MEETING OF A SPECIAL MUNICIPAL PLANNING TRIBUNAL (MPT)

A G E N D A

DATE:	**3 JULY 2019**
VENUE:	**TOWN PLANNING COMMITTEE ROOM HERMANUS**
TIME:	**10:00**

OVERSTRAND MUNICIPALITY

Office of the Municipal Manager
Civic Centre
HERMANUS
7200

27 June 2019

TO : THE MEMBERS OF THE MUNICIPAL PLANNING TRIBUNAL

CONVENING NOTICE : SESSION OF A SPECIAL MUNICIPAL PLANNING TRIBUNAL (MPT)

NOTICE IS HEREBY GIVEN that a Special Meeting of the **Municipal Planning Tribunal (MPT)** will go into session on **Wednesday, 3 July 2019 at 10:00, Town Planning Committee Room, 16 Paterson Street, Hermanus,** to consider the attached agenda.

STEPHEN MüLLER
CHAIRPERSON : MUNICIPAL PLANNING TRIBUNAL

Distribution:

1. Mr S Müller (Chairperson)
2. Mr R Williams (Vice Chairperson)
3. Mr S Madikane (Member)
4. Ms D Arrison(Member)
5. Ms H Janser (Member)
6. Mr R Kuchar (Authorised Official)
7. Mr S van der Merwe (Senior Town Planner)
8. Ms H van der Stoep (Senior Town Planner)
9. Secretariat

1. OPENING

2. APPLICATIONS FOR LEAVE OF ABSENCE

3. ITEM FOR CONSIDERATION

3.1 FARM NO. 357, DIVISION BREDASDORP, OVERSTRAND MUNICIPAL AREA: APPLICATION FOR CONSENT USE, DEPARTURE AND AMENDMENT OF THE APPROVED SITE DEVELOPMENT PLAN AND CONDITIONS OF APPROVAL: MESSRS ELCO PROPERTY DEVELOPMENTS ON BEHALF OF VIKING FISHING COMPANY (PTY) LTD

Report attached

SPECIAL MUNICIPAL PLANNING TRIBUNAL MEETING (MPT)

3 July 2019

I N D E X

3.1
FARM NO. 357, DIVISION BREDASDORP, OVERSTRAND MUNICIPAL AREA: APPLICATION FOR CONSENT USE, DEPARTURE AND AMENDMENT OF THE APPROVED SITE DEVELOPMENT PLAN AND CONDITIONS OF APPROVAL: MESSRS ELCO PROPERTY DEVELOPMENTS ON BEHALF OF VIKING FISHING COMPANY (PTY) LTD

Farm 357 GRBRE (3184)
SW van der Merwe (028) 313 8900 Hermanus Administration
24 June 2019

1. EXECUTIVE SUMMARY

To consider an application received on 11 July 2018 from Messrs Elco Property Developments on behalf of Viking Fishing Company (Pty) Ltd, the owner of Farm No. 357, Division Bredasdorp in terms of the provisions of the Overstrand Municipality By-Law on Municipal Land Use Planning, 2015 (By-Law) for the following:

- application for consent use (utility services) in terms of Section 16(2)(o) of the By-Law to accommodate two (2) wind turbines and associated structures on the property;
- application for departure in terms of Section 16(2)(b) of the By-Law in order to encroach the 30m building line to 26,8m to accommodate a wind turbine;
- application for departure in terms of Section 16(2)(b) of the By-Law in order to encroach the 12m height restriction to 68,80m to accommodate two (2) wind turbines, and
- application for amendment of the conditions of approval and Site Development Plan departure in terms of Section 16(2)(h) and (l) of the By-Law in order to accommodate two (2) wind turbines and associated structures.

A Locality Plan of the property concerned is attached as Annexure A. The Motivation Report from the applicant in support of the proposal is attached as Annexure B while the proposed Site Development Plan (SDP) is attached as Annexure C.

2. DECISION AUTHORITY

Municipal Planning Tribunal

3. BACKGROUD / SITE HISTORY

The subject property is situated south east of Gansbaai in close proximity to the Buffeljags Settlement. The property measures 10 ha in extent. The property is zoned for agricultural purposes. Consent use for aquaculture (abalone farm) was granted on 29 February 2012. The aforementioned approval was also subject to conditions, amongst others development to occur in accordance with an approved Site Development Plan (SDP) and the Environmental Authorisation (EA) issued by the Department of Environmental Affairs and Development Planning (DEA&DP).

The property owner proceeded with the construction of two (2) wind turbines during September and October 2017 despite an email to the farm manager on 29 August 2017 advising that prior approval for the construction is required. Following receipt of a non-compliance notice dated 18 September 2017, Elco Property Developments had been appointed to submit a planning application, which

application was submitted during October 2017. The application was complete in order to process on 11 July 2018. The intention of the application is to obtain planning permission for the construction of two (2) wind turbines as indicated on the SDP. The turbines will be used to power the abalone farm, which needs a 24 hour uninterrupted power supply. The wind turbines are constructed on a concrete foundation. The base of the wind turbine (WTG2), encroach the 30m buffer area with 3,2m. The wind turbines have a total height of 68,80m to the top of the blade and had been partially removed until approval of the application. The proposed development also includes a control room as well as two (2) generator store rooms. The current operations are hampered by limited amount of electricity and poor quality of Eskom supply being at the end of the Eskom line resulting in power dips and outages.

Having had regard to the above, the application comprises the following:

- consent use (utility services) to accommodate two (2) wind turbines and associated structures on the property;
- departure to encroach the 30m building line to 26,8m to accommodate a wind turbine (WTG 2);
- application for departure to encroach the 12m height restriction to 68,80m to accommodate two (2) wind turbines, and
- application for the amendment of conditions of approval and SDP to accommodate the wind turbines and associated structures.

4. SUMMARY OF APPLICANT'S MOTIVATION

The motivation for the application is summarised as follows:

- The proposal does not trigger listed activities in terms of National Environmental Management Act (NEMA).
- Utility service is listed as a consent use under Agricultural Zone.
- The proposal is consistent with the Provincial Development Framework (PSDF), Spatial Development Framework (SDF), Integrated Development Plan (IDP) and Environmental Management Framework (EMF).
- The wind farm is not out of keeping with the character of the area.
- The wind farm is essential for the sustainability of the abalone farm as well as the surrounding area and economy.
- Impact on the character of the area is considered minimal.
- Visual impact on the proposed scenic route and national park is minimal.
- The creation of job opportunities by the abalone farm is also an impact aspect to consider and should outweigh the impact of these structures on the tourism economy.
- Building line departure is minimal and will not negatively impact upon surrounding property owners or the character of the area.
- Wind turbines are considered the best sustainable renewable energy generator for the abalone farm.
- The wind turbines will not impact upon parking, access or traffic.
- A Heritage Impact Assessment (HIA) had been submitted.
- The development will not have any implications in terms of Integrated Coastal Management Act (ICMA).
- There will be no adverse impact upon birds/bats.
- The development will ensure continued as well as additional job creation.

- ❖ The development is essential for the viability of the abalone farm as well as the surrounding area and economy.
- ❖ No elements of the development can be construed to be undesirable in respect of the safety, welfare and amenity value of the site, surrounding area or broader planning objectives pertaining to the area.
- ❖ The development is desirable and will not adversely affect the rights of any other properties in the area.

5. ADMINISTRATIVE COMPLIANCE

Methods of advertising		**Date published**	**Closing date for comments**
Local Newspaper	Yes	30 August 2018	5 October 2018
Internal Departments	Yes	30 August 2018	5 October 2018
Ward councillor	Yes	30 August 2018	5 October 2018
Notices	Yes	2 April 2019	10 May 2019
Total letters of objection	**ONE (1)**		

Was public participation undertaken in accordance with Section 47 - 50 of the By-Law on Municipal Land Use Planning?	**Yes**
Was the application processed correctly (if no, elaborate below):	**Yes**
Is the proposal consistent with the principles referred to in Chapter 2 of SPLUMA and Chapter VI of LUPA? (can be elaborated further below)	**Yes**
In case of application for removal, amendment or suspension of restrictive title conditions if notices in accordance with Section 35(3)(d) of the By-Law on Municipal Land Use Planning was served on all persons mentioned in the title deed for whose benefit the restriction applies?	**N/A**

6. SUMMARY OF COMMENT FROM ORGANS OF STATE AND/OR MUNICIPAL DEPARTMENTS

Name	**Date received**	**Summary of comments**	**Recommendation**
Eskom	17/09/2018	Annexure L.	Supported
Breede-Gouritz Catchment Management Agency	25/09/2018	Annexure M.	Supported
Telkom	1/10/2018	Annexure N.	Supported
District Health	9/10/2018	No objection.	Supported
Fire Services	10/10/2018	No objection.	Supported

Electro Technical Services	11/10/2018	Eskom distribution area.	Supported
Engineering Services	1/11/2018	Annexure O.	Supported
Building Department	7/11/2018	No comment.	Supported
Department of Transport and Public Works	27/11/2018 and 3/04/2019	Annexure P.	Supported
DEA&DP (*Directorate: Coastal Management*)	29/11/2018	Annexure Q.	Supported
Department of Agriculture	30/11/2018	Annexure R.	Supported
DEA&DP (*Directorate: Development Management*)	5/12/2018	Annexure S.	Supported
Cape Nature	8/01/2019; 21/01/2019 and 21/06/2019	Cape Nature reviewed the methodology and is in full support of the proposal submitted by Inkululeko Wildlife Services (Pty) Ltd (Annexure T).	Supported
Environmental Services	17/01/2019 and 3/06/2019	Annexure U.	Supported
Local Heritage	14/02/2019	Annexure V.	Supported
Heritage Western Cape (HWC)	25/04/2019	Issued a record of decision, subject to conditions as the HIA is considered to comply with Section 38(3) of the Heritage Resources Act (Annexure W).	Supported
South African National Parks (SANPARKS)	12/06/2019	No objection, as the wind turbines are relatively small and the Visual Impact Study indicate that the turbines are not visible from the Ratel River side of Agulhas National Park (Annexure X).	Supported

7. SUMMARY OF COMMENTS RECEIVED DURING PUBLIC PARTICIPATION

A petition submitted by Messrs Rehana Khan Parker & Associates representing, Albert Tobias Groenewald, Albert Trevor Groenewalt, N Richarddean Plaatjies and Others, S Niemand, Chairmain of the Buffeljags Dorpskomitee. The objection is attached as Annexure J and the applicant's response thereto as Annexure K.

The main grounds of objection are the following:

1. Procedural Concerns

Point of objection

Opportunity for comment was only given after partial erection of the turbines and after HWC approval.

Applicant's response

Our property owners were not aware that wind farms on agricultural land would require consent from Council. The applicant was appointed following receipt of a notice on 18 September 2017 that the owner were in contravention. The application was submitted on 2 October 2017, advertised and circulated from 30 August 2018 till 5 October 2018. The Municipality informed the applicant on 1 April 2019 that registered notices due to an administrative error was never served onto adjoining property owners. Registered notices were served on 9 April 2019 allowing for public comment until 10 May 2019. Concerns rose pertaining to timelines for public participation was therefore due to an administrative error from Council. The required public participation was however still undertaken prior to a decision being made.

Town planner's response

The applicant's comment is noted and agreed with. An administrative oversight did occur in that registered notices were not served onto adjoining affected property owner simultaneous with the press notice during August 2018. Registered notices had however been served on adjoining property owners allowing a thirty (30) day commenting period. As such, although not concurrent with the press notice, sufficient opportunity was afforded for public participation in accordance with the provisions of Section 49 of the By-Law.

Point of objection

Annexures referred to in Motivation Report not attached to registered notice.

Applicant's comment

No comment received.

Town planner's comment:

Notices were served in accordance with the requirements of Section 49 of the Overstrand Municipal Land Use Planning By-Law, 2015 advising where full details of the application could be obtained from. The objector requested the respective attachments, which had been made available prior to the closing date for objections/comments.

Point of objection

The planning application predates the application to HWC and the subsequent Record of Decision (RoD), dated 25 April 2019 which did not include notice to the Buffeljags community. Should a notice be submitted it would have resulted in objections?

Applicant's response

No response received.

Town Planner's comment

The planning application was circulated to HWC, which department required a HIA that resulted in a RoD. The objector refers to the HIA that falls outside the scope of the planning application and does not form part of the public participation process prescribed in terms of the By-Law.

2. Distance to residents

Point of objection

The turbines are located 200m from a crèche and 400m from a residential unit.

Applicant's response

The structures will be 68,8m in height and will therefore not be a safety hazard to the above residential uses located more than 100m away. The closest registered residential property is 380m away from the closest proposed turbine. Any residential structures closer than this is situated outside the urban edge on land identified for core agricultural or conservation agricultural purposes. Given the aforementioned and the low residential density the wind turbines will have minimal affect and is not out of character. Various references are made to eviction cases within the area, which has nothing to do with the property owner of the subject property.

Town planner's response

The closest registered residential properties are situated within the Buffeljags settlement ±370m away. The residential structures outside the aforementioned settlement, immediately abutting the southern property boundary of the application property is within municipal ownership and illegally occupied. The crèche referred to by the objector had in meantime been relocated to the community facility in Buffeljags, situated ±980m north of the application property.

3. Building line departure

Point of objection

The proposed departure from the street building line will be dangerous for the associated residents and road users. No details are provided pertaining to the building line departure.

Applicant's response

The Provincial Roads Department accepted engineering requirements and support the departure from the street building line. There is no reason to believe that the structures will cause any danger in this regard.

Town planner's response

The proposal was circulated to the Western Cape Department of Transport, which department's initial objection was withdrawn on the basis of safety of road users, following submission and consideration of engineering specifications.

The Motivation Report does provide detail pertaining to the departure, specifically under paragraph F) 2. It is only the base of WTG 2 that encroach the 30m building line with 3,2m, thus being situated 26,8m from the southern property boundary. WTG1 maintains a distance of ±68m from the residential structures on municipal property, which is illegally occupied.

4. Residents' right to land

Point of objection

The residents of Buffeljagsbaai have a claim to the application property. The application property had been reserved for church purposes and came into private ownership, unknown by the community.

Applicant's response

The applicant legally acquired the application property in terms of a Deed of Transfer and is not aware of a land claim pertaining to Farm 357/0. It appears that the land claim and eviction notices refer to Farm 340/0.

Town planner's response

The application property, Buffeljags Farm 357/0 is not affected by a land claim. This point of objection has no relevance to the application property which has been acquired by the land owner by means of a private sale and developed into an operational abalone farm. Furthermore, the Title Deed does not contain any restrictions pertaining to the use of the land. The opinion is thus held that consideration of the application on the basis of an alleged land claim cannot be withheld.

5. Department of Environmental Affairs and Development Planning (Directorate: Development Planning)

Point of concern

DEA&DP indicated that whereas the height of the turbine, ie. 68,80m is within acceptable limits, a building line setback of only 26,8m is cause for concern, given the recommended setback of 103,2m.

Applicant's response

No response received.

Town planner's comment

DEA&DP: Directorate, Development Management, supports the development, but advised that the building line set back of only 26,8m is a cause of concern given the recommended setback op 103,2m. The Zoning Scheme setbacks, referred to in the above comment, following promulgation of the Overstrand Integrated Zoning Scheme Regulations, 2013, no longer apply. It should be noted that the wind turbine itself comply with the 30m building line with only the base that encroach the building line. Department of Transport and Public Works based on the engineering specifications withdrawn their initial objection from a safety point of view.

8. MUNICIPAL PLANNING EVALUATION (REFER TO RELEVANT CONSIDERATIONS BUIDELINE)

8.1 Background

N/A

8.2 (In)consistency with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)

The application is in line with the planning objectives applicable to this application.

The objectives relating to:

Spatial Justice
The application will have no adverse impact in terms of spatial justice since the application relates to an already approved abalone farm. The proposal will secure reliable back up power that is essential for the sustainability of the abalone farm, the local economy, thereby also ensuring securing employment opportunities.

Spatial Sustainability
The subject property had been development in accordance with an Environmental Authorisation. A Botanical Report and Rehabilitation Plan (RP) accompanied the application. Subject to the implementation of the RP and Bird and Bat Monitoring Report the development is not considered to adversely impact upon spatial sustainability.

Efficiency
The amendment of the SDP will facilitate the efficient utilisation of the property as well as enable the future expansion of the current operations in that it would ensure reliable back up electricity that is essential for the daily operation of the abalone farm.

Spatial Resilience
The development ensures optimal use of an existing resource (land) in a sustainable manner, in line with the Overstrand Municipality's forward planning documents.

Good administration
The application followed the required planning procedures in terms of the Municipal By-Laws and public participation procedures.

8.3 (In)consistency with the principles referred to in Chapter VI of the Land Use Planning Act, 2014 (Act 3 of 2014)

Same as 8.2 above.

8.4 (In)consistency with the IDP/Various levels of SDF's/Applicable Policies

Consistent with the Spatial Development Framework and the Overstrand Municipal Growth Management Strategy, 2010.

8.5 (In)consistency with guidelines prepared by the Provincial Minister

N/A

8.6 Impact on Municipal Engineering Services

The subject property is situated within an Eskom electricity supply area. The development will not impact upon municipal services as none are available.

8.7 Outcomes of investigations/applications i.t.o. other legislation

National Heritage Resources Act (Act 25 of 1999)

The applicant, in accordance with the procedures of Section 38 of the Act, submitted a Notification of Intent to Develop and was required to submit a HIA that resulted in a positive RoD, subject to conditions (refer to Annexure W).

National Environmental Management Act (NEMA)

DEA&DP confirmed that the two (2) wind turbines and generator rooms and an additional control room do not trigger listed activities in terms of NEMA. The Directorate: Law Enforcement confirmed the same and that the property owner did not contravene the 2011 Environmental Authorisation (refer to Annexure Y).

Integrated Coastal Management Act (ICMA)

The Coastal Unit, a sub-directorate within DEA&DP did not object (refer to Annexure Q) to the wind turbines as being contrary to the provisions of ICMA. It is however recommended that the no go-area on the property be avoided and alternative sites for the placement of the turbines being investigated based on the fact that the no-go buffer contains Agulhas

Limestone Fynbos and its location within a CBA. Cape Nature as well as DEA&DP in their final comment, based on the findings of the Botanical Report and Rehabilitation Plan (RP) did not object to the current location of the two (2) wind turbines.

8.8 Existing and proposed zoning comparisons and considerations

The subject property is zoned for agricultural purposes with consent use for an abalone farm. The development in terms of the conditions of approval is limited to an approved SDP and the Environmental Authorisation (EA). Utility services are provided for as a consent use under the aforesaid zoning, hence the application under consideration.

9 THE DESIRABILITY OF THE PROPOSAL

The consent use approval for the abalone farm restricted the development on the property to an approved SDP, whilst also providing for a no-go area in accordance with the EA that provides for a 30m wide buffer along the southern and western property boundaries. Over time, approval was granted for amendments to the aforesaid SDP, which amendments avoided the said no-go area.

The applicant commenced with construction of wind turbines, but did not continue with the installation of the rotor blades following receipt of a non-compliance notice. In accordance with the aforesaid notice, Messrs Elco Property Developments, on behalf of the property owner, submitted a land development application, seeking permission to accommodate two (2) wind turbines on the property. WTG1 is situated outside the aforesaid no-go buffer, but the base of WTG2 partially encroach the 30m buffer with 3,2m.

Forward planning

The application is in line with the aim of the Overstrand Municipal SDF, IDF and EMF which promotes amongst others the protection of the natural and built environment, economic development, job creation and tourism.

Visual impact

A Visual Impact Assessment (VIA) was conducted. The VIA indicates that the proposal will not have an unacceptable visual impact on the receiving environment, adjacent properties owned by SANPARKS or existing tourist routes (proposed scenic route) in the area. The predominant impact would be limited to the vicinity of the application property and the Buffeljags community. The proposal is also supported by HWC and thus not considered to unacceptably detract from the cultural landscape.

Environmental impact

DEA&DP indicated that the development did not trigger any listed activities in terms of NEMA and is in support of the proposal, subject to implementation of the Fynbos Rehabilitation Plan submitted by Fynbos Ecoscapes, in respect of the application property.

The applicant submitted a Bird and Bat Assessment, conducted by Dr Tony Williams of African Insights (attached as Annexure I). The report concludes that there is no reason from an avian perspective to oppose completion of two (2) wind turbines and that consideration of bat ecology indicates that the wind turbines provide minimal risk to bats.

Cape Nature and Overstrand Environmental Management Services (OEMS) indicated that the Fynbos Rehabilitation Plan is supported, but raised concerns with reference to the quality of Bird and Bat Assessment, lack of monitoring, mitigating factors, etc. and recommended that a specialist bat survey be conducted by a chiroptologist in accordance with current best practice guidelines.

As a result of the aforementioned a proposal for post construction/operational live bat and bird carcass monitoring by Inkululeko Wildlife Services were submitted. OEMS supports the proposal on the basis of the following, namely:

- use of accepted guidelines to inform programme;
- desktop review of study area;
- live bat monitoring;
- bat and bird carcass searches, and
- proposed mitigation measures.

The aforementioned proposal was also circulated to Cape Nature who reviewed the proposed methodology and is in full support of the proposal.

Need and Desirability

Buffeljags area is suitable for abalone farming due to the water quality, temperature profile and the fact that kelp is available and used for feed. There are two (2) abalone farms in the area that are rapidly expanding.

The industry in this remote location provides employment opportunities, both at the farm as well as in the kelp harvesting industry. The abalone farm is a major source of employment and beneficial for the local economy. The industry generates foreign income and is in line with government directives, such as operation Phakisa.

The current operations are hampered by limited amount of electricity and poor quality of Eskom supply being at the end of the Eskom line resulting in power dips and outages (one power dip per day during 2014), thus hampered job creation and foreign revenue. Improvements were made resulting in 122 switch overs to stand by generators in 2017. The applicant applied for 1,5kva electricity at Eskom and was awarded 1,2 kva and cannot expand in accordance with the provisions of the existing approvals.

As a result of the above the applicant had to investigate alternative energy sources and considered both solar and wind. Having had regard to the operational requirements and constraints, including Eskom's requirements wind energy is considered the most appropriate alternative energy source options (refer to Wind Turbine Motivation attached as Annexure H). It will also ensure that the abalone farm and Buffeljags community will have a

more stable energy source as it will help to stabilize the network during power dips and outages. It will also help to limit equipment failure as a result of power dips.

Having had regard to the above it is clear that there is a need for a stable back up electricity source. Given the fact that the abalone farm is a major employer making a significant contribution to the local economy combined and that the specialist reports do not indicate a significant adverse impact on the natural or built environment as well as tourism potential of the surrounding area, the retention of the wind turbines is considered desirable, subject to implementation of the Rehabilitation Plan (RP) and Bird and Bat Monitoring Plan.

Character of the area

The applicant submitted a VIA in support of the development. The predominant impact is limited to the surrounding area and Buffeljags community whilst it would hardly be visible from the proposed scenic/tourism route along the R43 and adjoining properties owned by SANPARKS.

The subject property is situated in the rural area, outside the urban edge and zoned for agricultural purposes. The Zoning Scheme provides for utility services as a consent use. The opinion is thus held that the applications for consent use, amendment of the SDP/conditions of approval, departure of the 30m building line to 26,8m and encroachment of the height restriction from 12m to 68,80m will not unacceptably detract from the character of the area or the safety and wellbeing of the local community. It should be noted that only the base of WTG2 encroach the building line and will not have a significant impact.

The applicant submitted engineering specifications with regard to the wind turbines. A condition will also be imposed to ensure that the applicant indemnifies the Municipality against any claim which may be instated, should the application be supported.

From a services point of view it should be noted that no municipal services are available, whilst electricity is provided by Eskom. The proposal will ensure that a stable backup electricity supply is available to ensure continued operation of the farm during electricity cuts.

The Title Deed does not contain any restrictions prohibiting the development.

10. RECOMMENDATION

1. that the application in terms of Section 16(2)(o) of the Overstrand Municipality By-Law on Municipal Land Use Planning, 2015 (By-Law) on Farm No. 357, Division Bredasdorp for consent use (utility services) to accommodate two (2) wind turbines and associated structures on the property, **be approved** in terms of the provisions of Section 61 of the By-Law;

2. that the application in terms of Section 16(2)(b) of the By-Law on Farm No. 357, Division Bredasdorp for departure in order to encroach the 30m building line to 26,8m to accommodate a wind turbine on the property, **be approved** in terms of the provisions of Section 61 of the By-Law;

3. that the application in terms of Section 16(2)(b) of the By-Law on Farm No. 357, Division Bredasdorp for departure in order to encroach the 12m height restriction to 68,80m to accommodate 2 wind turbines, **be approved** in terms of the provisions of Section 61 of the By-Law;

4. that the application in terms of Section 16(2)(h) and (l) of the By-Law on Farm No. 357, Division Bredasdorp for amendment of the conditions of approval and Site Development Plan in order to accommodate two (2) wind turbines and associated structures, **be approved** in terms of the provisions of Section 61 of the By-Law;

5. that the approvals in paragraphs 1 to 4 above be subject to the following conditions:

   (a) that the development occur generally in accordance with the Site Development Plan (attached as Annexure C);

   (b) that building plans be submitted to the Building Department for approval, and that all conditions of the Building- and the Fire Department, be complied with;

   (c) that the original conditions of approval dated 9 March 2012, be adhered to;

   (d) that all the conditions in the Services Report (attached as Annexure O), be complied with;

   (e) that Council be indemnified against any claim which may be instated as a result of the above approval

   (f) that all the conditions from Eskom (attached as Annexure L), Breede-Gouritz Catchment Management Agency (attached as Annexure M), Telkom (attached as Annexure N), Department of Transport and Public Works (attached as Annexure P), DEA&DP: Coastal Management (attached as Annexure Q), Agriculture (attached as Annexure R), DEA&DP: Development Management (attached as Annexure S), Cape Nature (attached as Annexure T), Overstrand Environmental Services (attached as Annexure U), Local Heritage (attached as Annexure V), Heritage Western Cape (attached as Annexure W) and SANPARKS (attached as Annexure X), be complied with;

   (g) that the Fynbos Rehabilitation Plan (attached as Annexure I) and the proposal by Inkululeko Wildlife Services pertaining to bird and bat carcass monitoring be implemented to the satisfaction of the Municipality;

   (h) that in addition to the proposal by Inkululeko Wildlife Services provision is made for continued carcass searching after the twelve (12) month period and implementation of mitigation measures based on monitoring results;

   (i) that this approval does not absolve the applicant from compliance with any other relevant legislation, and

   (j) that all other development parameters as prescribed in the relevant Zoning Scheme, be complied with.

6. that the applicant and objector be notified of its right of appeal in terms of Section 78 of the Overstrand Municipality By-Law on Land Use Planning, 2015 with regard to the above conditions of approval.

11. REASONS FOR RECOMMENDATION

- The application has followed due procedure.
- None of the internal departments has objected to the application.
- The proposal is supported by all relevant government departments.
- No new municipal services will be needed.
- It is in line with the aims of the Overstrand SDF, IDF, EMF.
- The application will not have a negative effect on the character of the area or the natural environment or the safety and wellbeing of the local community.
- The proposal will ensure a stable electricity supply which is essential for the operation of the abalone farm.
- In securing a stable electricity supply it will support the viability of the abalone farm and is contribution to the economy in terms of job creation and earning of foreign revenue.

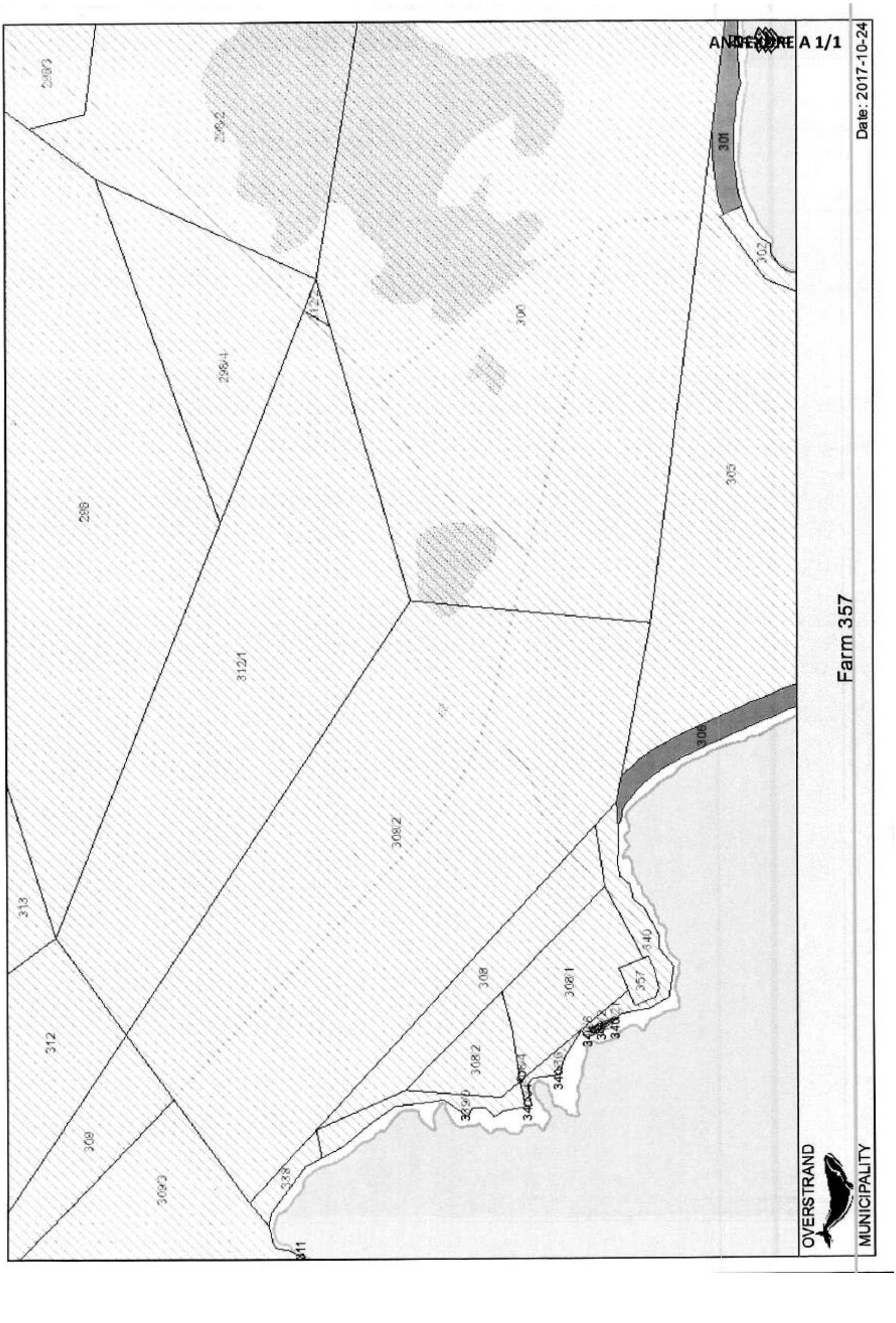
12. ANNEXURES

Annexure A:	Locality Plan
Annexure B:	Motivation Report
Annexure C:	Site Development Plan
Annexure D:	Visual Impact Assessment
Annexure E:	Archaeological Impact Assessment
Annexure F:	Botanical Assessment & Rehabilitation Plan
Annexure G:	Fynbos Rehabilitation Plan
Annexure H:	Tribune Motivation
Annexure I:	Bird and Bat Study
Annexure J:	Objection
Annexure K:	Comment on objection
Annexure L:	Comment: Eskom
Annexure M:	Comment: Breede-Gouritz Catchment Management Agency
Annexure N:	Comment: Telkom
Annexure O:	Services Report
Annexure P:	Comment: Department of Transport and Public Works
Annexure Q:	Comment: Department of Environmental Affairs and Development Planning (*Directorate: Coastal Management*)
Annexure R:	Comment: Department of Agriculture
Annexure S:	Comment: Department of Environmental Affairs and Development Planning (Directorate: *Development Management*)
Annexure T:	Comment: Cape Nature
Annexure U:	Comment: Overstrand Environmental Services
Annexure V:	Comment: Local Heritage
Annexure W:	Comment: Heritage Western Cape
Annexure X:	Comment: South African National Parks
Annexure Y:	Comment: Department of Environmental Affairs and Development Planning (*Directorate: Development Management – Region 2*)

SIGNATURES

AUTHOR

Name :	**SW VAN DER MERWE**
SACPLAN Reg No:	**A/1850/2014**
Signature :	_____
Date:	_____


ANNEXURE A 1/1
Date: 2017-10-24
Farm 357
OVERSTRAND
MUNICIPALITY

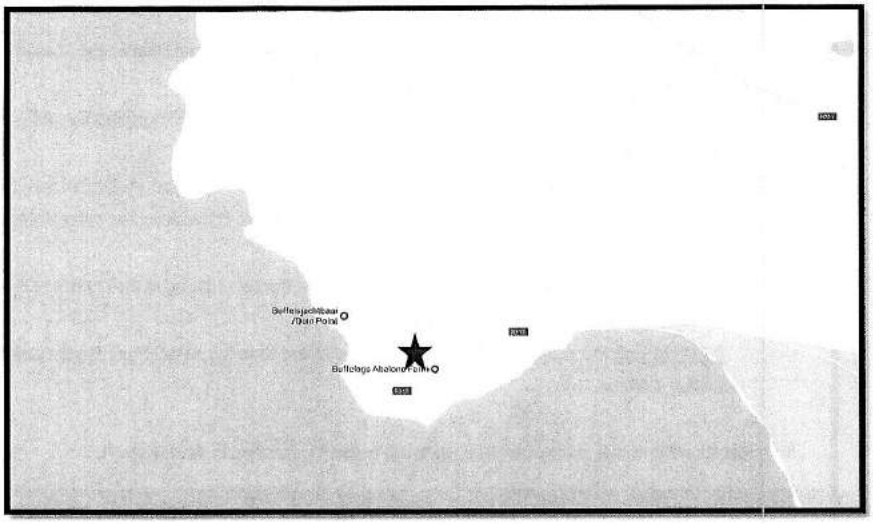
SECTION A: HISTORY AND BACKGROUND INFORMATION

1. INTRODUCTION

Elco Property Developments was mandated by our clients to apply on their behalf for the amendment of conditions / SDP, consent use and regulation departures on Farm 357, Bredasdorp, to permit two (2) wind turbines. The Power of Attorney and Company Resolution of the registered owner authorizing this firm is herewith attached in **Annexure B**.

