed by infilling the drainage line with a gravel crossing of about 30m long and 10m wide. This crossing was therefore constructed at one of the widest points in the drainage line and has since washed away at the eastern end of the crossing and can no longer be used. Another infilled stream crossing was created at the top of the drainage line which is about 8m long and 5m wide, this crossing was created at a narrowest point in the drainage line and is therefore the preferred crossing in terms of minimizing potential impacts and maintenance requirements.

The wetlands and drainage line areas remaining within and along the borders of site A have been significantly transformed and modified due to previous mining of sand and gravel and vineyard plantations. The higher lying section of the drainage line running along the northwestern border of the site has no remaining wetland characteristics, but is still important in maintaining hydrological connectivity of the drainage line originating from the Houwhoek mountains which feeds the lower lying wetlands areas on site.

There is no evidence of any wetlands conditions or drainage lines at site C.

A narrow channeled drainage line runs along the southeastern border of site D. The average width of the drainage line is approximately 2m wide. Some wetland indicator species such as *Zantedeschia aethiopica* is located within the channeled drainage line, and due to the channelization taking place several years ago (more than 10) the instream habitat integrity and stability of the drainage line is relatively good.

Management Objectives:

The overall freshwater ecological condition of the wetlands, drainage lines, dams and general remaining riparian habitats are deemed to be moderately to largely modified and the ecological importance and sensitivity low. However the functioning of the drainage lines and associated wetlands areas as assessed on sites A, B and D are important in maintaining current hydrological functioning and freshwater ecosystems on the sites and surrounds. These areas together with adequate buffer areas have therefore been delineated as no-go areas and are recommended to be demarcated by a land surveyor as no-development areas before site clearance commences and remain demarcated throughout the operational phase of the proposed activities to ensure ongoing protection of these areas.

The only development activity allowed within these areas is the upgrade and maintenance associated with the higher lying drainage line crossing to gain access to site B. Before the drainage line crossing is upgraded a design that meets the required specifications approved by BGCMA must be submitted and approved for this crossing. The design must allow for free flow and be able to accommodate the 1:50 year flood event without causing erosion, eroding itself or being washed away. The materials to be used and design of the formal drainage line crossing must also not lead to erosion of the crossing and surrounds. The construction and maintenance of this crossing must take place under the guidance of an Environmental Management Plan ("EMP"). An Environmental Control Officer ("ECO") must be appointed before construction commences to ensure that all requirements of the EMP are being implemented and monitor compliance throughout the construction and maintenance/operational phases. A detailed construction method statement must be provided by the developer/landowner to be approved by the ECO before commencement and must describe how construction activities will be implemented to ensure compliance with the EMP. The associated impacts of construction and maintenance/operation of this crossing must be strictly managed and kept to minimum as far as possible.

7. LAND USE OF THE SITE

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 proposed development.

~~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 and 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 and 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):	NA			

(a) Provide a description.

The property is zoned Agriculture, the primary land use for agricultural purposes.

8. LAND USE CHARACTER OF THE SURROUNDING AREA

(a) Highlight the current land uses and/or prominent features that occur within +/- 500m radius of the site and neighbouring properties if these are located beyond 500m of the site.

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 proposed development.

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 and 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 and 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):	NA			

(b) Provide a description, including the distance and direction to the nearest residential area, industrial area, agri-industrial area.

Corner Farm is located in Elgin Valley approximately 14km from the town of Grabouw. The property is bordered by Agricultural activities on the west and northern boundaries and the Houwhoek Nature Reserve (World Heritage Site) on the southern and northern boundaries.

Located within 1km and beyond Corner Farm, are a number of establishments providing a number of tourism related activities, such as mountain biking, nature walks, wine tasting and restaurants within the Elgin Valley.

9. SOCIO-ECONOMIC ASPECTS

a) Describe the existing social and economic characteristics of the community in the vicinity of the proposed site, in order to provide baseline information (for example, population characteristics/demographics, level of education, the level of employment and unemployment in the area, available work force, seasonal migration patterns, major economic activities in the local municipality, gender aspects that might be of relevance to this project, *etc.*).

Municipal Statistics and Demographics

Population Size

The population of Theewaterskloof was estimated at 108 790 people during 2010 which made up approximately 28 884 households. According to the 2011 census data, Coloureds are the most numerous population group (63%), with Africans being the second-most populous group (26%). Whites represent only 9% and Indians/Asian 3.5 % of the population within the municipal boundaries.

Household Income

In 2011, households with an annual income of R30,000 – R80,000 accounted for the largest concentration of households (19.1%).

Theewaterskloof has a large number of people receiving some or other form of grant. Some people receive more than one grant, for example a disability or old age grant and a child support grant. The largest number of recipients is in Grabouw followed by Caledon and then Villiersdorp.

Employment

In 2011, 14.9% of the labour force was unemployed according to the Census 2011 Survey.

The labour force is classified into four main categories namely, high skilled, skilled, low skilled and unspecified. Low skill occupations are defined as individuals employed in elementary occupations; skilled occupations include clerks, service workers, skilled agricultural and fishery workers, craft and related trades workers as well as plant and machine operators and assemblers. The high skilled category includes legislators, senior officials and managers, professionals, technicians and associate professionals.

The Community Survey of 2007 indicated that Theewaterskloof labour force comprised of 40.5% skilled workers, 23.6% low skilled and 20.4% high skilled workers. Of the 39 979 employed in 2007, 19.3 % could not be classified as either high skilled, skilled or low skilled, and is therefore considered as unspecified.

Employment Industries

Various types of economic activities can be found within the Theewaterskloof Local Municipality area of which the biggest sector is finance, insurance, real estate and business services (32%) followed by agriculture, fishing and forestry (21%) and manufacturing (14%). The smallest sectors include mining and quarrying (0%) and electricity and water (1%).

Reference: Theewaterskloof Municipality Integrated Development Plan: 2012 -2017, 4th Annual Review 2016-2017.

The applicant makes a contribution to socio-economic development, by facilitating the following benefits:

i. Employment creation;
ii. Economic empowerment of employees;
iii. Training and skills development;
iv. Employee food security; and
v. Transport.

Please see a discussion of the socio-economic benefits below.

Employment creation

Apples have the capacity to create 1.25 primary and 0.83 downstream jobs per hectare and pears have the capacity to create 1.26 primary and 0.83 jobs per hectare (Bureau for Agricultural Policy,

2011). Additional irrigation expansion of 19.5 ha could therefore create 24 primary- and 16 downstream job opportunities. In addition to this, the expansion would assist to maintain the existing employment opportunities on the farm in the long term, due to the production operations becoming more economically viable. Additional short term employment would also be needed in the first two years, in order to assist with orchard establishment.

Economic empowerment of employees
The new employees will see a socio-economic benefit in the form of access to salaries and the concomitant economic empowerment. In addition to this, the beneficiaries of the Two-a-Day Farmworkers' Trust will receive dividends in the future, when the project becomes profitable.

Training and skills development
All employees will receive accredited training by Two-a-Day at the Grabouw Skills Centre as and when it is required. This includes training for unskilled and semi-skilled individuals.

Employee food security
The additional plantings will allow new jobs to be created, which would in turn increase the food security of these individuals. The growth of the project in itself will also increase security of employment, and hence food security, of the individuals involved in the project. Further to this, the production of apples and pears for the local market would also add to food security on a local level.

Transport
Employees do not live on the farm, therefore they will receive transport to and from the farm on a daily basis. Perhaps the biggest socio-economic impact of the authorisation will be the positive impact on the livelihoods of the families of employees on the farms, including youth, women and the elderly.

10. HISTORICAL AND CULTURAL ASPECTS

(a) Please be advised that if section 38 of the NHRA is applicable to your proposed development, you are requested to furnish this Department with written comment from Heritage Western Cape as part of your public participation process. Heritage Western Cape must be given an opportunity, together with the rest of the I&APs, to comment on any Pre-application BAR, a Draft BAR, and Revised BAR.

Section 38 of the NHRA states the following:
"*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 000m² 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 000m² 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 NHRA, must also be investigated, assessed and evaluated. Section 3(2) states the following:
"*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 paleontological 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 NHRA applicable to the proposed development?	~~YES~~	NO	~~UNCERTAIN~~
If YES or UNCERTAIN, explain:	Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), is not applicable to the proposed development. However a HWC NID was submitted to HWC as the proposed development triggers the requirement for an Environmental Authorisation in terms of NEMA. The RoD received has been included in Appendix E1.		
Will the development impact on any national estate referred to in Section 3(2) of the NHRA?	~~YES~~	NO	~~UNCERTAIN~~
If YES or UNCERTAIN, explain:	The development will not impact on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999.		
Will any building or structure older than 60 years be affected in any way?	~~YES~~	NO	~~UNCERTAIN~~
If YES or UNCERTAIN, explain:	The development will not impact on any building or structure older than 60 years in any way.		
Are there any signs of culturally or historically significant elements, as defined in section 2 of the NHRA, including Archaeological or paleontological sites, on or close (within 20m) to the site?	~~YES~~	NO	~~UNCERTAIN~~
If YES or UNCERTAIN, explain:	No archaeological significant resources were found during the foot survey.		

Note: If uncertain, the Department may request that specialist input be provided **and** Heritage Western Cape must provide comment on this aspect of the proposal. (Please note that a copy of the comments obtained from the Heritage Resources Authority must be appended to this report as Appendix E1).

11. APPLICABLE LEGISLATION, POLICIES, CIRCULARS AND/OR GUIDELINES

(a) Identify all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to the development proposal and associated listed activity(ies) being applied for and that have been considered in the preparation of the BAR.

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	**ADMINISTERING AUTHORITY and how it is relevant to this application**	**TYPE Permit/license/authorisation/comment / relevant consideration** (*e.g.* rezoning or consent use, building plan approval, Water Use License and/or General Authorisation, License in terms of the SAHRA and CARA, coastal discharge permit, *etc.*)	**DATE** (if already obtained)**:**
National Water Act, 1998 (Act No. 36 of 1998) [NWA] and relevant regulations	Breede Gouritz Catchment Management Agency	Water Use Authorization	Application for S21(a) submitted 31/07/20 Application for S21(c) and (i) submitted

			06/04/2018
National Environmental Management Act, 1998 (Act No. 107 of 1998) [NEMA] and relevant regulations	Western Cape Department of Environmental Affairs and Development Planning	Environmental Authorisation Application	NA
National Heritage Resources Act 25 of 1999 [NHRA]	Heritage Western Cape South African Heritage Resource Agency	Notice of Intent to Develop	Final Comment Received
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) [NEMWA] and relevant regulations	Western Cape Department of Environmental Affairs and Development Planning	NA	NA
National Environmental Management: Biodiversity Act 10 of 2004 [NEMBA]	Western Cape Department of Environmental Affairs and Development Planning	NA	NA
National Environmental Management: Air Quality Act, 39 Of 2004 [NEMAQA] and Relevant Regulations	Western Cape Department of Environmental Affairs and Development Planning	NA	NA
Conservation of Agricultural Resources Act, 43 Of 1983 [CARA]	National Department of Agriculture, forestry and Fisheries Western Cape Department of Agriculture	• Permission to cultivate. • Weeds and the tolerance thereof.	NA
National Health Act, 61 of 2003 [NHA]		Littering and causing a nuisance.	NA
Constitution of the Republic of South Africa, 1996		General application to individual rights of all on and adjacent to the sites.	NA
Fencing Act, 31 of 1963		NA	NA
National Building Regulations and Building Standards Act 103 of 1977 [NBRBSA] and relevant regulations		NA	NA
National Veld and Forest Fire Act 101 of 1998 [NVFFA]		NA	NA
Fertilizers, Farm Feeds, Agricultural Remedies And Stock Remedies Act, 36 Of 1947 [FFFARSRA] and Relevant Regulations	National Department of Agriculture, forestry and Fisheries Western Cape Department of Agriculture	NA	NA

POLICY/ GUIDELINES	ADMINISTERING AUTHORITY
Guideline on Public Participation	Western Cape Department of Environmental Affairs and Development Planning
Guidelines on Alternatives	Western Cape Department of Environmental Affairs and Development Planning
Guideline on Need and desirability	Western Cape Department of Environmental Affairs and Development Planning
Guideline for Environmental Management	Western Cape Department of Environmental

Plans (EMP's)	Affairs and Development Planning
Circular EADP 0028/2014: "One Environmental Management System"	Western Cape Department of Environmental Affairs and Development Planning
Guideline on Involving Biodiversity Specialists in the EIA Process	Western Cape Department of Environmental Affairs and Development Planning

(b) Describe how the proposed development **complies with and responds** to the legislation and policy context, plans, guidelines, spatial tools, municipal development planning frameworks and instruments.