This memorandum serves to outline the proposed development and to prove the necessity and desirability of the abovementioned application in order to obtain the approval from the relevant authorities. In addition its purpose is also to elaborate on information required by Council, which will enable Interested and Affected Parties and Council to make informed comments and/or decisions on the proposed development.

2. HISTORY AND BACKGROUND



The property is located in the Bredasdorp within the Overstrand municipal area and is zoned as Agricultural Zone 1: Agriculture. The Buffeljags Abalone Farm approved on 9 March 2012 is operational on the site. In September 2016 an amendment of Site Development Plan application to permit a few additional buildings was submitted with Council. This application is still in process. The owners have been issued with a compliance notice dated 18 September 2017 for the unauthorised use of a wind farm on the property. The intension of the current application is to obtain the necessary authorisation to permit two (2) wind turbines on the farm. These wind turbines, which have been partially removed until approval is obtained, will be used to power the facility which needs 24 hour and uninterrupted electrical supply. It is

important to note that approval has been obtained from DEADP (23 November 2011 and 26 August 2015) and SACAA (29 May 2017) for the wind turbines. A letter from DEADP dated 21 December 2017 reads that "the new wind turbines on the subject property does not in itself trigger the listed activities, as defined in terms of … the NEMA EIA Regulations 2014 (as amended). However, the matter of the existing and in force Environmental Authorisation for the abalone facility, which covers the extent of the site, including the area identified for the placement of the wind turbines, cannot be separated from the proposed development of the wind turbines on the property". The previous Environmental Authorisation approved a layout that included identified no-go areas. The new proposed wind turbines will be placed within these identified no-go fynbos areas. These environmental aspects are addressed by the contracted environmental practitioner in a separate motivation. Please see **Annexure F, G, H, I, J and P** for the above mentioned documents.

SECTION B: APPLICATION

3. THE APPLICATION

Application is hereby made on behalf of our clients for:

- **Departure** in terms of Section 16(2)(b) of the Overstrand Municipal Planning By-Law for a street building line of 26.8m in lieu of 30m to allow a wind turbine.
- **Departure** in terms of Section 16(2)(b) of the Overstrand Municipal Planning By-Law to permit a height of 68.80m in lieu of 12m.
- **Amendment in Respect of an Existing Approval** in terms of Section 16(2)(h) of the Overstrand Municipal Planning By-Law to amend conditions contained in the approval letter dated 9 March 2012.
- **Amendment of Site Development Plan** in terms of Section 16(2)(l) of the Overstrand Municipal Planning By-Law to permit two (2) wind turbines.
- **Consent Use** in terms of Section 16(2)(o) of the Overstrand Municipal Planning By-Law to permit a Utility Service.

An application form, duly completed and signed is herewith attached in **Annexure A**.

SECTION C: LEGAL AND GENERAL INFORMATION

4. TITLE ASPECTS

Farm 357, Bredasdorp is held by virtue of Title Deed T1210/2010. Please see **Annexure C** for a copy of this document.

4.1 PROPERTY DESCRIPTION

According to the Title Deed to property is described as "*The Farm No. 357, Situate in the Overstrand Municipality, Division Bredasdorp, Western Cape Province*".

4.2 PROPERTY SIZE

The extent of the property is 10Ha.

4.3 REGISTERED OWNERS

The property is registered in the name of the Viking Fishing Company (Pty) Ltd.

4.4 MORTGAGE BONDS

There are no bonds registered against the title of the properties.

4.5 TITLE DEED CONDITIONS

There are no restrictive conditions preventing the proposed development. A Conveyance Certificate is not required for the subject application.

4.6 SERVITUDES

There are no servitudes registered over the property.

5. GENERAL INFORMATION

5.1 LOCATION & ACCESSIBILITY

The property in question is located on the corner off the R317. Regional roads such as the R43, R316 as well as the R326 links the R317 to the N2 near Caledon and Riviersonderend.

The locality plan and aerial photo are herewith attached as Figures 1 & 3 in **Annexure D**.

5.2 EXISTING ZONING

According to the Overstrand Municipal Planning By-Law the property is zoned as Agricultural Zone 1: Agriculture.

5.3 SURROUNDING LAND USES & ZONING

The area is characterised by agricultural uses with most of the farms surrounding the abalone farm vacant. Various nature reserves are located within the area, with the closest shown as Quoin Point Nature Reserve. For further detailed information about the surrounding zonings, see the zoning plan listed as **Figure 2** in **Annexure D.**

5.4 EXISTING LAND USE

The Buffeljags Abalone Farm approved on 9 March 2012 is operational on the site. The owners of the property have received a compliance notice for the unauthorised use of a wind farm. The wind turbines in question have been partially removed until approval is obtained.

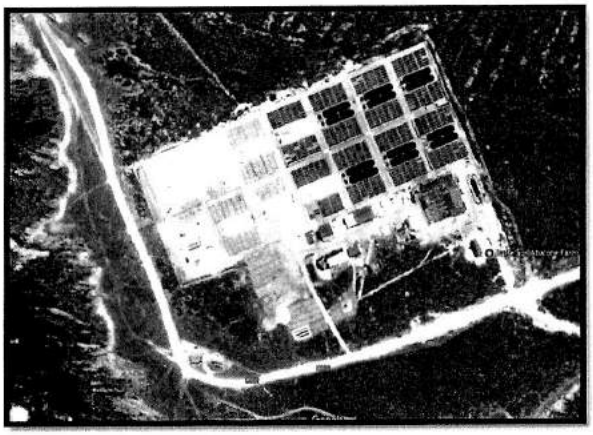


Fig.1: Aerial View showing the Abalone Farm

SECTION D: POLICIES & FRAMEWORKS

6. PLANNING POLICY & CONTEXT

6.1 HERITAGE RESOURCES ACT NR. 25 OF 1999

Notification of intent to develop is required. The necessary application has been submitted to HWC for their attention. The Record of Decision will be submitted to Council once received. Refer to **Annexure M** for proof of submission.

6.2 WESTERN CAPE SPATIAL DEVELOPMENT FRAMEWORK: MARCH 2014

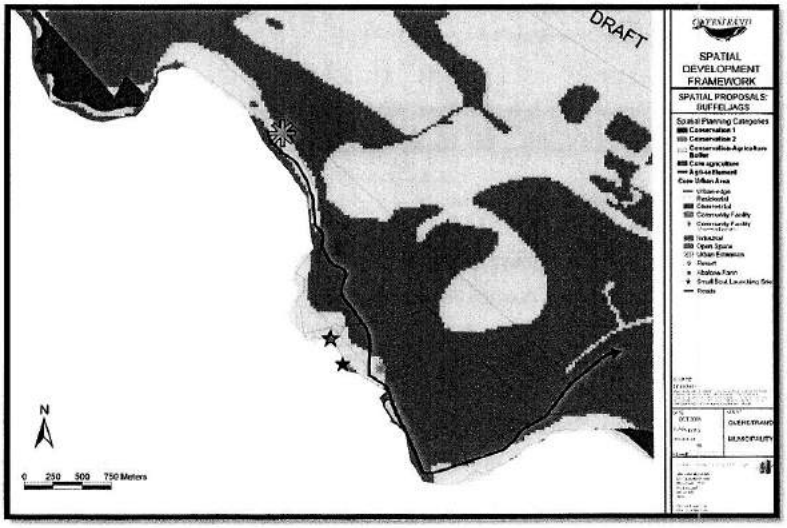
The PSDF opposes urban sprawl and development outside the urban edge, whilst promoting densification of underutilized land within the urban edges. The following principles are set out in the document, namely:

- Sustainability and Resilience
  Land development should be spatially compact, resource-frugal, compatible with culture and scenic landscapes, and should not involve the conversion of high potential agricultural land or compromise ecosystems.
- Spatial Efficiency
  Efficiency relates to the form of settlements and use of resources – compaction as opposed to sprawl; mixed-use as opposed to mono-functional land uses; residential areas close to work opportunities as opposed to dormitory settlement, and prioritisation of public transport over private car use.

- Access:
  Improving access to services, facilities, employment, training and recreation, and safe and efficient transport modes is essential to achieving the stated settlement transitions of the NDP and OneCape2040.
- Quality and Liveability:
  The quality of an environment directly contributes to its liveability. A quality built environment is one that is legible, diverse, varied and unique. Legible built environments are characterised by the existence of landmarks such as notable buildings and landscaping, well-defined public spaces, as well as navigable street networks.

The proposed wind farm is located outside of the urban edge on land utilized for agricultural purposes. It speaks to sustainability and resilience as it seeks to make the existing abalone farm self-sufficient. This will ensure that the farm no longer relies on municipal infrastructure for its electrical requirements which will ensure that there is additional capacity for other farms or developments that might require it. In relation to spatial efficiency the proposed wind turbines will make optimal use of the available natural climate to operate the existing facilities. In addition, the wind turbines will ensure access to job opportunities in relation to the construction and maintenance of the structures. Lastly, the proposed structures is located within an agricultural setting away from major residential settlements. These structures are becoming more commonly associated to the rural setting and will in the future surely form part of the unique character of any such area.

6.3 OVERSTRAND MUNICIPAL WIDE SPATIAL DEVELOPMENT FRAMEWORK



The property is located within an area identified as a core agricultural area. A wind farm falls within the agricultural category and will therefore not be out of character in the area. According to the letter dated 15 January 2018 the R43 is identified as a proposed scenic route. As per the Visual Impact Assessment attached in **Annexure K**, the impact of the wind turbines on this route is minimal.

6.4 OVERSTRAND INTEGRATED DEVELOPMENT FRAMEWORK: MARCH 2014

The above mentioned framework identifies Buffeljags as a rural settlement not located far way from the existing abalone farm. Key policies identified for such rural settlements includes the encouragement of natural open space systems, discouragement of unsympathetic site layouts, enhancement of the natural environment and historical context, protection of the natural environment as well as the detainment of existing agricultural activities. The proposed wind farm will ensure that the existing abalone farm, which is a major job provide within the area, becomes self-sufficient through the use of renewable energy infrastructure. In relation to the above, the proposed wind farm will not have a detrimental impact on the surrounding are as only two (2) wind turbines are proposed.

6.5 OVERSTRAND ENVIRONMENTAL MANAGEMENT FRAMEWORK: MARCH 2014

It is noted within the above mentioned framework that livestock and crop farming within the rural environment contributes significantly (4%) to the local economy. This includes the farming of abalone. Objective 8 of the above mentioned framework states that "wind farms should be located where they will cause least visual impact taking into consideration the viability of the project". Since the abalone farm is an established and viable project the proposed two (2) wind turbines are therefore essential for the sustainability of the facility as well as the surrounding area en economy.

SECTION E: PROPOSED DEVELOPMENT

7. TOWN PLANNING PROPOSALS

7.1 PROPOSED DEVELOPMENT

The Buffeljags Abalone Farm approved on 9 March 2012 is operational on the site. In September 2016 an amendment of Site Development Plan application to permit a few additional buildings was submitted with Council. This application is still in process. The owners have been issued with a compliance notice dated 18 September 2017 for the unauthorised use of a wind farm on the property. The intension of the current application is to obtain the necessary authorisation to permit two (2) wind turbines on the farm. The associated buildings to function the turbines include one control room as well as two (2) generator store rooms. The proposed turbines have a total height

of 68.80m to the top the blade. These wind turbines, which have been partially removed until approval is obtained, will be used to power the facility which needs 24 hour and uninterrupted electrical supply.

It is important to note that approval has been obtained from DEADP (23 November 2011 and 26 August 2015) and SACAA (29 May 2017) for the wind turbines. A letter from DEADP dated 21 December 2017 reads that "the new wind turbines on the subject property does not in itself trigger the listed activities, as defined in terms of ... the NEMA EIA Regulations 2014 (as amended). However, the matter of the existing and in force Environmental Authorisation for the abalone facility, which covers the extent of the site, including the area identified for the placement of the wind turbines, cannot be separated from the proposed development of the wind turbines on the property". The previous Environmental Authorisation approved a layout that included identified no-go areas. The new proposed wind turbines will be placed within these identified no-go fynbos areas. These environmental aspects are addressed by the contracted environmental practitioner in a separate motivation. Please see **Annexure F, G, H, I and J** for the above mentioned documents.

The proposed positions and their associated buildings are indicated on the Site Development Plan attached in **Annexure E**.

7.1 PROPOSED LAND USE RIGHTS

The property is zoned Agricultural Zone 1: Agriculture. A utility service is listed as a consent use on land with the above mentioned zoning. The Overstrand Municipal Planning By-Law defines a utility service as a "use or infrastructure that is required to provide engineering and associated services for the proper functioning of urban development and includes...renewable energy infrastructure such as wind turbines". A consent use for a utility service is therefore required to permit the proposed wind turbines.

The below table summarises the regulations associated with the above mentioned zoning. As can be ascertained a building line and height departure will be required to permit the proposed wind turbines.

REGULATION	REQUIRED	PROPOSED
Building Lines (>10ha)	30m	26.8 (to permit 2 turbines)
Height	12m	68.80m

In addition to the above mentioned application an application for the amendment of the previous conditions of approval as well as the approved Site Development Plan will be required. Condition 2(a) of the approval dated 9 March 2012 reads "that the development occur

strictly in accordance with the attached Site Development Plan". This conditions will have to be removed or amended to ensure that the new Site Development Plan can be approved. It is important to note that an amendment of Site Development Plan application is currently with Council for approval. The current amendment will only be to include the two (2) wind turbines and the associated buildings.

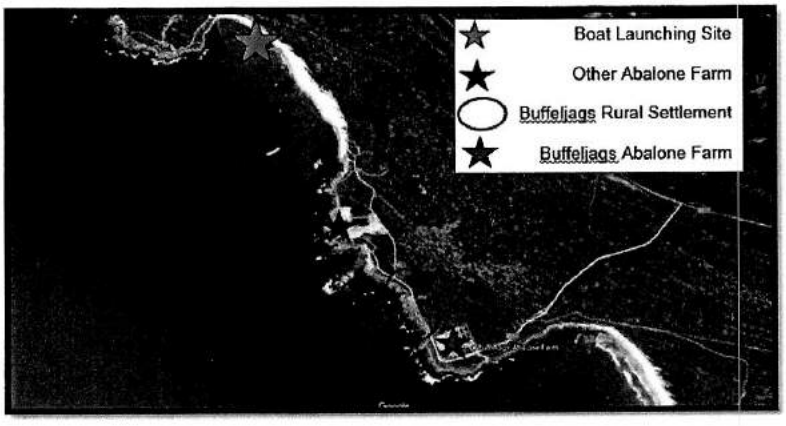
Please see **Annexure E** for the proposed Site Development plan.

SECTION F: MOTIVATION

Section 66 and 39 of the Overstrand Municipal Land Use Planning By-law (2015) states that there are certain criteria that need to be assessed before a decision on an application is made. Two of these include the matters and principles identified in Section 7 and 42 of the Spatial Planning and Land Use Management Act (2013) as well as Chapter VI of the Land Use Planning Act (2014). These matters and principles are identified as socio-economic impact, compatibility with surrounding land uses, impact on the external engineering services, impact on safety, health and wellbeing of the community, impact on heritage, impact on the biophysical environment, traffic impacts, parking, access and other transport related considerations. The following section will explore these aspects in relation to the proposed developments desirability.

F) 1. COMPATIBILITY WITH SURROUNDING LAND USES

The area is characterised by agricultural uses with most of the farms surrounding the abalone farm vacant. Various nature reserves are located within the area, with the closest shown as Quoin Point Nature Reserve. Buffeljags rural settlement is located north of the development along with another abalone facility as well as a small boat launching site. The property is located within an area identified as a core agricultural area. Livestock and crop farming within the rural environment contributes significantly (4%) to the local economy. This includes the farming of abalone.



The Overstrand Environmental Management Framework states that "wind farms should be located where they will cause least visual impact taking into consideration the viability of the project". Since the abalone farm is an established and viable project the proposed two (2) wind turbines are therefore essential for the sustainability of the facility as well as the surrounding area and economy. The proposed wind farm will ensure that the existing abalone farm, which is a major job provide within the area, becomes self-sufficient through the use of renewable energy infrastructure. The proposed wind farm with two (2) wind turbines will therefore not be out of character given the rural setting.

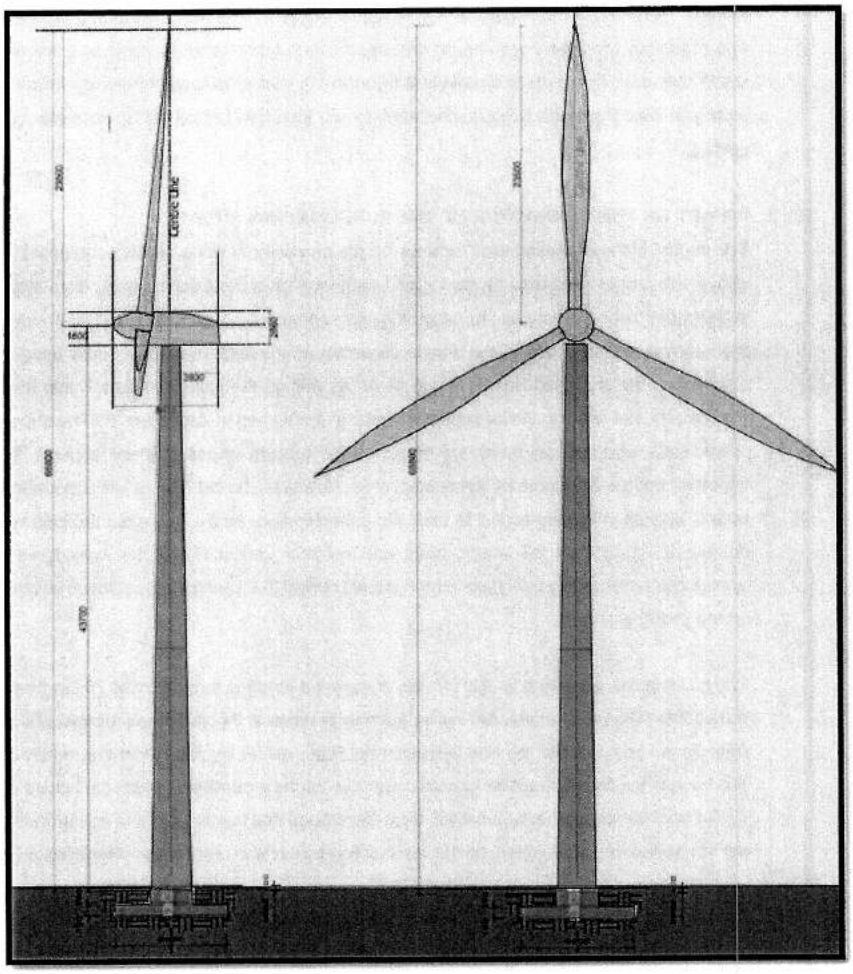
F) 2. IMPACT ON THE CHARACTER OF THE SURROUNDING AREA

The impact of the proposed wind turbines on the character of the area will be minimal. As explained above, the proposed structures are located within an agricultural setting away from major residential settlements. These structures are becoming more commonly associated to the rural setting and will in the future surely form part of the unique character of any such area. The visual impact of the wind turbines on the proposed Scenic Route (R43) as well as the National Parks within the area will be minimal. Please see the Visual Impact Assessment attached in **Annexure K.** The importance of the scenic route and national parks are based on the tourism values of these aspects. Tourism is an important source of income for the subject area. However, the creation of job opportunities within the area is also an important aspect to take into consideration. As the proposed turbines will not have a detrimental impact on the scenic route and national park it should be considered that the job opportunities created by the abalone farm should outweigh the visual impact these structures will have on the tourist economy.

The building line departure is only for one of the wind turbines to be located 26.8m from the street in lieu of 30m. The base and blades will be the only portions of the structure protruding over the building lines as the body, as per the Site Development Plan, will be located within the required parameters. The base of the structure will be located under the natural ground level whilst the blades will be located 43.7m from the ground. In light hereof, it can be argued that the building line departure is minimal and will not have a negative impact on the surrounding property owners or the character of the area.

The regulation height of 12m is prescribed for the Agricultural Zone 1: Agriculture zoning. This restriction is applicable to all buildings. Section 5.1.2.(c)(ii) reads "Agricultural buildings other than dwellings units shall not exceed a height of 12,0m measured from the base level to the top of the roof; and where Council is satisfied that a greater height is necessary for the agricultural function of the building, it may permit such greater height". It is important to note that the proposed wind turbines are not buildings, but a utility services. Most of the length of the wind turbines is a 3.015m wide body upon which the blades are mounted. The total height of 68.8m should therefore also take into account the total maximum width of 8.4m at the blades when viewed from the side. If the turbines are viewed from the front the total width is 41.4m from blade tip to blade tip. This impact is however mitigated by the

fact that this width is made up of three rotating blades that do not present a solid structure. In light of the above, the proposed structures cannot be held by the same height restrictions as for a building.



As per **Annexure O** it can be ascertained that wind power (turbines) was identified as the best sustainable energy generator for the proposed abalone farm. Solar panels where evaluated as another option. It was found that solar panels would not produce a consistent stream of electricity which would result in extensive additional costs to the applicant.

Please see the Site Development Plan are attached in **Annexure E**.

F) 3. ACCESSIBILITY, PARKING ON ERF & TRAFFIC IMPACT

Access to the development will be from the R317 as per the approved Site Development Plan. The proposed wind turbines will not have an impact on the required parking, traffic or access to the site. A total of 40 parking bays are provided and access to the site is controlled by a security hut.

Please see the Site Development Plan attached in **Annexure E**.

F) 4. ENVIRONMENTAL, ECONOMIC & SOCIAL IMPACT

It is important to note that approval has been obtained from DEADP (23 November 2011 and 26 August 2015) and SACAA (29 May 2017) for the wind turbines. A letter from DEADP dated 21 December 2017 reads that "the new wind turbines on the subject property does not in itself trigger the listed activities, as defined in terms of … the NEMA EIA Regulations 2014 (as amended). However, the matter of the existing and in force Environmental Authorisation for the abalone facility, which covers the extent of the site, including the area identified for the placement of the wind turbines, cannot be separated from the proposed development of the wind turbines on the property". The previous Environmental Authorisation approved a layout that included identified no-go areas. The new proposed wind turbines will be placed within these identified no-go fynbos areas. These environmental aspects are addressed by the contracted environmental practitioner in a separate motivation (**Annexure I**).

Annexures L, M and N contain documents pertaining to the processing underway at Heritage Western Cape as well as with the Environmental Authorisation. **Annexure L and M** contain the Archaeological Assessment as well as the proof of submission Notice of Intent to Develop (NID) to Heritage Western Cape. **Annexure N** contains the Botanical Assessment as well as the proposed Rehabilitation Plan for the disturbed fynbos. These annexures are to ensure that Council has all available documentation in order to process the land use application parallel with the Heritage and Environmental processes. As per the motivation from the Environmental Consultant attached in **Annexure I**, ICMA is not applicable to the proposed wind turbines. In addition, it has been shown that there will not be an adverse impact on birds or bats within the area. Please see **Annexure I and P** for more information in this regard.

In terms of economic return the proposed development will ensure a continued as well as additional input towards job creation. The property is located within an area identified as a core agricultural area. Livestock and crop farming within the rural environment contributes significantly (4%) to the local economy. This includes the farming of abalone. Since the abalone farm is an established and viable project the proposed two (2) wind turbines are therefore essential for the sustainability of the facility as well as the surrounding area and economy. No elements in the proposed development can be construed to be undesirable in respect of the safety, welfare and amenity value of the specific site conditions, the immediate surrounding areas or the broader planning objectives of the area.

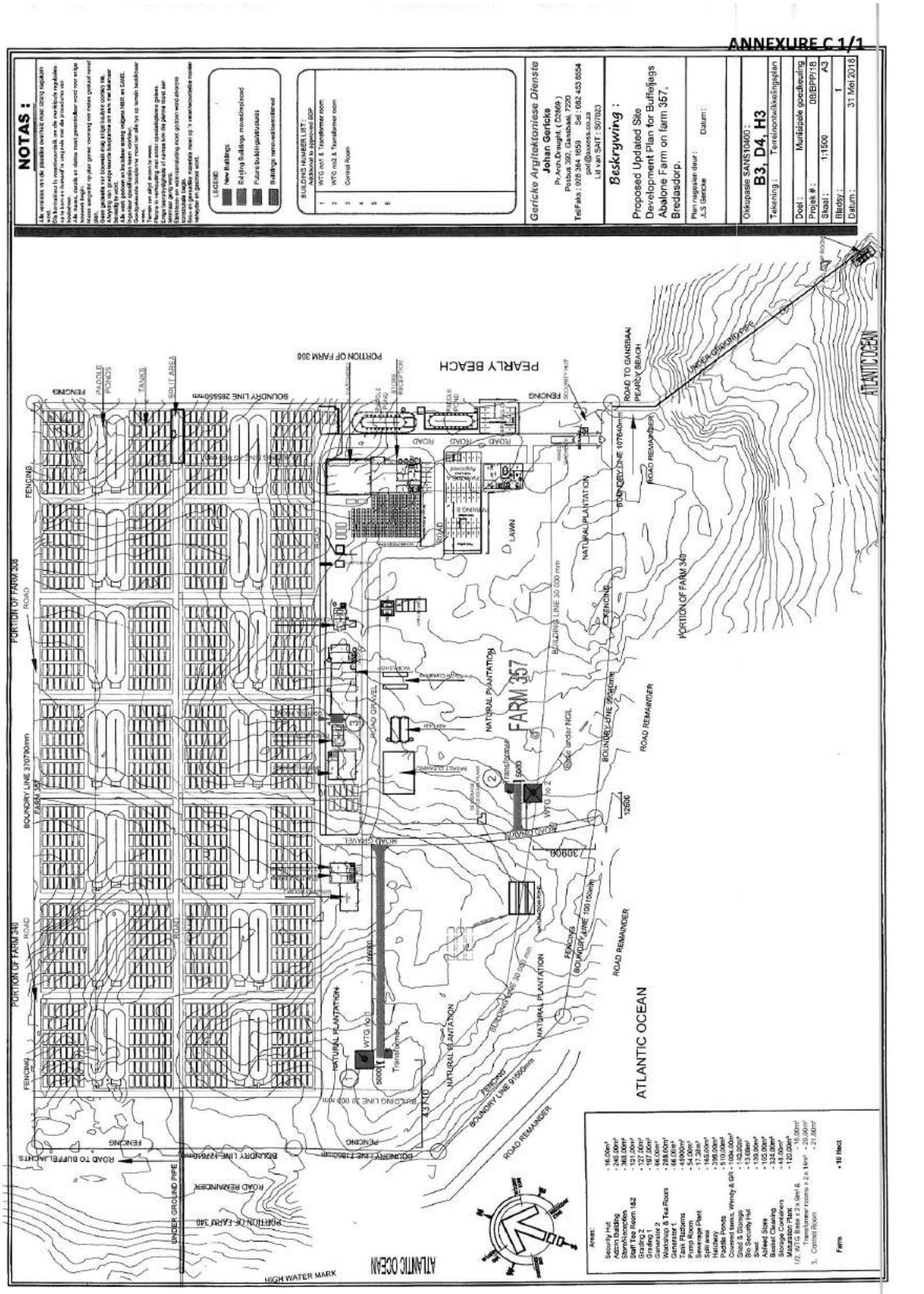
SECTION G: SUMMARY AND CONCLUSION

As fully detailed in this report, the proposed development will be desirable in the area and will not adversely affect the rights of any other properties in the area. The development is also compatible with the policies discussed in Section 6 and is therefore considered desirable. In relation to the above Elco Property Developments recommends the approval of the application.

In summary:

- The property is zoned Agricultural Zone 1: Agriculture;
- Utility services are allowed on the above zoning with the consent from Council;
- The property is located within an area identified as Core Agriculture;
- Livestock and crop farming, including abalone farming, contributes significantly to the local economy;
- The proposed wind turbines will ensure that the farm is self-sufficient through the use of renewable energy infrastructure;
- The required departures are minimal and will not have a lasting negative impact on the surrounding property owners or the character of the area;
- The visual impact of the wind turbines on the tourist economy (scenic route and national parks) will be minimal;
- Solar panels where shown to be more expensive and not an efficient as the proposed wind turbines for the subject abalone farm; &
- The contribution of the farm towards the economy an uplifment of the local community will outweigh the visual impact of the turbines.

ANNEXURE C 1/1



ANNEXURE D 1/12

Visual Impact Study of the Buffeljags Abalone Farm Wind Turbines

January 2018
NC Loubser

1. Summary

The Overstrand Municipality requested a visual impact study for the wind turbines erected at the Buggeljags Abalone Farm at Buffeljachtsbaai. There was a concern that the turbines may be clearly visible from the R 43 and the nearby tourist activity areas.

The visual impact study was done taking photos all along the R 43 from Pearly Beach towards Die Damme as well as the two sections of the R 43 which goes to Bredasdorp (Fig 1). One being the gravel road from Die Damme as well as the gravel road turning off from the Pearly Beach road (R43). On this route the wind turbines are only visible on 3 very short sections of the route. Once between Pearly Beach and Buffeljags (Fig. 5), at the turn-off to Buffeljachts (Fig. 7), and once again on the a ridge on the road towards Bredasdorp (Fig. 8). At the turn-off to Buffeljachts the turbines are clearly visible but at the other two points the turbines are around 7km away and hardly visible at all. The reason that the wind turbines are not visible is because of the hilly nature of the area and the fact the road from {early Beach to Die Damme is on a depression between the mountains on the north and a continual series of ridges on the south.

The wind turbines are not visible at all from the tourist development site at the Agulhus National Park, Ratelrivier (Fig. 10) or any of the surrounding beaches. It is also not visible from the beach at Die Damme or any where from Die Damme camp site (Fig. 12, 13 and 14). The natural topography of the area totally obscure the views to the west.

The wind turbines are clearly visible from the south east side of the Buffeljachts village (Fig. 2) as this is only 1km away, but as soon as you reach the south western end of the village the turbines form part of the Eskom lines and telephone lines clutter (Fig. 3). From the main beach and launching site the turbines are not visible (Fig. 4). As a whole the village is on the southern side of the turbines with the sea view being away from the turbines and therefore the turbines do not spoil the main vista from the houses and beaches.

The wind turbines are not visible on the road into Pearly Beach and they are also not visible from the most part of the town, including the central part where the shops and restaurants are located. The wind turbines are visible from the houses and beaches on the south eastern side of the town but since they are 15km away they are hardly noticeable on the horizon (Fig. 15). One has to zoom in 5 times to see them clearly (Fig. 16b). The wind turbines are not visible on the south and south west facing parts of the town which include the main swimming beaches (Fig. 18 and 19).

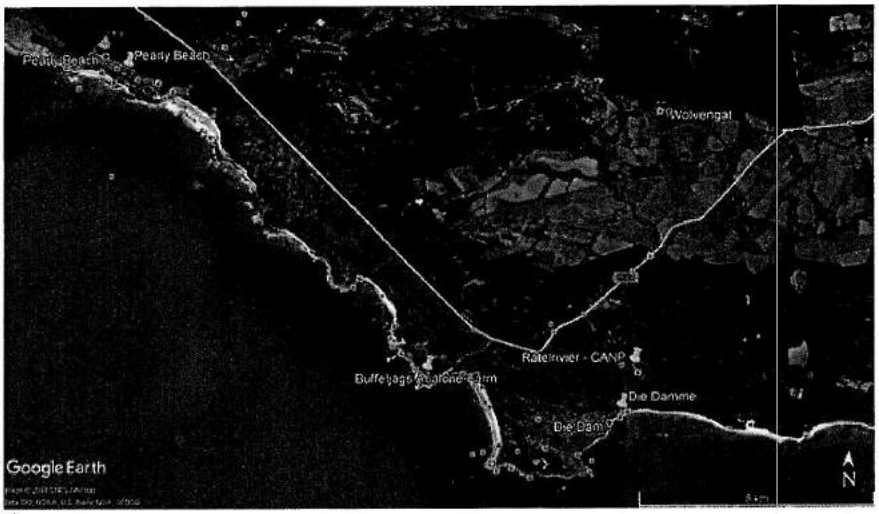
As can be seen from these site inspections the wind turbines cannot be seen from the majority of public and tourist activities in the area.

2. **Wind Turbines**

The 2 proposed wind turbines at the Buffeljags Abalone Farm are the Vestas V47's. Each mast has a height of 47m and the blades has a circumference of 25m making the total height of the turbine 60m. These are relatively small turbines compared to the wind turbines used along the N2 at Caledon and Jeffrey's Bay and at Hopefield and at Paternoster etc. Both Jeffreys Bay and Paternoster are very popular holiday destinations. The V47's are 650kW units and the total maximum production of 1.3 MW is below the 10MW or a footprint of 1 hectare which requires an environmental impact assessment.

These wind turbines are required in order for the two abalone farms at Buffeljags, belonging to the Viking and HIK groups, to grow to economical feasible units as the Eskom electricity supply to the area is not sufficient for both these farms. Eskom has no plans to upgrade the electricity supply to this area in the shirt to medium term. The combined employment from these two farms will be in the region of 300 people. The current employment level is 170 people which are completely new jobs created over the last 4 years.

Fig. 1 shows the position of the Buffeljags Abalone Farm where the wind turbines are situated relative to the tourist routes and sites in the area.



g
s Abalone Wind Turbines relative to popular tourism activities in the area up to 20km radius.

3. **Buffeljags Township**

The wind turbines are very visible from the south east part of the town, Fig. 2. From the south western part of the town the wind turbines or not that visible and form part of the Eskom and telephone line clutter on the horizon, Fig. 3. From the eastern side of the settlement at the beach and fishing boat launch site the wind turbines are hardly visible, Fig. 4.

Fig. 2 South East border of Buffeljachts town.

Fig. 3 South West border of Buffeljachts town.

Fig. 4 Beach and launching site on the south eastern side of Buffeljachts town.

4. **R43**

Very surprisingly the wind turbines are only visible at three spots along the entire triangular R 43 route from Pearly Beach, which is about 15km from the wind turbines. The road runs along a depression between the mountain on the north and multiple ridges on the south side. At the same spots one can see the turbines are also the only spots one can see the sea.

On the way from Pearly Beach to Buffeljags the first spot one can see the turbines is about 9.6km from Buffeljags. Figure 5 gives the normal view whereas fig. 6 gives a 5 x zoom from the same spot.

Fig. 5. R43 9.6km from Buffeljags

Fig. 6. R43 9.6km from Buffeljags with 5 x zoom

The only other spot on the R43 from Pearly Beach to Die Damme one can see the wind turbines is at the Buffeljachtsbaai turn-off as seen in Figure 7.

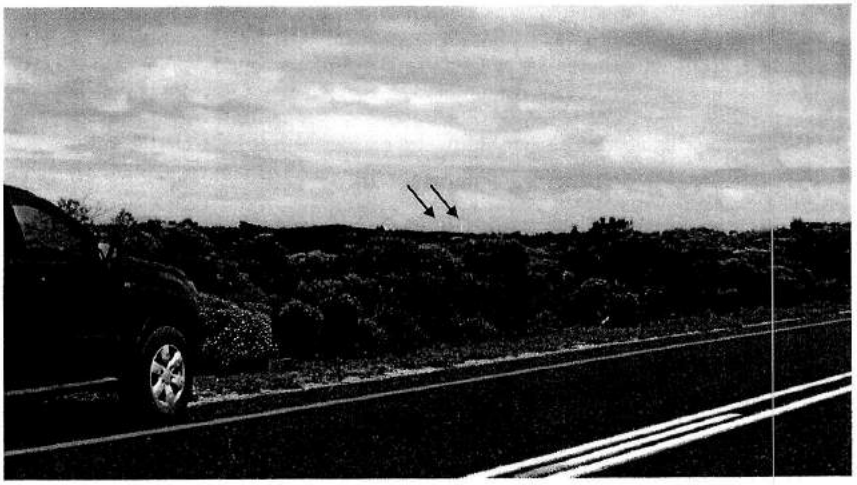


Fig. 7 The Ridge at the Buffeljachtsbaai turn-off.

The wind turbines cannot be seen on the rest of the way on the R43 to die Damme. Neither from the Die Damme turn-off to Ratelrivier, Agulhus National Park, or from there towards Elim/Bredasdorp.

The wind turbines can be seen on the ridge on the R43 (6km) which turns off to the north before the Die Damme T-junction as seen in figure 8. It is not very evident. One can barely see it on the horizon at the bottom of the hill where the road turns to the left/south.

Fig. 8 R43 to Elim/Bredasdorp (turn-off between Buffeljachts & Die Damme) Agulhus National Park

Apart from being able to see the wind turbines at the two areas described in Section 4, Figures 7 & 8, the wind turbines are not visible from the Cape Agulhas Park. Herewith a pictures taken at the entrance to Ratelrivier (Fig. 9 & 10) and en-route to Ratelrivier from Breasdorp (Fig. 11).

Fig. 9 Entrance to Ratelrivier, Agulhus National Park.

Fig. 10. View from the Ratelrivier entrance.

Fig. 11 Turn-off to Ratelrivier from Bredasdorp.

5. **Die Damme**

The wind turbines cannot be seen anywhere at the campsite or the surrounding beaches. It will be seen from the peninsula at Quoin Point, but a 4x4 is required to get there. Here are pictures taken from a ridge at the beach (highest point) at the beach (Fig. 12), a ridge at the camp site (Fig. 13) and at the entrance to the camp site (Fig. 14) which is the highest point in the area and nowhere can the turbines be seen.

Fig. 12. The view towards the wind turbines from the beach at Die Damme.

Fig. 13. The view from a ridge next to Die Damme campsite

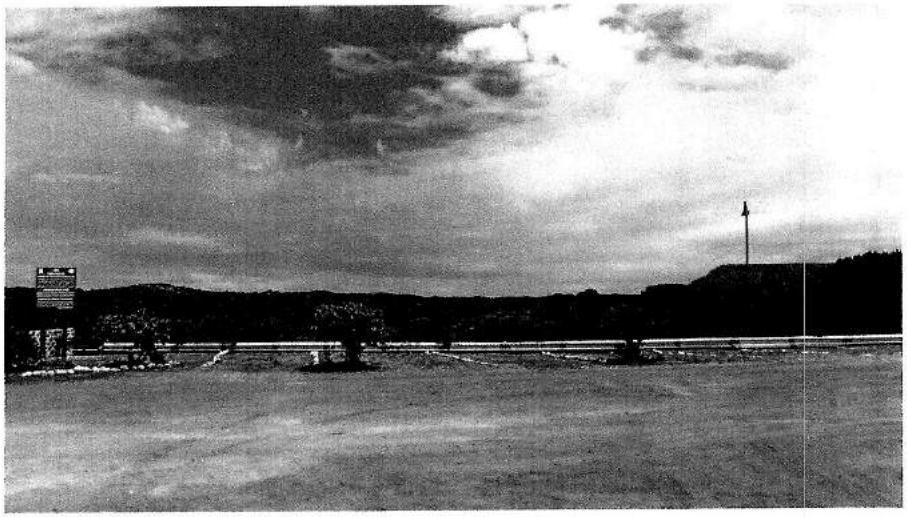


Fig. 14. The view at the entrance of the camp site which is the highest point.

6. **Pearly Beach**

The wind turbines is not visible on the way into town or in the town centre. Driving down the middle or northern sections of the town the wind turbines are not visible at all. When driving on top of the ridge on the south side of the town the wind turbines are not visible either, Fig. 15. Only on the ridge on the south eastern side of the village does the turbines become visible, but is hardly noticeable on the horizon as they are approximately 15km away, Fig. 16 (a). Figure 16 (b) is the same view zoomed in 5 times and even then the turbines are not clearly visible.

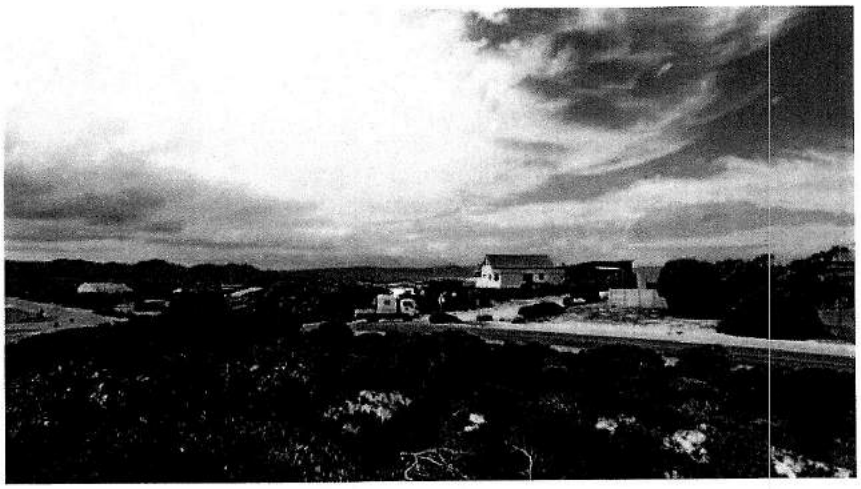
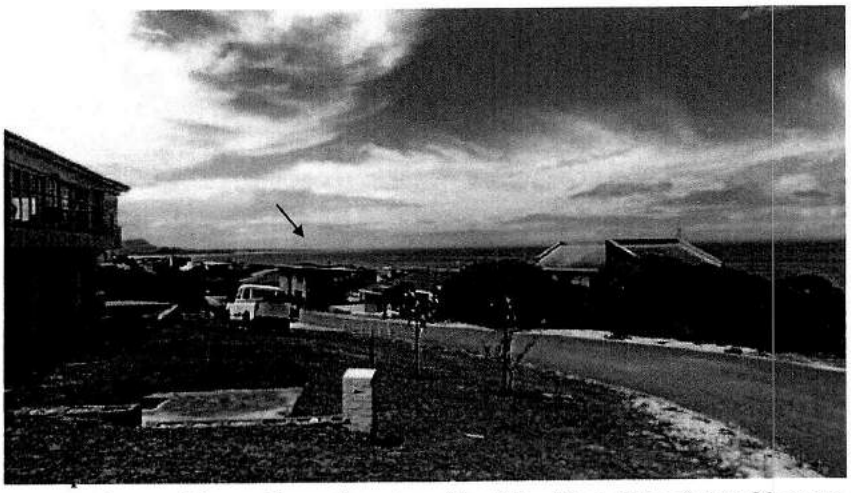


Fig. 15. View towards the wind turbine on the ridge in the centre of town.



ew from a ridge on the south eastern side of the village. The wind turbines are hardly noticeable on the horizon.

ame view from a ridge on the south eastern side zoomed in 5 times in order for the wind turbines to be seen more clearly – still hardly noticeable.

The wind turbines are visible from the fishing spots on the south eastern side of the village, Fig. 17, but not at the popular main swimming beaches on the south and south west side of the village, figures 18 and 19.

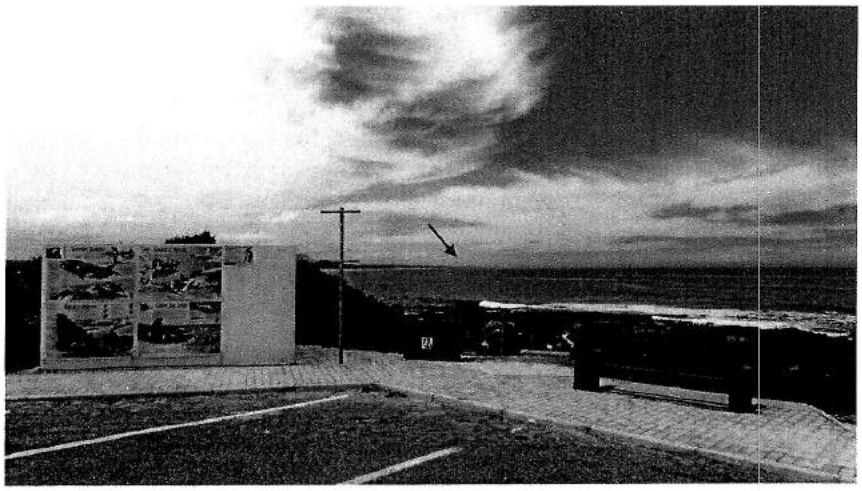


Fig. 17. The view from the beach on the south eastern side where the wind turbines are barely visible.

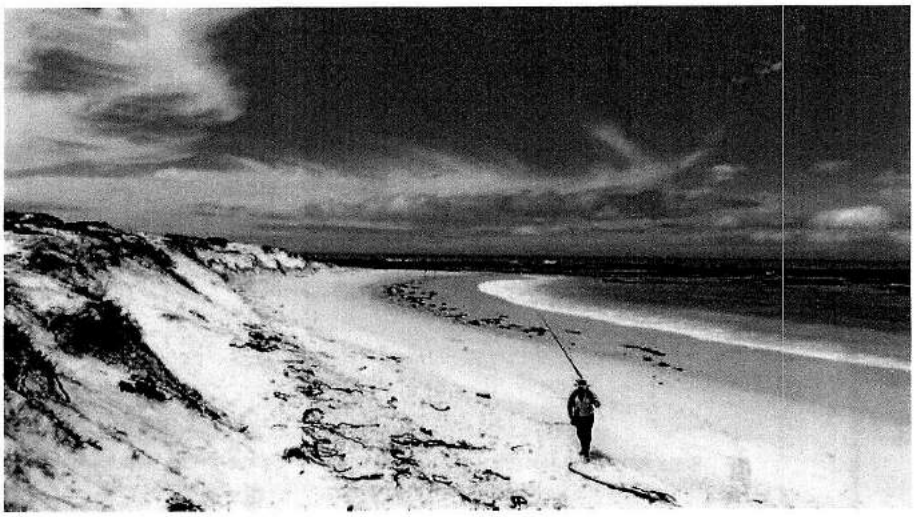


Fig. 18. The view from the main swimming beach at Pearly Peach where the wind turbines are not visible.

Fig. 19. The view from the beach on the south western side where the wind turbines are also not visible.

ANNEXURE E 1/32

ARCHAEOLOGICAL IMPACT ASSESSMENT PROPOSED ABALONE FARM ON FARM 357 BUFFELJAGS BREDASDORP DISTRICT[1]

Prepared for

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NOVEMBER 2010

[1] Revised May, 2011

Executive summary

EnviroAfrica requested that the Agency for Cultural Resource Management conduct an Archaeological Impact Assessment for a proposed abalone farm on Farm 357 in Buffeljags in the Western Cape Province. Buffeljags is situated about 30 kms south of Gansbaai on the Overberg coast.

The proposed development site is about 10 ha in extent and is situated directly adjacent the rocky shoreline. The infrastructure associated with the development includes a hatchery and nursery units, grow out tanks, water treatment plant, offices and ablution facilities, workshop area, stores and parking. Associated off-site infrastructure includes a pump station and intake and discharge pipelines into the sea. The proposed development will cover about 5.7 ha of the property.

The proposed site is undulating and covered in Overberg Dune Strandveld vegetation. Apart from a small stores building that is currently being built on the upper portion of the farm, the site is vacant. A gravel road cuts through the middle of the property. The southern portion of the farm comprises vegetated frontal dunes that are underlain by soft, loose, wind blown sands, while the back portion comprises a limestone ridge. The site is currently fenced on three sides.

The aim of the study is to locate and map archaeological sites/remains that may be impacted by the planning, construction and implementation of the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate the impacts.

The following observations were made:

Shell midden deposits are prolific across most of the southern portion of the proposed site, between the boundary fence and the frontal dunes. The densities of these deposits vary, however, from just a few fragments of marine shell, to more extensive and coherent patches of preserved shellfish. Lithic numbers are very low and comprise mainly rough quartzite flakes, and flaked cobbles. Only two small pieces of pottery and one piece of ostrich eggshell was found.

The shellfish deposits are dominated by the Alikreukel (Turbo sarmaticus) and the limpet (Scutellastra argenvillei), with smaller amounts of Perlemoen (Haliotis midae), periwinkles (Diloma sinensis and Oxystele) and whelk (Burnupena sp) occurring.

Indications are that the archaeological deposits most likely represent one large site spread across the southern boundary of the property, representing multiple, possibly short, intermittent visits to the coast by Later Stone Age hunter-foragers to harvest primarily shellfish resources.

Most of the archaeological deposits are associated with extensive dune mole rat activity across the soft sandy southern portion of the farm, and as a result are very disturbed, and have lost much of their integrity, but there are some areas where the surface remains appear to be reasonably well preserved and intact.

Studies conducted indicate that these types of sites (small scatters of shellfish dominated by Alikreukel and limpets, and few stone flakes) are prolific along this part of the, southern Cape coastline, occurring between Cape Agulhas in the south, and Gansbaai in the west.

Six Middle Stone Age flakes were found on calcrete surfaces in the northern portion of the proposed development site.

Substantial shell midden deposits were also documented in the both the alignments for the proposed intake and discharge pipelines, as well as on the site for the proposed pump station. These deposits are also associated with extensive dune mole rat activity. These shellfish deposits are also dominated by limpets and Alikreukel, with very small numbers of quartzite flakes, and a few smashed cobbles and manuports.

The baseline study has shown that the proposed development of an abalone farm on Farm 357 at Buffeljags will have a direct, severe, and irreversible impact on shell midden deposits. More deposits are also likely to be encountered during preparation of the site for development and bulk earthworks, while impacts are also likely to take place during any future expansion phase that entails earthmoving operations.

While it is acknowledged that most of the bulk infrastructure for the development will be located on the limestone ridge in the northern portion of the property, away from the more threatened and vulnerable archaeological deposits that occur across the southern portion, it is inevitable that proposed (and any future planned) development activities will impact both directly and indirectly on these fragile remains.

Not any more!

While the intake and discharge pipelines will be located above ground, excavations for the pipeline footings, and excavation for the pump station, will also impact negatively on both surface and buried archaeological deposits.

Buried shell middens and unmarked human burials may also be encountered during bulk earthworks and excavations for services.

It is also possible that older, Middle Stone Age deposits and remains may be exposed once the limestone base on the northern ridge is penetrated by bulk earthworks.

While much of the archaeological heritage has already been compromised as a result of extensive animal burrowing, construction of roads, erection of fencing and pedestrian traffic, enough undisturbed heritage does remain, which will be lost forever, should the development proceed. It is in this context that the remains have been rated as having high significance and will require some mitigation action.

With regard to the proposed development of an abalone farm on Farm 357 Buffeljags, the following recommendations are made. These include:

1. Sampling and dating, by way of test excavations, of archaeological deposits across the southern portion of the property, between the fence and the frontal dunes. A grid line should be laid along the gravel entrance road and sampling of archaeological deposits in 1 x 1 m squares should take place every 15-20 m along the gridline. Sampling must follow conventional excavation and recording procedures. Essentially, surface archaeological material must be examined by sub-surface testing to determine the extent

of the pre-colonial archaeological occupation. Sampling must focus on those occurrences logged as bjg54-bjg59, as well as bjg60-bjg73, where surface shellfish densities are highest over this portion of the property.

Pottery, ostrich eggshell and some quartzite flakes were also logged at bjg7 and while the, shell scatter here was very thin, this 'site' should also be sampled.

Sampling along the grid line will also indicate how variable shell densities area across this portion of the property. Where sub-surface shellfish densities are determined to be high, at least 2-3 more squares should be sampled in that area.

Should significant sub-surface archaeological deposits and cultural remains be encountered during test sampling, further sampling may be recommended by the archaeologist.

2. Sampling and dating by way of test excavations, of shell midden deposits in the dune slack behind the vegetated frontal dunes. A grid line should be laid along the gravel road along the western boundary. Sampling of archaeological deposits in 1 x 1 m squares must focus on the areas logged as bjg14-bjg27 where surface deposits are relatively well preserved. Sampling in the back dunes should be designed to determine how variable shell densities area across this portion of the property. Where sub-surface shellfish densities are determined to be high, 2-3 more squares should be sampled in that area.

Should significant sub-surface archaeological deposits and cultural remains be encountered during test sampling, further sampling may be recommended by the archaeologist.

3. Sampling and dating, by way of test excavations, of archaeological deposits in the alignment of the intake pipeline, as well as in the building footprint of the proposed pump station. A grid line should be laid along the gravel road. Sampling however, must focus on those occurrences logged as bjg51 & bjg52 where shellfish densities are substantial.

An alternative sampling strategy could also entail the excavation of 1 x 1 m squares 15 m apart, along the pipeline route, in order to determine the variability of shellfish densities. Where sub-surface shellfish densities are determined to be high, 2-3 more squares should be sampled in that area.

At least five, 1 x 1 m squares should also be sampled on the proposed pump station site (bjg52). Where sub-surface shellfish densities are determined to be high, 2-3 more squares should be sampled in that area.

Should significant sub-surface archaeological deposits and cultural remains be encountered during test sampling, further sampling may be recommended by the archaeologist.

4. Sampling and dating, by way of test excavations, of archaeological deposits in the, alignment of the discharge pipeline. The east-west grid line established alongside the gravel, entrance road can be used and must entail the excavation of 1 x 1 m squares 10 m apart, along either side of the short pipeline route, in order to determine the variability of shellfish densities. Where sub-surface shellfish densities are determined to be high along the pipeline alignment, 2-3 more squares should be sampled in that area.

Should significant sub-surface archaeological deposits and cultural remains be encountered during test sampling, further sampling may be recommended, by the archaeologist.

5. Monitoring of bulk earthworks (including excavations for services) for all development, activities must be carried out by a professional archaeologist. This is a precautionary measure, as it is possible that Middle Stone Age deposits and remains may be intersected on the limestone ridge, where such finds are most likely to occur. Should any deposits be intersected or exposed during earthmoving operations, these may need to be sampled by the archaeologist. A monitoring programme must be drawn up by the archaeologist and presented to Heritage Western Cape for approval.

6. Should any unmarked human remains be disturbed, exposed or uncovered during excavations and earthworks, these should immediately be reported to Heritage Western Cape (Ms Jenna Lavin 021 483 9685).

Table of Contents

1. INTRODUCTION

EnviroAfrica cc, on behalf of Buffeljags Abalone (Pty) Ltd requested that the Agency for Cultural Resource Management conduct an Archaeological Impact Assessment (AIA) for the proposed development of an abalone (perlemoen) farm on Farm No. 357 in Buffeljags (Bredasdorp District) in the Overberg region of the Western Cape (Figure 1). Buffeljags is a small, isolated, coastal township, situated west of Pearly Beach and Gansbaai and is approximately 190 km from Cape Town.

The proposed development entails the establishment of an abalone farm with bulk infrastructure that includes a hatchery and nursery, and a grow-out facility consisting of about 1500 small plastic tanks placed on a sloped gravel base on grow-out platforms, each with its own seaweed cultivation unit. Offices, ablution facilities, workshop areas, stores and parking are also planned. The abalone farm will have a sea water intake on the eastern side of the property with brick pump house and four 50cm diameter suction lines on pedestals to enable delivery of seawater to the farm complex. After re-circulation through the farm and the seaweed polishing units, the seawater is returned to the sea via a discharge pipeline, on the southern side of the site. The abalone will be cultivated for live export to the overseas markets. At full production the farm will create about 130 new jobs, which will be sourced from the nearby Buffeljags settlement.

The total area of the property is about 10 ha, but a bulk development footprint of 5.7 ha is envisaged (refer to site development plan in the Appendix). It is important to note that most of the development infrastructure will be located in the northern portion of the property, on the raised limestone ridge, while the loose sandy soils and dunes that characterise the frontal portion of the property will be largely avoided. However, it is possible, given market conditions and returns on investment, that the remainder of the farm may be developed in the future.

Farm 357 is currently zoned Agriculture I, and will retain its zoning status, as an abalone farm is recognised as an agricultural activity.

Section 38 of the National Heritage Resources Act (Act No. 25 of 1999) requires that a Archaeological Impact Assessment (AIA) must be done for certain kinds of developments, such as rezoning of a property greater than 10 000m² in extent, or exceeding three or more sub-divisions, or for any activity that will alter or change the landscape character of a site greater than 5000m².

The aim of the study is to locate and map archaeological heritage sites/remains that may be impacted by the planning, construction and implementation of the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate the impacts.

A Notice of Intent to Develop (NID) checklist has been completed by the lead consultant (EnviroAfrica) and submitted to the Heritage Western Cape APM Review Committee for comment.

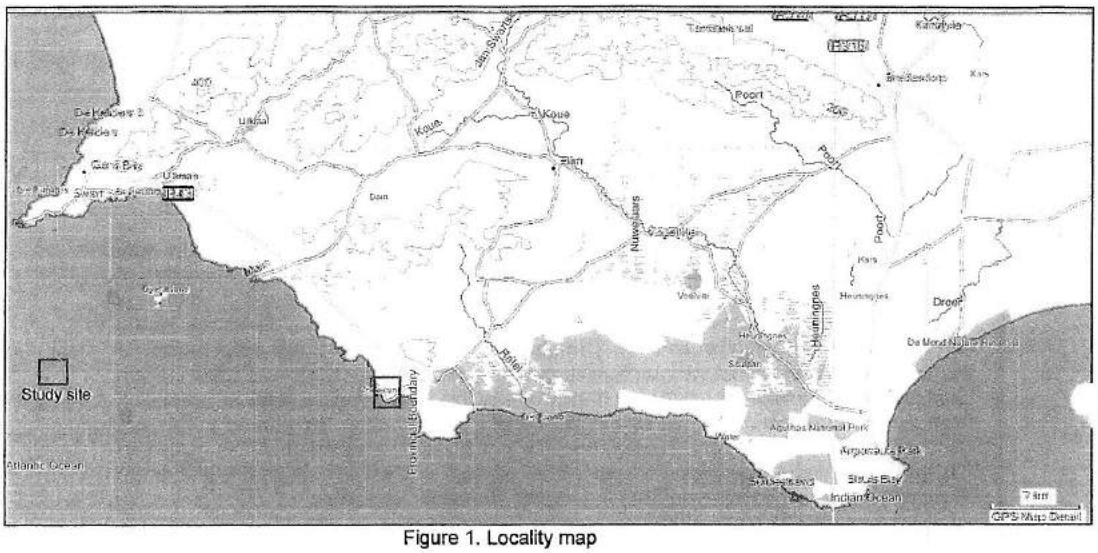

Figure 1. Locality map

2. TERMS OF REFERENCE

The terms of reference for the archaeological study were:

- to determine whether there are likely to be any archaeological sites within the proposed development site and associated infrastructure;
- to identify and map archaeological sites within the proposed development site and associated infrastructure;
- to assess the sensitivity and conservation significance of archaeological sites within the proposed development site;
- to assess the status and significance of any impacts resulting from the proposed development, and
- to identify measures to protect and maintain any valuable archaeological sites that may exist within the proposed development site

3. DESCRIPTION OF THE AFFECTED ENVIRONMENT

An aerial photograph of the study site is illustrated in Figure 2.

Buffeljags is a small coastal township situated east of Gansbaai and Pearly Beach, and west of Cape Agulhas, and is approximately 190 km from Cape Town. Access to the site is via the R43. The property is characterized by an undulating landscape and abuts the coast on both the eastern and southern side, where the Buffeljags access road runs directly alongside the property (Figures 3-10). The site is fenced on three sides, while a

newly constructed gravel road demarcates the western boundary. The upper portion of the farm is flattish and is capped by a layer of limestone and covered in dense Overberg Dune Strandveld vegetation. It is on these hard limestone surfaces that most of the bulk infrastructure for the abalone farm is planned. In terms of its existing zoning, a small stores building is currently being constructed in the upper north eastern portion (refer to Figure 8). Several tracks and footpaths intersect the site, while a wide gravel road cuts through the middle of the property. Some diggings into the limestone occur alongside the road. A 2km long, 2m deep, trench has recently been excavated, which runs alongside (i.e. just outside) the northern and part of the western boundary of the farm, which will be used provide potable water to the Buffeljags community. An AIA of the pipeline was conducted by Pro-active Archaeology (van Pletzen-Vos and Rust 2010)

The lower portion of the property is characterised by a series of vegetated frontal dunes. Several small informal footpaths and old tracks intersect the property in this area. There is a large, disturbed area in the south east, where dumping is widespread and some diggings have taken place. Some informal and wooden structures also occur here. Dune mole rat activity is extensive across the southern portion of the property, where the sands are very soft and loose. Shell deposits are extensive across this portion of the property, as well as in the dune slack behind the frontal dunes. Shell midden deposits are also prolific, between the gravel road and rocky shoreline.