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	**Describe how the proposed development complies with and responds:**
NEMA	Various general activities, including but not limited to, the control of emergency incidents and the care and remediation of environmental damage.
NEMWA	Listed waste management activities and the requirements for a license for usage of general waste.
NEMBA	The management and conservation of biological diversity and the sustainable use of indigenous biological resources.
NEMAQA	Activities that may affect the air quality on site and the environment surrounding it.
NWA	Impacts and pollution to ground and surface water. Assessed if a water use authorisation under section 21 is required.
CARA	Weeds and the tolerance thereof.
National Health Act	Littering and causing a nuisance.
Constitution of the RSA	General application to individual rights of all on and adjacent to the sites.
Fencing Act	The erection and maintenance of fences.
National Building Regulations and Building Standards Act	The erection of new buildings.
NHRA	Development of the site and dealing with graves and burial sites and any structures older than 60 years.
NVFFA	Any activities that could result in the start of veld fires.
FFFARSRA	• Activities associated with pest control and the use of agricultural remedies. • Activities associated with providing / manufacturing fertiliser.
Guideline on Public Participation	The public participation guideline was used to determine the best way to define and inform all relevant I&APs of the project. The guideline was also used to determine the most effective communication strategies for public participation.
Guidelines on Alternatives	The guidelines for alternatives assessment was used to develop a methodology for alternatives assessment. This methodology was applied to determine and assess the most viable alternatives to the project. The assessment was undertaken against the base environment (i.e. the no-go option).
Guideline on Need and desirability	The guideline was taken into account to determine whether the project complied according to the concept of Best Practicable Environmental Option as well as environmental and social sustainability.
Guideline for EMP's	The guideline for EMP's was taken into account to determine the most effective minimize, mitigation and management measures to minimise or prevent the impacts identified in the report
Circular EADP 0028/2014: "One Environmental Management System"	The circular was consulted to determine whether the report has been compiled in accordance with all the requirements of the 2014 EIA Regulations, as amended. The circular also provides guidance on the synchronisation of all Environmental Applications applicable for the proposed development.

Guideline on Involving Biodiversity Specialists in the EIA Process	Provided the framework for the involvement of Biodiversity Specialists.

Note: Copies of any comments, permit(s) or licences received from any other Organ of State must be attached to this report as **Appendix E**.

Section C: PUBLIC PARTICIPATION

The PPP must fulfil the requirements outlined in the NEMA, the EIA Regulations, 2014 (as amended) and if applicable, the NEM: WA and/or the NEM: AQA. This Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must also be taken into account.

1. Please highlight the appropriate box to indicate whether the specific requirement was undertaken or whether there was an exemption applied for.

In terms of Regulation 41 of the EIA Regulations, 2014 (as amended) -			
(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	~~EXEMPTION~~	
(ii) any alternative site	~~YES~~	~~EXEMPTION~~	N/A
(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~~	~~EXEMPTION~~	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	~~EXEMPTION~~	
(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	~~EXEMPTION~~	
(iv) the municipality (Local and District Municipality) which has jurisdiction in the area;	YES	~~EXEMPTION~~	
(v) any organ of state having jurisdiction in respect of any aspect of the activity; and	YES	~~EXEMPTION~~	
(vi) any other party as required by the Department;	YES	~~EXEMPTION~~	~~N/A~~
(c) placing an advertisement in -			
(i) one local newspaper; or	YES	~~EXEMPTION~~	
(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~~	~~EXEMPTION~~	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~~	~~EXEMPTION~~	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	~~EXEMPTION~~	~~N/A~~
If you have indicated that "EXEMPTION" is applicable to any of the above, proof of the exemption decision must be appended to this report.			
Please note that for the NEM: WA and NEM: AQA, a notice must be placed in at least two newspapers circulating in the area where the activity applied for is proposed.			
If applicable, has/will an advertisement be placed in at least two newspapers?	YES	~~NO~~	
If "NO", then proof of the exemption decision must be appended to this report.			

2. Provide a list of all the State Departments and Organs of State that were consulted:

State Department / Organ of State	Date request was sent:	Date comment received:	Support / not in support
CapeNature / Kogelberg Biosphere Reserve	26 February 2018	03 April 2018	Support with conditions
BGCMA		28 March 2018	Support with conditions
DEA&DP: Development Management (Deciding Authority)		04 April 2018	Support with conditions

DEA&DP: Pollution and Chemicals Management		27 March 2018	Support with conditions
DEA&DP: Waste Management		19 March 2018	Support
Department of Agriculture, Western Cape: Land Use		No comment received	-
National Department of Agriculture (Bellville)		07 March 2018	Support with conditions
Heritage Western Cape		RoD received	-
Overberg District Municipality		26 March 2018	Support
Theewaterskloof Local Municipality		No comment received	-
Whale Coast Conservation (Heritage Conservation Body)		No comment received	-

3. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated, or the reasons for not including them.
(The detailed outcomes of this process, including copies of the supporting documents and inputs must be included in a Comments and Response Report to be attached to the BAR (see note below) as **Appendix F**).

National Department of Agriculture (DAFF)

- Applicability of CARA in terms of the cultivation of virgin soil;
- Mitigation measures recommended for soil erosion and the controlling of weeds and alien plants.

Manner incorporated:

- In this instance a permit to cultivate virgin soil would not be applicable as it has been determined that all the sites were ploughed in the last 10 years (see Botanical Impact Assessment - Appendix G).
- The recommendations and mitigation measures have been included in the relevant sections of the EMPr.

BGCMA

- Indicated the water uses in terms of section 21 of the NWA which may be applicable. Provided the current status of the applications submitted to date and confirmed that the applications are in process.
- Provided general comments.

Manner incorporated:

- The applicable general comments have been included in the relevant sections of the EMPr.

DEADP: Pollution and Chemicals Management

The directorate provided specific and general comments with regards to spills of hazardous substances, control of alien and invasive species, storm-water runoff, ablution facilities, waste management, handling and storage of pesticides and fertilisers, disposal of hazardous wastes, and dust suppression for inclusion in the EMPr.

Manner incorporated:

- The applicable mitigations and recommendations have been included in the relevant sections of the EMPr.

CapeNature

- Amend the incorrect threat status of Kogelberg Sandstone Fynbos
- Clearing of *Acacia longiflora* during construction phase
- Exclude the ESA 1 buffers from Site B development footprint
- Rehabilitate the crossing that's not upgraded
- Exclude Site B from the development area
- Provide more information for the drainage line crossing design, erosion mitigation measures (repair and prevention); vegetation rehabilitation; and stormwater management.

Manner incorporated:
- Amended the threat status
- Included the clearing of *Acacia longiflora* during construction phase in the EMPr
- Response - The erection of a boundary fence which together with the required fire break should provide sufficient buffer between the proposed development and the Nature Reserve.
- This has been included in the EMPr.
- Response - CapeNature's concerns are noted; however the development sites and areas have been proposed base on the recommendations of appointed specialists and specialist reports.
- Please note that the applicable section 21 application in terms of the NWA has been submitted to BGCMA - through consultation with BGCMA the design specifications for the upper drainage line crossing will be determined. The application is still in process. Please see BGCMA's comments in Appendix F of the Draft BAR.

DEADP: Development Management (Deciding Authority)
- Clarification of applicable Listed Activities.
- Clarification of the extent of indigenous vegetation (as defined in NEMA EIA Regulations, 2014 as amended)
- Clarity regarding project description
- Layout plans not adequately labelled or provide sufficient information
- Original signatures required for the Final BAR and the applicability, commitment and implications the applicant makes in signing the declaration.

Manner incorporated:
- The Listed Activities have been amended as per the Departments recommendations, and motivations / clarity provided.
- The proposal is for the clearing of indigenous vegetation on sites A, B, C, and D with a **collective area** of **approximately 16.5ha** for the establishment of apple orchards. As such the full extent (16.5ha) of the vegetation proposed to be cleared (in respect of LA 1 - preferred alternative) is considered indigenous vegetation as defined in the NEMA EIA Regulations, 2014 as amended.
- Project descriptions have been amended as per the Departments recommendations.
- Layout plans have been amended accordingly to show the layout alternatives as described.
- Original signatures for the applicant, EAP and specialist to be included in the Final BAR. The Applicant is aware of the applicability, commitment and implications in signing the BAR declaration.

4. 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.

BGCMA

The following Water Use in terms of Section 21 of the National Water Act, 1998 (Act 36 of 1998) may be applicable:
- *Section* 21 (a) - *taking water from* a *water resource*
- *Section* 21 *(c) - impeding or diverting the flow of water in* a *watercourse*
- *Section* 21 *(i) - altering the bed, banks, course or characteristics of* a *watercourse*

DEADP: Pollution and Chemicals Management

Once a design approval is granted by the Breede-Gouritz Catchment Management Agency (BGCMA), the specifications of the proposed drainage line crossing from Site A to B must be provided.

Note:
Even if pre-application public participation is undertaken as allowed for by Regulation 40(3), it must be undertaken in accordance with the requirements set out in Regulations 3(3), 3(4), 3(8), 7(2), 7(5), 19, 40, 41, 42, 43 and 44.

If the "exemption" option is selected above and no proof of the exemption decision is attached to this BAR, the application will be refused.

A list of all the potential I&APs, including the Organs of State, notified and a list of all the registered I&APs must be submitted with the BAR. The list of registered I&APs must be opened, maintained and made available to any person requesting access to the register in writing.

The BAR must be submitted to the Department when being made available to I&APs, including the relevant Organs of State and State Departments which have jurisdiction with regard to any aspect of the activity, for a commenting period of at least 30 days. Unless agreement to the contrary has been reached between the Competent Authority and the EAP, the EAP will be responsible for the consultation with the relevant State Departments in terms of Section 24O and Regulation 7(2) – which consultation must happen simultaneously with the consultation with the I&APs and other Organs of State.

All the comments received from I&APs on the BAR must be recorded, responded to and included in the Comments and Responses Report included as **Appendix F** of the BAR. If necessary, any amendments made in response to comments received must be effected in the BAR itself. The Comments and Responses Report must also include a description of the PPP followed.

The minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded, must also be submitted as part of the public participation information to be attached to the final BAR as **Appendix F.**

Proof of all the notices given as indicated, as well as notice to I&APs of the availability of the Pre-Application BAR (if applicable), Draft BAR, and Revised BAR (if applicable) must be submitted as part of the public participation information to be attached to the BAR as **Appendix F**. In terms of the required "proof" the following must be submitted to the Department:

- a site map showing where the site notice was displayed, a dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
  - if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
  - if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
  - if a facsimile was sent, a copy of the facsimile report;
  - if an electronic mail was sent, a copy of the electronic mail sent; and
  - if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

SECTION D: NEED AND DESIRABILITY

Note: Before completing this section, first consult this Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, 2014 (as amended), any subsequent Circulars, and guidelines available on the Department's website: **http://www.westerncape.gov.za/eadp**). In this regard, it must be noted that the *Guideline on Need and Desirability in terms of the Environmental Impact Assessment (EIA) Regulations, 2010* published by the national Department of Environmental Affairs on 20 October 2014 (GN No. 891 on Government Gazette No. 38108 refers) (available at: http://www.gov.za/sites/www.gov.za/files/38108_891.pdf) also applied to EIAs in terms of the EIA Regulations, 2014 (as amended).

1. Is the development permitted in terms of the property's existing land use rights?	YES	~~NO~~	Please explain
The property is zoned as Agriculture 1, in terms of which the cultivation of agricultural land is the primary land use right.			
2. Will the development be in line with the following?			
(a) Provincial Spatial Development Framework ("**PSDF**").	YES	~~NO~~	Please explain
The proposed development is in line with the Western Cape's PSDF, as the proposed development is consistent with surrounding activities and the land use right / zoning for this area. The sites identified for vegetation clearing and cultivation is consistent with the Provincial aim in terms of contributing to the maintenance of a sustainable agricultural sector. Of the commodities produced, 45% is exported, 30% is for local sales and 25% undergoes agri-processing. The export of commodities will contribute to boosting the GDP and maintaining trade balance in South Africa. Local economic development will be supported not only in the products and services chosen to support the project, but also as an injection into the local economy by means of wages. The local sale of commodities will assist in combating food security not only by increased food			

stocks, but also by related households' ability to buy food. The agri-processing of apples and pears further contributes to localisation, as products are produced locally which would have otherwise had to be imported (namely fruit concentrate).