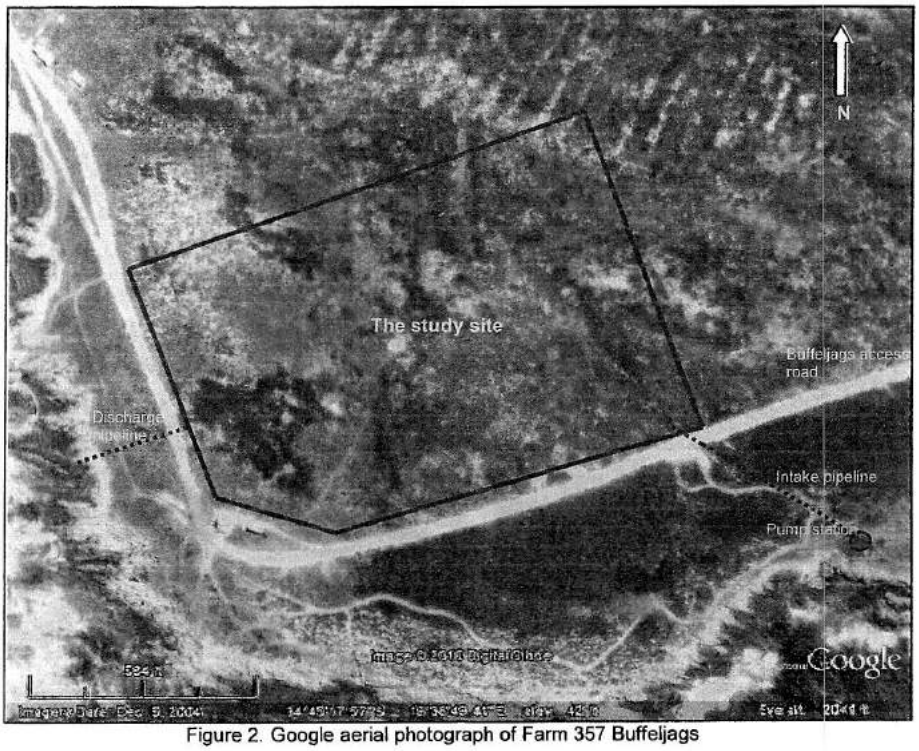

Figure 2. Google aerial photograph of Farm 357 Buffeljags

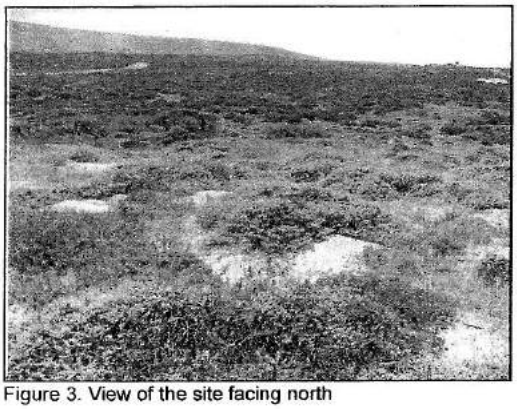

Figure 3. View of the site facing north

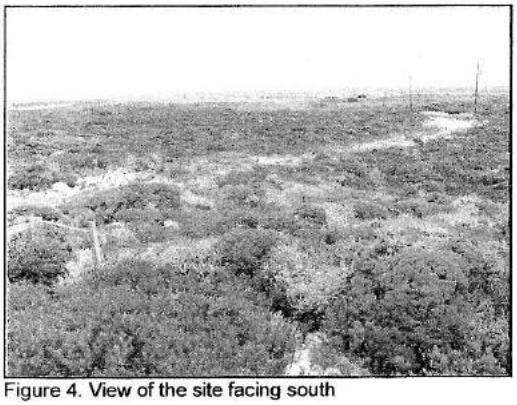

Figure 4. View of the site facing south

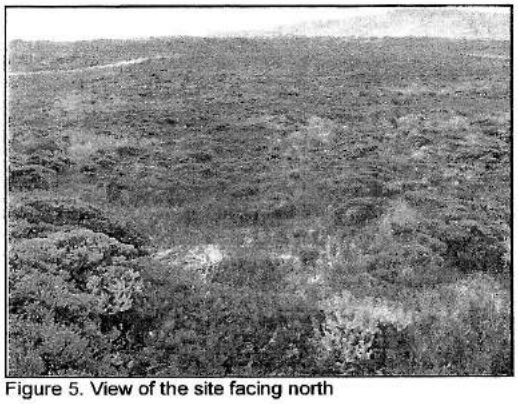

Figure 5. View of the site facing north

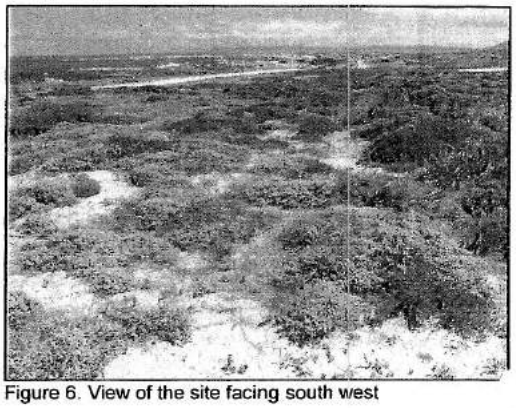

Figure 6. View of the site facing south west

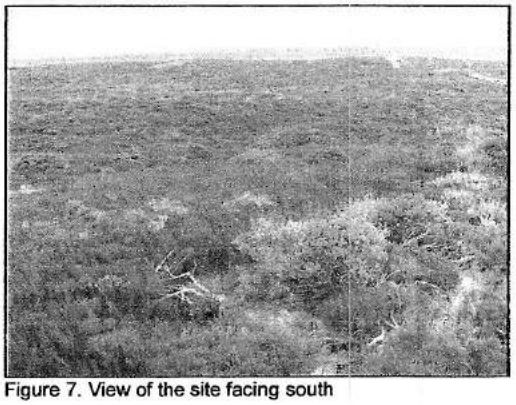

Figure 7. View of the site facing south

Figure 8. View of the site facing south

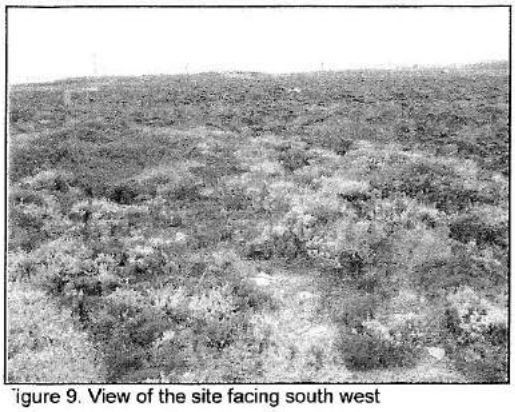

Figure 9. View of the site facing south west

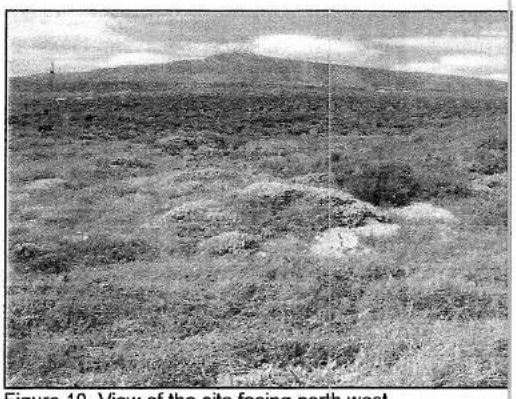

Figure 10. View of the site facing north west

4. STUDY APPROACH

4.1 Method

The approach taken to providing the input required by the Terms of Reference was as follows:

- Site visit to inspect the proposed development site, including the associated infrastructure (intake and discharge pipeline and pump station). This entailed a detailed and systematic foot survey of the proposed development site and associated activities.
- A GPS track path of the archaeological study was created.
- All archaeological occurrences were logged and mapped using a Garmin Oregon 300 GPS unit, set on map datum wgs 84. A spreadsheet of the waypoints and a description of each occurrence documented during the study are also included with the report (refer to Table 1 in Appendix).

The site visit and assessment took place on the 11th November, 2010. A desktop study was undertaken.

4.2 Constraints and limitations

There were no major constraints or limitations associated with the study. While much of the property is covered in natural and wind shorn vegetation, this did not really hinder the study, or affect the results of the findings.

4.3 Identification of potential risks

Shell midden deposits will be directly and permanently impacted by the proposed development. This includes earthworks for bulk infrastructure on the proposed development site, as well as excavations and earthworks for the intake and discharge pipeline, and pump station.

Buried archaeological remains (such as shell middens) and unmarked human burials may also be uncovered during initial site preparation (such as leveling), bulk earthworks and excavations. A pair of human tibia shafts was identified during an archaeological survey in Buffeljachtsbaai north of the proposed development site (Hart and Halkett 1991), while a burial was also excavated from the dunes near Hagelkraal further to the north (ACO 2010). Sampling of archaeological deposits at Romansbaai (Nilssen 2008), Gansbaai (Kaplan n.d.) and Pearly Beach (Kaplan 2001) for example, revealed layers of shellfish deposits buried below the wind blown sands.

It is also possible that older, Middle Stone Age deposits and remains may be exposed once the limestone base on the northern ridge is penetrated by bulk earthworks.

4.4 Results of the desk-top study

On the Overberg coast, the most recent, detailed archaeological study to date has been undertaken by the Archaeology Contracts Office (ACO) at Bantamsklip, one of three proposed nuclear power station sites, situated between Buffeljags and Pearly Beach (ACO 2010). Abundant and well preserved, Later Stone Age (LSA) shell middens were documented on the shoreline, while Middle Stone Age scatters of quartzite flakes and cores were found on exposed fossil dunes and calcrete surfaces further inland. Several types of middens were identified at Bantamsklip; those that are almost exclusively dominated by Perlemoen (Haliotis midae) and those that are characterised by mixed Turbo sarmaticus (Alikreukel), Black mussel (Choromytilus meridionalis), limpets (Scutellastra argenvillei), Oxystele and whelks (Burnupena sp). Lithic densities are low on all the sites, and include mainly rough quartzite flakes, broken cobbles, manuport and grinding stones (on the perlemoen dominated sites). Pottery and ostrich eggshell are scarce. ACO (2010) suggest that these sites date between 5000 and 3000 years ago.

A Perlemoen-rich midden at Pearly Beach produced a date of 1450 ± 50 years before present (G. Avery, pers. comm.) and Avery (1976) suggested that these large middens represented processing or `transit' sites, where large volumes of Perlemoen were collected at low spring tides, when Haliotis could be reached. The shellfish represented the optimum resource because of its size. Similar large Perlemoen-rich sites, with very obvious processing `stations' (such as large, flat grinding stones, round cobbles and hand held grindstones surrounded by dense pockets of shell) have also been documented at Danger Point near Gansbaai (Kaplan unpublished excavation notes). Avery (1976) argued that shellfish meat was prepared mainly for bulk drying, and then transported to inland sites for storage and consumption. ACO (2010) has suggested that the perlemoen dominated middens at Bantamsklip served a similar function, with the meat being transported to caves and shelters further inland, of which several are known to occur.

Further to the south, LSA shell middens were documented during a survey of a portion of an area to be developed at Buffelsjachtbaai (Hart & Halkett 1991), not far from Buffeljags. These sites occur on the high lying ground such as ridges and dune tops, as well as in deflated areas behind the dune cordon. On some of these sites, Perlemoen makes up a larger component of the shellfish species exploited, but are not exclusively dominated by the shellfish. Cultural remains include crude quartzite and quartz stone flakes and manuports, with some formal tools made in silcrete. On some of the deflated sites behind the dune cordon, both upper and lower grindings stones were found, as well

as organic remains such as bone, pottery, ochre and ostrich eggshell. Two types of sites may therefore occur at Buffelsjachtbaai; those that are exclusively shellfish processing stations directly adjacent the shoreline, while the sites behind the dune cordon may represent settlement areas, where a wider range of activities were carried out. Similar settlement sites may occur at Bantamsklip, but these were not identified as the terrain behind the dune cordon is covered in very dense vegetation (ACO 2010).

5. RESULTS OF THE SURVEY

Nearly 80 archaeological `sites' were documented during the baseline study of Farm 357 at Buffeljags (refer to Figure B in the Appendix). Each site has been logged with a hand held GPS unit. A spreadsheet of the waypoints and a description of each site are presented in Table 1 in the Appendix.

Buffeljags is an archaeologically sensitive and threatened landscape, and the most clear and obvious sign of the sensitivity of the receiving environment can be seen alongside the south western boundary of the property, where the recent construction of a road has destroyed a large shell midden called bjg1. Crushed shellfish, quartzite stone flakes and smashed cobbles are visible in the road (Figures 11 & 12). Erection of the fence alongside the southern boundary of the proposed development site has also impacted on substantial shell midden deposits, but it can be countered that these deposits were already damaged due to road construction activities and the building of several dwellings alongside the farm (Figure 13).

Indications are that the archaeological deposits that are spread across the southern portion of the property most likely represent one large site, representing multiple, possibly short, intermittent visits to the coast by Later Stone Age hunter-foragers to harvest primarily shellfish resources. Some patterning in the distribution of the archaeological remains does occur, however. The majority of the deposits occur between the fence on the southern boundary of the property and the toe of the vegetated frontal dunes (a distance of about 50 m), while sites also occur in the dune slack behind the frontal dunes. Only two, very thin scatters of shellfish (bjg41 & bjg42) were documented on the calcrete ridge in the north western portion of the property.

Without exception, the shellfish in all of the occurrences documented is dominated by Alikreukel (Turbo sarmaticus) and the limpet Scutellastra argenvillei, with smaller numbers of the limpet S. longicosta, Perlemoen (Haliotis midae), whelk (Burnupena sp), and periwinkle (Diloma sinensis and/or Oxystele) occurring. Only one site (bjg1) has discernibly larger volumes of Perlemoen, but was not exclusively dominated by the shell, as quite large volumes of Turbo and S. argenvillei were also found.

Overall, the densities of stone tools are very low on Farm 357 and include mainly a handful of rough quartzite flakes, small, broken/flaked/smashed quartzite chunks and manuports. Only one grinding stone (on bjg1) was found. No exotic raw materials such as silcrete, or chalcedony were noted.

One small undecorated piece of pottery and a small piece of ostrich eggshell (bjg7) were found among the ribbon of shellfish deposits located on the soft loose sands alongside the southern boundary, while a small undecorated body sherd (bjg25) was found in the dune slack between two small footpaths.

The shell content of the middens recorded on Farm 357 are much the same as those documented at Pearly Beach, situated about 20 kms further to the north, where the middens alongside the rocky shoreline are also quite diffuse, and the deposits are dominated by Alikreukel and the limpet S. argenvillei, and small numbers of stone flakes, flaked/broken cobbles and manuports (Kaplan 2000, 2005, 2009, 2010; Rudner 1968). In fact, the character of the shell middens documented at Buffeljags is consistent with many of those found elsewhere on this rocky stretch of coastline between Cape Agulhas in the south and Gansbaai in the west.

While most of the Farm 357 shell deposits have been churned up as a result of dune mole rat burrowing (refer to Figures 14-17), and damaged as a result of road construction, erection of fencing, excavations and informal footpaths (Figures 18 &19), some of the surface deposits between the southern boundary and frontal dunes are also relatively well preserved and quite dense. These include the remains identified as bjg60-bjg70 (Figures 20-22), and bjg54-bjg59 alongside the fence in the south eastern corner of the site (refer to Figure 25).

While scatters of disturbed shellfish is also visible in small footpaths in the dune slack behind the frontal dunes, (refer to Figure 19), several occurrences are also relatively well-preserved. These include a fairly large, but thin surface scatter of shellfish and some quartzite flakes (bfg16-27), that occur near the north western boundary of the property (Figure 23). One piece of pottery (bfg25) was also found here.

Another fairly undisturbed site (bfg40) is situated on the south facing slopes of a large dune at the crest of the calcrete ridge (Figure 24). The shellfish is fairly diffuse here, but several quartzite stone flakes were also found.

Six dispersed MSA flakes (bjg43-bjg47 & bjg49) were also found on the ridge in the northern portion of the proposed development site.

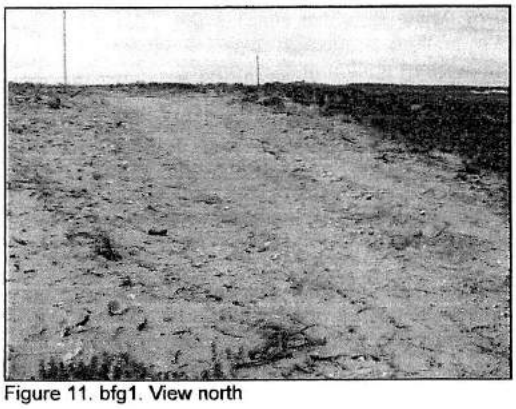

Figure 11. bfg1. View north

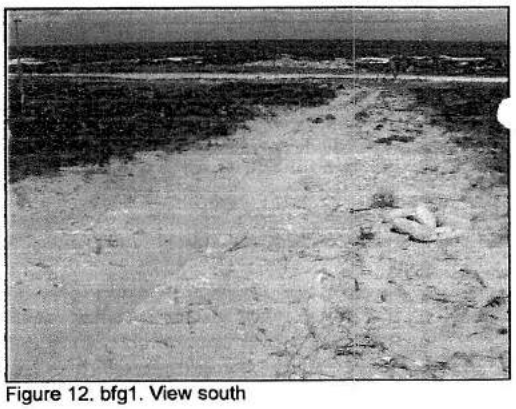

Figure 12. bfg1. View south

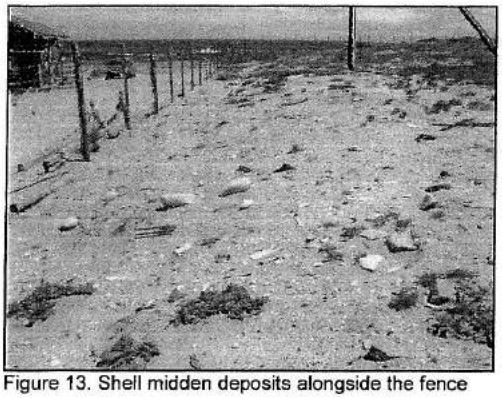

Figure 13. Shell midden deposits alongside the fence

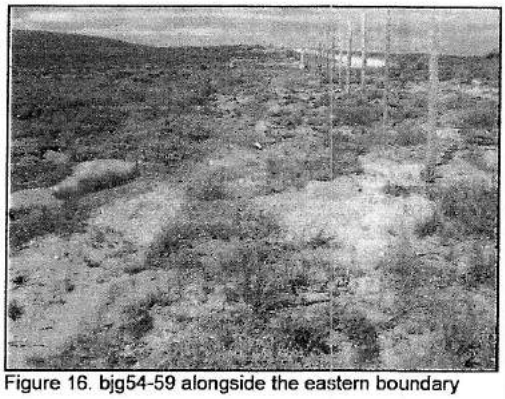

Figure 16. bjg54-59 alongside the eastern boundary

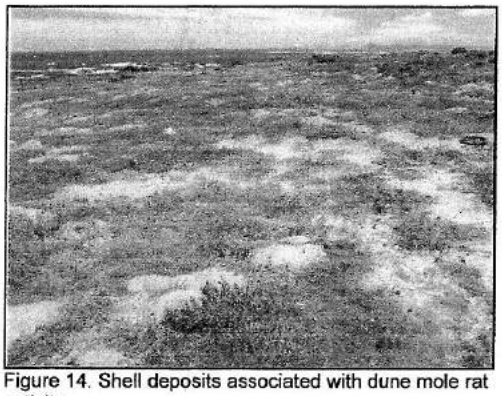

Figure 14. Shell deposits associated with dune mole rat activity

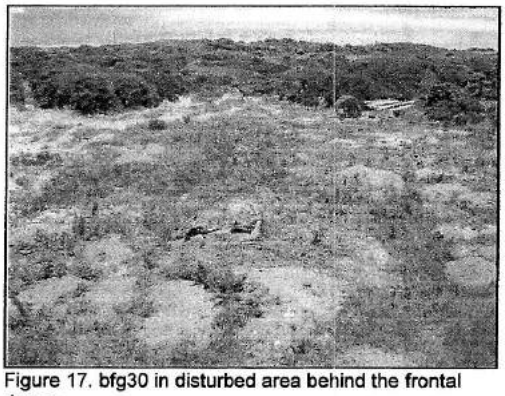

Figure 17. bfg30 in disturbed area behind the frontal dunes

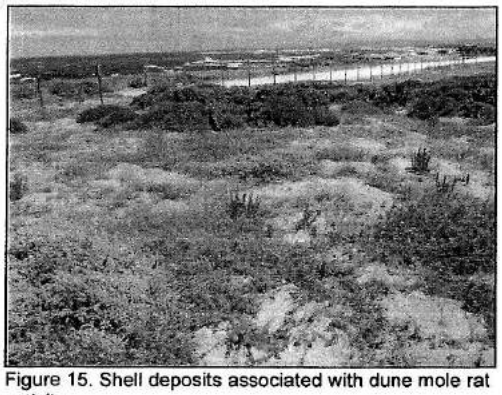

Figure 15. Shell deposits associated with dune mole rat activity

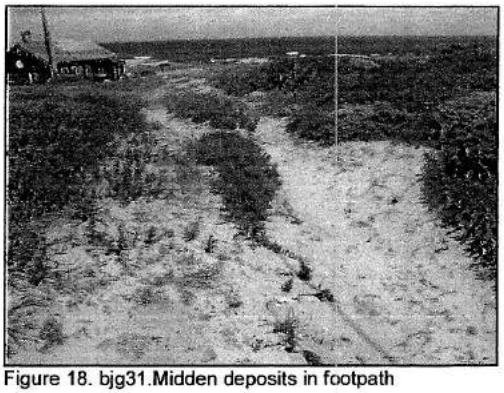

Figure 18. bjg31.Midden deposits in footpath

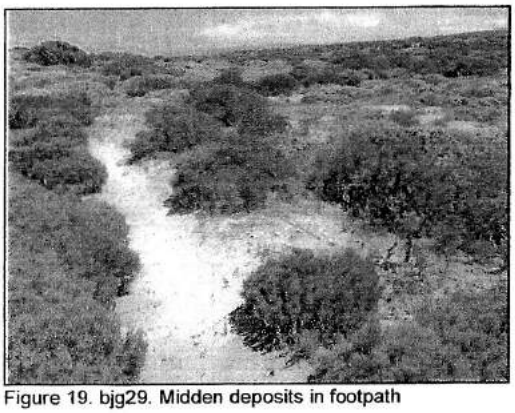

Figure 19. bjg29. Midden deposits in footpath

Figure 22. bfg69-73. Undisturbed midden deposits

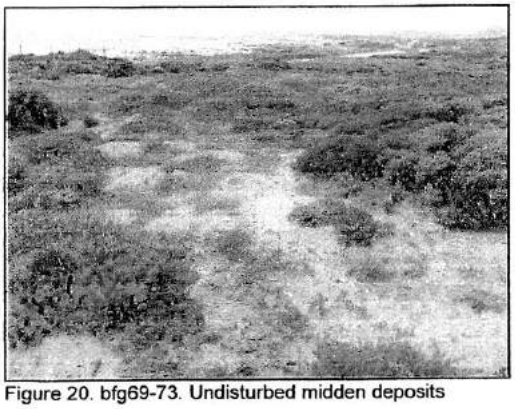

Figure 20. bfg69-73. Undisturbed midden deposits

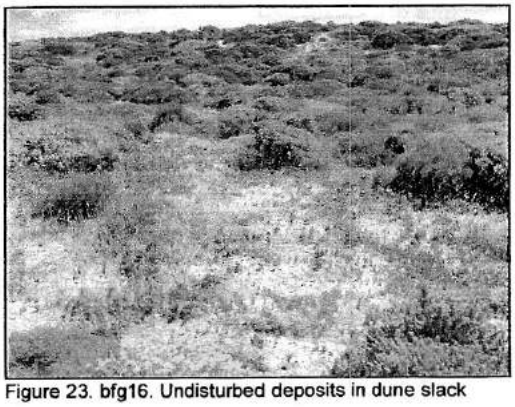

Figure 23. bfg16. Undisturbed deposits in dune slack

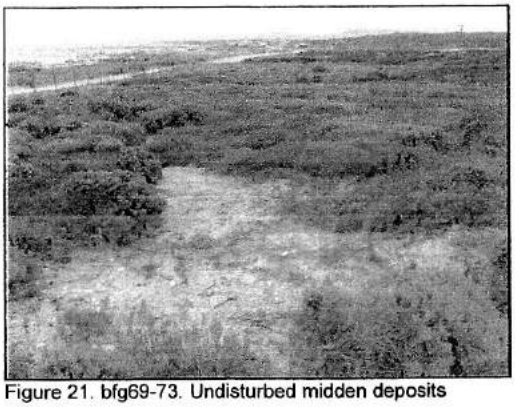

Figure 21. bfg69-73. Undisturbed midden deposits

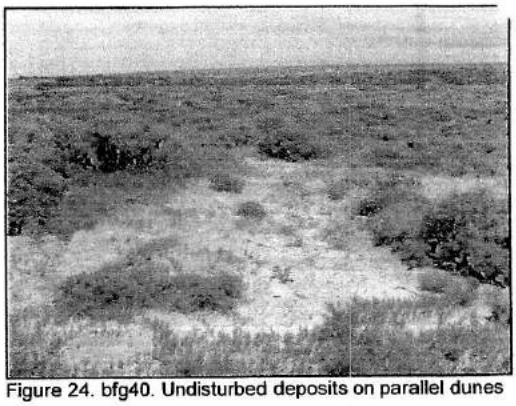

Figure 24. bfg40. Undisturbed deposits on parallel dunes

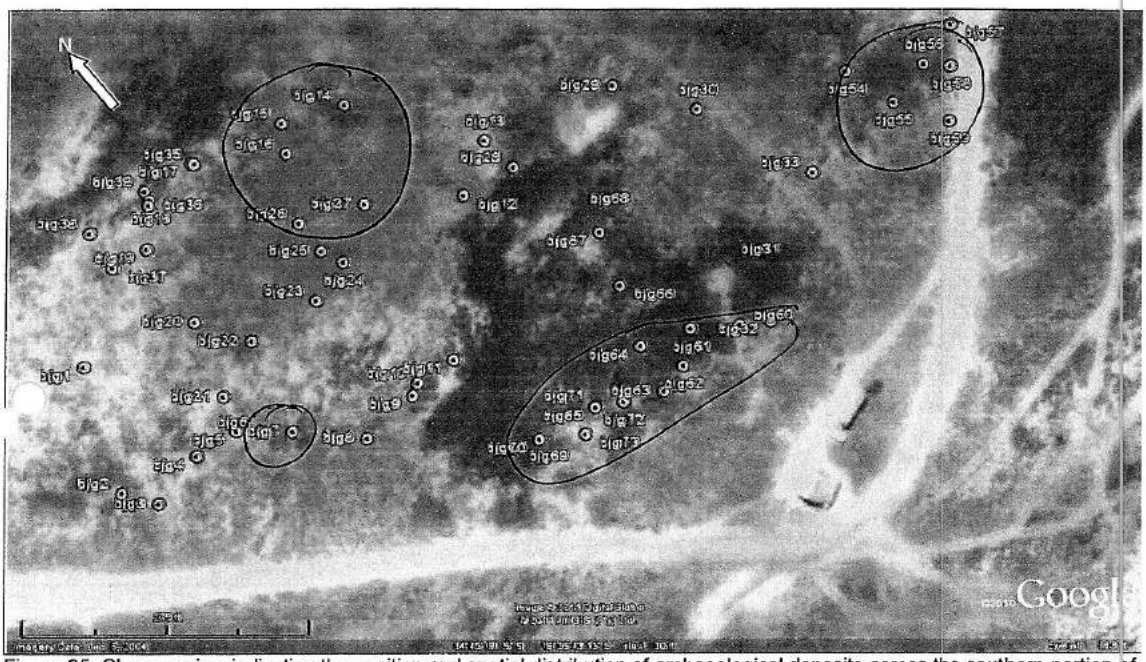

Figure 25. Close up view indicating the position and spatial distribution of archaeological deposits across the southern portion of the study site. Note that most of this area is covered in surface shell, ranging from just a few small fragments of shell to larger, more coherent patches. Lithic densities are low over the whole property, comprising just a few quartzite stone flakes.

5.1. Intake pipeline and pump station

The proposed ± 250 m long, sea water intake pipeline is located on the eastern side of the property, with a pump station that will be positioned on municipal land above the high water mark. The intake delivery line will be built above ground to minimize the environmental impact.

Shell midden deposits in varying densities occur along the route of the proposed intake pipeline, which is situated next to a small gravel road (Figure 26). Marginal scatters of shell occur in small sandy patches in the proposed route, at bjg48 and bjg 50, but substantial and extensive scatters of shell fish occur in and alongside the proposed route at bjg51 and bjg52. While much of the route is covered in dense wind shorn vegetation (Figures 27 & 28), it does open up closer to the rocky shoreline where dense deposits of shellfish are visible. The shellfish deposits logged as bjg51 and bjg52 are dominated by Turbo sarmaticus, and S. argenvillei, with Perlemoen and small amounts of whelk and D. sinensis. These deposits are associated with extensive dune mole rat activity (Figure 29). Outcroppings of quartzite occur adjacent the route, which may have provided shelter during shell collecting outings. One broken MSA flake (bjg49) was found next to the outcropping.

The proposed pump station is located on a flat piece of grass directly adjacent the rocky shoreline, above the high water mark. Shellfish deposits are dense and prolific on the proposed pump station site and in the surrounding area where dune mole rat activity is extensive (Figures 26 and 30). Shellfish deposits can also be seen in the road cutting.

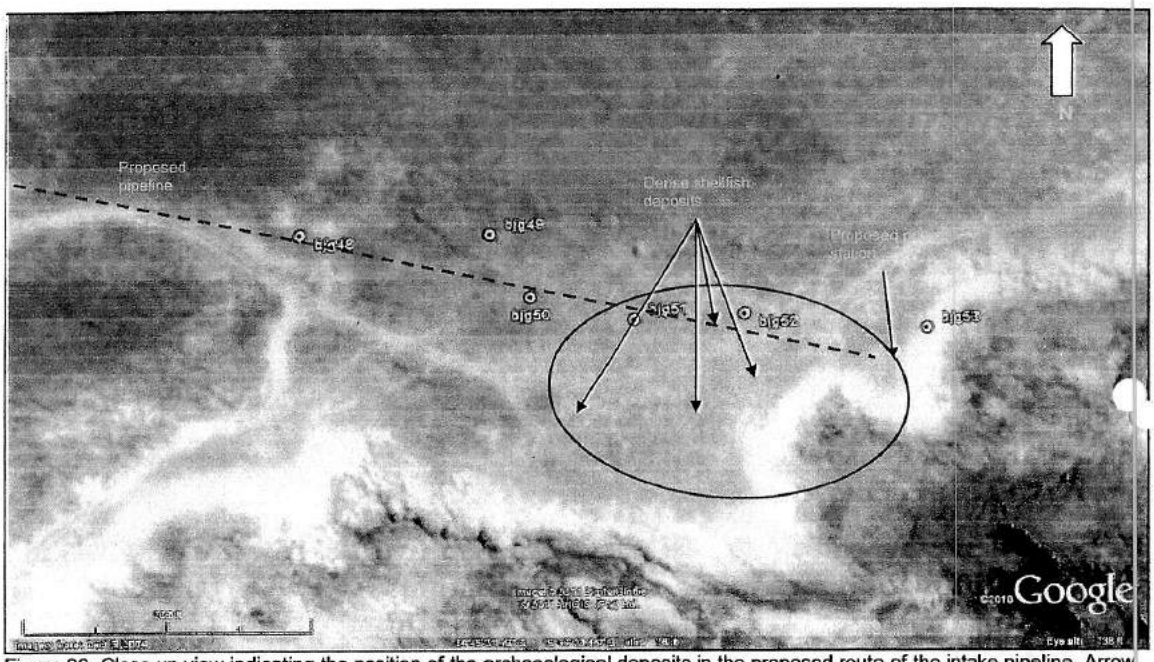

Figure 26. Close up view indicating the position of the archaeological deposits in the proposed route of the intake pipeline. Arrow indicates the position of the proposed pump station, where shellfish deposits (bjg53) are extensive on the raised rocky platform. Much of the surrounding area alongside the gravel road is scattered with dense shellfish deposits (bjg51 & bjg52) and some stone flakes.

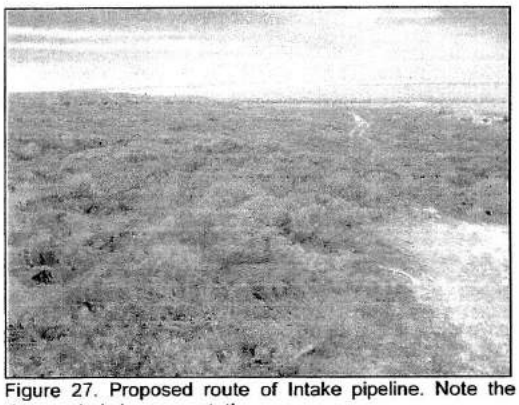

Figure 27. Proposed route of Intake pipeline. Note the dense wind shorn vegetation

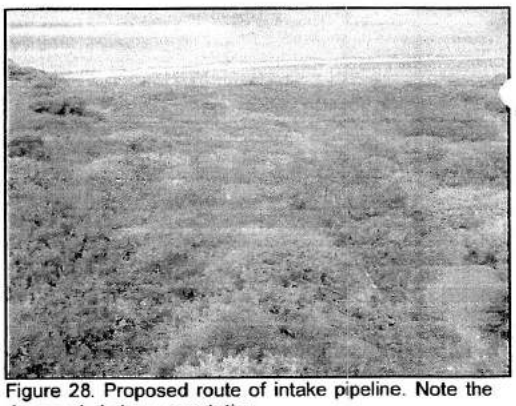

Figure 28. Proposed route of intake pipeline. Note the dense wind shorn vegetation

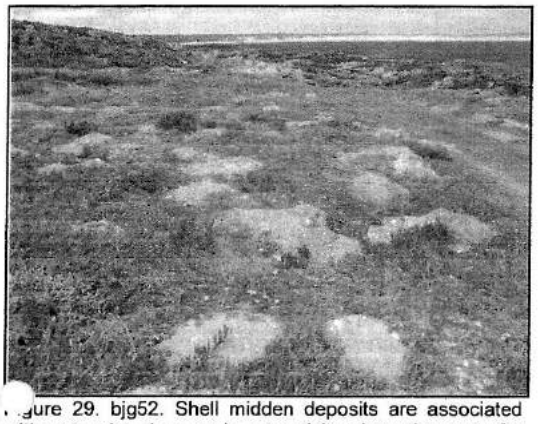

Figure 29. bjg52. Shell midden deposits are associated with extensive dune mole rat activity along the route for the proposed intake pipeline

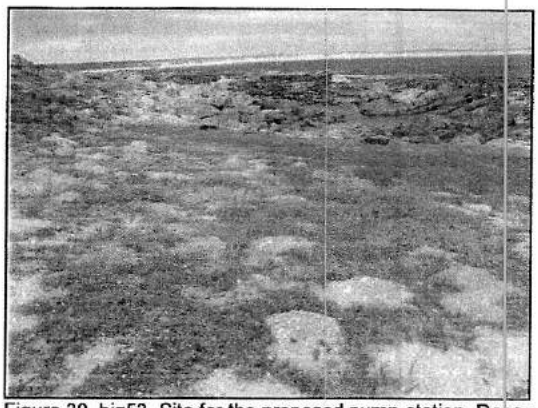

Figure 30. bjg53. Site for the proposed pump station. Dense shell midden deposits are associated with extensive dune mole rat activity on the flat piece of grass alongside the rocky shoreline, and either side of the sandy track

5.2 Discharge pipeline

The relatively short ±100 m long, discharge pipeline is situated on the southern boundary of the property where it will be buried under the gravel road, and cross a wide strip of coastal shoreline, before discharging treated water into the sea.

Substantial shell midden deposits (bjg74-75 & bjg77) are very visible along the strip of coastline, between the road and the rocky shoreline and are associated with extensive dune mole rat activity (Figure 31-35). These mainly crushed and fragmented deposits are dominated by Turbo Sarmaticus, S. argenvillei and Haliotis (perlemoen). A few quartzite stone flakes and smashed cobbles were also counted. No pottery, bone or ostrich eggshell was found.

A patch of relatively well preserved in-situ shell midden deposit (bjg76) was also documented on a sand dune directly alongside the gravel road, and a few metres to the south of the proposed pipeline route (Figure 33).

The density of archaeological deposits between the road and the rocky shoreline is far higher than the densities on the proposed development site (which appear to be mainly surface deposits), and this indicates that the harvesting and processing of shellfish was far more intensive than on the back dunes, where the shellfish remains may possibly reflect smaller 'grab' parcels of shellfish.

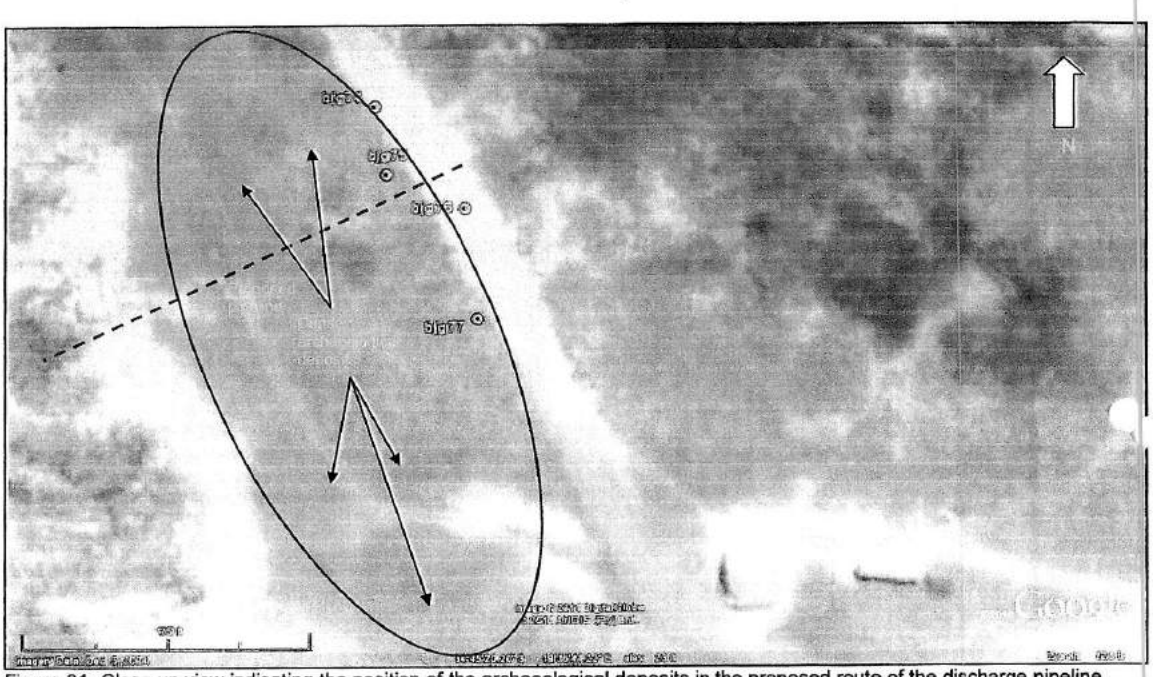

Figure 31. Close up view indicating the position of the archaeological deposits in the proposed route of the discharge pipeline.

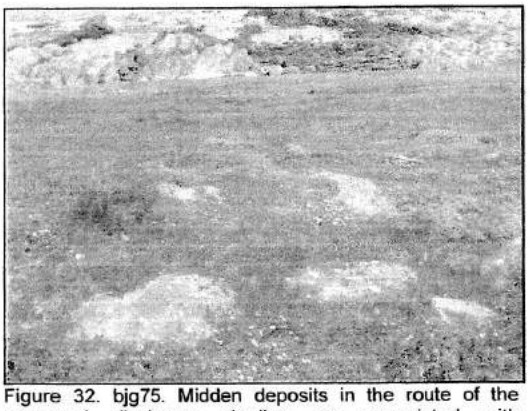

Figure 32. bjg75. Midden deposits in the route of the proposed discharge pipeline are associated with extensive dune mole rat activity

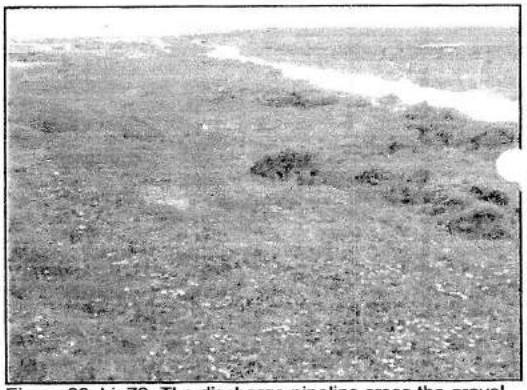

Figure 33. bjg76. The discharge pipeline cross the gravel road in the background and run alongside the dune/midden in the foreground.

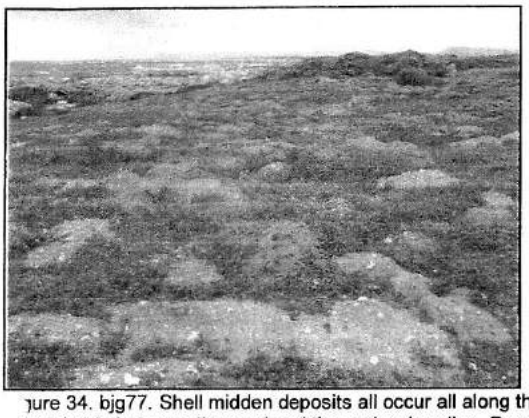

Figure 34. bjg77. Shell midden deposits all occur all along the coastal strip between the road and the rocky shoreline. Dune mole rat is extensive in this area. View west

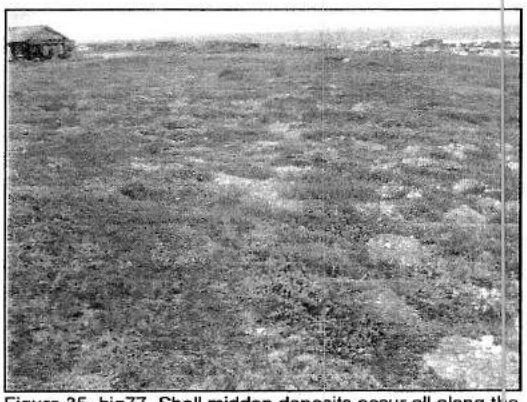

Figure 35. bjg77. Shell midden deposits occur all along the coastal strip between the road and the rocky shoreline. Dune mole rat activity is extensive in this area. View east

5.3 Significance of the archaeological remains

While most of the archaeological heritage on Farm 357 at Buffeljags (including the proposed intake and discharge pipeline) has already been compromised as a result of extensive animal burrowing (that have brought buried shellfish deposits to the surface), the construction of roads, erection of fencing and informal footpaths, there is still fairly substantial archaeological deposits across the proposed abalone farm, and in the proposed pipeline routes. These deposits will be further threatened should the proposed development proceed to site preparation and construction of bulk infrastructure. It is in this context that the remains have been rated as having high significance and will require some archaeological mitigation.

6. DISCUSSION

The number of sites/archeological occurrences documented at Buffeljags is only an indicator of the density of remains that occur over the property, as not every single archaeological feature or fragment (s) of shellfish on the property was documented. In addition, more deposits are likely to be encountered during preparation of the site for development and earthmoving operations.

It is maintained that the proposed development of an abalone farm on Farm 357 at Buffeljags will have a direct, severe, and irreversible impact on shell midden deposits. Impacts will take place during the construction phase, and during any future expansion phase that entails bulk earthworks. While it is acknowledged that most of the proposed development will be located on the calcrete ridge across the northern portion of the property, away from the sensitive archaeological deposits in the south, it is inevitable that the proposed development will impact on these fragile and threatened remains. Just the presence of more people walking over the property will have a negative impact on the sensitive archaeological heritage. Shaping and/or landscaping of dunes, and leveling of the site (in the preparation phase) as well as bulk earthworks (during the construction phase) will also impact on the archaeological deposits.

It is also possible that older, Middle Stone Age deposits and remains may be exposed once the limestone base on the northern ridge is penetrated by bulk earthworks.

While the intake and discharge pipelines will be built above ground, excavation for the pipeline footings and pump station will very likely impact negatively on archaeological deposits.

Unmarked human burials and buried shell middens may also be encountered during bulk earthworks and excavations for services.

Conservation of archaeological occurrences in-situ does not appear feasible in this instance and physical mitigation appears to be the only alternative, unless the `No-Go' development option is considered. Some areas, such as the larger parallel dunes behind the dune slack (bjg35-38) and bjg40) could be avoided and declared `No Go' development areas, which might conserve these sites going into the future.

Assuming that the geological formations at Buffeljags is the same as those at nearby Bantamsklip, the calcrete sediments in the northern portion of the property are unlikely to yield well-preserved fossil material; at most `sparse trace fossils assemblages are expected' (ACO 2010:39). The overall palaeontological sensitivity of Farm 357 is therefore rated as being moderate to low.

7. RECOMMENDATIONS

With regard to the proposed development of an abalone farm on Farm 357 at Buffeljags, the following recommendations are made. These include:

1. Sampling and dating, by way of test excavations, of archaeological deposits across the southern portion of the property, between the fence and the frontal dunes. A grid line should be laid along the gravel entrance road and sampling of archaeological deposits in 1 x 1 m squares should take place every 15-20 m along the gridline. Sampling must follow conventional archaeological excavation and recording procedures. Essentially, surface archaeological material must be examined by sub-surface testing to determine the extent of the pre-colonial archaeological occupation. Sampling must focus on those occurrences logged as bjg54-bjg59, as well as bjg60-bjg73, where surface shellfish densities are highest over this portion of the property.

Pottery, ostrich eggshell and some quartzite flakes were also logged at bjg7 and while the, surface shell scatter here was very thin, this `site' should also be sampled.

Sampling spatially along the grid line will also indicate how variable shell densities area across this portion of the site. Where sub-surface shellfish densities are determined to be high, 2-3 more squares should be sampled.

Should significant sub-surface archaeological deposits and cultural remains be encountered during test sampling, further sampling may be recommended by the archaeologist

2. Sampling and dating by way of test excavations, of shell midden deposits in the dune slack behind the vegetated frontal dunes. A grid line should be laid along the gravel road on the western boundary. Sampling of archaeological deposits in 1 x 1 m squares should focus on the areas around bjg14-bjg27 where surface deposits are relatively well preserved, but should not necessarily be confined to these areas. Sampling in these back dunes should be designed to determine how variable shell densities area in this portion of the property. Where sub-surface shellfish densities are determined to be high, 2-3 more squares should be sampled in that area.

Should significant sub-surface archaeological deposits and cultural remains be encountered during test sampling, further sampling may be recommended by the archaeologist.

3. Sampling and dating, by way of test excavations, of archaeological deposits in the alignment of the intake pipeline, as well as in the building footprint of the proposed pumps station. A grid line should be laid alongside the gravel road. Sampling however, must focus on those occurrences logged as bjg51-bjg53 where shellfish deposits are substantial.

An alternative sampling strategy could entail the excavation of 1 x 1 m squares 15 m apart, along the pipeline route, in order to determine the variability of shellfish densities. Where sub-surface shellfish densities are determined to be high, 2-3 more squares should be sampled in that area.

At least five, 1 x 1 m squares should be sampled on the proposed pump station site (bjg52). Where sub-surface shellfish densities are determined to be high, 2-3 more squares should be sampled in that area.

Should significant sub-surface archaeological deposits and cultural remains be encountered during test sampling, further sampling may be recommended by, the archaeologist.

4. Sampling and dating, by way of test excavations, of archaeological deposits in the, alignment of the discharge pipeline. The east-west grid line established alongside the gravel entrance road can be used and must entail the excavation of 1 x 1 m squares 10 m apart, along either side of the short pipeline route, in order to determine the variability of shellfish densities. Where sub-surface shellfish densities are determined to be high along the pipeline alignment, 2-3 more squares should be sampled in that area.

Should significant sub-surface archaeological deposits and cultural remains be encountered during test sampling, further sampling may be recommended by, the archaeologist.

5. Monitoring of bulk earthworks (including excavations for services) for all development, activities must be carried out by an archaeologist. This is a precautionary measure as it is possible that Middle Stone Age deposits and remains may be intersected on the limestone ridge, where such finds are most likely to occur. Should any archaeological deposits be intersected or exposed during earthmoving operations, these may need to be sampled by the archaeologist. A monitoring programme must be drawn up by the archaeologist and presented to Heritage Western Cape for approval.

6. Should any unmarked human remains be disturbed, exposed or uncovered during excavations and earthworks, these should immediately be reported to Heritage Western Cape (Ms Jenna Lavin 021 483 9685).

8. REFERENCES

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Archaeological Impact Assessment – proposed abalone farm on Farm No. 537 Buffeljags, Bredasdorp

Appendix

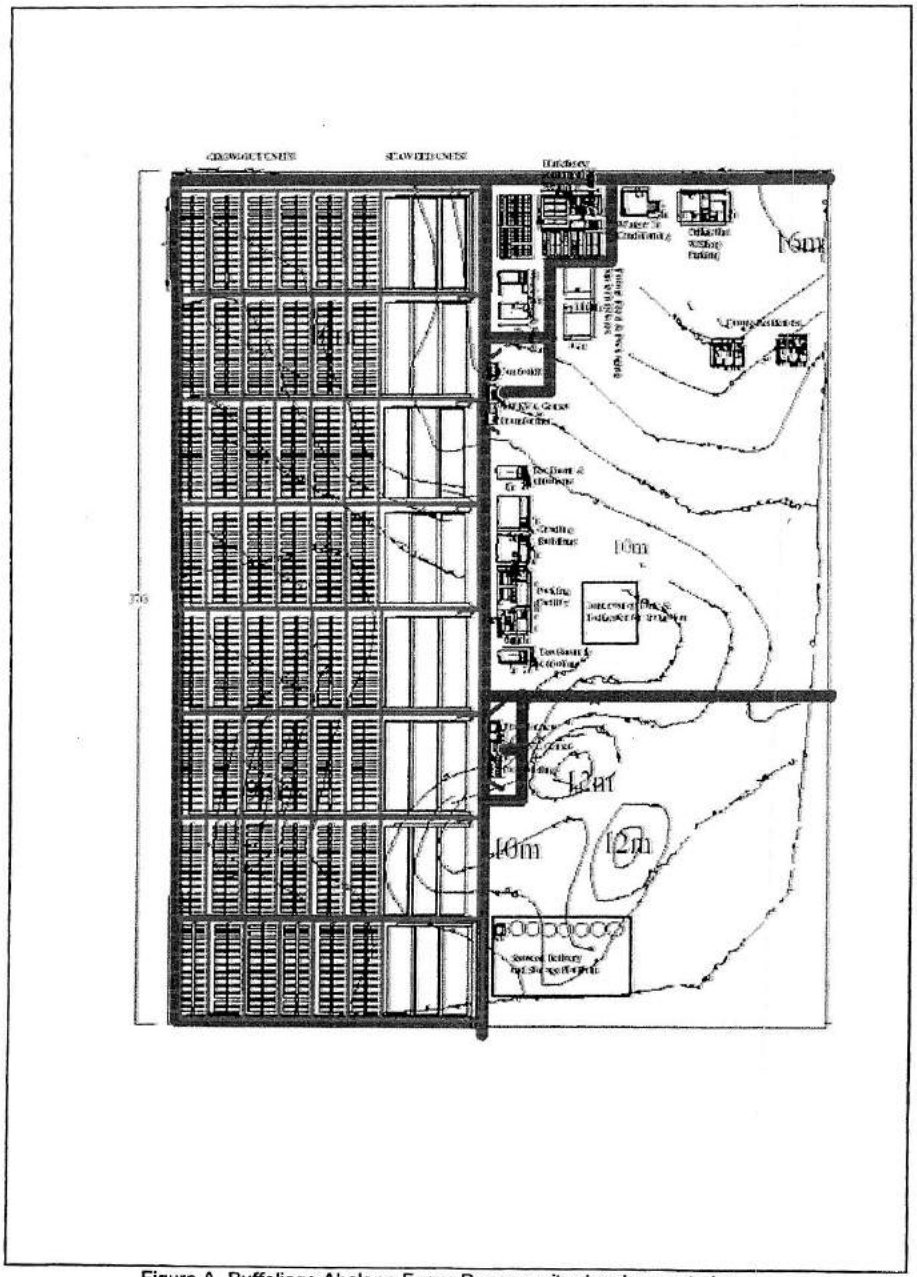

Figure A. Buffeljags Abalone Farm: Propose site development plan

Archaeological Impact Assessment – proposed abalone farm on Farm No. 537 Buffeljags, Bredasdorp

Name	Site	Lat	Long	Finds
bjg	Farm No. 357, Bredasdorp			
bjg1		S34 45.245	E19 36.685	Crushed & fragmented shellfish remains in road near s-w entrance. Shellfish dominated by TS, SA and H. Stone flakes and flaked cobbles & manuports
bbg2		S34 45.257	E19 36.664	Shellfish in open spaces, quartzite flakes
bjg3		S34 45.263	E19 36.664	Shellfish in open spaces, quartzite flakes
bjg4		S34 45.267	E19 36.675	Shellfish in open spaces, quartzite flakes
bjg5		S34 45.271	E19 36.682	Shellfish in open spaces, quartzite flakes
bjg6		S34 45.275	E19 36.683	Shellfish in open spaces, quartzite flakes
bjg7		S34 45.280	E19 36.685	Shellfish in open spaces, quartzite flakes. One piece of pottery and one OES
bjg8		S34 45.292	E19 36.688	Shellfish in open spaces, quartzite stone
bjg9		S34 45.297	E19 36.698	Shellfish in open space, quartzite flakes
bjg10		S34 45.297	E19 36.701	Shellfish in open spaces, quartzite flakes
bjg11		S34 45.301	E19 36.707	Shellfish in open spaces behind dune slack
bjg12		S34 45.295	E19 36.738	Shellfish in small footpath and alongside path in dune slack behind frontal dunes
bjg13		S34 45.296	E19 36.749	Shellfish in small footpath and alongside path in dune slack behind frontal dunes
bjg14		S34 45.273	E19 36.749	Relatively well preserved shellfish in open patches, in front of large parallel dunes; quartzite stone flakes, manuports, chunks
bjg15		S34 45.264	E19 36.742	Relatively well preserved shellfish in open patches, in front of large parallel dunes; quartzite stone flakes, manuports, chunks
bjg16		S34 45.266	E19 36.736	Relatively well preserved shellfish in open patches, in front of large parallel dunes; quartzite stone flakes, manuports, chunks
bjg17		S34 45.252	E19 36.729	Relatively well preserved shellfish in open patches, in front of large parallel dunes; quartzite stone flakes, manuports, chunks
bjg18		S34 45.247	E19 36.720	Relatively well preserved shellfish in open patches, in front of large parallel dunes; quartzite stone flakes,

				manuports, chunks
bjg19		S34 45.249	E19 36.711	Relatively well preserved shellfish in open patches, in front of large parallel dunes; quartzite stone flakes, manuports, chunks
bjg20		S34 45.260	E19 36.700	Relatively well preserved shellfish in open patches, in front of large parallel dunes; quartzite stone flakes, manuports, chunks; also some tortoise bone
bjg21		S34 45.268	E19 36.687	Same as above
bjg22		S34 45.270	E19 36.699	Same as above
bjg23		S34 45.278	E19 36.710	Same as above
bjg24		S34 45.280	E19 36.719	Same as above
bjg25		S34 45.276	E19 36.720	Same as above; one piece of undecorated pottery
bjg26		S34 45.271	E19 36.724	Same as above
bjg27		S34 45.280	E19 36.731	Same as above
bjg28		S34 45.301	E19 36.746	Shellfish in dune slack alongside small footpath
bjg29		S34 45.313	E19 36.767	Shellfish in dune slack alongside small footpath
bjg30		S34 45.327	E19 36.767	Shellfish in disturbed area, lots of dune mole rat activity
bjg31		S34 45.343	E19 36.744	Shellfish in sandy track
bjg32		S34 45.348	E19 36.731	Extensive shellfish deposits associated with dune mole rat activity
bjg33		S34 45.347	E19 36.761	Shellfish in disturbed area, lots of dune mole rat activity
bjg34		S34 45.332	E19 36.799	Large quartzite chunk in road
bjg35		S34 45.252	E19 36.729	Shellfish in open patches of ground on large dune alongside gravel boundary road
bjg36		S34 45.247	E19 36.719	Shellfish in open patches of ground on large dune alongside gravel boundary road
bjg37		S34 45.245	E19 36.705	Shellfish in open patches of ground on large dune alongside gravel boundary road
bjg38		S34 45.239	E19 36.711	Shellfish in open patches of ground on large dune alongside gravel boundary road
jg39		S34 45.246	E19 36.721	Shellfish in open patches of ground on large dune alongside gravel boundary road
bjg40		S34 45.263	E19 36.784	Scatter of shellfish and some stone flakes on parallel dune behind dune slack
bjg41		S34 45.240	E19 36.799	Same as above
bjg42		S34 45.222	E19 36.838	Tiny patch of a few shell fragments; TS, SA and 1 quartzite flake
bjg43		S34 45.231	E19 36.884	MSA quartzite flake on limestone ridge
bjg44		S34 45.311	E19 36.855	Large, flat MSA quartzite flake on limestone ridge

bjg45		S34 45.300	E19 36.936	MSA quartzite flake on limestone ridge
bjg46		S34 45.303	E19 36.941	Large MSA quartzite flake on limestone ridge
bjg47		S34 45.318	E19 36.927	Broken MSA quartzite flake on limestone ridge
Inlet pipeline & pump station				
bjg48		S34 45.347	E19 37.004	Shellfish associated with dune mole rat dumps alongside footpath
bjg49		S34 45.346	E19 37.032	MSA flake near quartzite outcropping on beach
bjg50		S34 45.354	E19 37.037	Marginal shellfish deposits associated with dune mole rat dumps alongside footpath
bjg51		S34 45.357	E19 37.052	Dense scatters of shellfish associated with dune mole rat dumps alongside footpath; quartzite flakes and chunks
bjg52		S34 45.356	E19 37.068	Dense scatters of shellfish associated with dune mole rat dumps alongside footpath; quartzite flakes and chunks
bjg53		S34 45.358	E19 37.095	Extensive and dense scatter of shellfish on large grassy patch alongside rocky shore – proposed pump station site
bjg54		S34 45.348	E19 36.782	Shell deposits alongside the fence in the eastern boundary
bjg55		S34 45.357	E19 36.779	Shell deposits alongside the fence in the eastern boundary
bjg56		S34 45.359	E19 36.788	Shell deposits alongside the fence in the eastern boundary
bjg57		S34 45.362	E19 36.797	Shell deposits alongside the fence in the eastern boundary
bjg58		S34 45.364	E19 36.789	Shell deposits alongside the fence in the eastern boundary
bjg59		S34 45.366	E19 36.779	Shell deposits alongside the fence in the eastern boundary
bjg60		S34 45.343	E19 36.729	Shell deposits between the fence and the frontal dunes in the southern portion of the property
bjg61		S34 45.336	E19 36.726	Shell deposits between the fence and the frontal dunes in the southern portion of the property
bjg62		S34 45.337	E19 36.718	Shell deposits between the fence and the frontal dunes in the southern portion of the property
bjg63		S34 45.335	E19 36.712	Shell deposits between the fence and the frontal dunes in the southern portion of the property
bjg64		S34 45.329	E19 36.720	Shell deposits between the fence and the frontal dunes in the southern portion of the property

bjg65		S34 45.325	E19 36.706	Shell deposits between the fence and the frontal dunes in the southern portion of the property
bjg66		S34 45.323	E19 36.730	Shell deposits between the fence and the frontal dunes in the southern portion of the property
bjg67		S34 45.318	E19 36.739	Shell deposits between the fence and the frontal dunes in the southern portion of the property
bjg68		S34 45.318	E19 36.745	Shell deposits between the fence and the frontal dunes in the southern portion of the property
bjg69		S34 45.315	E19 36.694	Shell deposits between the fence and the frontal dunes in the southern portion of the property
bjg70		S34 45.318	E19 36.697	Shell deposits between the fence and the frontal dunes in the southern portion of the property
bjg71		S34 45.325	E19 36.706	Shell deposits between the fence and the frontal dunes in the southern portion of the property
bjg72		S34 45.329	E19 36.708	Shell deposits between the fence and the frontal dunes in the southern portion of the property
bjg73		S34 45.325	E19 36.700	Shell deposits between the fence and the frontal dunes in the southern portion of the property
Discharge pipeline				
bjg74		S34 45.308	E19 36.666	Substantial shell midden deposits associated with extensive dune mole rat activity
bjg75		S34 45.315	E19 36.667	Substantial shell midden deposits associated with extensive dune mole rat activity in the route of the proposed discharge pipeline
bjg76		S34 45.320	E19 36.676	shell midden deposits on dune alongside road, to the right of the discharge pipeline
bjg77		S34 45.332	E19 36.675	Wide scatter of shellfish; quartzite stone flakes and chunks, associated with extensive dune mole rat activity between road and rocky shore.

Table 1. Spreadsheet of waypoints and site observations: TS = Turbo Sarmaticus, SA = Scutellastra Argenvillei, SL = Scutellastra longicosta, DS = Diloma sinensis

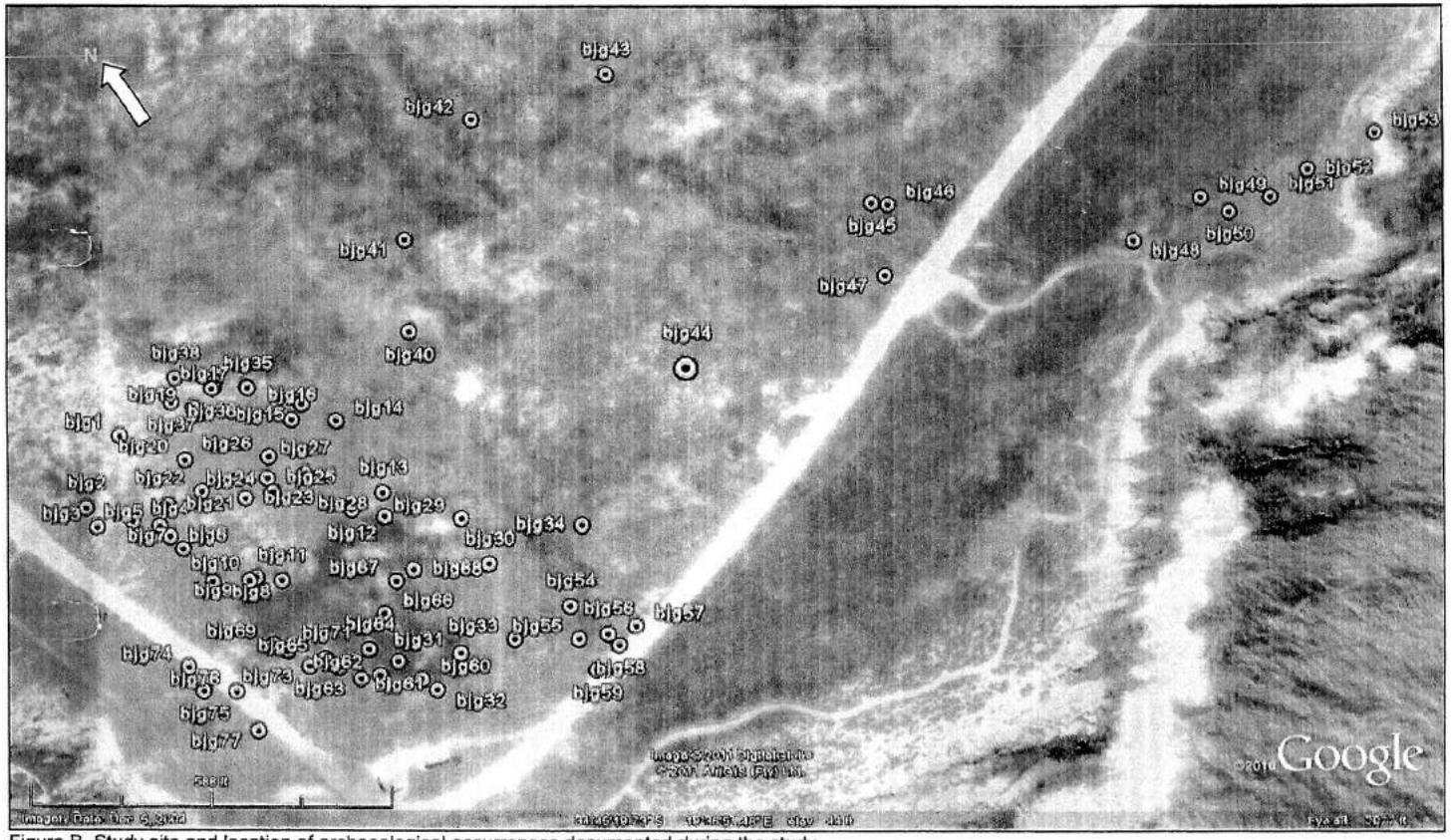

Figure B. Study site and location of archaeological occurrences documented during the study

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ANNEXURE F 1/13

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BOTANICAL ASSESSMENT FOR PROPOSED PERLEMOEN PRODUCTION PLANT ON FARM 357, OVERSTRAND MUNICIPALITY, DIVISION BREDASDORP

Client: Mr. Nick Loubsher
Gansbaai
Version 3
06 December 2010

Introduction and study area

This botanical assessment was commissioned in order to help inform decisions regarding the proposed development of an abalone farm on farm 357, 10 hectares in extent and situated on the coast directly to the east of Buffeljachs Village at -34° 45' 31.1"; 19° 36' 93.8" (see figure 1). The property is located within natural strandveld vegetation bordering the road to Buffeljachs on its southern boundary and natural vegetation on all surrounding properties. The topography consists of gently rolling stabilised sands overlying a calcrete base. The soils are calcareous to slightly leached white sands of marine origin, with a high shell content (including middens), and contain little humus except in hollows where there are elevated moisture levels. No permanent or even seasonal water bodies are evident on the well drained sands. It is characterised by a gently undulating topography dominated by Overberg dune strandveld, with a few areas of exposed Agulhas limestone fynbos vegetation. With the exception of a few tracks, a well pit, a water tank and electricity poles it is in good natural condition. There is virtually no alien vegetation on the property.

The lowland regions of the CFR (ie. the non-montane areas, such as the current study area) have been identified by the C.A.P.E. project as one of the key systems in need of conservation, due to the high levels of threat posed by development, agriculture, and alien plant invasions (Cowling *et al* 1998, Anonymous 2003). Nearly the whole property, with the exception of the road area has been identified as part of a larger Critical Biodiversity Area owing to its location within a proposed natural coastal corridor (Holness and Bradshaw 2010).