(b) Urban edge / edge of **built environment** for the area.	~~YES~~	NO	Please explain
The proposed development is outside of the urban edge / built environment, however the proposed development is consistent with current farm activities and surrounding land uses.			
(c) Integrated Development Plan and Spatial Development Framework of the Local Municipality (*e.g.,* would the approval of this application compromise the integrity of the existing approved and credible municipal **IDP and SDF**?).	YES	~~NO~~	Please explain
The proposed development is consistent with the envisaged growth as manifested in the Theewaterskloof Municipality IDP and SDF. The expansion of the cultivated land will contribute to agricultural sector through the protection and development of agricultural land. Of the commodities produced, 45% is exported, 30% is for local sales and 25% undergoes agri-processing. The export of commodities will contribute to boosting the GDP and maintaining trade balance in South Africa. Local economic development will be supported not only in the products and services chosen to support the project, but also as an injection into the local economy by means of wages. The local sale of commodities will assist in combating food security not only by increased food stocks, but also by related households' ability to buy food. The agri-processing of apples and pears further contributes to localisation, as products are produced locally which would have otherwise had to be imported (namely fruit concentrate).			
(d) An Environmental Management Framework ("**EMF**") adopted by this Department. (*e.g.,* Would the approval of this application compromise 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
No EMF adopted for the area.			
(e) Any **other** Plans (*e.g.,* Integrated Waste Management Plan (for waste management activities), *etc.*)).	~~YES~~	NO	Please explain
NA			
3. Is the land use (associated with the project being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (in other words, is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES	~~NO~~	Please explain
The proposed development is consistent with the envisaged growth as manifested in the Theewaterskloof Municipality IDP and SDF. The expansion of the cultivated land will contribute to agricultural sector through the protection and development of agricultural land.			
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) occur on the proposed site at this point in time?	YES	~~NO~~	Please explain
The proposed development is consistent with the objectives manifested in the SDF and IDP for Theewaterskloof. Apples have the capacity to create 1.25 primary and 0.83 downstream jobs per hectare and pears have the capacity to create 1.26 primary and 0.83 jobs per hectare (Bureau for Agricultural Policy, 2011). Additional cultivation expansion of 16.5 ha could therefore create 24 primary- and 16 downstream job opportunities. In addition to this, the expansion would assist to maintain the existing employment opportunities on the farm in the long term, due to the production operations becoming more economically viable.			
5. Does the community/area need the project and the associated land use concerned (is 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
Vacation Station (Pty) ltd is an established primary producer in the agricultural value chain with the necessary backwards and forwards linkages. It is a member of the Two-a-day Group, allowing for a secure off-take for all fruit produced. Marketing takes place through Tru-Cape Marketing. The project will therefore enjoy security of off-take for produce, ensuring benefit to previously			

disadvantaged individuals.

The new employees will see a socio-economic benefit in the form of access to salaries and the concomitant economic empowerment. In addition to this, the beneficiaries of the Two-a-Day Farmworkers' Trust will receive dividends in the future, when the project becomes profitable.

All employees will receive accredited training by Two-a-Day at the Grabouw Skills Centre as and when it is required. This includes training for unskilled and semi-skilled individuals. This would allow for the up-skilling of disadvantaged individuals and empowering the potential workforce in the community.

The biggest socio-economic impact of the authorisation will be the positive impact on the livelihoods of the families of employees on the farms, including youth, women and the elderly. If the authorisation is not granted, the potential socio-economic benefits will continue to be forfeited on an annual basis.

6. Are the necessary **services** available together with adequate unallocated municipal capacity (at the time of application), or must additional capacity be created to cater for the project? (Confirmation by the relevant municipality in this regard must be attached to the BAR as **Appendix E**.)	YES	~~NO~~	Please explain
The only provision of services required it the additional water applied for in terms of Section 21 of the National Water Act, 36 of 1998. This application is for the taking of an additional 126 750 m^3/a from the existing dam, which would enable the applicant to irrigate a further 16.5 ha of apples at 6500 m^3/ha/a.			
7. Is this project provided for in the **infrastructure planning** of the municipality and if not, what 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 be attached to the BAR as **Appendix E**.)	~~YES~~	NO	Please explain
No additional Municipal services required.			
8. Is this project part of a **national programme** to address an issue of national concern or importance?	~~YES~~	NO	Please explain
Of the commodities produced, 45% is exported, 30% is for local sales and 25% undergoes agri-processing. The export of commodities will contribute to boosting the GDP and maintaining trade balance in South Africa. Local economic development will be supported not only in the products and services chosen to support the project, but also as an injection into the local economy by means of wages. The local sale of commodities will assist in combating food security not only by increased food stocks, but also by related households' ability to buy food. The agri-processing of apples and pears further contributes to localisation, as products are produced locally which would have otherwise had to be imported (namely fruit concentrate). Vacation Station (Pty) Ltd currently provides its fruit to Two-a-day, partly for an export market, and as such it complies with various quality standards relating to ethical trading, sanitary requirements, phyto-sanitary requirements and otherwise (including Global GAP and SIZA). These standards require stringent compliance and annual inspection, ensuring that production takes place according to internationally accepted standards of public interest. The commercial partners have extensive experience in irrigation farming, ensuring that water will be used efficiently and that these practices will be transferred to the project equity partners. It is also standard practice in the area to use highly efficient micro-irrigation systems to irrigate crops, by means of automatic irrigation scheduling. The irrigation practices of Vacation Station comply with Nurture's Choice and EuroGAP standards. Further to the above the water use is in the public interest not only in terms of improvement of livelihoods of previously disadvantaged individuals in the region, but also through food security, boosting the GDP, local economic development and localisation			
9. Do location factors favour this land use (associated with the development proposal and associated listed activity(ies) applied for) at this place? (This relates to the contextualisation of the proposed land use on the proposed site within its broader context.)	YES	~~NO~~	Please explain
The extent of Portion 7 of Farm 466 is 91.54ha, at present 31 ha of the property is cultivated,			

consisting of 26 ha apples and 5 ha pears. It is the intention to cultivate a further 16.5 ha on Sites A - D as identified in this report. The proposed activity is in line with current activities and land uses taking place on the property.

10. Will the development proposal or the land use associated with the development proposal applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?	YES	~~NO~~	Please explain

Cumulatively, if adequately mitigated the potential impacts of the proposed activities to be undertaken on the wetlands, drainage lines, dams and general remaining riparian habitats will be of low negative significance and will in the short term just require some rehabilitation of the disturbed areas and longer term monitoring and control of the growth of alien invasive plants and erosion.
Freshwater Ecological Impact Assessment, Eco Impact Legal Consulting, 2017.

Impacts of the proposed development can be easily mitigated by means of limiting the development outside water drainage areas, wetlands and the sites where threatened species are present. The threatened species fortunately all occur immediately next to the water drainage areas. The only mitigation action hence required is that establishment of the proposed apple orchards at sites A & B must ensure that the sensitive areas indicated on Map 4 are not negatively affected during the construction and operational phases. This mitigation action will also ratify the recommendation for the intersected ESA2 area.
Botanical Impact Assessment, Regalis Environmental Services, 2017.

Strict adherence to the recommendations and mitigation measures defined in the EMP, Freshwater Ecological Impact Assessment, and Botanical Impact Assessment must be implemented.

11. Will the development impact on people's health and well-being (*e.g.,* in terms of noise, odours, visual character and 'sense of place', *etc.*)?	~~YES~~	NO	Please explain

Although the current visual character of the landscape will change, it will fully integrate with the existing surroundings as most of the property is already cultivated lands.

12. Will the proposed development or the land use associated with the proposed development applied for, result in unacceptable opportunity costs?	~~YES~~	NO	Please explain

The proposed development is consistent with the envisaged growth as manifested in the Theewaterskloof Municipality IDP and SDF. The expansion of the cultivated land will contribute to agricultural sector through the protection and development of agricultural land. Unacceptable opportunity costs as a result of the proposed development are not foreseen.

13. What will the **cumulative impacts** (positive and negative) of the proposed land use associated with the development proposal and associated listed activity(ies) applied for, be?

Positive Impacts

- Increased agricultural activities on agricultural land;
- Export of commodities will contribute to boosting the GDP and maintaining trade balance in South Africa;
- Supporting local economic development;
- Job creation;
- Job security;
- Up-skilling of previously disadvantaged individuals;
- Improvement of livelihoods of previously disadvantaged individuals;
- Food security.

Negative Impacts

- Potential impact on sensitive areas if mitigation not implemented;
- Loss of riparian habitat due to drainage line construction;
- Loss of indigenous vegetation;
- Potential pollution of sensitive areas.

14. Is the development the **best practicable environmental option** for this land/site?	YES	~~NO~~	Please explain

The property is zoned as Agriculture 1, in terms of which the cultivation of agricultural land is the primary land use right.

Strict adherence to the recommendations and mitigation measures defined in the EMP, Freshwater

Ecological Impact Assessment, and Botanical Impact Assessment must be implemented, to ensure that the impact of the proposed development will be of a low negative significance.

15. What will the benefits be to society in general and to the local communities?	Please explain

The proposed development could create 24 primary- and 16 downstream job opportunities. In addition to this, the cultivation expansion would assist to maintain the existing employment opportunities on the farm in the long term, due to the production operations becoming more economically viable.

The new employees will see a socio-economic benefit in the form of access to salaries and the concomitant economic empowerment. In addition to this, the beneficiaries of the Two-a-Day Farmworkers' Trust will receive dividends in the future, when the project becomes profitable.

All employees will receive accredited training by Two-a-Day at the Grabouw Skills Centre as and when it is required. This includes training for unskilled and semi-skilled individuals. This would allow for the up-skilling of disadvantaged individuals and empowering the potential workforce in the community.

The biggest socio-economic impact of the authorisation will be the positive impact on the livelihoods of the families of employees on the farms, including youth, women and the elderly. If the authorisation is not granted, the potential socio-economic benefits will continue to be forfeited on an annual basis.

16. Any **other** need and desirability considerations related to the proposed development?	Please explain

The expansion of agricultural activities on land zoned as Agricultural 1 is consistent with the promotion and maintenance of sustainable agricultural activities manifested in the local IDP and SDF, PSDF which is derived from national objectives.

17. Describe how the **general objectives of Integrated Environmental Management** as set out in Section 23 of the NEMA have been taken into account:

- The general principles as set out in Section 2 of NEMA are implemented as described below.
- The potential impacts for both the construction and the operational phase have been identified in this report – this allows for the appropriate management and mitigation measures to be identified and implemented where and when necessary to prevent environmental degradation and promote sustainability.
- All decisions during the planning and assessment by all involved for the activity promote the integration of the principles of environmental management set out in Section 2 to minimize and mitigate any significant effect on the environment. All these mitigations and management measures were included as proposed EA conditions and included in the EMP.
- All involved in the planning and design 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 Section 2 were taken in consideration and used in the assessments, mitigations and recommendations throughout this report.
- Adequate and appropriate opportunity for public participation was provided and included in Appendix F as per the guidelines and regulations in decisions that may affect the environment. The consideration of environmental attributes in management and decision making which may have a significant effect on the environment was ensured. The modes of environmental management best suited to ensure that a particular activity is pursued in accordance with the principles of environmental management set out in Section 2, was identified and employed. Refer to section below.

18 Describe how the **principles of environmental management** as set out in Section 2 of the NEMA have been taken into account:

A full public participation as described in the legislation and guidelines will be/ is followed. The proposed development will not have a significant impact on biodiversity. The proposed development is situated within an existing urban edge and will not disturb the landscape and sites that constitute the nation's cultural heritage. The proposed development will not exceed or exploit renewable resource to an extent that they reach a level beyond which their integrity is jeopardised.

The proposed development will not have a significant environmental impact and it is recommended that the Environmental Management Programme be adhered to accordingly.

SECTION E: DETAILS OF ALL THE ALTERNATIVES CONSIDERED

Note: Before completing this section, first consult this Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, 2014 (as amended), any subsequent Circulars, and guidelines available on the Department's website **http://www.westerncape.gov.za/eadp**.

The EIA Regulations, 2014 (as amended) defines "*alternatives*" as " *in relation to a proposed activity, means different means of fulfilling the general purpose and requirements of the activity, which may include alternatives to the—*
(a) property on which or location where the activity is proposed to be undertaken;
(b) type of activity to be undertaken;
(c) design or layout of the activity;
(d) technology to be used in the activity; or
(e) operational aspects of the activity;
(f) and includes the option of not implementing the activity;"

The NEMA (section 24(4)(a) and (b) of the NEMA, refers) 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 the NEMA and the National Environmental Management Principles set out in the NEMA are taken into account; and
- 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 (section 23 of NEMA, refers) 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 the NEMA.