The site was visited on three occasions, once in October and twice in November 2010. While this is a good time of the year for undertaking a botanical survey in this region, it is recognised that the survey provides only a short window within the main flowering season and a single stge in the post fire succession of the vegetation. It is likely that a number of late summer, autumn and winter flowering species will have been missed during this survey. Continual sampling over all seasons and including early post-fire succession, neither of which was possible during this study, is the only way of determining the true botanical diversity of a fynbos site such as this (Privett and Lutzeyer 2010). One of the primary assumptions of this study is that sufficient botanical information could be gathered during the site visits to make accurate conclusions regarding the conservation value of the site. Although by no means were all species recorded, it is likely that a sufficiently accurate picture of the plant diversity was obtained (in this case with a confidence interval of at least 90%). This is partly a result of using a habitat based approach, where habitats (type, condition, irreplaceability) rather than species are used to inform decision making. Another assumption of this planning process is that the natural vegetation is acting as a surrogate for a whole host of other animal species (insect, spiders, molluscs, birds, mammals, etc.), none of which have been surveyed as part of this overall study, and thus the best way to conserve the rich small animal community is to conserve the natural vegetation that supports them.

Terms of reference:

1. Define and map the vegetation communities on site according to the latest national vegetation communities and Fynbos forum guidelines,
2. Determine the present status of the vegetation and define the conservation value of the natural flora on site as well as its importance within the landscape and Critical Biodiversity Area context.
3. Identify species of conservation concern for the site.
4. Describe any issues relating to the proposed development and give alternatives and mitigation if necessary.

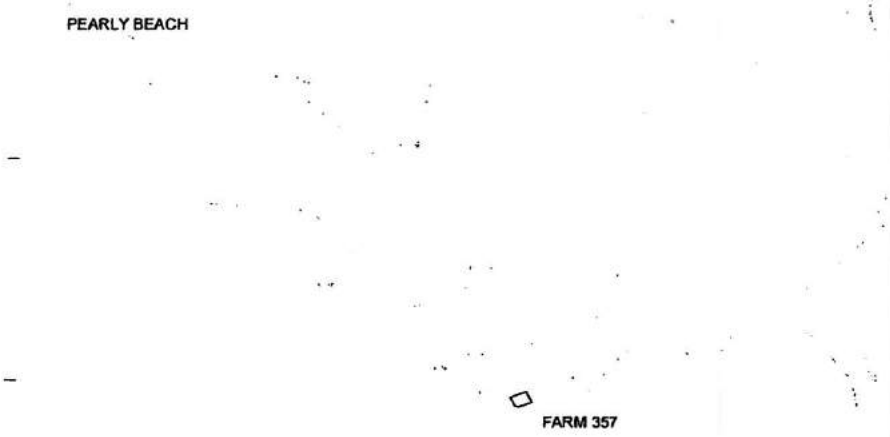

Figure 1.The 10 ha property is located on the access road to Buffeljachs, on the coast south of Pearly Beach on the Agulhas Plain.

Vegetation communities

Fynbos vegetation communities are typically defined by the underlying geology. This site is no different, with much of it covered by well-drained windblown, alkaline sands. The natural vegetation on these deep sands is Overberg dune strandveld, while there are smaller areas of Agulhas limestone fynbos on protruding calcrete ridges.

The two vegetation communities on site are described below and their location on the property is shown in figure 2.

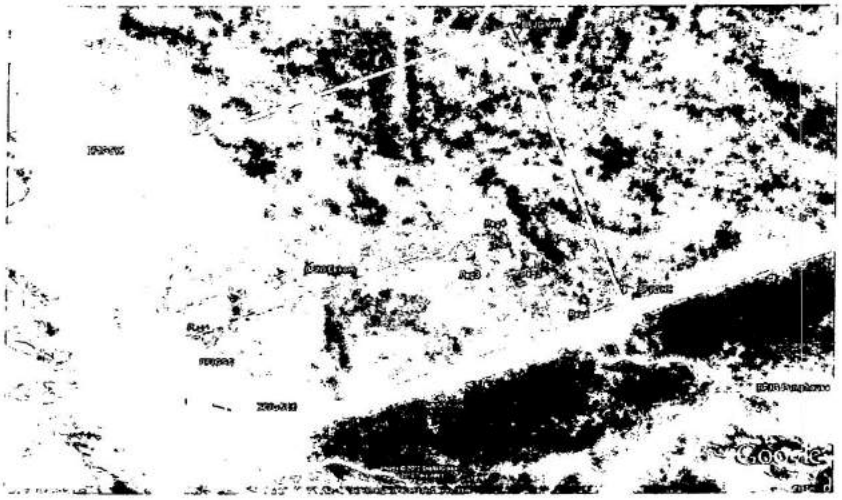

Figure 2. The majority of farm 357 is covered with Overberg dune strandveld (clear) and there are some smaller patches of thicket (brown) and Agulhas limestone fynbos (light green).

Overberg dune strandveld

Also known as Dune Asteraceous Fynbos (Cole *et al.* 2000, Cowling and Heijnis 2001), this is the dominant plant community on site, on the deep alkaline sands. It is also the dominant vegetation of these coastal forelands of the Agulhas Plain. It is confined to deep, well-drained, calcareous sands (Fernwood form) of the recent coastal dunes (Die Dam Land system).

This community is transitional to thicket in the prolonged absence of fire. Some thicket elements are visible on the western side of the property.

Floristics
This community is characterised by *Metalasia muricata* (blombos), *Pterocelastrus tricuspidata (candle wood), Passerina paleacea (gonna), Euclea racemesa (sea guarrie)* and *Phylica ericoides.*

Other species include *Carpobrotus acinaciformis, Helichrysum patulum, Helichrysum dasyanthum, Searsia laevigata, Ischyrolepis eleocharis, Heramannia ternifolia, Osyris compressa, Pelargonium betulinum, Whalenbergia calcarea* (Agulhas endemic), *Indigofera sp., Muraltia satureoides, Roepera fulvum, Roepera flexuosum, Ficinia ramosissima, Otholobium bracteolatum, Gazania pectinata, Salvia africana-lutea, Sebaea lutens, Chrysanthemoides monilifera* (bietou), *Zaluzianskya capensis, Chondropetalum microcarpum, Knowltonia* vesicatoria (thicket), *Chasmanthe aethiopica* (thicket) *Chironia baccifera, Cotula sp., Sutera hispida, Pelargonium capitatum, Tetragonia fruticosa, Stenotaphrum secundum, Arctopus echinatus, Helichrysum retortum, Crassula subulata, Hermannia trifoliata, Vellereophyton dealbatum, Manulea tomentosa, Thesidium fragile, Senecio triqueter, Anthospermum prostratum, Cassytha ciliolata, Agathosma dielsiana, Centella difformis, Crassula expansa* subsp *filicaulis, Silene undulata, Ficinia ramosissima, Jamesbrittenia albomarginata, Zaluzzianskya dentata, Falkia repens and Struthiola striata.*

Geophytes identified on the site include *Brunsvigia orientalis, Chasmanthe aethiopica, Ferraria crispa, Gladiolus cunonius, Albuca c.f. flaccida, Ornithogalum juncifolium, Ornithogalum thyrsoides, Moraea tripetala, Lachenalia bulbifera, Trachyandra hispida* (kool), ***Satyrium carneum (nt),*** *Sparaxis bulbifera, Wachendorfia paniculata, Zantedeschia aethiopica* and *Haemanthus sanguineus.*

Species of conservation concern

The ground orchid *Satyrium carneum* is classified as near threatened (Raimondo 2010). This species occurs between the Cape Peninsula and Stilbaai in dune bush vegetation, in fynbos on coastal hills and on ridges on moist to dry sands and limestones. It is restricted to the coastal belt between sea level and 300 m. It is threatened by harvesting for horticultural purposes, urbanisation, alien plants and agriculture. It is widespread on the property in the Overberg dune strandveld community. It is highly likely to be found surviving in a dormant state under the dense stands of *Acacia cyclops* and will resprout and flower once they are removed. From a Search and Rescue perspective this species transplants easily, however it should be harvested between October and December when it is dormant and the dried leaves are still visible. It can be kept in storage for a few months through summer but requires replanting in suitable alkaline sandy habitat by the end of the following April (it does not survive the winter in storage).

Conservation value and vulnerability

According to the latest national vegetation assessment (Rouget *et al.* 2004) the vegetation type (Overberg Dune Strandveld) is regarded as Least Threatened on a national basis, with a national target of 36% already conserved. Of this, some 30% is statutorily conserved in De Hoop Nature Reserve, nearby Walker Bay Nature Reserve, De Mond Nature Reserve and in the Agulhas National Park. A further 11% of this vegetation type is conserved in private conservation areas such as Grootbos, Andrewsfield, Brandfontein-Rietfontein, Groot Hagelkraal and Wolwefontein.

The vegetation vulnerability has been rated as medium vulnerability (Mucina and Rutherford 2006) and protection level as well protected. The site could potentially contribute to meeting local conservation targets for both biodiversity pattern (species) and ecological process (see section on pattern and processes and CBA below). Regional targets for the vegetation type have already been fully met by provincial, national and private nature reserves. The conservation value of the vegetation in the study area is **Medium-High** in local (Pearly Beach) and **Medium-High** in regional (Overstrand) terms, as it is diverse, home to at least one species of conservation concern and in near pristine condition.

Plate 1. Overberg Dune Strandveld on farm 357, Buffeljachs.

A small patch of thicket vegetation is located on the western side of the property and is dominated by *Euclea racemosa* (sea guarrie), *Pterocelastrus tricuspidatus* (candlewood), *Cassine peragua* (bastard saffronwood), *Robsonodendron maritimum* (dune saffronwood), *Osyris compressus*, *Rhus glauca, Rhus crenata, Rhus laevigata, Myrsine africana* (cape myrtle) and *Olea exasperata* (sand olive).

Agulhas Limestone fynbos

Some small calcrete outcrops are present on site. Calcrete (or limestone) is well known as a habitat that supports numerous localised and endemic plant species, particularly on the Agulhas Plain. Some of the plants occurring on the calcrete also occur on the adjacent sands, but others are largely restricted to calcrete habitats.

Floristics
This community is characterized by *Erica coccinea* (yellow form), *Muraltia satureoides*, *Oxalis sp.*, *Agathosma cerefolium*, *Roepera sp.*, *Struthiola salteri* and *Limonium scabrum*, *Falkia repens*, and *Otholobium bracteolatum*.

Distribution on property
The Agulhas limestone fynbos is restricted to the calcrete outcrops on the property (see figure 2, green shaded areas).

Environment
This vegetation type is restricted to the limestones on the Agulhas Plain between Stanford in the west and Struisbaai in the east (Mucina and Rutherford 2006). It is found on low hills, fragmented

on the coastal margin of the Agulhas Plain. The geology is shallow alkaline bedrock and alkaline, grey regic sands on limestones of the Bredasdorp Formation. The soils are extremely shallow and the limestone bedrock is exposed in many places.

Current status of vegetation type
The vegetation of this community is in good condition on this property.

Species of Conservation concern

While no species of conservation concern were recorded in the limestone areas during this survey, there is a low – moderate likelihood of some localised limestone endemic species occurring on site. In particular it is possible that some seasonal bulbs such as *Gladiolus miniatus* (Vulnerable, Raimondo 2010), *Galdiolus variegatus* (Vulnerable; Raimondo 2010.) and *Gladiolus vaginatus* (Vulnerable; Raimondo 2010) may be present. These species have been recorded by the author in similar calcrete habitats in near vicinity to this site.

Conservation value and vulnerability

According to the latest national vegetation assessment (Anonymous 2009), Agulhas limestone fynbos is rated as Vulnerable on a national basis. Some eight percent is statutorily conserved in the Agulhas National Park, with a further 4% protected in private conservation areas such as Grootbos, Groot Hagelkraal and Oude Bosch. Approximately 5% has been transformed through cultivation or urban development. However alien vegetation, in particular *Acacia cyclops* poses a major threat to this vegetation.

Conservation value of these calcrete outcrops is **medium -high** locally and **medium-high** regionally (Overstrand), based mainly on the good condition of the habitat and the possibility of rare seasonal bulbs. The vegetation vulnerability has been rated as medium vulnerability (Mucina and Rutherford 2006) and protection level as well protected.

Thus while regional targets for the vegetation type have already been fully met by provincial, national and private nature reserves this site could potentially contribute to meeting **local conservation targets** for biodiversity pattern (species).

Coastal site (Pump House)

As part of the plans for this development a pump house will be built on the coast at -34° 45' 36.7"; 19° 37' 02.1" (see plate 2). The pump house itself will be constructed in Cape seashore vegetation (Mucina and Rutherford 2006). This vegetation type occurs along the coastline of the temperate coasts of the Atlantic and Indian Ocean from the Olifants River Mouth to East London.

Plate 2. Cape seashore vegetation at the site of the proposed pump house.

Floristics

This site is characterised by Drosanthemum candens, Osteospermum fruticosum, Grubbia rosmarinfolia, Tetragonia decumbens, Plantago crassifolia, Carpobrotus edulis, Searsia laevigata Chrysanthemoides monilifera. Other species recorded nearby were Metalasia muricata, Helichrysum sp., and Asparagus capensis. The bulbs Ferraria crispa, Trachyandra divaricata and Haemanthus sp. were recorded, as were the annuals Sutera hispida, Manulea tomentosa, Cotula sp. Gazania rigens and Arctotis acaulis.

No species of conservation concern were recorded at this site.

Conservation value and vulnerability

Cape Seashore vegetation is classified as least threatened according to Mucina and Rutherford (2006). Almost half of the area is statutorily conserved in the West Coast, Cape Peninsula Agulhas, proposed Garden Route and Greater Addo National Parks as well as other small state and private conservation areas. Only about 1.7% has been transformed, primarily by urban development. Purely from a botanical perspective, the conservation value of the site can be classified as **Medium** on a local and regional scale.

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Impact assessment

The proposed perlemoen farm development will cover approximately 6 hectares (or 60 %) of the 10 hectare property. The development will result in the total, permanent loss of 6ha of natural vegetation on the farm. The proposed layout is shown in figure 3 and 4 below.

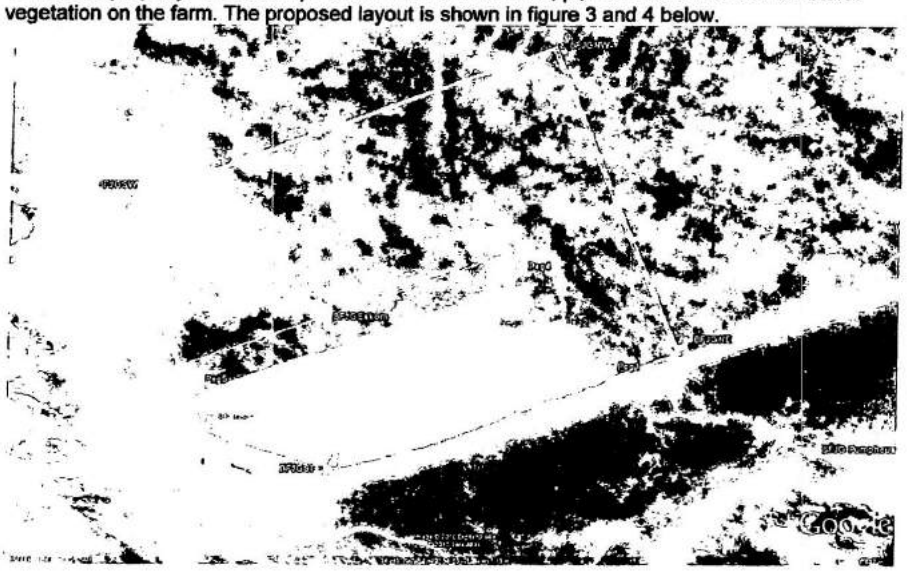

Figure 3 Image showing the location of the pump house (bottom right hand corner pin) and the area proposed to be developed for the perlemoen farm. The lower green area is the proposed conservation area and top portion (clear) is proposed for infrastructure development.

Figure 4 below provides a more detailed layout showing the position of proposed infrastructure. The grow out area including the algal ponds will cover 5.6 hectares and all other buildings combined will total 2542m^2, leaving approximately 4 hectares or 40% of the site as a conservation area.

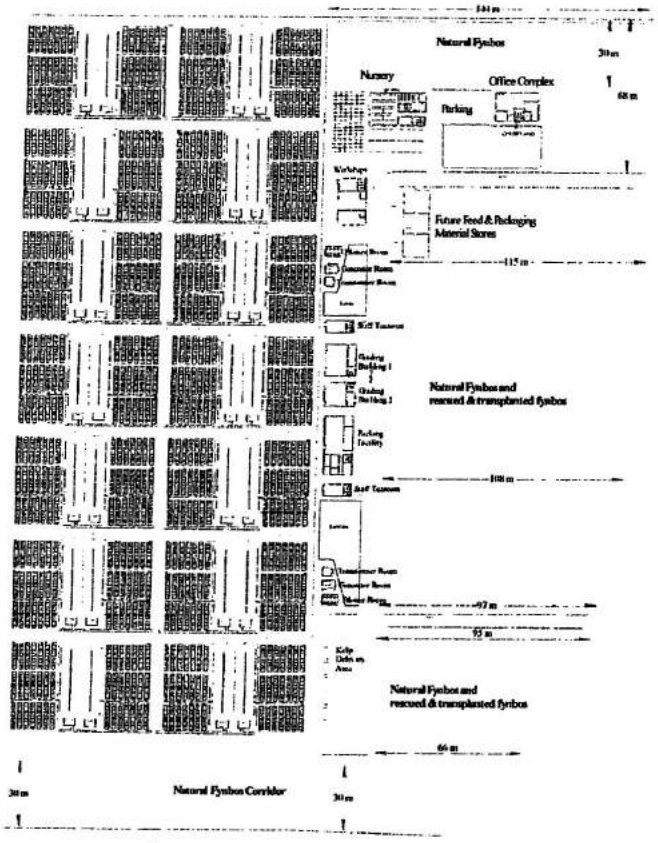

Figure 4. Proposed layout of perlemoen production plant on farm 357. Light green areas make up the 40% conservation area. All other areas on the property are proposed for development. The proposed 30m corridor is shown on the bottom of the diagram.

Spatial components and ecological drivers are seen as important components of good conservation planning (De Villiers *et al.* 2005). Fragmentation of fynbos should be avoided at all costs. Although little information is available on minimum patch sizes and the degree of connectivity required to retain species richness it is generally agreed that small fragments (<100 hectares) are likely to be vulnerable to a loss of species due to altered ecological processes e.g. loss of pollinators, changes in fire frequency and edge effects which encourage alien invasions. It is therefore very important that the layout and design of any development in fynbos be carefully planned to integrate with surrounding natural open spaces and corridors.
The proposed layout allows for an adequate natural corridor along the southern boundary of the property. This corridor will be bisected by two access roads and a pipe line. According to the Fynbos Forum Guidelines corridors should be at least 20m wide to allow for movement of birds and animals between areas of undisturbed habitats. The proposed natural corridor on the southern side of the property is about 100 meters wide on average (exact widths shown in figure 4) and will be even more effective when one includes the natural vegetation on the southern side of the Buffeljachs road (a further 40+- meters). It is recommended that the site layout be adjusted

to extend this natural fynbos corridor along the western boundary of the property to include a minimum width of 30 m within the boundary (see figure 4). Together with the existing +- 40m belt of seashore vegetation between the sea and road this corridor will have a minimum width of 70 m and provide some continuity with the natural vegetation on the Buffeljachs side of the development

As a rough guideline at least 60% of an area's natural vegetation should be left intact to ensure the maintenance of basic ecological processes such as pollination and seed dispersal, and to minimise fragmentation effects such as edge effects (De Villiers *et al* 2005). In this case, given the small size of the property (10 hectares) and infrastructure requirements for an economically viable perlemoen production facility only about 40% of the natural vegetation will be preserved. The conservation area will however conserve a high quality, representative sample of the vegetation on site; including most of the Agulhas limestone fynbos and thicket. Given it location adjacent to the coastal corridor and large natural areas on surrounding properties it will provide an effective long-term refuge for these species.

Ecological and evolutionary processes and location with a Critical Biodiversity Area

The Critical Biodiveristy Areas plan for the Overberg region has recently been finalised (Holness and Bradshaw 2010). This document aims to guide sustainable development by providing a synthesis of biodiversity information to decision makers. It is designed to identify an efficient set of Critical Biodiversity Areas (and Ecological Support Areas) that meet the targets for conserving the underlying biodiversity features in as small an area as possible and in areas with least conflict with other activities. Farm 357 falls within the coastal corridor as shown in figure 5 below.

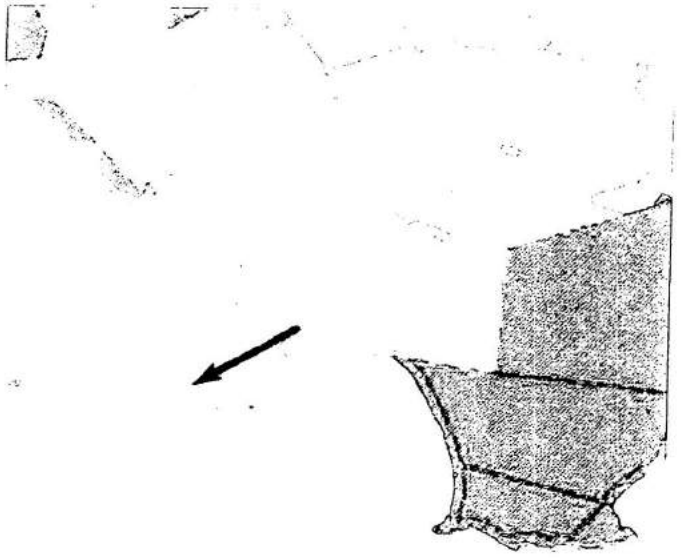

Figure 5. Location of Farm 357 within the coastal corridor the Critical Biodiversity Area of the Overberg Municipality.

Coastal corridors were identified to protect the coast, associated ecological processes and the biodiversity which depends on them. A composite method was used which was based on vegetation, geomorphology and legal requirements. The corridor includes intact areas of coastal vegetation such as in the vicinity of Farm 357 and coastal buffers which include among other areas, urban zoned land which falls wholly or partially within 100m of the high water; and non-urban land within 1km of the coast.

According to Holness and Bradshaw (2010) all land within designated Critical Biodiversity Areas should be maintained in their natural state or be rehabilitated to their natural or near natural condition and no intensive agriculture or rural industry should be allowed. Seen in isolation this development will not have a major impact on the functioning of ecological processes and effectiveness of the CBA coastal corridor. However, one cannot discount the potential cumulative negative impact of this and future developments on the currently pristine natural vegetation of the area.

Given the relatively small footprint of this development, proposed conservation corridor (given that it is extended around the western boundary of the property) and intact nature of surrounding vegetation the impact is **Medium negative with regards species** pattern and **Low to Medium negative with regards process**. Botanical impacts will occur at both the construction and operational phases, with the former being the source of most of the direct impacts, and the latter being the source of most indirect impacts.

Fire

Fynbos systems are fire driven. In the absence of fire, species diversity declines and the vegetation gradually converts to a less species rich, thicket vegetation. The conservation area on this property will require fire if the diversity currently found on site is to persist. A fire management plan will need to be drawn up for the property which can be integrated with an alien control management plan.

Mitigation

- In order to allow for adequate ecological connectivity a corridor of natural vegetation should be maintained between the eastern and western parts of the site along the southern and western boundary. This corridor should be at least 30m wide at its narrowest point, and the wider the better. Together with the existing coastal green belt between the road and sea this will form a functional coastal corridor.
- The proposed pipeline feeding seawater to the site from the pump station should be placed underground. All pipelines should be excavated with minimum impact on surrounding areas. Pipes must be laid as quickly as possible to reduce the length of time that the trenches are lying open, and machinery (back actor/excavator) should be on rubber wheels rather than tracks. Ideally the time between first opening up a trench and closing it up again should not be more than three weeks. All sand from trenches must be returned (by hand) to the disturbed area once the pipe has been laid and topsoil and S&R plants returned. Pipeline construction should ideally take place in summer, and no later than May, to allow for natural rehabilitation during the winter growing season.
- Search and Rescue of all transplantable plant material must occur prior to construction (bulbs, succulents, and any others deemed suitable for horticultural use). A suitably qualified horticulturist should be appointed to undertake the work. No construction work can proceed until Search and Rescue is completed. The bulbs that need to be moved (by a qualified horticulturist familiar with Search and Rescue operations) to similar areas nearby (or to a designated conservation area) are any *Satyrium carneum* (rare species), the large bulbs of the *Brunsvigia orientalis* (tolbos, kandelaarblom), and numerous bulbs of *Chasmanthe aethiopica*, *Ferraria crispa*, *Gladiolus cunonius*, *Albuca c.f. flaccida*, *Ornithogalum juncifolium*, *Ornithogalum thyrsoides*, *Lachenalia bulbifera*, *Trachyandra hispida* (kool), *Sparaxis bulbifera*, *Wachendorfia paniculata*, *Zantedeschia aethiopica* and *Haemanthus sanguineus*.
- The compilation of a construction and operational phase Environmental Management Plan (EMP) which must include all specialists' recommendations.
- The erection of temporary fencing around the conservation areas prior to any on site disturbance.
- The appointment of an ECO (Environmental Control Officer) for the duration of construction. The ECO should be responsible for enforcing no-go areas, making sure that Search and Rescue is done, and awarding penalty fines for any transgressions, a

schedule for which should be outlined in the construction EMP, and made clear to the contractors at the outset.

- Only locally indigenous plants may be used for landscaping on site, and where possible the plants rescued from the development footprints should be used.
- Kikuyu grass *(Pennisetum clandestinum)* is a highly invasive alien, and should not be allowed on site. A suitable local grass is buffalo grass *(Stenotaphrum secundatum)*.
- Alien invasives are able to invade disturbed areas more easily than natural areas. At this stage the area is in excellent condition with very few invasive species. Care must be taken during construction not to import building materials containing alien invasive seeds.

Given that there will be an unavoidable residual impact assessed as Low – Medium negative, and that this is not easy to mitigate in any significant way, a contribution to an appropriate conservation fund such as WWF South Africa, the Flower Valley Conservation Trust or an equivalent marine conservation agency is proposed.

Conclusions and recommendations

1. At least 90% of the natural vegetation within the proposed development footprint is in good condition.
2. The pumphouse area is characterised by moderate conservation value Cape seashore vegetation.
3. Overberg dune strandveld and Cape seashore vegetation are classified as least threatened vegetation types, whereas Agulhas limestone fynbos is classified as vulnerable giving it Moderate-High local and regional conservation value.
4. The only species of conservation concern recorded on the site is *Satyrium carneum*, which is categorised as near threatened. There is a relatively high possibility of further seasonal Red data plants on site, especially in the limestone outcrops.
5. The conservation value of the vegetation in the study area is Medium-High in local (Gansbaai) and regional (Hermanus - Agulhas) terms, as it is diverse and in good condition, but is relatively well conserved in the Agulhas National Park, various provincial and local reserves (e.g. Walker Bay), and on private land (such as the local Walker Bay conservancy).
6. Given the relatively small footprint of this development, proposed conservation corridor (given that it is extended around the western boundary of the property) and intact nature of surrounding vegetation the impact is **Medium negative with regards species** pattern and **Low to Medium negative with regards process**.
7. In isolation this development will not have a major impact on the functioning of ecological processes and effectiveness of the CBA coastal corridor. However, one cannot discount the potential cumulative negative impact of this and future developments on the currently pristine natural vegetation of the area.
8. It is proposed that the site plan be adapted to extend the proposed natural area on the southern boundary of the property to include a natural corridor of at least 30 m along the western boundary. This will provide ecological connectivity and a functional coastal corridor of at least 70m (when including the natural area between the sea and road).
9. A number of mitigatory steps are proposed in order to reduce the impact of the development should it be approved.

S D J Privett
29 November 2010

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ANNEXURE G 1/10

FYNBOS ECOSCAPES
fynbos nursery | restoration | landscaping

Fynbos rehabilitation plan for Buffeljags Abalone Farm, Farm 357 Bredasdorp, Western Cape.

Prepared for:
Mr Stephan Fourie
Buffeljags Abalone Farm
Viking Aquaculture

15 December 2017

1. Introduction

The Buffeljags Abalone Farm has been developed on the coastline directly east of the village of Buffeljags on Farm 357, Overberg region, Western Cape. Fynbos Ecoscapes was commissioned to undertake the original botanical assessment of this site as part of the environmental planning process prior to the approval and construction of the abalone processing facility. The site is situated within the Overberg Critical Biodiversity Area and is home to sensitive natural Overberg dune strandveld and thicket. While this vegetation type is categorised as least threatened (Anonymous 2009), the developments location within the Overberg CBA and coastal corridor network, resulted in the mitigation requirement of an indigenous corridor on the seaward side of the development.

During construction of the abalone plant the natural vegetation within this conservation area has been impacted and as a result Fynbos Ecoscapes has been tasked to develop a rehabilitation plan for the site.

2. Current status of the conservation area and vegetation disturbed during construction

Figure 1 below shows the approved site development plan with the conservation area demarcated in green.

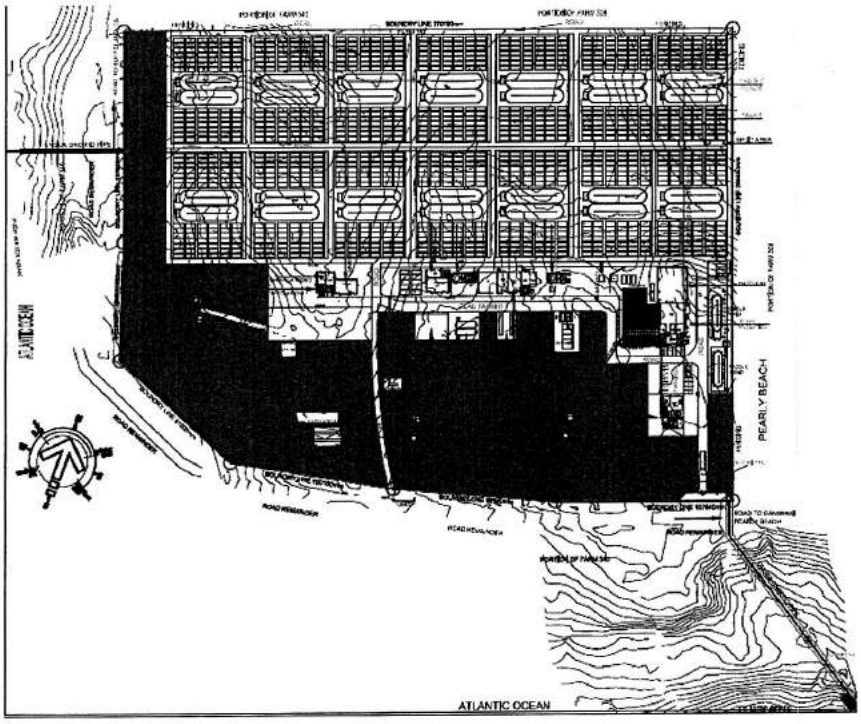

Figure 1. Site development plan showing all infrastructure and conservation area in green (source: Johan Gericke 2017).

During the construction phase of the project significant damage has been caused to the natural Overberg strandveld fynbos and thicket mosaic within the conservation area. Figure 2 below shows the current status of the site with the impacted areas within the conservation zone demarcated in brown.

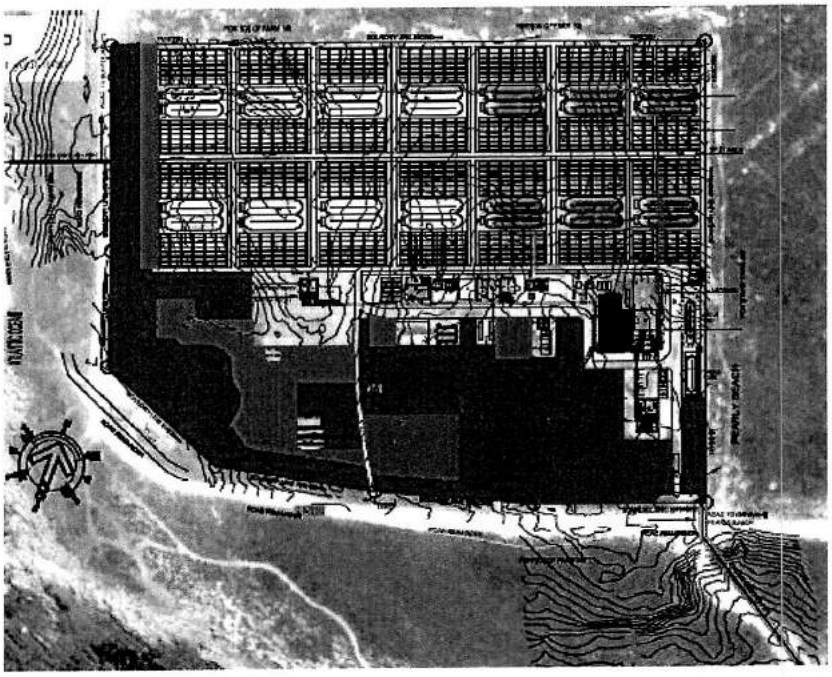

Figure 2. Total disturbed area shown in brown (5844 m^2) falling within the conservation area shown in green (35 275 m^2). (Source: Johan Gericke 2017).