The identification, evaluation, consideration and comparative assessment of alternatives directly relate to the management of impacts. Related to every identified impact, alternatives, modifications or changes to the activity must be identified, evaluated, considered and comparatively considered to:

- in terms of negative impacts, firstly avoid a negative impact altogether, or if avoidance is not possible alternatives to better mitigate, manage and remediate a negative impact and to compensate for/offset any impacts that remain after mitigation and remediation; and
- in terms of positive impacts, maximise impacts.

1. DETAILS OF THE IDENTIFIED AND CONSIDERED ALTERNATIVES AND INDICATE THOSE ALTERNATIVES THAT WERE FOUND TO BE FEASIBLE AND REASONABLE

Note: A full description of the investigation of alternatives must be provided and motivation if no reasonable or feasible alternatives exists.

(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:

Vegetation Clearing:
No other reasonable or feasible alternatives exist. The following reasons are provided in motivation for the proposed development of the identified sites:

- The sites identified for the cultivation of apple orchards follows the natural expansion of the existing farm as depicted in the map below:

- Sites A and B were heavily disturbed previously. Site A was ploughed previously and the upper reach were excavated for gravel, but has not been tilled for a number of years now (about 3 years). Most of site B was heavily disturbed several years ago, but several species has also been re-established on the site. Both the renosterveld sites at C and D also consist of previously ploughed areas. Both areas have not been tilled for a number of years (about 3-5 years).

(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 activity applied for in this application is **EXPANSION** of the existing activity conducted on the property.

The proposed development is considered to be the only reasonable and feasible activity for the following reasons:

- The property is zoned as Agriculture 1, and as such the primary land use for the proposed development site would be agricultural related activities in this instance for cultivation of commercial crops.
- The proposed development is consistent with the envisaged growth as manifested in the Theewaterskloof Municipality IDP and SDF. The expansion of the cultivated land will contribute to agricultural sector through the protection and development of agricultural land.
- Of the commodities produced, 45% is exported, 30% is for local sales and 25% undergoes agri-processing.
- The export of commodities will contribute to boosting the GDP and maintaining trade balance in South Africa. Local economic development will be supported not only in the products and services chosen to support the project, but also as an injection into the local economy by means of wages.
- The local sale of commodities will assist in combating food security not only by increased food

stocks, but also by related households' ability to buy food. The agri-processing of apples and pears further contributes to localisation, as products are produced locally which would have otherwise had to be imported (namely fruit concentrate).

Activities such as residential development, industrial development, and green energy developments are not feasible for this property as it is not consistent with the existing land use of the property. The expansion of the farm in the form of clearing of vegetation for the cultivation of crops is the only activity that should be considered as a viable and feasible option. If the property were to be declared as a private nature reserve or protected area, this would be a loss in terms of the agricultural potential that the property can offer to the economy.

(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:

Vegetation Clearing:

Four additional sites (sites A - D) were identified on portion 4 of Farm No. 466 for the establishment and cultivation of apple orchards (see Appendix A).

Layout Alternative 1 [LA 1] (PREFERRED)

The proposed sites A - D as indicated by the white polygons in Appendix B1 collectively make up the proposed development footprint of approximately 16.5ha. The 16.5ha as indicated in Appendix B1 encompasses the extent of indigenous vegetation (as defined by NEMA EIA Regulations, 2014 as amended) to be cleared for the establishment and cultivation of an apple orchard.

The layout alternative is preferred for the following reasons:

- The recommendations and mitigation measures in the Botanical Impact Assessment and Freshwater Ecological Impact Assessments have incorporated into the proposed layout.
- No-go areas (indicated by the green polygons in Appendix B1), as delineated in the above specialist reports, to protect the sensitive botanical and wetland areas adjacent to the proposed development sites have been incorporated into the proposed layout.
- The implementation of the no-go areas will ensure that the sensitive botanical and wetland areas will not cause further degradation and through the implementation of the EMPr the ecological functioning of these areas will be maintained.

Layout Alternative 2 - [LA 2]

The proposed sites A - D as indicated by the yellow polygons in Appendix B2 collectively make up the proposed development footprint of approximately 19.6ha. The 19.6ha as indicated in Appendix B2 encompasses the extent of indigenous vegetation (as defined by NEMA EIA Regulations, 2014 as amended) to be cleared for the establishment and cultivation of an apple orchard.

This layout is NOT preferred for the following reasons:

- The margins of the proposed development areas of sites A, B, and D intersect sensitive botanical and wetland areas.
- The layout does not exclude the no-go areas as delineated in the Freshwater Ecological Impact Assessment and the Botanical Impact Assessment.
- The clearing, establishment and cultivation of apple orchards on the full 19.6ha extent as proposed in this layout will severely impact on the ecological functioning and health of the adjacent sensitive botanical and wetland areas.

Drainage Line Crossing:

Alternative 1 - Upper Crossing (PREFERRED)

The existing infilled stream crossing was created at the top of the drainage line which is about 8m long and 5m wide, this crossing was created at a narrowest point in the drainage line and is therefore the preferred crossing to upgrade in terms of minimizing potential impacts and maintenance requirements.

The design and specifications of the crossing to be approved by BGCMA. The crossing design must allow for free flow and be able to accommodate the 1:50 year flood event without causing erosion, eroding itself or being washed away.

Please note that the applicable section 21 application in terms of the NWA has been submitted to BGCMA - through consultation with BGCMA the design specifications for the upper drainage line crossing will be determined. The application is still in process. Please see BGCMA's comments in Appendix F of the Draft BAR.

Alternative 2 - Lower Crossing
The existing lower lying crossing just above the dam at site B was constructed by infilling the drainage line with a gravel crossing of about 30m long and 10m wide. This crossing was therefore constructed at one of the widest points in the drainage line and has since washed away at the eastern end of the crossing and can no longer be used. This crossing compared to the preferred crossing above would have a much larger affect / impact on the drainage line should it be considered.

(d) **Technology** alternatives (*e.g.,* to reduce resource demand and increase 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:

No feasible or reasonable technological alternatives exist for the activities proposed.

(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:

The EMPr and MMP have been developed taking into account all of the mitigation measures and recommendations included in the specialist studies (Freshwater Ecological Impact Assessment; Risk Assessment; and Botanical Impact Assessment). The EMPr and MMP will provide specific guidelines to avoid negative impacts and to mitigate any unavoidable negative impacts during the construction and operational phases of the development. The Vegetation clearing is to be done is strict adherence to the EMPr especially in terms of the demarcation of the no-go areas to protect sensitive areas. Best practices together with the EMPr and MMP are encouraged during the operational phase of the project to avoid negative impacts associated with the activity.

The EMPr and MMP serve as guidelines for activities during construction and operational phases to minimise the activities negative impacts.

(f) The option of **not implementing** the activity (the '*No-Go*' Option):

The No-Go option will result in the site remaining as is presently. The property is zoned as Agriculture 1, and as such the primary land use for the proposed development site would be agricultural related activities in this instance the cultivation of commercial crops. The proposed development is consistent with the proposed land use activities as manifested in the local IDP and SDF.

Should the drainage line crossing not be implemented then access to site B would not be possible. This will reduce the farms capacity for the cultivation of apple orchards which will negatively affect the provision of permanent jobs for the community.

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

No additional alternatives to avoid negative impacts were considered.

(h) Provide a **summary** of all alternatives investigated and the outcome of each investigation:

Location Alternatives - The property is zoned as Agriculture 1, and as such the primary land use for the proposed development site would be agricultural related activities in this instance cultivation of crops. The proposed development is consistent with the proposed land use activities as manifested in the local IDP and SDF.

Activity Alternatives - The proposed development is considered to be the only reasonable and feasible activity for the proposed sites and the activity is consistent with the property's zoning as Agriculture 1. As such the primary land use for the proposed development site would be agricultural related activities in this instance cultivation of crops. The proposed development is consistent with the proposed land use activities as manifested in the local IDP and SDF.

Layout Alternatives -
Vegetation Clearing:
Layout Alternative 1 [LA 1] (PREFERRED) ~ *Clearing, establishment and cultivation of apple orchards on sites A - D with a collective development footprint of 16.5ha.*

This layout alternative is preferred as it takes into account the recommendations and mitigation measures in the specialist studies by the implementation of no-go areas as delineated in the specialist reports to protect the sensitive botanical and wetland areas adjacent to development sites A, B and D.

Layout Alternative 2 - [LA 2] ~ *Clearing, establishment and cultivation of apple orchards on sites A - D with a collective development footprint of 19.6ha.*

This layout is NOT preferred as the margins of the proposed development areas A, B and D intersect sensitive botanical and wetland areas. The layout does not exclude the no-go areas as delineated by the specialist reports and will therefore severely impact on the adjacent sensitive botanical and wetland areas.
Drainage Line Crossing:
Alternative 1 - Upper Crossing (PREFERRED)
Upgrading the existing upper drainage line crossing will have the least potential impacts and maintenance requirements. The design and specifications of the crossing to be approved by BGCMA. The crossing design must allow for free flow and be able to accommodate the 1:50 year flood event without causing erosion, eroding itself or being washed away.

Please note that the applicable section 21 application in terms of the NWA has been submitted to BGCMA - through consultation with BGCMA the design specifications for the upper drainage line crossing will be determined. The application is still in process. Please see BGCMA's comments in Appendix F of the Draft BAR.

Alternative 2 - Lower Crossing
This crossing compared to the preferred crossing above would have a much larger affect / impact on the drainage line and would require much more maintenance should it be considered. This crossing was constructed at one of the widest points in the drainage line and has since washed away at the eastern end of the crossing and can no longer be used. This upgrading of this crossing would require more infrastructure / infill to be placed in the watercourse to create a structure that would be safe and would not be washed away in a flood event. As such this alternative should not be considered as viable.

Technology Alternatives - No feasible or reasonable technological alternatives exist for the activities proposed.

Operational Alternatives - The EMPr and MMP has been developed taking into account all of the mitigation measures and recommendations included in the specialist studies (Freshwater Ecological Impact Assessment; Risk Assessment; and Botanical Impact Assessment). The EMPr and MMP will provide specific guidelines to avoid negative impacts and to mitigate any unavoidable negative impacts. The Vegetation clearing is to be done is strict adherence to the EMPr especially in terms of the demarcation of the no-go areas to protect sensitive areas. Best practices together with the EMPr and MMP are encouraged during the operational phase of the project to avoid negative impacts associated with the activity.

The EMPr and MMP serve as guidelines for activities during construction and operational phases to minimise the activities negative impacts.

The No-Go Option - The No-Go option will result in the site remaining as is presently. The property is zoned as Agriculture 1, and as such the primary land use for the proposed development site would be agricultural related activities in this instance the cultivation of commercial crops. The proposed development is consistent with the proposed land use activities as manifested in the local IDP and SDF.

Should the drainage line crossing not be implemented then access to site B would not be possible. This will reduce the farms capacity for the cultivation of apple orchards which will negatively affect the provision of permanent jobs for the community.

(i) Provide a detailed **motivation for not further considering** the alternatives that were found not feasible and reasonable, including a description and proof of the investigation of those alternatives:

The activity applied for in this application is **EXPANSION** of the existing activity conducted on the property.

The proposed development is considered to be the only reasonable and feasible activity for the following reasons:

- The property is zoned as Agriculture 1, and as such the primary land use for the proposed development site would be agricultural related activities in this instance for cultivation of commercial crops.
- The proposed development is consistent with the envisaged growth as manifested in the Theewaterskloof Municipality IDP and SDF. The expansion of the cultivated land will contribute to agricultural sector through the protection and development of agricultural land.
- Of the commodities produced, 45% is exported, 30% is for local sales and 25% undergoes agri-processing.
- The export of commodities will contribute to boosting the GDP and maintaining trade balance in South Africa. Local economic development will be supported not only in the products and services chosen to support the project, but also as an injection into the local economy by means of wages.
- The local sale of commodities will assist in combating food security not only by increased food stocks, but also by related households' ability to buy food. The agri-processing of apples and pears further contributes to localisation, as products are produced locally which would have otherwise had to be imported (namely fruit concentrate).

2. PREFERRED ALTERNATIVE

(a) Provide a **concluding statement** indicating the preferred alternative(s), including preferred location, site, activity and technology for the development.

The preferred alternatives have been informed by the natural landscape features, sensitive environmental features adjacent to the development areas and specialist inputs and recommendations. Cognisance of the need and desirability as manifested in the Theewaterskloof Municipality IDP and SDF has been assessed and forms part of the driving factors for the proposed development.

Preferred Alternatives:

Vegetation Clearing - LA 1

Clearing, establishment and cultivation of apple orchards on sites A - D on portion 4 of Farm No. 466 with a collective development footprint of 16.5ha. Refer to Appendix B1.

Alternative 1 - Upper Crossing

Upgrading the existing upper drainage line crossing (refer to the blue polygon labelled "upper crossing- preferred" in Appendix B1) will have the least potential impacts and maintenance requirements. The design and specifications of the crossing to be approved by BGCMA. The crossing design must allow for free flow and be able to accommodate the 1:50 year flood event without

causing erosion, eroding itself or being washed away.

Please note that the applicable section 21 application in terms of the NWA has been submitted to BGCMA - through consultation with BGCMA the design specifications for the upper drainage line crossing will be determined. The application is still in process. Please see BGCMA's comments in Appendix F of the Draft BAR.

SECTION F: ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE ALTERNATIVES

Note: The information in this section must be DUPLICATED for all the feasible and reasonable ALTERNATIVES.

1. DESCRIBE THE ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE PROPOSED DEVELOPMENT AND ITS ALTERNATIVES, FOCUSING ON THE FOLLOWING:

(a) Geographical, geological and physical aspects:

The proposed action will not have a significant adverse cumulative effect on topography, slopes, and soils, if construction and operational mitigation measures are implemented and maintained.

(b) Ecological aspects:

Will the proposed development and its alternatives have an impact on CBAs or ESAs? If yes, please explain: Also include a description of how the proposed development will influence the quantitative values (hectares/percentage) of the categories on the CBA/ESA map.	YES	~~NO~~
The only development to take place in the ESA is the upgrading and maintenance of the drainage line crossing. Before the drainage line crossing is upgraded a design that meets the required specifications approved by BGCMA must be submitted and approved for this crossing. The design must allow for free flow and be able to accommodate the 1:50 year flood event without causing erosion, eroding itself or being washed away. The materials to be used and design of the formal drainage line crossing must also not lead to erosion of the crossing and surrounds. The construction and maintenance of this crossing must take place under the guidance of an Environmental Management Plan ("EMP"). An Environmental Control Officer ("ECO") must be appointed before construction commences to ensure that all requirements of the EMP are being implemented and monitor compliance throughout the construction and maintenance/operational phases. A detailed construction method statement must be provided by the developer/landowner to be approved by the ECO before commencement and must describe how construction activities will be implemented to ensure compliance with the EMP. The associated impacts of construction and maintenance/operation of this crossing must be strictly managed and kept to minimum as far as possible. Impacts of the proposed development can be easily mitigated by means of limiting the development outside water drainage areas, wetlands and the sites where threatened species are present. The threatened species fortunately all occur immediately next to the water drainage areas. The only mitigation action hence required is that establishment of the proposed apple orchards at sites A and B must ensure that the sensitive areas indicated on Map 4 are not negatively affected during the construction and operational phases. This mitigation action will also ratify the recommendation for the intersected ESA2 area.		
Will the proposed development and its alternatives have an impact on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)? If yes, please explain:	YES	~~NO~~
Sites A and B were heavily disturbed previously. Site A was ploughed previously and the upper reach were excavated for gravel, but has not been tilled for a number of years now (about 3 years). Most of site B was heavily disturbed several years ago, but several species has also been re-established on the site. Both the renosterveld sites at C and D also consist of previously ploughed areas. Both areas have not been tilled for a number of years (about 3-5 years). No-go areas as determined in the Specialist studies and included in the EMP must be strictly adhered to. The only development to take place in the ESA is the upgrading and maintenance of the drainage line crossing (see above). Impacts of the proposed development can be easily mitigated by means of limiting the		

development outside water drainage areas, wetlands and the sites where threatened species are present. The threatened species fortunately all occur immediately next to the water drainage areas. The only mitigation action hence required is that establishment of the proposed apple orchards at sites A and B must ensure that the sensitive areas indicated on Map 4 are not negatively affected during the construction and operational phases. This mitigation action will also ratify the recommendation for the intersected ESA2 area.

Will the proposed development and its alternatives have an impact 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? If yes, please explain:	~~YES~~	NO

Impacts of the proposed development can be easily mitigated by means of limiting the development outside water drainage areas, wetlands and the sites where threatened species are present. The threatened species fortunately all occur immediately next to the water drainage areas. The only mitigation action hence required is that establishment of the proposed apple orchards at sites A and B must ensure that the sensitive areas indicated on Map 4 are not negatively affected during the construction and operational phases. This mitigation action will also ratify the recommendation for the intersected ESA2 area.

Describe the manner in which any other biological aspects will be impacted:

The overall freshwater ecological condition of the wetlands, drainage lines, dams and general remaining riparian habitats are deemed to be moderately to largely modified and the ecological importance and sensitivity low. However the functioning of the drainage lines and associated wetlands areas as assessed on sites A, B and D are important in maintaining current hydrological functioning and freshwater ecosystems on the sites and surrounds. These areas together with adequate buffer areas have therefore been delineated as no-go areas and are recommended to be demarcated by a land surveyor as no-development areas before site clearance commences and remain demarcated throughout the operational phase of the proposed activities to ensure ongoing protection of these areas.

Will the proposed development also trigger section 63 of the NEM: ICMA?	~~YES~~	NO

If yes, describe the following:
(i) the extent to which the applicant has in the past complied with similar authorisations;
(ii) whether coastal public property, the coastal protection zone or coastal access land will be affected, and if so, the extent to which the proposed development proposal or listed activity is consistent with the purpose for establishing and protecting those areas;
(iii) the estuarine management plans, coastal management programmes, coastal management lines and coastal management objectives applicable in the area;
(iv) the likely socio-economic impact if the listed activity is authorised or is not authorised;
(v) the likely impact of coastal environmental processes on the proposed development;
(vi) whether the development proposal or listed activity—
(a) is situated within coastal public property and is inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations;
(b) is situated within the coastal protection zone and is inconsistent with the purpose for which a coastal protection zone is established as set out in section 17 of NEM: ICMA;
(c) is situated within coastal access land and is inconsistent with the purpose for which coastal access land is designated as set out in section 18 of NEM: ICMA;
(d) is likely to cause irreversible or long-lasting adverse effects to any aspect of the coastal environment that cannot satisfactorily be mitigated;
(e) is likely to be significantly damaged or prejudiced by dynamic coastal processes;
(f) would substantially prejudice the achievement of any coastal management objective; or
(g) would be contrary to the interests of the whole community;
(vii) whether the very nature of the proposed activity or development requires it to be located within coastal public property, the coastal protection zone or coastal access land;
(viii) whether the proposed development will provide important services to the public when using coastal public property, the coastal protection zone, coastal access land or a coastal protected area; and
(ix) the objects of NEM: ICMA, where applicable.

NA

(c) Social and Economic aspects:

What is the expected capital value of the project on completion?	unknown	
What is the expected yearly income or contribution to the economy that will be generated by or as a result of the project?	unknown	
Will the project contribute to service infrastructure?	~~YES~~	NO

Is the project a public amenity?	~~YES~~	NO
How many new employment opportunities will be created during the development phase?	unknown	
What is the expected value of the employment opportunities during the development phase?	unknown	
What percentage of this will accrue to previously disadvantaged individuals?	100%	

How will this be ensured and monitored (please explain):
NA

How many permanent new employment opportunities will be created during the operational phase of the project?	Additional irrigation expansion of 16.5 ha could therefore create 24 primary and 16 downstream job opportunities. In addition to this, the expansion would assist to maintain the existing employment opportunities on the farm in the long term, due to the production operations becoming more economically viable.
What is the expected current value of the employment opportunities during the first 10 years?	unknown
What percentage of this will accrue to previously disadvantaged individuals?	100%

How will this be ensured and monitored (please explain):
Vacation Station (Pty) Ltd is 51% black-owned, as defined in the Broad-Based Black Economic Empowerment Act, Act No. 53 of 2003. One third (33.3%) of Vacation Station is owned by the Two-a-Day Farmworkers Trust, while the balance of black ownership is made up out of black equity within the Two-a-Day Group. Vacation Station (Pty) Ltd is the owner of Corner Farm, namely Portion 7 of Farm No. 466, Division Caledon. Vacation Station has 619 beneficiaries – all of these beneficiaries are the permanent employees of the producers in the Two-a-Day Group. This company is the vehicle for the empowerment project of the Two-a-Day producers and their farm workers, and the intention is to obtain more land and water rights and put up to 500 ha of land into the production of high value fruit crops. It is intended that the proportional benefit to the beneficiaries will grow substantially over time. The new employees will see a socio-economic benefit in the form of access to salaries and the concomitant economic empowerment. In addition to this, the beneficiaries of the Two-a-Day Farmworkers' Trust will receive dividends in the future, when the project becomes profitable.
Any other information related to the manner in which the socio-economic aspects will be impacted:
The applicant makes a contribution to socio-economic development, by facilitating the following benefits: i. Employment creation; ii. Economic empowerment of employees; iii. Training and skills development; iv. Employee food security; and v. Transport. Please see a discussion of the socio-economic benefits below. **Employment creation** Apples have the capacity to create 1.25 primary and 0.83 downstream jobs per hectare and pears have the capacity to create 1.26 primary and 0.83 jobs per hectare (Bureau for Agricultural Policy, 2011). Additional irrigation expansion of 16.5 ha could therefore create 24 primary and 16 downstream job opportunities. In addition to this, the expansion would assist to maintain the existing employment opportunities on the farm in the long term, due to the production operations becoming more economically viable. Additional short term employment would also be needed in the first two years, in order to assist with orchard establishment. **Economic empowerment of employees** The new employees will see a socio-economic benefit in the form of access to salaries and the concomitant economic empowerment. In addition to this, the beneficiaries of the Two-a-Day Farmworkers' Trust will receive dividends in the future, when the project becomes profitable.

Training and skills development
All employees will receive accredited training by Two-a-Day at the Grabouw Skills Centre as and when it is required. This includes training for unskilled and semi-skilled individuals.

Employee food security
The additional plantings will allow new jobs to be created, which would in turn increase the food security of these individuals. The growth of the project in itself will also increase security of employment, and hence food security, of the individuals involved in the project. Further to this, the production of apples and pears for the local market would also add to food security on a local level.

Transport
Employees do not live on the farm; therefore they will receive transport to and from the farm on a daily basis. Perhaps the biggest socio-economic impact of the authorisation will be the positive impact on the livelihoods of the families of employees on the farms, including youth, women and the elderly.

(d) Heritage and Cultural aspects:

Notice of Intent to Develop has been submitted to Heritage Western Cape to determine impacts and specialist studies required in terms of cultural and historical aspects potentially to be impacted upon. HWC has comment:

"You are hereby notified that since there is no reason to believe that the proposed vegetation and cultivation will impact on heritage resources, no further action under section 38 of the National Heritage Resources Act (act 25 of 1999) is required. However, should any heritage resources, including evidence of graves and human burials, archaeological material and paleontological material be discovered during the excavation of the activities above, all works must be stopped immediately and Heritage Western cape must be notified without delay."

2. WASTE AND EMISSIONS

(a) Waste (including effluent) management

Will the development proposal produce waste (including rubble) during the development 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
NA		

Will the development proposal 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
NA		

Will the development proposal require waste to be treated / disposed of on site?	~~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 per phase of the proposed development to be treated/disposed of?		m^3
NA		
If no, where and how will the waste be treated / disposed of? Please explain. Indicate the types of waste (actual type of waste, *e.g.* oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of?		m^3
NA		
Has the municipality or relevant authority confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal? If yes, provide written confirmation from the municipality or relevant authority.	~~YES~~	~~NO~~
Will the development proposal produce waste that 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 the development proposal? Provide written confirmation from the facility.	~~YES~~	~~NO~~

Does the facility have an operating license? (If yes, please attach a copy of the licence.)	~~YES~~	~~NO~~
Facility name:		
Contact person:		
Cell:	Postal address:	
Telephone:	Postal code:	
Fax:	E-mail:	

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

(b) Emissions into the atmosphere

Will the development proposal produce emissions that will be released into the atmosphere?	~~YES~~	NO
If yes, does this require approval in terms of relevant legislation?	~~YES~~	NO
If yes, what is the approximate volume(s) of emissions released into the atmosphere?	NA	m^3
Describe the emissions in terms of type and concentration and how these will be avoided/managed/treated/mitigated:		
NA		

3. WATER USE

(a) Indicate the source(s) of water for the development proposal by highlighting the appropriate box(es).