The diagram above shows the approximately 5844 m^2 of disturbed areas within the designated conservation zone damaged during the construction phase of the abalone farm. The impacted vegetation would have all been Overberg dune strandveld with limestone and thicket components. According to the original vegetation survey of this site (Privett 2010), this vegetation would have been dominated by *Metalasia muricata* (blombos), *Pterocelastrus tricuspidata* (candlewood), *Passerina paleacea* (gonna), *Euclea racemosa* (sea guarrie) and *Phylica ericoides*.

Other species recorded in the conservation area included *Carpobrotus acinaciformis, Helichrysum patulum, Helichrysum dasyanthum, Searsia laevigata, Ischyrolepis eleocharis, Heramannia ternifolia, Osyris compressa, Pelargonium betulinum, Whalenbergia calcarea* (Agulhas endemic), *Indigofera sp., Muraltia satureoides, Roepera fulvum, Roepera*

flexuosum, Ficinia ramosissima, Otholobium bracteolatum, Gazania pectinata, Salvia africana-lutea, Sebaea lutens, Chrysanthemoides monilifera (bietou), *Zaluzianskya capensis, Chondropetalum microcarpum, Knowltonia vesicatoria* (thicket), *Chasmanthe aethiopica* (thicket) *Chironia baccifera, Cotula sp., Sutera hispida, Pelargonium capitatum, Tetragonia fruticosa, Stenotaphrum secundum, Arctopus echinatus, Helichrysum retortum, Crassula subulata, Hermannia trifoliata, Vellereophyton dealbatum, Manulea tomentosa, Thesidium fragile, Senecio triqueter, Anthospermum prostratum, Cassytha ciliolata, Agathosma dielsiana, Centella difformis, Crassula expansa subsp filicaulis, Silene undulata, Ficinia ramosissima, Jamesbrittenia albomarginata, Zaluzzianskya dentata, Falkia repens* and *Struthiola striata*.

Geophytes identified within the conservation area included *Brunsvigia orientalis, Chasmanthe aethiopica, Ferraria crispa, Gladiolus cunonius, Albuca c.f. flaccida, Ornithogalum juncifolium, Ornithogalum thyrsoides, Moraea tripetala, Lachenalia bulbifera, Trachyandra hispida* (kool), *Satyrium carneum* (nt), *Sparaxis bulbifera, Wachendorfia paniculata, Zantedeschia aethiopica* and *Haemanthus sanguineus*.

Plate 1 . Photo taken of the site at the time of the original botanical assessment prior to construction commencement showing the natural Overberg dune strandveld that characterised Farm 357.

The images below show the areas in the designated conservation area impacted during construction:

Plate 1. Disturbed area requiring topsoil spreading (all construction materials within conservation area to the removed)

Plate 2. Topsoil stockpiled on site (piles centre and right of image.

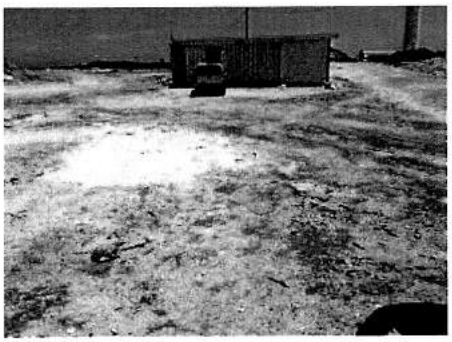

Plate 3. Hard ground and road surface on right requiring topsoil and aeration.

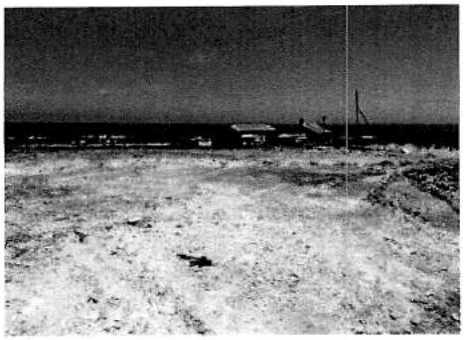

Plate 4. Disturbed area requiring topsoil and aeration.

Plate 5. Road to turbine requiring rehabilitation.

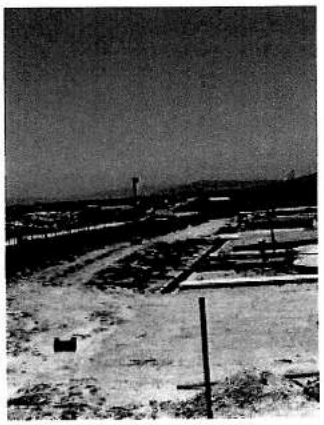

Plate 6. Boundary road requiring rehabilitation – no topsoil required

3. Rehabilitation methodology

The rehabilitation of this site will depend on three components, namely natural germination of seedbank within the topsoil, supplementary planting of rooted cuttings collected from site and management of weed regrowth following disturbance.

3.1 Collection of plant material for cuttings

A minimum of four rooted cuttings per m^2 across all disturbed areas is suggested (given that enough topsoil is available to cover all disturbed areas that are currently devoid of topsoil). With a total of 5844 m^2 having been disturbed, 23376 rooted cuttings will be required. The following is a suggested species and quantities list for rehabilitation (this is based on species originally recorded from the site that are fast growing pioneers and relatively easy to propagate):

Species	*Quanitity*
Carpobrotus acinaciformis	3000
Carpobrotus edulis	3000
Tetragonia decumens	6000
Tetragonia fruticosa	3000
Osteospermum fruticosum	2000
Drosanthemum candens	500
Salvia africana lutea	1000
Pelargonium capitatum	1000
Pelargonium betulinum	1000
Helichrysum dasyanthum	500
Helichrysum patulum	500
Metalasia muricata	500
Osteospermum moniliferum	500

Osteospermum incana	500
Searsia glauca	500

These plants will require approximately three months for rooting in order to be ready for planting out on site. I propose that planting only be undertaken following the first good rains in late April or early May. The cuttings will need to be collected in January and early February 2018 from the conservation area at Buffeljags in order to have them ready for planting in autumn 2018.

3.2 Spreading topsoil and ground preparation

Topsoil is vital for the successful rehabilitation of the vegetation within the disturbed area of this site. Approximately half the disturbed areas still contain sufficient topsoil for rehabilitation (these areas can be determined by the dark soils and plant material still visible in the soil). However over approximately half of the disturbed area the topsoil has been stripped (characterised by white sand or calcrete bedrock with no organic material) and this is where it is vital that stockpiled topsoil be evenly spread.

Once all available topsoil has been evenly spread over these stripped areas all compacted ground will need to be loosened and aerated. Ideally this should be undertaken manually using a team with garden forks, however there are some areas such as the compacted roads to the turbines that will need to be aerated/loosened using machinery.

3.3 Installation of soil saver

Once soil preparation is complete the entire disturbed area should be covered with a soil saver (Geojute 250 – see plate on right). The Buffeljags site is characterised by very strong winds both in winter (westerly winds) and summer (south easterly winds). It is therefore necessary to stabilise the soils using a soil saver until plant material has re-established. The Geojute 250 product prevents erosion while the rooted cuttings establish

and the seedbank in the topsoil germinates. The product will naturally break down and decompose over a two to three year period as the natural vegetation recovers.

3.4 Irrigation installation

A temporary irrigation system must be installed to provide water for the first 24 months after installation until the vegetation has re-established. This can be removed after the second summer (April 2020). The irrigation should be automated and volumes and timing set at a level sufficient to keep the topsoil moist at all times. It is important that this irrigation system is installed and operational by the time the rooted cuttings are planted out in late April 2018.

3.5 Planting of cuttings

After the first good rains in April or early May2018 the cuttings collected from site will have rooted and can be planted at 4plugs/m^2. These should be planted through the soil-saver directly into the natural soil on site with organic, slow-release fertiliser.

3.6 Managing weed regrowth

Critical to the success of the rehabilitation over the first 24 month period will be the management of weeds within the disturbed area. Disturbance of natural vegetation as has happened at this site often results in the invasion by weedy species. During my site visit I noticed that both Kikuyu grass (Pennisetum) and kweek (*Cynodon dactylon*) are present. The area is also vulnerable to the invasion by *Acacia cyclops* (rooikrans). It is important that twice yearly inspections and weeding operations be conducted as the natural vegetation recovers to locate and remove any potentially invasive species.

Sean Privett, Fynbos Ecoscapes cc, 15 December 2017

4. Literature cited:

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VAT No: 4600201604 Reg. No: 1999/006730/07 ANNEXURE H 1/4

BUFFELJAGS ABALONE FARM

Farm 357, Bredasdorp, 7280, PO Box 961, Gansbaai, 7220
Tel: 028 125 0300 Fax: 086 524 3853

28 March 2018

To Whom It May Concern

The need for additional sustainable electricity capacity at the Buffeljags Abalone Farm

The Buffeljags area has been identified as one of the most suitable areas to establish an abalone farming industry. This is due to the water quality, water temperature profile and available kelp to be used as feed. So far there are two farms (Viking and HIK), both which are expanding rapidly and it will not be surprising if more abalone farms will be established at Buffeljags over the next few years. The establishment of an abalone industry in this remote area provides a stable industry related income to a very poor and forgotten community. As employment at the abalone farms as well as the kelp harvesting industry providing feed to the abalone farms.

These significant job creation initiatives in remote, rural areas and generating valuable foreign currency is very much in line with the governments' directives and, specifically, Operation Phakisa.

Unfortunately the limited amount electricity AND the quality of electrical supply to Bufflejags (many power dips and power outages due to the length of the supply line) is hindering both job creation and securing foreign revenue.

Power Dips

The Eskom supply line to Buffeljags originates in Bredasdorp and is over 70km long. Over the years the line has aged and has been damaged by veld fires and storms. The result is that this line is very weak and unstable resulting in voltage drops and power dips, especially in bad weather. In 2014 the Buffeljags abalone farm had almost 1 power-dip tripping of the main switchgear per day. This results in the two generators providing 1.3 MVA of electricity starting up while the main water supply pumps to the farm have to be re-primed and started up as well as all the other smaller supply pumps and blowers for water and air to the tanks. If this is after hours the person on duty has to drive to the farm from Gansbaai to check that either the generators are running smoothly and/or the switch-over back to Eskom after the power dip had taken place without problems. After that they have to check that all the pumps and blowers are running properly and that all the tanks and animals are getting adequate water and air supply. During a phase failure there is often a burnt out motor or two before the system is able to switch over to generators resulting in a significant replacement costs or repairs in maintenance (the main pumps cost around R 190,000 each). This was a huge strain on both equipment and human resources. Although this has improved somewhat, the records for 2017 clearly show an EXTREMELY HIGH incidents of power dips which resulted in switching over to generators. A total of 122 switch-overs in a period of 10 months which is a power dip/change over every 2.5 days! Please refer to Table 1 below.

VAT No: 4600201604 Reg. No: 1999/006730/07

BUFFELJAGS ABALONE FARM

Farm 357, Bredasdorp, 7280, PO Box 961, Gansbaai, 7220
Tel: 028 125 0300 Fax: 086 524 3853

Table 1. Recorded Electricity Interruptions for 2017

2017	
March	13
April	27
May	14
June	7
July	2
August	8
September	14
October	8
November	15
December	14
TOTAL	**122**

At this stage Eskom does not plan or budget to replace or upgrade this line.

Capacity

No further development or abalone farm expansion can take place at Buffeljags. The Buffeljags Abalone Farm initially applied for 1.5 MW but was only allocated 1.2 MW by Eskom. The HIK abalone farm has been restricted to 250kVA due to this supply limitation. In order to complete the abalone farm as per the environmental authorisation given, the Buffeljags Abalone Farm had to look at alternative sustainable electricity to assist with both the means of increasing the supply as well as improving the quality/stability of the supply.

Several agencies were approached to look at both the solar and wind options for Buffeljags. The requirements were:

1. To be able to supply as much of the 1.3MW required by the farm as possible in order to remove all power dips.
2. Be able to supply all the electricity during a power failure if the conditions are favourable.
3. To be able to supply this capacity as consistently as possible through the day as well as the year.
4. To be able to store and utilise additional generation capacity.

VAT No: 4600201604 Reg. No: 1999/006730/07

BUFFELJAGS ABALONE FARM

Farm 357, Bredasdorp, 7280, PO Box 961, Gansbaai, 7220
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Solar

In order to supply ALL the required energy for the farm the solar installation will:

- Have to be double in size to generate enough electricity for the night time as well resulting in the cost being inhibitive and taking more physical space than what the farm has available.
- This huge coverage will have an extreme localised visual impact.
- By producing double the required capacity during the day to be utilised at night will result in: 1) Returning more electricity to the grid at any one time than Eskom will allow (at this stage they will only allow a maximum 250 kVA to be fed back into the grid at any one time). 2) Necessitate a HUGE and EXTREMELY COSTLY storage capacity for the additional electricity produced during the day.
- Infrastructure supporting solar will have to be all 316 stainless steel to withstand the highly corrosive environment. Adding this cost to the solar and storage installation is not economically viable.

Wind

The analysis on wind power provided the following:

- There wind profile of the area showed that wind electricity generation could provide 75-80% of the abalone farm's electricity supply year round.
- On some occasions when there is an **Eskom failure** a combination of wind and diesel generated or only diesel generated electricity will be required, but the frequency of this happening will be limited and acceptable.
- The total electricity requirement could be done with a relatively small foot print with minimum visual and environmental impact to the surrounds. Please refer to the visual impact report. It is recognised that there is a localised visual impact but arguably not more than what the solar farm would have been as it would have to be raised above the abalone tanks and would have covered the entire property.
- No environmental authorisation is required for a wind power plant below 10 MW or less than 1 hectare footprint.
- Wind can cost effectively produce electricity 24hrs per day. This means that wind can generate additional electricity throughout the 24hr cycle which reduces the spare capacity being fed into the grid to the maximum 250 kVA required by Eskom.
- Eskom agreed that the Buffeljags Abalone Farm could use the grid as a battery for the additional power generated (please refer below).

VAT No: 4600201604 Reg. No: 1999/006730/07

BUFFELJAGS ABALONE FARM

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Eskom

Eskom is very enthusiastic and supportive of the application to erect the wind turbines and connecting them to the 22,000 V Eskom grid as they are aware of the instability of the electricity network in the area and the limited supply. Feeding electricity into the grid from both ends (Bredasdorp and Buffeljags) will ensure that there is always electricity on the grid even if there is a breakage somewhere in the middle. It will also assist to stabilise the three phases. They agreed to the Buffeljags Abalone Farm applying for a banking option which would allow the farm to bank (store) any additional electricity and use this when there is no wind. However, Eskom would limit the amount of any spare electricity that could be fed back into the grid at any point in time to 250 kVA.

The application for connecting and feeding into the grid was submitted to Eskom in January 2017. Based on the approval from Eskom and the fact that no EIA is required, the Buffeljags Abalone Farm went ahead and invested R 22 million in purchasing and erecting the two turbines. In addition to this the farm also expanded the hatchery and grow-out operations accordingly to the full capacity of the environmental authorisation, bringing the total investment to around R50 million with an additional 38 permanent jobs being created. The Eskom contracts are now in place.

Buffeljags

With the Buffeljags Abalone Farm connecting the wind turbines to the grid the Buffeljags community will have access to more stable power and much less electricity interruptions. The HIK abalone farm will also benefit from far less power dips and equipment failure (hopefully none). If this project proves successful it may convince HIK to erect wind turbines as well making the Buffeljags area completely sustainable.

Yours truly,

Nick Loubser

ASSESSMENT OF BIRD & BAT COLLISION RISK

WITH WIND TURBINES AT THE BUFFELJAGT ABALONE PLANT

Fig. 1. Early morning view south across the site. Note that though the existing masts are of the same hub height the westerly mast (to the right) is located on lower ground.

Report prepared by Dr AJ (Tony) Williams of African Insights

May 2018

EXECUTIVE SUMMARY

Buffeljagt Abalone Farm (Pty, Ltd) has erected two turbine masts to support blades and produce electricity as the Eskom supply is subject to irregularities which have a negative effect on critical water circulation within the abalone grow-out facility.

The Overberg Municipality will not permit blades for the masts to be connected without a report on the potential collision risk the completed turbines would pose for birds.

This report documents bird observations made on two days in late April 2018 and makes an assessment of the potential impact the completed turbines might have on birds in the context of wider conservation issues.

Based on: the field observations; prior knowledge from detailed studies of the key species of concern; and background research undertaken in preparation for avian appraisals for eight windfarms; **there is no reason from an avian perspective to oppose the completion of the two turbines.**

Consideration of bat ecology indicates that the turbines provide minimal risk to bats

TABLE OF CONTENTS

1. Introduction

Buffeljagt Abalone Farm Pty. Ltd. (hereafter BAF) has a critical need for a reliable source of electricity to operate the pumps which are essential for circulation of water within the abalone growing facilities. Currently the main source of electricity is a 70 km Eskom side-line from a main transformer at Bredasdorp. Supply along this line is beset with multiple irregularities. Currently diesel generators are used at BAF as backup in the event of Eskom failures. BAF seeks to replace use of the diesel pumps through utilization of renewable wind energy to provide a cheaper and more reliable electricity supply. Two turbines are planned and the masts for each have been installed. However, final approval for installation of the turbine blades has been withheld until an assessment of the potential impacts of turbine operation at the BAF might have on birds. The purpose of this report is to provide the avian assessment.

The hub of the masts is at 45 m above ground level. Blades 23 m long will be attached to the hub so the blades will operate across a diameter from 22m off the ground to 68 m above ground.

2. Terms of Reference

Dr Williams of African Insights was approached to conduct an appraisal of the local avifauna directly through field observations as well as, indirectly, through literature research, and prior experience with avian assessment for eight proposed windfarms.

Dr Williams's CV and declaration of independence are presented in Appendix 3.

3. Affected Environment

The BAF presents three basic habitats (Fig. 2):

1) an area of relatively undisturbed Agulhas Limestone Fynbos (Fig. 3) -a vegetation type classed as nationally Vulnerable;

2) a range of buildings and roads most built over an adjoining limestone area (Fig2);

3) an area formerly of Overberg Dune Strandveld now totally transformed, without vegetation, and replaced by the BAF abalone grow-out facilities (Fig. 4).

The inland boundaries of the BAF front onto relatively unaltered natural vegetation. On the seaward side the BAF is divided by the gravel road to Buffeljagt from the rocky seashore.

The site lacks **topographic features** that would funnel bird movements towards the towers or provide updraughts for slope soaring. There are no **freshwater wetlands** within the vicinity of the BAF. Nor are there critical populations of any bird species within the vicinity.

The BAF lies within the Agulhas Plain-Heunignes Estuary globally Important Bird Area (IBA) (Marnewick *et al.* 2015); is close to the western coastal edge of the Agulhas National Park; and is within forage commuting range of birds breeding in the Dyer Island IBA some 15 -20 km to the west.

Dyer Island supports important populations of several seabird species. These include the Critically Endangered Leach's Storm-petrel *Oceanodroma leucorhoa*, the Endangered – African Penguin *Spheniscus demersus*, Cape Cormorant *Phalacrocorax capensis* and Bank Cormorants *Ph. neglectus*; as well as the Near-threatened Crowned Cormorant *Ph. coronatus* (Taylor *et al.* 2015). All

of the mentioned species may fly, or swim, along the coast adjacent to the BAF, however, all forage at sea and only come ashore on safe shore immediately adjacent to the sea. The only species that might occasionally fly over the site is the Cape Cormorant.

Footprint disturbance occurred during the prior erection of the towers and no further disturbance is envisaged. Powerlines were installed when the towers were erected and placed underground.

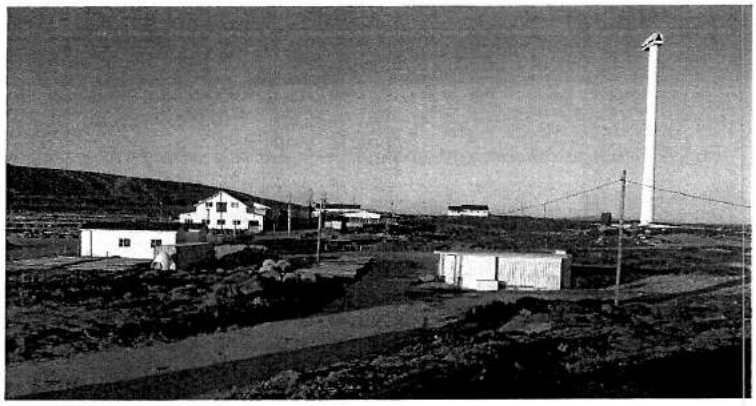

Fig. 2. View to the north from the highest coastal point within the BAF (close to the lower mast). This shows the extent of buildings on the site. Note: a) to the left of the buildings the edge of the abalone grow-out facility and b) the range of low hills 4 km inland from the site.

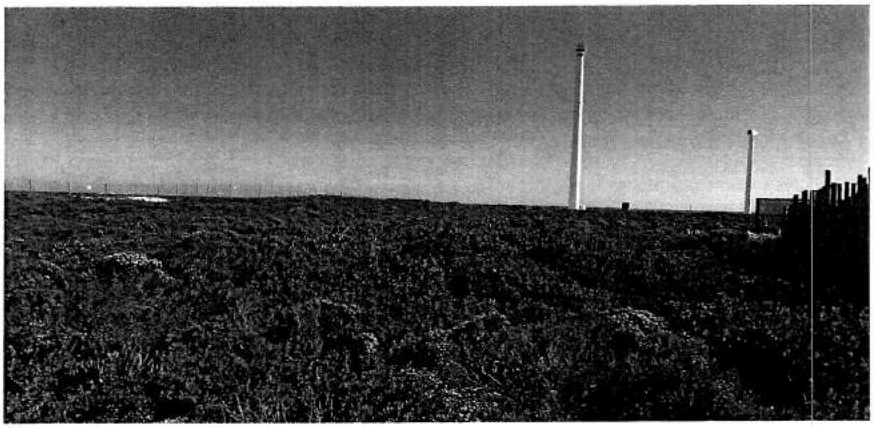

Fig. 3. View across the largely undisturbed area of Agulhas Limestone Fynbos that occurs between the management house (the outer fence of the house's garden seen on the right) and the boundary fence along the road leading to Buffeljagt (seen along the left-hand horizon).

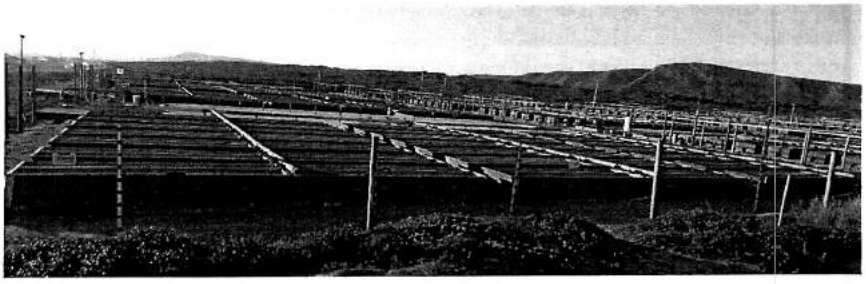

Fig. 4. View across the abalone grow-out facility and area sterile for most birds

4. Field observations

A total of five hours of observations were made across the relatively small footprint of habitats 1 and 2. Habitat 3, the grow-out facility, offers minimal support for birds and was not subject to detailed observation.

The heights at which birds flew across BAF could be assessed against the existing turbine masts.

Three hours of observations, between 15.00 and 18.00, were made on the first day (29 April) and two hours, from 07.00 -09.00 on the following day. The type and time of observations are given in Appendix 1.

Birds often commute between nocturnally occupied roosts and diurnal foraging areas. The timing of observations was specifically chosen to assess any such commuting movements across or close to the BAF. The bird species recorded in each hour of observation are given in Appendix 2

The prime focus for observation was the area of Agulhas Limestone Fynbos and the immediate surrounds of the two masts. During walk circuits of the fynbos area observations were made on birds among the buildings and, from within the site, across the adjacent rocky shore to the open sea, as well as across the abalone grow-out facility.

The two most ubiquitous species at the BAF were gulls - the southern African race of the Kelp Gull *Larus dominicanus vetula* and the smaller Hartlaub's Gull *Chroicocephalus hartlaubii*. These gulls occurred across the entire BAF as well as along the adjacent rocky shore. They are considered a pest at the BAF as they take a toll of any small to medium sized abalone exposed within the grow-out facility.

The avifauna of the BAF is depauperate. Of the 18 terrestrial bird species recorded in the BAF seven are related to the local fynbos vegetation, though some (Cape Bulbul, Cape Weaver) also used resources provided in the garden around the management office

Fig. 5. View across the BAF area of Agulhas Limestone Fynbos. Note the exposed limestone (lower right), and low height (<1 m) of the vegetation.

Agulhas Limestone Fynbos

The shallow soils constrain the growth of the fynbos which, within the BAF, grows to a maximum of 1 m. This limits the vertical dimension of vegetation that birds can search for food. The limited open areas between plants restricts ground foragers.

Cape Bulbul *Pycnonotus capensis* and Cape Spurfowl *Pternistis afer* fed on the upper vegetation, Bokmakierie bush-shrikes *Telephorus zeylonus* foraged on the ground and lower vegetation but the only pair that called within the site duetted from the tops of the bushes. The only sunbird recorded was in thicker bush just outside the BAF. The two canary species foraged on the ground or woodier bushes.

The fynbos area within the site is apparently too small to totally sustain permanent populations of fynbos birds which must be dependent on, and enter the site from, external fynbos areas which cover larger areas and have taller woody vegetation.

Fynbos birds seldom fly >10 m above vegetation. They prefer to keep low over bushes into which they can drop for cover if threatened by birds of prey. None of the species recorded have display flights which would take them into the radius of the turbine blades (>23 m off the ground).

No night foraging birds were heard or seen. All the birds recorded only forage by daylight when the turbines and their blades are very obvious, so the risk of collision mortality is considered minimal.

The southernmost mast is situated on lower ground and located in an area of disturbed Overberg Dune Strandveld which provides little to attract birds for foraging.

Artificial habitats

Five bird species probably occur in the area only, or largely, because of the buildings which provide off-ground roosting/ breeding habitat. These species are: Speckled Pigeon *Columba guinea*, Rock Kestrel *Falco rupicola*, Common (European) Starling *Sturnus vulgaris*, Red-winged Starling *Onychognathus morio* and House Sparrow *Passer domesticus*. Most of these species – all common in

urbanized areas across the Western Cape Province – generally fly to no more than 20 m above ground. As local residents they will be cognisant of the masts and blades so collision with these structures is very unlikely. In any case all are of Least Concern.

In addition to the terrestrial birds six species were seen either along the rocky shore of flying over the sea. None of these species are considered likely to occur over the BAF site.

Fig. 6. The rocky shore and sea just beyond the site boundary.

The coast immediately adjacent to the site is narrow, rocky, and subject to considerable wave action. Along the shore African Black Oystercatchers *Haematopus moquini* and Little Egrets *Egretta garzetta* were recorded, as well as the two species of gulls. Seasonally there may be migrant Palaearctic waders. None of these shorebirds are likely to approach the wind turbines.

The cormorants and terns that were recorded were all seen in flight over the sea or the shore and none were observed to fly over the land. Should any fly across the land this would be in daylight when they could readily see and avoid the two wind turbines.

5. CONSERVATION ISSUES

Species of conservation concern:

The Cape Cormorant -rated Endangered- was seen in flight just off the coast. It is probable that the Endangered Bank Cormorant and Near-threatened Crowned Cormorant also occur along the coast as all three species breed at Dyer Island. Except at potential breeding localities the latter two species are not known to even fly over land areas. Cape Cormorants may fly over coastal land areas though this is uncommon. All three of these cormorants tend to fly within 5 m of the sea surface though Cape Cormorants may fly to 30 m. Should they fly across the site they might fly within the blade radius of the lower mast but this is considered extremely unlikely. The only risk might be in foggy conditions -when at least the blades would be turning very slowly, or in strong gales when cormorants will generally not fly. The small South African population of the Critically Endangered Damara Tern *Sterna balaenarum* that breed along the Indian Ocean coasts migrate past the site on their outward and return journeys to or from their West African contranuptial region. Like the cormorants they will do so by flying over the sea and are considered to have no risk of fly across the BAF.

Birds of prey:

The prey base for birds of prey is very limited. The only raptor seen, the Rock Kestrel *Falco rupicolus* (of Least Concern) is mainly a lizard and large insect feeder, though it sometimes takes small birds. The pair at this site roosted in the buildings and, away from the buildings, spent most time perched on fence or telegraph poles. Were it not for these artificial structures this species would not be locally resident. Given the low vegetation on site, even when hovering to locate prey the kestrels would operate below the lower reach of the turbine blades.

Large terrestrial birds (bustards, cranes etc).

The prevailing natural vegetation in the area around the site is thick fynbos, unsuitable for foraging by large terrestrial species, and as a result none are expected to occur.

Gulls:

The two species potentially at greatest risk of collision with the turbines are the Kelp Gull and Hartlaub's Gulls. These medium- sized birds are drawn to the overall site by the potential to feed on abalone in the grow-out facility. They frequently fly across the area where the two turbines are located and do so at heights that would bring them into potential collision contact with the rotating blades.

These gulls are able to detect, and avoid, thin wires erected across the abalone tanks to prevent gull foraging. Since they only cross the BAF in daylight when the turbines and blades are very obvious, the likelihood of their colliding with turbine blades is considered minimal. Both species have experienced regional population increases due to human provision of new food resources and neither is of particular conservation concern.

The late afternoon and early morning observations were specifically chosen to detect any wider regional movements by these, or other species. The only movement detected was in the late afternoon when there was a sporadic passage of small numbers of Hartlaub's Gulls -totalling 49 individuals – from east to west almost all within the period 16.00-17.00. This passage involved gulls flying across the site on either side of the existing upper mast at various heights that would be encompassed by the radius of the turbine blades. Gull passage was only observed during full daylight. Specifically, although there was a full moon, there was no indication of any crepuscular early morning passage.

Biome-restricted species

Two species that were recorded, the Cape Bulbul and Cape Spurfowl, are biome restricted. Both occurred in the Agulhas Limestone Fynbos area. A pair of spurfowl were recorded once only whereas bulbuls were seen in every hour and also occurred frequently in the garden around the management office. Neither species is likely to fly towards, or at heights that would result in collision with, the blades of the turbines.

Other species

None of the other bird species recorded, nor any other species likely to occur on site, are of particular conservation concern as all have substantial national populations. All are well represented in the area around Buffeljagt as there has been limited human alteration of the native vegetation.

The pair of White-necked Ravens *Corvus albicollis* recorded once over the site are presumed to breed on cliffs somewhere along the hill range about 4 km inland. As they feed largely by scavenging

they will forage over a very large area. They probably range along the coast looking for beached carcasses.

6. BATS & TURBINE RISK AT BAF

Bats general features relevant to wind turbines

Bats may die in relation to wind turbines either through collision or through barotrauma (internal injury due to sudden change in air pressure). The rate of bat mortalities at wind energy facilities is generally low. It is highest where bats migrate across areas of turbines. Since the BAF is located on the southernmost shores of Africa any migration by regional bats will be northwards rather than towards the BAF turbines and bat migration risk can be discounted.

The local occurrence of bats is related to two types of resource – food (flying insects) and shelter (for roosting or breeding). The buildings of the BAF may provide shelter for bats. This may enable bats to be more numerous in the vicinity than would have been the prior natural situation.

Availability of food is the more critical resource. There are several reasons why BAF offers very low food resources for bats.