~~Municipal~~	~~Water board~~	~~Groundwater~~	River, Stream, Dam or Lake	~~Other~~	~~The project will not use water~~

Note: Provide proof of assurance of water supply (e.g. Letter of confirmation from the municipality / water user associations, yield of borehole)

(b) If water is to be extracted from a groundwater source, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	10562.5	m^3

There is a dam on the property, which is authorised under Section 21(b) of the National Water Act to store 700 000 m^3 of water. The dam is registered as a Category II dam at the Dam Safety Office of the Department of Water and Sanitation (Ref. No. 12/2G401/AI).

The water user is also entitled to the taking of water in the amount of 198 576 m^3/annum from the dam. This water is used to irrigate 26 ha of apples and 5 ha of pears at 6500 m^3/ha/annum.

The water user now intends to apply for an additional 126 750 m^3, which would be sufficient to irrigate 19.5 ha of apples at 6500 m^3/ha/annum.

(c) Does the development proposal require a water use permit / license from DWS?	YES	~~NO~~

If yes, please submit the necessary application to the DWS and attach proof thereof to this application as an Appendix.

Existing lawful water uses for the property were determined during the Validation & Verification process of the Breede-Gouritz CMA. The existing lawful water uses on the property are as follows (copied from the BGCMA's letter dated 17 April 2015):

Section of NWA	**Type of water use**	**Existing lawful water use**		
		Volume	**Source**	**Irrigation board**
21(a)	Taking of water for irrigation purposes	198 576 m^3/a	Surface water	
21(b)	Storage of water	700 000 m^3		
21(a)	Taking of water for non-irrigation purposes	800 m^3/a	Surface water	

(d) Describe the measures that will be taken to reduce water demand, and measures to reuse or recycle water:

Vacation Station (Pty) Ltd currently provides its fruit to Two-a-day, partly for an export market, and as such it complies with various quality standards relating to ethical trading, sanitary requirements, phyto-sanitary requirements and otherwise (including Global GAP and SIZA). These standards require stringent compliance and annual inspection, ensuring that production takes place according to internationally accepted standards of public interest.

The commercial partners have extensive experience in irrigation farming, ensuring that water will be used efficiently and that these practices will be transferred to the project equity partners. It is also standard practice in the area to use highly efficient micro-irrigation systems to irrigate crops, by means of automatic irrigation scheduling. The irrigation practices of Vacation Station comply with Nurture's Choice and EuroGAP standards.

4. POWER SUPPLY

(a) Describe the source of power *e.g.* municipality / Eskom / renewable energy source.

NA

(b) If power supply is not available, where will power be sourced?

NA

5. ENERGY EFFICIENCY

(a) Describe the design measures, if any, that have been taken to ensure that the development proposal will be energy efficient:

NA

(b) Describe how alternative energy sources have been taken into account or been built into the design of the project, if any:

NA

6. TRANSPORT, TRAFFIC AND ACCESS

Describe the impacts in terms of transport, traffic and access.

The proposed development constitutes EXPANSION of the existing activities conducted on the Farm and will not affect the current transport, traffic and access.

7. NUISANCE FACTOR (NOISE, ODOUR, etc.)

Describe the potential nuisance factor or impacts in terms of noise and odours.

NA The proposed development constitutes EXPANSION of the existing activities conducted on the Farm and will be similar to the existing noise and odours generated from the Farm.

Note: Include impacts that the surrounding environment will have on the proposed development.

8. OTHER

NA

SECTION G: IMPACT ASSESSMENT, IMPACT AVOIDANCE, MANAGEMENT, MITIGATION AND MONITORING MEASURES

1. METHODOLOGY USED IN DETERMINING AND RANKING ENVIRONMENTAL IMPACTS AND RISKS ASSOCIATED WITH THE ALTERNATIVES

(a) Describe the **methodology** used in determining and ranking the nature, significance consequences, extent, duration and probability of potential environmental impacts and risks associated with the proposed development and alternatives.

The assessment criteria were developed based on the Department of Environmental Affair's Integrated Environmental Management Series guideline documents.

Criteria	Description

Nature	a description of what causes the effect, what will be affected, and how it will be affected.		
	Type	**Score**	**Description**
Extent (E)	None (No)	1	Footprint
	Site (S)	2	On site or within 100 m of the site
	Local (L)	3	Within a 20 km radius of the centre of the site
	Regional (R)	4	Beyond a 20 km radius of the site
	National (Na)	5	Crossing provincial boundaries or on a national / land wide scale
Duration (D)	Short term (S)	1	0 – 1 years
	Short to medium (S-M)	2	2 – 5 years
	Medium term (M)	3	5 – 15 years
	Long term (L)	4	> 15 years
	Permanent(P)	5	Will not cease
Magnitude (M)	Small (S)	0	will have no effect on the environment
	Minor (Mi)	2	will not result in an impact on processes
	Low (L)	4	will cause a slight impact on processes
	Moderate (Mo)	6	processes continuing but in a modified way
	High (H)	8	processes are altered to the extent that they temporarily cease
	Very high (VH)	10	results in complete destruction of patterns and permanent cessation of processes.
Probability (P) the likelihood of the impact actually occurring. Probability is estimated on a scale, and a score assigned	Very improbable (VP)	1	probably will not happen
	Improbable (I)	2	some possibility, but low likelihood
	Probable (P)	3	distinct possibility
	Highly probable (HP)	4	most likely
	Definite (D)	5	impact will occur regardless of any prevention measures
Significance (S)	Determined through a synthesis of the characteristics described above: **S = (E+D+M) x P** Significance can be assessed as low, medium or high		
Low: < 30 points:	The impact would not have a direct influence on the decision to develop in the area		
Medium: 30 – 60 points:	The impact could influence the decision to develop in the area unless it is effectively mitigated		
High: < 60 points:	The impact must have an influence on the decision process to develop in the area		
No significance	When no impact will occur or the impact will not affect the environment		
Status	Positive (+)		Negative (-)
The degree to which the impact can be reversed	Completely reversible (R)	90-100%	The impact can be mostly to completely reversed with the implementation of the correct mitigation and rehabilitation measures.
	Partly reversible (PR)	6-89%	The impact can be partly reversed providing that mitigation measures as stipulated in the EMP are implemented and rehabilitation measures are undertaken
	Irreversible (IR)	0-5%	The impact cannot be reversed, regardless of the mitigation or rehabilitation measures taking place
The degree to which the impact may cause irreplaceable loss of resources	Resource will not be lost (R)	1	The resource will not be lost or destroyed provided that mitigation and rehabilitation measures as stipulated in the EMP are implemented
	Resource may be partly destroyed (PR)	2	Partial loss or destruction of the resources will occur even though all management and mitigation measures as stipulated in the EMP are implemented
	Resource cannot be replaced (IR)	3	The resource cannot be replaced no matter which management or mitigation measures are implemented.
The degree to which the impact can be mitigated	Completely mitigatable (CM)	1	The impact can be completely mitigated providing that all management and mitigation measures as stipulated in the EMP are implemented
	Partly mitigatable (PM)	2	The impact cannot be completely mitigated even though all management and mitigation measures as stipulated in the EMP are implemented. Implementation of these measures will provide a measure of mitigatibility
	Un-mitigatable (UM)	3	The impact cannot be mitigated no matter which management or mitigation measures are implemented.

(b) Please describe any gaps in knowledge.

EAP is only knowledgeable with regards to the environmental and ecosystems aspects.

(c) Please describe the underlying assumptions.

In undertaking the investigation and compiling this report, the following has been assumed:

- The information provided by the client is accurate and unbiased;
- The scope of this investigation is to assess the direct and cumulative environmental impacts

associated with the development; and
- Should the proposed project be authorised, the applicant will incorporate the recommendations and mitigation measures outlined in this BAR, the EMPr, MMP and the EA into the detailed design and construction contract specifications and operational management system for the proposed project.

(d) Please describe the uncertainties.

None at this stage.

(e) Describe adequacy of the assessment methods used.

Based on the EAP's assessment information was provided to address the concerns and assess the impacts of the proposed development on the environment. Information as provided by the applicant and as collected by the EAP during site surveys etc. has been used to inform the current development proposal.

2. IDENTIFICATION, ASSESSMENT AND RANKING OF IMPACTS TO REACH THE PROPOSED ALTERNATIVES INCLUDING THE PREFERRED ALTERNATIVE WITHIN THE SITE

Note: In this section the focus is on the identified issues, impacts and risks that influenced the identification of the alternatives. This includes how aspects of the receiving environment have influenced the selection.

(a) List the identified impacts and risks for each alternative.

Vegetation Clearing	
Alternative 1 [LA 1] (PREFERRED):	**DEVELOPMENT PHASE** • Soil and Dust Erosion • Loss of threatened plant populations • Impact on sensitive environments (rivers, wetlands etc.) • Increased Jobs • The potential impact of the proposed development on archaeological, paleontological and heritage remains. **OPERATIONAL PHASE** • Soil and Dust Erosion • Loss of threatened plant populations • Impact on sensitive environments (rivers, wetlands etc.) • Increased Jobs • The potential impact of the proposed development on archaeological, paleontological and heritage remains. **DECOMMISSIONING AND CLOSURE PHASE** • Soil and Dust Erosion • Loss of threatened plant populations • Impact on sensitive environments (rivers, wetlands etc.) • Increased Jobs • The potential impact of the proposed development on archaeological, paleontological and heritage remains.
Alternative 2 [LA 2]:	**DEVELOPMENT PHASE** • Soil and Dust Erosion • Loss of threatened plant populations • Impact on sensitive environments (rivers, wetlands etc.) • Increased Jobs

	• The potential impact of the proposed development on archaeological, paleontological and heritage remains. **OPERATIONAL PHASE** • Soil and Dust Erosion • Loss of threatened plant populations • Impact on sensitive environments (rivers, wetlands etc.) • Increased Jobs • The potential impact of the proposed development on archaeological, paleontological and heritage remains. **DECOMMISSIONING AND CLOSURE PHASE** • Soil and Dust Erosion • Loss of threatened plant populations • Impact on sensitive environments (rivers, wetlands etc.) • Increased Jobs • The potential impact of the proposed development on archaeological, paleontological and heritage remains.
Drainage Line Crossing	
Alternative 1 (PREFERRED):	**DEVELOPMENT PHASE** • Soil and Dust Erosion • Loss of threatened plant populations • Impact on sensitive environments (rivers, wetlands etc.) • Increased Jobs • The potential impact of the proposed development on archaeological, paleontological and heritage remains. **OPERATIONAL PHASE** • Soil and Dust Erosion • Loss of threatened plant populations • Impact on sensitive environments (rivers, wetlands etc.) • Increased Jobs • The potential impact of the proposed development on archaeological, paleontological and heritage remains. **DECOMMISSIONING AND CLOSURE PHASE** • Soil and Dust Erosion • Loss of threatened plant populations • Impact on sensitive environments (rivers, wetlands etc.) • Increased Jobs • The potential impact of the proposed development on archaeological, paleontological and heritage remains.
Alternative 2:	**DEVELOPMENT PHASE** • Soil and Dust Erosion • Loss of threatened plant populations • Impact on sensitive environments (rivers, wetlands etc.) • Increased Jobs • The potential impact of the proposed development on archaeological, paleontological and heritage remains. **OPERATIONAL PHASE** • Soil and Dust Erosion

	• Loss of threatened plant populations • Impact on sensitive environments (rivers, wetlands etc.) • Increased Jobs • The potential impact of the proposed development on archaeological, paleontological and heritage remains. **DECOMMISSIONING AND CLOSURE PHASE** • Soil and Dust Erosion • Loss of threatened plant populations • Impact on sensitive environments (rivers, wetlands etc.) • Increased Jobs • The potential impact of the proposed development on archaeological, paleontological and heritage remains.
No-go Alternative:	The No-Go option will result in the sites remaining as is presently.

(b) Describe the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts can be reversed; may cause irreplaceable loss of resources; and can be avoided, managed or mitigated.

The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. (The EAP has to select the relevant impacts identified in blue in the table below for each alternative and repeat the table for each impact and risk).

Note: The EAP may decide to include this section as Appendix J to the BAR.

PLEASE SEE - APPENDIX J

(c) Provide a summary of the site selection matrix.

Vegetation Clearing:
Layout Alternative 1 [LA 1] (PREFERRED) ~ *Clearing, establishment and cultivation of apple orchards on sites A - D with a collective development footprint of 16.5ha.*

This layout alternative is preferred as it takes into account the recommendations and mitigation measures in the specialist studies by the implementation of no-go areas as delineated in the specialist reports to protect the sensitive botanical and wetland areas adjacent to development sites A, B and D.

Layout Alternative 2 - [LA 2] ~ *Clearing, establishment and cultivation of apple orchards on sites A - D with a collective development footprint of 19.6ha.*

This layout is NOT preferred as the margins of the proposed development areas A, B and D intersect sensitive botanical and wetland areas. The layout does not exclude the no-go areas as delineated by the specialist reports and will therefore severely impact on the adjacent sensitive botanical and wetland areas.

Drainage Line Crossing:
Alternative 1 - Upper Crossing (PREFERRED)
Upgrading the existing upper drainage line crossing will have the least potential impacts and maintenance requirements. The design and specifications of the crossing to be approved by BGCMA. The crossing design must allow for free flow and be able to accommodate the 1:50 year flood event without causing erosion, eroding itself or being washed away.

Please note that the applicable section 21 application in terms of the NWA has been submitted to BGCMA - through consultation with BGCMA the design specifications for the upper drainage line crossing will be determined. The application is still in process. Please see BGCMA's comments in Appendix F of the Draft BAR.

Alternative 2 - Lower Crossing
This crossing compared to the preferred crossing above would have a much larger affect / impact on the drainage line and would require much more maintenance should it be considered. This

crossing was constructed at one of the widest points in the drainage line and has since washed away at the eastern end of the crossing and can no longer be used. This upgrading of this crossing would require more infrastructure / infill to be placed in the watercourse to create a structure that would be safe and would not be washed away in a flood event. As such this alternative should not be considered as viable.

(d) Outcome of the site selection matrix.

Vegetation Clearing:
Layout Alternative 1 [LA 1] (PREFERRED) ~ *Clearing, establishment and cultivation of apple orchards on sites A - D with a collective development footprint of 16.5ha.*

This layout alternative is preferred as it takes into account the recommendations and mitigation measures in the specialist studies by the implementation of no-go areas as delineated in the specialist reports to protect the sensitive botanical and wetland areas adjacent to development sites A, B and D.

Drainage Line Crossing:
Alternative 1 - Upper Crossing (PREFERRED)
Upgrading the existing upper drainage line crossing will have the least potential impacts and maintenance requirements. The design and specifications of the crossing to be approved by BGCMA. The crossing design must allow for free flow and be able to accommodate the 1:50 year flood event without causing erosion, eroding itself or being washed away.

Please note that the applicable section 21 application in terms of the NWA has been submitted to BGCMA - through consultation with BGCMA the design specifications for the upper drainage line crossing will be determined. The application is still in process. Please see BGCMA's comments in Appendix F of the Draft BAR.

3. SPECIALIST INPUTS/STUDIES, FINDINGS AND RECOMMENDATIONS

Note: Specialist inputs/studies must be attached to this report as **Appendix G** and must comply with the content requirements set out in Appendix 6 of the EIA Regulations, 2014 (as amended). Also take into account the Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "*One Environmental Management System*" and the EIA Regulations, 2014, any subsequent Circulars, and guidelines available on the Department's website (**http://www.westerncape.gov.za/eadp**).

Provide a summary of the findings and impact management measures identified in any specialist report and an indication of how these findings and recommendations have been included in the BAR.

Botanical Impact Assessment ~JH Vlok, 2017
Only the margins of the proposed development areas A and B intersects sensitive botanical and wetland areas. No sensitive areas are intersected by the proposed development areas C & D.

Despite being located immediately to a World Heritage site, there is no indication that the proposed establishment of additional apple orchards holds an immediate threat to the adjacent nature reserve. The current apple orchards bordering the nature reserve seems to have minimal effect on the vegetation of the adjacent nature reserve.

Impacts of the proposed development can be easily mitigated by means of limiting the development outside water drainage areas, wetlands and the sites where threatened species are present. The threatened species fortunately all occur immediately next to the water drainage areas. The only mitigation action hence required is that establishment of the proposed apple orchards at sites A and B must ensure that the sensitive areas indicated on Map 4 are not negatively affected during the construction and operational phases. This mitigation action will also ratify the recommendation for the intersected ESA2 area.

Map 4: The sensitive areas that should not be disturbed are outlined in red.

Freshwater Ecological Impact Assessment ~ Eco Impact Legal Consulting, 2017

The overall freshwater ecological condition of the wetlands, drainage lines, dams and general remaining riparian habitats are deemed to be moderately to largely modified and the ecological importance and sensitivity low. However the functioning of the drainage lines and associated wetlands areas as assessed on sites A, B and D are important in maintaining current hydrological functioning and freshwater ecosystems on the sites and surrounds. These areas together with adequate buffer areas have therefore been delineated as no-go areas and are recommended to be demarcated by a land surveyor as no-development areas before site clearance commences and remain demarcated throughout the operational phase of the proposed activities to ensure ongoing protection of these areas. Refer to figures 7.1 and 7.2 below for delineation of the recommended no-go areas.

The only development activity allowed within these areas is the upgrade and maintenance associated with the higher lying drainage line crossing to gain access to site B. Before the drainage line crossing is upgraded a design that meets the required specifications approved by BGCMA must be submitted and approved for this crossing. The design must allow for free flow and be able to accommodate the 1:50 year flood event without causing erosion, eroding itself or being washed away. The materials to be used and design of the formal drainage line crossing must also not lead to erosion of the crossing and surrounds. The construction and maintenance of this crossing must take place under the guidance of an Environmental Management Plan ("EMP"). An Environmental Control Officer ("ECO") must be appointed before construction commences to ensure that all requirements of the EMP are being implemented and monitor compliance throughout the construction and maintenance/operational phases. A detailed construction method statement must be provided by the developer/landowner to be approved by the ECO before commencement and must describe how construction activities will be implemented to ensure compliance with the EMP. The associated impacts of construction and maintenance/operation of this crossing must be strictly managed and kept to minimum as far as possible.

Any areas disturbed within the recommended no-go areas must be rehabilitated immediately throughout the construction and operational phases to the satisfaction of the appointed Environmental Control Officer.

Cumulatively, the potential impacts of the proposed activities to be undertaken on the freshwater ecosystems remaining on site will be of low negative significance if the above mentioned and below recommendations are implemented:

Construction phase:

- Construction activities must be controlled and restricted to the development footprint only.
- The proposed drainage line crossing must be located on the existing crossing footprint as far as possible.
- The construction area and all proposed no-go areas must be demarcated before construction starts and remain demarcated throughout construction phase.
- The construction activities must be monitored by an Environmental Control Officer.
- Work within the stream channel during construction of the crossing should be limited as far as possible and rehabilitated immediately afterwards, where the banks are reshaped as according to surrounding contours and rubble is removed from the stream and banks.
- All disturbed areas should receive ongoing monitoring and management of erosion and invasive plant growth.
- Construction work (i.e. construction of drainage line crossing and establishment or orchards – site clearance) must be carried out in the low rainfall season (mid to late summer) and completed in that low rainfall season to minimise the impact on the flow in the drainage line and runoff into the wetland areas.
- The new drainage line crossing must allow free flow and be able to accommodate at least the 1:50 year flood event and must not erode or cause erosion of the site and surrounds.
- All rubble and waste debris that has resulted from the clearing and demolition of the existing structures in the river channel should be removed out of the river channel, its banks and the riparian buffer zone.
- The riparian and wetland vegetation cover should be disturbed as little as possible during the construction of the drainage line crossing and may not be disturbed at all within the proposed no-go areas.
- Access to roads and other areas must be controlled to avoid disturbance of areas outside the development footprint. Personnel should be restricted to the immediate construction areas only.
- Monitor construction areas frequently for signs of erosion and if signs of erosion are detected implement repair and preventative measures immediately.
- Care should be taken that any soil used for construction or orchard establishment purposes that is brought onto the site does not contain the seeds of alien invasive plants.
- Ablution facilities should be available for construction workers, should be located outside the riparian and wetland zones and should be regularly serviced.
- Proper on-site management for the storage and use of materials waste and pesticides/weed killers to prevent any potential pollution of the drainage lines, wetlands and dams should be addressed in the Environmental Management Plan for the project.

Operational phase:

- All no-go areas must remain demarcated throughout the operational phase. Demarcation must be by means of basic fence i.e. standard wooden droppers with 1 to 2 wire strands.
- Should any disturbance i.e. erosion occur within the no-go areas the affected areas should immediately be rehabilitated and prevention measures must be put in place to ensure that the disturbance does not happen again.
- All alien invasive plant species must be removed and managed on an ongoing basis from the no-go areas. Removal of alien invasive plant species must take place according to CapeNature approved methods, having the least negative impact on the environment.
- The drainage line flow must not be impeded and should be kept clean of woody debris or rubble and where necessary nuisance plant growth should it occur.
- Monitoring and clearing of blockages within the stream channel will need to be undertaken on an ongoing basis. Clearing of debris and nuisance growth of plants within the channel if necessary should also be undertaken by hand during the low/no flow period.
- Current stormwater runoff flow to wetland areas may not be impeded by the proposed orchards and adequate stormwater channels must be constructed and maintained throughout the proposed development areas to maintain current runoff conditions without leading to erosion.
- Only use one existing access road to the sites for operational purposes and avoid disturbance of "new" areas outside the existing access road and infrastructure footprint.
- Rehabilitate or stabilise eroded areas immediately to prevent increase in erosion.
- During the early establishment phase of the drainage line crossing and orchard, ongoing

monitoring and control of the growth of invasive alien plants will be necessary as it will be easier to remove the young invasive alien plants.

- Fertilisers used within the proposed orchards/cultivated lands must not contain any weed or alien invasive plant species seeds.
- Monitoring and clearing of alien invasive plants along the banks and within the streams and wetlands will need to be undertaken on an ongoing basis according to the applicable recognised CapeNature approved methods for clearing of alien invasive plant growth.
- Ablution facilities should be available for operational workers, should be located outside the riparian and wetland zones and should be regularly serviced.
- Proper on-site management for the storage and use of materials waste and pesticides/weed killers to prevent any potential pollution of the drainage lines, wetlands and dams should be addressed in the Environmental Management Plan for the project.

These measures should be addressed, implemented and monitored in terms of the EMP for the construction and operational phases.

The Breede Gouritz Catchment Management Agency should be approached for comment on the water use aspects of the proposed activities that may need to be authorised. The proposed works within the drainage line may be deemed to be changing the characteristics of the streams and may therefore require authorization by this Department.

Figure 7.1: Demarcated no-go drainage lines and wetland areas at Sites A and B.

4. ENVIRONMENTAL IMPACT STATEMENT

Provide an environmental impact statement of the following:

(i) A summary of the key findings of the EIA.

Positive:

- Employment opportunities (construction and operational)

Negative:

- Soil erosion and dust
- Increase in stormwater runoff
- Loss of threatened plant populations
- Impact on sensitive environments (drainage line, wetlands etc.)
- Impact of the proposed development on archaeological, paleontological and heritage remains

The No-Go option will result in the site remaining as is presently.

(ii) Has a map of appropriate scale been provided, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers?	YES	~~NO~~

(iii) A summary of the positive and negative impacts that the proposed development and alternatives will cause in the environment and community.

VEGETATION CLEARING: LAYOUT ALTERNATIVE 1 [LA 1] (PREFERRED)

DEVELOPMENT PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

OPERATIONAL PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

DECOMMISSIONING AND CLOSURE PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

VEGETATION CLEARING: LAYOUT ALTERNATIVE 2 - [LA 2]

DEVELOPMENT PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

OPERATIONAL PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

DECOMMISSIONING AND CLOSURE PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs

- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

DRAINAGE LINE CROSSING: ALTERNATIVE 1 - UPPER CROSSING (PREFERRED)

DEVELOPMENT PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

OPERATIONAL PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

DECOMMISSIONING AND CLOSURE PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

DRAINAGE LINE CROSSING: ALTERNATIVE 2 - LOWER CROSSING

DEVELOPMENT PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

OPERATIONAL PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

DECOMMISSIONING AND CLOSURE PHASE

- Soil and Dust Erosion
- Loss of threatened plant populations
- Impact on sensitive environments (rivers, wetlands etc.)
- Increased Jobs
- The potential impact of the proposed development on archaeological, paleontological and heritage remains.

5. IMPACT MANAGEMENT, MITIGATION AND MONITORING MEASURES

(a) Based on the assessment, describe the impact management, mitigation and monitoring measures as well as the impact management objectives and impact management outcomes included in the EMPr. The EMPr must be attached to this report as Appendix H.

The key mitigation measure is impact avoidance. Where adverse impacts cannot reasonably be prevented, construction should be managed through the effective implementation of the Construction EMPr with a strong emphasis on post-construction rehabilitation. Please refer to the EMPr for more details on the mitigation and management measures.

(b) Describe any provisions for the adherence to requirements that are prescribed in a Specific Environmental Management Act relevant to the listed activity or specified activity in question.

Also note that the following activities trigger water uses in terms of the National Water Act, 1998 (Act 36 of 1998):
1.Section 21. A. The taking of water from a water resource (Dam)
2.Section 21. C and I. Impeding and diverting the flow of water from a watercourse.

See attached proof of submission of WULA for S.21a as well as the response received from BGCMA. The WULA for S.21c and i was submitted on the 04 April 2018 (see Appendix E4), BGCMA have acknowledged that the applications are in process (see comments in Appendix F).

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

The applicant is ultimately responsible for the implementation of the EMPr and MMP and the financial cost of all environmental control measures. In accordance with the requirements of the EMPr and MMP, the applicant must ensure that any person acting on their behalf complies with the conditions / specifications contained in this EMPr and MMP. In addition, an Environmental Control Officer would be appointed as the on-site implementing agent and would have the responsibility to ensure that their responsibilities are executed in compliance with the EMPr and MMP. Thus, the applicant has the ability to implement the recommended management, mitigation, and monitoring measures, as appropriate.

(d) Provide the details of any financial provisions for the management of negative environmental impacts, rehabilitation and closure of the proposed development.

Not applicable.

(e) Provide the details of any financial provisions for the management of negative environmental impacts, rehabilitation and closure of the proposed development.

Not applicable.

(f) Describe any assumptions, uncertainties, and gaps in knowledge which relate to the impact management, mitigation and monitoring measures proposed.

EAP is only knowledgeable with regards to the environmental impacts, biodiversity and ecosystems aspects.

In undertaking the investigation and compiling this report, the following has been assumed:

- The information provided by the client is accurate and unbiased;
- The scope of this investigation is to assess the direct and cumulative environmental impacts associated with the development; and
- Should the proposed project be authorised, the applicant will incorporate the recommendations

and mitigation measures outlined in this BAR, the EMP and the EA into the detailed design and construction contract specifications and operational management system for the proposed project.

SECTION H: RECOMMENDATIONS OF THE EAP AND SPECIALISTS

(a) In my view as the appointed EAP, the information contained in this BAR and the documentation attached hereto is sufficient to make a decision in respect of the listed activity(ies) applied for.	YES	~~NO~~

(b) If the documentation attached hereto is sufficient to make a decision, please indicate below whether, in your opinion, the listed activity(ies) should or should not be authorised:		
Listed activity(ies) should be authorised:	YES	~~NO~~

Provide reasons for your opinion

All possible impacts on the environment have been assessed and can be mitigated and managed. The assessment did not lead to any fatal flaws if the development is approved, provided that the facility is operated in terms of all relevant applicable legislation and the EMPr and MMP management activities implemented.

(c) Provide a description of any aspects that were conditional to the findings of the assessment by the EAP and Specialists which are to be included as conditions of authorisation.

- The relevant water use licences must be obtained from the department of water and sanitation.
- The monitoring and management requirements that will be captured in the Water Use Authorization issued by the Department of Water and Sanitation to protect water resource.

The overall freshwater ecological condition of the wetlands, drainage lines, dams and general remaining riparian habitats are deemed to be moderately to largely modified and the ecological importance and sensitivity low. However the functioning of the drainage lines and associated wetlands areas as assessed on sites A, B and D are important in maintaining current hydrological functioning and freshwater ecosystems on the sites and surrounds. These areas together with adequate buffer areas have therefore been delineated as no-go areas and are recommended to be demarcated by a land surveyor as no-development areas before site clearance commences and remain demarcated throughout the operational phase of the proposed activities to ensure ongoing protection of these areas. Refer to figures 7.1 and 7.2 below for delineation of the recommended no-go areas.

The only development activity allowed within these areas is the upgrade and maintenance associated with the higher lying drainage line crossing to gain access to site B. Before the drainage line crossing is upgraded a design that meets the required specifications approved by BGCMA must be submitted and approved for this crossing. The design must allow for free flow and be able to accommodate the 1:50 year flood event without causing erosion, eroding itself or being washed away. The materials to be used and design of the formal drainage line crossing must also not lead to erosion of the crossing and surrounds. The construction and maintenance of this crossing must take place under the guidance of an Environmental Management Plan ("EMP"). An Environmental Control Officer ("ECO") must be appointed before construction commences to ensure that all requirements of the EMP are being implemented and monitor compliance throughout the construction and maintenance/operational phases. A detailed construction method statement must be provided by the developer/landowner to be approved by the ECO before commencement and must describe how construction activities will be implemented to ensure compliance with the EMP. The associated impacts of construction and maintenance/operation of this crossing must be strictly managed and kept to minimum as far as possible.

Any areas disturbed within the recommended no-go areas must be rehabilitated immediately throughout the construction and operational phases to the satisfaction of the appointed Environmental Control Officer.

Cumulatively, the potential impacts of the proposed activities to be undertaken on the freshwater ecosystems remaining on site will be of low negative significance if the above mentioned and below recommendations are implemented:

Construction phase:

- Construction activities must be controlled and restricted to the development footprint only.
- The proposed drainage line crossing must be located on the existing crossing footprint as far as possible.
- The construction area and all proposed no-go areas must be demarcated before construction starts and remain demarcated throughout construction phase.
- The construction activities must be monitored by an Environmental Control Officer.
- Work within the stream channel during construction of the crossing should be limited as far as possible and rehabilitated immediately afterwards, where the banks are reshaped as according to surrounding contours and rubble is removed from the stream and banks.
- All disturbed areas should receive ongoing monitoring and management of erosion and invasive plant growth.
- Construction work (i.e. construction of drainage line crossing and establishment or orchards – site clearance) must be carried out in the low rainfall season (mid to late summer) and completed in that low rainfall season to minimise the impact on the flow in the drainage line and runoff into the wetland areas.
- The new drainage line crossing must allow free flow and be able to accommodate at least the 1:50 year flood event and must not erode or cause erosion of the site and surrounds.
- All rubble and waste debris that has resulted from the clearing and demolition of the existing structures in the river channel should be removed out of the river channel, its banks and the riparian buffer zone.
- The riparian and wetland vegetation cover should be disturbed as little as possible during the construction of the drainage line crossing and may not be disturbed at all within the proposed no-go areas.
- Access to roads and other areas must be controlled to avoid disturbance of areas outside the development footprint. Personnel should be restricted to the immediate construction areas only.
- Monitor construction areas frequently for signs of erosion and if signs of erosion are detected implement repair and preventative measures immediately.
- Care should be taken that any soil used for construction or orchard establishment purposes that is brought onto the site does not contain the seeds of alien invasive plants.
- Ablution facilities should be available for construction workers, should be located outside the riparian and wetland zones and should be regularly serviced.
- Proper on-site management for the storage and use of materials waste and pesticides/weed killers to prevent any potential pollution of the drainage lines, wetlands and dams should be addressed in the Environmental Management Plan for the project.

Operational phase:

- All no-go areas must remain demarcated throughout the operational phase. Demarcation must be by means of basic fence i.e. standard wooden droppers with 1 to 2 wire strands.
- Should any disturbance i.e. erosion occur within the no-go areas the affected areas should immediately be rehabilitated and prevention measures must be put in place to ensure that the disturbance does not happen again.
- All alien invasive plant species must be removed and managed on an ongoing basis from the no-go areas. Removal of alien invasive plant species must take place according to CapeNature approved methods, having the least negative impact on the environment.
- The drainage line flow must not be impeded and should be kept clean of woody debris or rubble and where necessary nuisance plant growth should it occur.
- Monitoring and clearing of blockages within the stream channel will need to be undertaken on an ongoing basis. Clearing of debris and nuisance growth of plants within the channel if necessary should also be undertaken by hand during the low/no flow period.
- Current stormwater runoff flow to wetland areas may not be impeded by the proposed orchards and adequate stormwater channels must be constructed and maintained throughout the proposed development areas to maintain current runoff conditions without leading to erosion.
- Only use one existing access road to the sites for operational purposes and avoid disturbance of "new" areas outside the existing access road and infrastructure footprint.
- Rehabilitate or stabilise eroded areas immediately to prevent increase in erosion.
- During the early establishment phase of the drainage line crossing and orchard, ongoing

monitoring and control of the growth of invasive alien plants will be necessary as it will be easier to remove the young invasive alien plants.

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These measures should be addressed, implemented and monitored in terms of the EMPr and MMP for the construction and operational phases.

The Breede Gouritz Catchment Management Agency should be approached for comment on the water use aspects of the proposed activities that may need to be authorised. The proposed works within the drainage line may be deemed to be changing the characteristics of the streams and may therefore require authorization by this Department.

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

Recommended that the EA prescribe that:

- Should any heritage artefacts be exposed during construction that all activities be stopped, and Heritage Western Cape contacted before any further action being permitted.
- The project implementation process should be subject to standard Environmental Management Programme prescripts and conditions under supervision of a competent and diligent ECO, during its construction and decommissioning phases.
- Independent auditing, monitoring and verification by a competent external environmental auditor during operations must be conducted at regular intervals to ensure compliance with the approved EA, EMPr, MMP, and Water Use Authorisation.

Freshwater Ecological Impact Assessment ~ Eco Impact Legal Consulting, 2017

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this crossing must be strictly managed and kept to minimum as far as possible.

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- Proper on-site management for the storage and use of materials, waste and pesticides/weed killers to prevent any potential pollution of the drainage lines, wetlands and dams should be addressed in the Environmental Management Plan for the project.

Operational phase:

- All no-go areas must remain demarcated throughout the operational phase. Demarcation must be by means of basic fence i.e. standard wooden droppers with 1 to 2 wire strands.
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- Monitoring and clearing of blockages within the stream channel will need to be undertaken

on an ongoing basis. Clearing of debris and nuisance growth of plants within the channel if necessary should also be undertaken by hand during the low/no flow period.

- Current stormwater runoff flow to wetland areas may not be impeded by the proposed orchards and adequate stormwater channels must be constructed and maintained throughout the proposed development areas to maintain current runoff conditions without leading to erosion.
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- Fertilisers used within the proposed orchards/cultivated lands must not contain any weed or alien invasive plant species seeds.
- Monitoring and clearing of alien invasive plants along the banks and within the streams and wetlands will need to be undertaken on an ongoing basis according to the applicable recognised CapeNature approved methods for clearing of alien invasive plant growth.
- Ablution facilities should be available for operational workers, should be located outside the riparian and wetland zones and should be regularly serviced.
- Proper on-site management for the storage and use of materials, waste and pesticides/weed killers to prevent any potential pollution of the drainage lines, wetlands and dams should be addressed in the Environmental Management Plan for the project.

These measures should be addressed, implemented and monitored in terms of the EMP for the construction and operational phases.

The Breede Gouritz Catchment Management Agency should be approached for comment on the water use aspects of the proposed activities that may need to be authorised. The proposed works within the drainage line may be deemed to be changing the characteristics of the streams and may therefore require authorization by this Department.

(e) Please indicate the recommended periods in terms of the following periods that should be specified in the environmental authorisation:

i.	the period within which commencement must occur;	5 years
ii.	the period for which the environmental authorisation is granted and the date on which the development proposal will have been concluded, where the environmental authorisation does not include operational aspects;	10 years
iii.	the period for which the portion of the environmental authorisation that deals with non-operational aspects is granted; and	10 years
iv.	the period for which the portion of the environmental authorisation that deals with operational aspects is granted.	Unlimited

SECTION I: APPENDICES

The following appendices must be attached to this report:

APPENDIX			Confirm that Appendix is attached
Appendix A:	**Locality map**		X
Appendix B:	**Site development plan(s)**		X
	A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;		X
Appendix C:	**Photographs**		X
Appendix D:	**Biodiversity overlay map**		X
Appendix E:	**Permit(s) / license(s) from any other Organ of State, including service letters from the municipality.**		X
	Appendix E1:	**Copy of comment from HWC.**	X
Appendix F:	**Public participation information: including a copy of the register of I&APs, the comments and responses report, proof of notices, advertisements and any other public participation information as is required in Section C above.**		X
Appendix G:	**Specialist Report(s)**		X
Appendix H :	**EMPr** **MMP**		X
Appendix I:	**Additional information related to listed waste management activities (if applicable)**		NA
Appendix J:	**If applicable, description of the impact assessment process followed to reach the proposed preferred alternative within the site.**		X
Appendix K:	**Any Other (if applicable).**		NA

SECTION J: DECLARATIONS

To be provided with final BAR