Insects fly in order to disperse to new habitat or to mate. Flights are prevalent in relatively calm conditions as most insects are unable to fly against wind and would potentially be blown to unsuitable terrain, including in the case of the BAF out to sea. Wind speeds increase with height above ground. In open terrain where there are no physical features to provide pockets of calmer air, insects fly close to the local vegetation. To obtain sufficient food bats follow the same constraints.

Bats and the BAF

The BAF offers very limited food potential for bats. There is no open freshwater – the habitat that best produces insects. The greater part of BAF is allocated to the abalone grow-out facility which is vegetation free, and the water used is seawater. Neither the grow-out area nor the built-up area will provide food for bats. The only area that may provide food for bats is the patch of Agulhas Limestone Fynbos (ALF). This low, <1 m high, vegetation supports few insects – as indicated by the paucity of insectivorous birds.

Wind is a major factor affecting both aerial insects and bats. The BAF is located within <50 m of the shoreline and there is no sheltering topography so the patch of ALF experiences wind of insect-flight deterring speed on most nights. In the occasional relatively calm conditions any insects are likely to fly low, keeping close to the vegetation. They and any pursuing bats will occur largely, or wholly, below the lower reach of the proposed turbine blades. Being close to the shore wind speeds are likely to be higher than areas even a short distance inland.

No bats were seen during the field visit despite observations made until it was too dark to see birds and from before sunrise the following morning. BAF employees say that bats are sometimes seen. There may be two reasons for this. 1) The buildings may provide roosts and breeding sites for bats, resources that are limited in the regional vegetation. 2) BAF keeps a number of lights on overnight for security purposes. These lights will attract insects from areas of natural vegetation outside, but adjacent to, the BAF and if so likely attracts some bats from outside BAF. Should this be the case the bats will occur predominantly close to the buildings and away from the two turbines.

Based on the above assessment, It is safe to consider that: i) the ALF area can support few bats because of low prey density; ii) any bats that forage over the area of ALF will have to fly low where the insects occur, especially so at times when wind levels are sufficient to lead to turbine blade rotation; and iii) those bats that occur in the BAF are likely to be constrained to the buildings which provide, shelter, and whose lights will attract insects from outside the BAF.

Overall it is considered extremely unlikely that the two BAF turbines pose any risk to bats.

7. Cumulative effects

Currently I know of no major developments of any kind within a 20 km radius from BAF. Eskom owns a farm within that radius where it has been proposed to erect a nuclear power station. The avifaunal impact assessment for that station I reviewed in 2009. If this power station were to go-ahead it would present a far more serious threat to regional bird life than BAF but would affect largely terrestrial species and in that differ greatly from the BAF.

8. CONCLUSIONS

Based on: the bird-depauperate habitat; the low overall number and diversity of birds; and the small number of species that, by day, fly across the BAF at potential collision height; installation of the turbine blades and operation of the turbines will cause minimum probable impact on the local avifauna whether in terms of habitat loss, disturbance, or collision risk.

There is no particular reason from an avifaunal perspective to object to the completion of the two turbines and authorisation is recommended.

Comment

There is effectively no information on the potential impact of coast located wind turbines on bird in southern Africa. It would be of benefit to wider understanding of this, and other proposed, coastal turbine developments if, after the erection of the blades, for a period of at least four months (ideally a year) a weekly patrol of the area around the turbines be made to detect any carcasses that could be related to collision with the active turbines. Any such information, whether positive (no collisions) or negative (any collisions) should be made available to BirdLife South Africa for their database.

9. REFERENCES

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TAYLOR MR, PEACOCK F, & WANLESS RW (eds) 2015. The Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland. Johannesburg: BirdLife South Africa.

APPENDIX 1

Field Observation periods

29TH April

Conditions: Sunny and calm with only the lightest breeze.

15.00 -16.00 Walk around to appraise the site whilst registering bird species and activity

16.00-17.00 Seated watch across the site from the entry road to west of the upper turbine mast

17.00-18.00 Walk around site.

Observation were concentrated on the terrestrial area with little attention to the shore and sea.

30th April

Sunny with a sprightly easterly breeze. Visibility over the sea better because of back lighting

07.00-08.00 Walk around site

08.00-08.50 Walk around site

APPENDIX 2

Bird species observed during the field observations.

X denotes recorded, 0 not seen

	29-Apr-18 1500-16.00	16.00-17.00	17.00-18.00	30-Apr-18 07.00-08.00	08.00-09.00
SEEN ON/OVER SITE					
Cape Bulbul	X	X	X	X	X
Cape Wagtail	X	X	X	X	X
Kelp Gull	X	X	X	X	X
Cape Weaver	X	X	X	0	X
Fiscal Shrike	X	X	0	X	X
Hartlaub's Gull	X	X	X	X	X
Speckled Pigeon	X	X	X	X	X
Red-winged Starling	X	X	X	X	X
House Sparrow	X	0	X	X	X
Sacred Ibis	X	0	0	0	0
Common Starling	X	X	X	X	X
Bokmakierie	X	X	X	X	X
Rock Kestrel	0	X	X	X	X
Sn. Double-banded Sunbird	0	X	0	0	0
White-necked Raven	0	X	0	0	0
Brimstone Canary	0	0	X	X	0
Cape Spurfowl	0	0	0	0	X
Yellow Canary	0	0	0	0	X
18 SPECIES	12	13	12	12	14
COAST ONLY					
African Black oystercatcher	0	0	X	X	X
Cape Cormorant	0	0	X	X	X
Swift Tern	0	0	0	X	0
White-breasted Cormorant	0	0	0	0	X
Common Tern	0	0	0	0	X
Little Egret	0	0	0	0	X

DECLARATION OF CONSULTANT'S INDEPENDENCE AND QUALIFICATIONS

Dr. Anthony (Tony) Williams is an independent consultant. He has no business, financial, personal, or other, interest in the activity, application or appeal in respect of which he was appointed other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of this specialist performing such work.

Dr. Williams has been a professional ornithologist for 45 years, including 9 years as a researcher at the FitzPatrick Institute of African Ornithology, 19 years as specialist scientist in Cape Nature (Conservation), five years at the (then) Avian Demography Unit, and 12 years as a consultant. The findings, results, observations, conclusions and recommendations given in this report are based on the author's best scientific and professional knowledge as well as available information.

EIA RELATED CV OF

Dr A.J. (TONY) WILLIAMS OF AFRICAN INSIGHTS CC

Id. No. 420902 5541 080

52 Circle Road, Tableview 7441, cell 084 50 55 450; email capeokapi@gmail.com

DEGREES: **Ph.D.** Zoology 1980. Cape Town University; **M.Sc**. Zoology 1972 Sheffield University, UK; **B.Sc**. (Hons.) Geography 1964 Sheffield University UK

CAREER SYNOPSIS:

Professional ornithologist since 1973 and sole or co-author of >110 peer-reviewed scientific papers.

Specialist avian scientist in nature conservation organisations in Namibia and South Africa for the 25 years prior to retirement.

Director/sole employee of African Insights CC. This business provides: specialist EIA reports on the impacts of developments upon birds; proposals for the use of birds as eco-attractions; and interpretational materials to raise environmental awareness.

EIA related background: Past involvement with EIAs as: a developer; an adjudicator of EIA applications; a writer of specialist **reports** on the impacts of proposed developments on birds; and peer reviewer of EIA specialist reports.

CHRONOLOGY:

Post 2007	Consultancies in bird specialist, eco-tourism, and eco-interpretation matters, and continued preparation and publication of scientific papers.
October 2007	Officially retired from government service
2001-2007	On secondment to the **Avian Demography Unit**, University of Cape Town
1988-2001	Specialist Scientist: Ornithology, (Western) **Cape Nature** Conservation Board
1982-1988	Ornithologist, South West Africa, Directorate of Nature Conservation
1982	Curator of birds, State Museum, Windhoek, SW Africa.
1973-1982	Researcher: **FitzPatrick Institute of African Ornithology**, UCT
1969-1972	Research Assistant: Tromso Museum, northern Norway
Pre-1969	Education, travel and short-term jobs.

1.1 TERRESTRIAL DEVELOPMENTS

Energy projects:

Eskom: Appraisal of bird impacts for 5 new Eskom lines: at Kimberley; Misverstand (Swartland); and 3 lines related to wind farms in the Roggeveld area (Northern/Western Cape border area). of the potential impacts of electricity infrastructure on birds in the entire West Coast District Municipality.

Wind Energy Farms (WEFs): Work on 10 WEFs. Scoping for a WEF, with associated radar survey and full moon observations of bird movements, near Vredenburg; Scoping for Denham WEF near Struis Bay; Avifaunal EIA section for Zen WEF near Gouda (2013-2014); Seasonal pre-construction avifaunal field monitoring for 5 WEFs in the Roggeveld region between Matjiesfontein and Sutherland (2013-16); Socio-economic plans related to Witteberg WEF near Laingsburg, and for proposed WEFs near Klawer and in the Richtersveld. Reports on associated powerlines between Roggeveld WEFs, transformer substations, and from substations to Eskom substation.

Solar Power Plants (SPP) Avifaunal EIAs for 9 PV solar arrays: near Langebaan (2016); near Touws River (2015); near Vanderkloof Dam in the Free State (2015-2016); and 6 proposed SPPs near Vryburg in the North west Province (2015-2016).

Nuclear Power Plants

Peer-reviewer of faunal reports prepared for 3 proposed nuclear plants (2009)

Additional bird-related consultancy work on: Proposed wind and solar farm developments, residential eco-estates, powerline impacts, desalination plants, salmon farm aquaculture, port development at Saldanha Bay etc.

Zen windfarm, near Gouda October 2012 Avifaunal specialist report for the EIA

West Coast District Municipality desalination project 2012 Assessed avifaunal issues for a pump station and intake/ outflow pipes based on two site visits and a global literature review.

Eden District Municipality regional landfill October 2011. Review of global literature on landfill impacts on birds and assessment of avifaunal impacts of 3 alternative sites

Aeolus solar array, Langebaan, September 2011 Avifaunal scoping report

Brakfontein windfarm, Struis Bay, August 2011 & January 2012 Preliminary avifaunal surveys and report for EIA

Klawer area windfarm, July 2011 Socio-economic survey of local community, with SEF Consulting

Witberg windfarm, Majtiesfontein, June 2011 Socio-economic survey of local community, with SEF Consulting

Nooitegedacht windfarm, Vredenburg May 2011 Avifaunal appraisal in association with NCC

Vredenburg windfarm, November 2010 5-day combined day and full-moon watch and radar survey of waterbird movement over the site.

ESKOM Kimberley to Homestead powerlines, September 2010: The potential impact of alternative powerline routings, without and with mitigation, adjacent to Kamfers Dam an internationally important waterbird locality,

ESKOM Misverstand to Wolfkop powerlines. June 2010. Field appraisal of the potential impacts, without and with mitigation, of two alternative routes and sub-station locations.

ESKOM Avian Sensitivity mapping, May 2010. Global literature review and recommendations for location of all electricity infrastructure in the West Coast District Municipality.

Vredenburg Wind Farm, April 2010: Avifaunal scoping report with full literature review

Boschberg Eco-Estate and park, Somerset East, February-March 2010: Development plan for a major regional eco-park.

Flamink Vlei, Veldrif, 2006-2011. Bird specialist advisor for a major 900 residential units/ marina development on the south bank of the Berg River estuary including:

2006 Specialist bird report on the likely impacts of the proposed development on birds.

2007 Specific proposals for the development of bird tourism in the saltworks adjacent to the development

2007 Proposal for a small, PDI operated, guano fertiliser business based on platforms in the saltworks.

De Plaat, Veldrif, 2005-2011. Residential/ retirement development along the northern bank of the Berg River estuary

2005 Specialist report on the potential/likely effects of the proposed residential development on birds within, and adjacent to, the property

2007 Upgraded report due to change in property to be developed

2008 Proposed developments to foster eco-tourism/ public use of undeveloped floodplain area adjacent to the Berg River.

Cape Town, Intaka Island nature reserve, Century City 1995-ongoing. On environmental advisory committee since its inception. Commissioned surveys (additional to annual reports):

2009 The impact of Rotenone fish-poisoning activities on waterbirds

2009 Technical report on the construction of artificial "branch islet" heronry breeding structures.

2008 Assessment report on whether canoeists cause excessive disturbance of waterbirds on the canal system.

2007 Report on height restrictions to be placed on buildings adjacent to the wetland to minimise obstructed wind and downstream turbulence on breeding waterbirds in the reserve.

Paardevlei, Somerset West, 2004-ongoing (3 reports)

2004: Historical, and immediate pre-draining, use of the vlei by waterbirds.

2005: The impacts of helicopter spraying of Rotenone over Paardevlei on the waterbirds present;

2010: Plan for the potential development of the re-flooded Paardevlei to maximise the eco-tourism/ eco-educational potential of the waterbirds.

The Sanctuary office park, Somerset West October –November 2009 Avifaunal scoping report for impacts to birds on or around the central wetland.

Cape Nature, April –July 2009 Report on avi-tourism potential and nature awareness development

Cape Nature June – September 2009. Develop nature interpretation panels for Rocher Pan

Doring Bay, 2008 Proposal for abalone grow-out facility

Cape Town, R 300 Military Road sector 2008. Avifaunal appraisal of proposed route

Strandfontein (in Matzikama Municipality) 2008 Proposed new town development

Doring Bay, 2007 Proposal for major tourism development

PRE-RETIREMENT EIA etc INVOLVEMENTS

2005. Uilenkraal estuary, Western sector. EIA avifaunal report on proposed residential development

2005. Laaiplek, St Helena Bay. Impacts of large residential development, 600 units, on coastal birds

2005 Coastal community tourism. Developer of proposals for developments at: Kleinbay, Bettys Bay and Lamberts Bay. All three projects short-listed (from 6 potentially to be funded out of 28 proposals). External funders withdrew after conflict with DEAT.

2004. Cape Town, R300 road extension Strandfontein (Cape Town) sector. Appraisal of three alternative alignments where road routing ran close to, or crossed, the waterbird rich Strandfontein wetlands.

2002-2004 **Matzikama Eco-park, Vredendal:** DEAT funded community development. Concept development, project management, involvement with community and local officials, provision of eco-interpretation panels

2002. **Uilenkraal estuary, Eastern sector** Proposed residential development

2002. **Whale Trail, De Hoop nature reserve.** Project manager for Cape Nature.

1998-2001. Penguin Island, Lamberts Bay a LED funded ZAR 4 million bird-tourism development.

Project concept development for West Coast Investment Initiative; garnered the public and municipal support; motivated for and raised the funding; wrote the interpretational signage; and project managed from concept to completion, phase 1 within 9 months. Designed one-way glass bird hide described as epitomising "a 21st century ethic of sensitive development to enhance the contribution of wildlife to our economy without jeopardising the education and conservation value of the site"

2000. **R 27 road, Lamberts Bay to Wadrif Pan.** Appraisal of alternatives route relative to strandveld birds.

1999. **R 27 road, Elands Bay to Wadrif Pan.** Impacts of new road on the waterbirds of Wadrif Pan.

1998. **Thesen Island, Knysna** Means to increase bird use of the internal nature reserve.

1997. **Dollas Downs, Arniston.** Potential avifaunal impacts of this residential proposal

1996 **Saldanha Steel** Report on the risk of bird collision with power lines serving the development.

1995-1996 **Rietvlei Eco-park, Tableview**. Proposer and concept developer.

1994-5 **Cape Town Olympic Bid.** Avian specialist on environmental advisory group.

PUBLISHED SCIENTIFICPAPERS RELATED TO SPECIES OF CONCERN AT THE BAF

Williams, A.J., Klages, N.T. W. & Crawford, R.J.M. 2000. **Coastal islands**. Pp. 26-29 *In: Summary Marine Biodiversity Status Report for South Africa*. Durham, B.D. & Pauw, J.C. (Eds). National Research Foundation, Pretoria.

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Williams, A.J., Steele, W.K., Cooper, 1. & Crawford, R.J.M.1990. **Distribution, population size and conservation of Hartlaub's Gull *Larus hartlaubii*.** *Ostrich* 61: 66-76.

Cooper, J., Crawford, R.J.M., Suter, W. & Williams, A.J. 1990. **Distribution, population size and conservation of the Swift Tern *Sterna bergii* in southern Africa.** *Ostrich* 61: 56-65.

Williams, A.J., Cooper, J., & Hockey, P.A.R. 1984. **Aspects of the breeding biology of the Kelp Gull at Marion Island and in South Africa.** *Ostrich 55:* 147-157.

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IWS Project Code: 3090
10 April 2019_rev27 May 2019

Dear Stephan

PROPOSAL FOR POST-CONSTRUCTION/ OPERATIONAL LIVE BAT AND BAT AND BIRD CARCASS MONITORING AT THE BUFFELSJAGS ABALONE FARM, BUFFELSJAGS, WESTERN CAPE

Thank you for approaching Inkululeko Wildlife Services (Pty) Ltd (IWS) with regards to the above project.

1. Introduction

In order to ensure a stable source of electricity to operate the essential water pumps at Buffeljags Abalone Farm (BAF), they commenced with the construction of two wind turbines. The towers are already constructed, however, authorities stopped the erection of the turbine blades due to the lack of bird and bat specialist assessments having been done. Once fully constructed, the specifications of the turbines will be – hub height of 45 m above ground level, blade of 23 m long and full rotor swept vertical diameter from 22m off the ground to 68 m above ground.

A brief bird specialist assessment (5 hours – not in line with the bird guidelines) was conducted by Dr Tony Williams of African Insights at the end of April 2018. However, no preconstruction bat monitoring of any sort has been conducted.

The relevant bat guidelines for preconstruction monitoring that should have been consulted (especially considering that BAF is within 100 km of the largest bat roost in southern Africa at De Hoop Nature Reserve) are: "Sowler, S., Stoffberg, S., MacEwan, K., Aronson, J., Ramalho, R., Forssman, K., Lötter, C. 2017. South African Good Practice Guidelines for Surveying Bats at Wind Energy Facility Developments - Pre-construction: Edition 4.1. South African Bat Assessment Association." These guidelines are relevant to all wind energy facilities (WEFs), from single large wind turbines and wind energy facilities (multiple large wind turbines). However, it is important that any assessment considers the scale of the likely impacts and takes a proportionate approach. Any deviation from the recommended minimum requirements should be acknowledged and motivated clearly. Such deviation should be informed by scientific knowledge, evidence and expertise. Financial or capacity constraints are not acceptable reasons for deviating from the minimum requirements.

Seeing that these guidelines were not adhered to and that BAF urgently need to get the WEF operational or risk shutting down, BAF have requested for IWS to propose a way forward from a bat monitoring and management perspective. IWS proposes the following:

2. Scope of Work Proposed

Seeing as we are entering winter, a quick pre-blade erection bat survey is not going to give us enough information on the peak seasonal bat activity on site. Only a long-term assessment would provide this and it is my understanding that BAF will have to shut down if there are further long delays. Furthermore, due to the importance of sustainable Abalone farming, as opposed to illegal poaching or natural offtake, IWS would like to support BAF in reaching a solution. Therefore, we are proposing a post-construction/ operational monitoring programme to run with precautionary bat management and mitigation measures in place from the commencement of blade rotation. IWS will only agree to such an approach a programme if BAF agree to all aspects of the programme.

In addition to IWS's extensive experience, the following guidelines will be used to inform the programme:

- Aronson, J., Richardson, E., MacEwan, K., Jacobs, D., Marais, W., Aiken, S., Taylor, P., Sowler, S. and Hein, C. 2014. 1st edition South African Good Practice Guidelines for Operational Monitoring for Bats at Wind Energy Facilities. South African Bat Assessment Association.
- MacEwan, K., Aronson, J., Richardson, E., Taylor, P., Coverdale, B., Jacobs, D., Leeuwner, L., Marais, W., Richards, L. 2018. South African Bat Fatality Threshold Guidelines – ed 2. South African Bat Assessment Association

The main objectives of the programme will include, but not be limited to:

- Monitor and minimize bat and bird fatalities on site during operation
- Assess bat activity levels/ abundances on site.
- Assess if there are any bat species of conservation concern
- Assess nightly and seasonal bat activity patterns to assist with adaptive management
- Compare live bat activity levels with bat fatality levels.

The following is a broad overview of the methodology to be employed for the study.

2.1 Desktop Review

Desktop research would be performed based on:

- Previous bat and bird studies from the area or similar habitats.
- Relevant publications.
- Museum and university records.
- Other existing databases and atlases.
- Recent Red Data bat species listings.
- Relevant legislation and policies.
- Communication with other bat scientists and interest groups in Africa.

2.2 Live bat monitoring

IWS proposes the following live monitoring techniques to run concurrently with the fatality monitoring:

- Passive acoustic bat activity monitoring: One Wildlife Acoustics SM3BAT detector on one turbine at hub height.
- Roost searches and mist-netting if suitable habitat allows on and around the site and where applicable during each of the four seasons.
- The fieldwork data will be analysed using the latest and best practice techniques, sound analyst software and statistics. We have extensive experience in such methods.

IWS will conduct the installation and the 3 monthly data downloads and will provide all the equipment for this and charge a monthly rental fee.

2.3 Curtailment Programme

The following operational mitigation programme to be implemented from the commencement of the turbines rotating:

Spring						
Turbine	Start date	End date	Curtailment start time	Curtailment finish time	Cut-in Wind speed	Min. Temp. Celcius
1	1 September	15 November	19h00 in the evening	05h00 the next morning	5.5 m/s	11°C
2	1 September	15 November	19h00 in the evening	05h00 the next morning	5.5 m/s	11°C
Summer						
Turbine	Start date	End date	Curtailment start time	Curtailment finish time	Cut-in Wind speed	Min. Temp. Celcius
1	16 November	15 March	19h45 in the evening	04h00 the next morning	5.5 m/s	11°C
2	16 November	15 March	19h45 in the evening	04h00 the next morning	5.5 m/s	11°C
Autumn						
Turbine	Start date	End date	Dusk offset	Dawn offset	Max. Wind speed	Min. Temp. Celcius
1	16 March	31 May	18h30 in the evening	05h00 the next morning	5.5 m/s	11°C
2	16 March	31 May	18h30 in the evening	05h00 the next morning	5.5 m/s	11°C

2.4 Bat and Bird Carcass searches

Both turbines should be searched every week day in a square plot for both bat and bird carcasses. The recommended plot size is 80 x 80, i.e. a 40 m radius from the turbine tower base. The plot will be searched along 6m wide parallel transects.

IWS will provide the training to the searcher, but seeing that this is not a full day position and needs to be performed daily, it is recommended that someone very local be trained to perform these searches and weekly data uploads.

2.5 Bat carcass removal trials and searcher efficiency trials

Due to the small size of the WEF (only two turbines) and the fact that the turbines will be searched every week day, IWS does not recommend that bias trials and ultimately fatality estimation calculations be performed. We propose working with actual carcass numbers and doing just some searcher efficiency trials in the year for quality control purposes.

2.6 Reporting and fatality estimations

Two brief progress reports will be submitted during the course of each 12 month cycle for each site, providing a brief summary of carcasses found and of bat activity monitoring results.

A detailed yearly monitoring report will be submitted 4 weeks after the completion of the 12 month monitoring cycle. This report will provide the detailed live bat monitoring results and bat and bird carcass findings and adaptive mitigation recommendations.

3. Timelines & Availability

We are available to start on this project in May 2019 or as soon as the turbine blades are installed and commence rotation. We can commence with the project as soon as appointment is made and the mobilization fee is paid. The field work will take 12 months to complete and the Year 1 report will be submitted 4 weeks after the completion of the field work.

4. Organisation and Staffing

Inkululeko Wildlife Services (Pty) Ltd. (IWS) is a bat specialist consultancy founded in 2014 by Kate MacEwan, a former founding member of Natural Scientific Services for 11 years. The IWS team through both their time with NSS and IWS have conducted over 35 long-term pre-construction bat monitoring studies and 10 current or recently completed long-term operational bird and bat monitoring studies for wind energy development in South Africa and southern Africa. The team members have also been involved in numerous other bat specialist and inventory assessments for mines and protected areas in all provinces of South Africa, Zambia and the DR Congo.

Kate MacEwan, the director of IWS, is a SACNASP registered zoologist and environmental scientist and holds a BSc (Honours) in Zoology from Wits University. She has over 22 years of zoological and practical bat conservation experience and wide diversity of contacts with various African bat academics and biologists. Kate is currently the chairperson for the South African Bat Assessment Advisory Panel (SABAAP), and a co-author of both the South African Good Practise Guidelines for Surveying Bats in Wind Farm Developments: 4th Edition (Sowler et al 2016) and the South African Good Practice Guidelines for Operational Monitoring for Bats at Wind Energy Facilities: 1st Edition (Aronson et al., 2014). Kate is also the co-author on several bat species accounts (including some from Mozambique) in the latest southern African Red Data mammal listings (Child et al. (2016)). In addition, she is Rope Access Level 1 certified and Fall Arrest and Rescue accredited to climb heights exceeding 3m.

5.. Costs and Invoicing Schedule

The budget for the project is detailed in **Table 2**:

Table 2: IWS Budget for BAF Year 1 Operational Monitoring

BUDGET - 12 MONTHS OPERATIONAL LIVE BAT AND BAT AND BIRD CARCASS MONITORING FOR THE BUFFELSJAGS ABALONE WEF, WESTERN CAPE

Client: BAF
IWS Project Code: 3090
Date: 10 April 2019

	Units	Rate	Sub-total
Desktop Review			
Senior bat specialist	4	R 820.00	R 3,280.00
Senior bird specialist	4	R 820.00	R 3,280.00
		Sub-total	*R 6,560.00*
Monitoring set up & Searcher Training			
Senior bat specialist	28	R 820.00	R 22,960.00
Technician	28	R 480.00	R 13,440.00
Travel - Flight & Airport Transfers	2	R 4,000.00	R 8,000.00
Vehicle Hire, Mileage and Fuel per day	3	R 1,600.00	R 4,800.00
Accommodation & Subsistence	4	R 900.00	R 3,600.00
		Sub-total	*R 52,800.00*
Data Collection, Equipment Maintenance and Quality Control (an additional 4 trips)			
Senior bat specialist	48	R 820.00	R 39,360.00
Travel - Flight & Airport Transfers	1	R 4,000.00	R 4,000.00
Vehicle Hire, Mileage and Fuel per day	1	R 1,600.00	R 1,600.00
Accommodation & Subsistence	2	R 900.00	R 1,800.00
		Sub-total	*R 46,760.00*
Data Analysis & Reporting			
Senior bat specialist	28	R 820.00	R 22,960.00
Senior bird specialist	16	R 820.00	R 13,120.00
Junior data analyst	24	R 560.00	R 13,440.00
GIS Specialist	2	R 670.00	R 1,340.00
		Sub-total	*R 50,860.00*
Monitoring Equipment			
Rental of Wildlife Acoustics SM3BAT detectorswith accessories	12	R 2,800.00	R 33,600.00
Purchase of Batteries and power connectors	1	R 600.00	R 600.00
1TB Portable hard drives - storage and client copy	2	R 1,200.00	R 2,400.00
Sundry - cable ties, tape, etc.	1	R 200.00	R 200.00
		Sub-total	*R 36,800.00*
Total (excl. VAT)			R 190,500.00

The quote is valid for 30 days from the date on this proposal. South African Value Added Tax (VAT) will need to be added if invoices are submitted to South African registered companies. The payment schedule will be as follows:

- Invoice 1 Mobilisation – 10% of project total, to be issued on appointment and received prior to first site visit = R19 050 (excl. VAT)
- Invoice 2 after Field Trip 2 and technical report – 15 % of project total – payment terms 30 days = R28 575 (excl. VAT)
- Invoice 3 after Field Trip 3 and technical report – 15 % of project total – payment terms 30 days = R28 575 (excl. VAT)
- Invoice 4 after Field Trip 4 and technical report – 15 % of project total – payment terms 30 days = R28 575 (excl. VAT)
- Invoice 5 after Field Trip 5 and technical report – 15 % of project total – payment terms 30 days = R28 575 (excl. VAT)
- Invoice 6 Draft final report – 20% of project total – payment terms 30 days = R38 100 (excl. VAT)
- Invoice 7 Final report – 10% of project total – payment terms 30 days = R19 050 (excl. VAT)

6. Assumptions, Limitations & Caveats

- This is mainly for Bat Operational Monitoring, however, seeing that the carcass searcher will be conducting search plots, Bird Carcass Monitoring and Recommendations will also be performed.
- The current proposal is for one 12 month cycle, however, it is recommended that the carcass searching component continues and that mitigation and management is adapted annually based on the results of the monitoring.
- IWS will only agree to do this work if the initial mitigation measures recommended are implemented from the onset and BAF agree to refine this annually through adaptive management.
- IWS has costed for all aspects described in the proposal, except:
    - For employment of and health and safety requirements for the carcass searcher.
    - The actual implementation of the curtailment specifications on the turbines – this will need to programmed in by the turbine engineer/ technician.
- No meetings, additional field trips, data analysis or reporting have been allowed for. Should additional work be required, it would be on the basis of 820 ZAR per hour per and all disbursements would need to be covered.
- Invoices will be submitted seven times during the course of the study. The mobilization invoice is payable on appointment and all other invoices are strictly payable within no later than 30 days.
- IWS will charge South African Valued Added Tax (VAT) on to the invoices, only if the client is a South African registered company.
- IWS has employee and equipment insurances in place, however, we do not carry professional liability insurance. This can be obtained at an additional cost if required.
- Whilst every care is taken to ensure the accuracy of any work performed by IWS under this Contract, IWS does not warrant the merchantability or commercial viability of the research results. Any claim for damages, whether direct or indirect, including consequential damages against IWS based on this Contract, shall be limited to an amount equal to the Contract Price or the amount actually paid by the Client to IWS in respect of the work done in terms of this Contract, whichever is the smaller. IWS does have limited professional

indemnity, however if the Client wishes to obtain additional professional indemnity insurance for a particular project, then IWS will obtain an increased coverage for the duration of the project, at the Client's expense.

- IWS is appointed as an independent consultant. The appointment therefore does not place IWS under any obligation to recommend the approval of a proposed project. Furthermore, IWS reserves the right to recommend changes to a development application, should this be considered necessary.

7. Conclusion

We trust that we have interpreted your requirements correctly, and that our anticipated work programme ties in with your overall programme. Please do not hesitate to contact us if there are aspects of our proposal that you would like to discuss further.

Kind Regards

Kate MacEwan
for Inkululeko Wildlife Services

8. Acceptance By The Client

Please initial each page and sign in full below on acceptance of this proposal.

I, _____, an authorised signatory for Buffelsjags Abalone Farm, accept the above proposal, methodology, costing and assumptions submitted by Inkululeko Wildlife Services (Pty) Ltd for the bat live monitoring and bat and bird carcass monitoring for the two wind turbines installed at Buffelsjags Abalone Farm.

Signed:

_____

for Buffelsjags Abalone Farm

Name of Signatory: _____

Position: _____

Date: _____

ANNEXURE J 1/35

OVERSTRAND MUNICIPALITY
13 MAY 2019
OVERSTRAND MUNICIPALITY

TP-A Theart (Sibl Merwe)

REHANA KHAN PARKER & ASSOCIATES

ATTORNEYS • CONVEYANCERS • NOTARIES

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VAT REGISTRATION: 474 0136 892

Your Ref:
Our Ref : RKP/ss
Email: sumaya@rkparkerattorneys.co.za
Direct Fax: 0861 541 9070

DATE: 10th MAY 2019

FILE NO: Farm 357
SCAN NO: Rehana
COLLABORATOR NO: 1284416

OVERSTRAND MUNICIPALITY
16 PATERSON STREET
HERMANUS
EMAIL: aconradie@overstrand.gov.za

Dear Madam

RE: **OBJECTION TO APPLICATION IN TERMS OF RULE 52 OF OVERSTRAND MUNICIPAL BY-LAW ON MUNICIPAL LAND USE PLANNING 2015**

THE FARM NO. 357, DIVISION BREDASDORP: PROPOSED AMENDMENT OF CONDITIONS OF APPROVAL (AMENDMENT OF THE APPROVED SITE DEVELOPMENT PLAN), CONSENT USE AND DEPARTURE: ELCO PROPERTY DEVELOPMENTS ON BEHALF OF VIKING FISHING COMPANY (PTY) LTD

Introduction

We act for and on behalf of Albert Tobias Groenewald, Albert Trevor Groenewald, Natasjie Richarddean Plaatjies & Others. The executive committee Sarah Niemand, chairperson of the Dorps komitee and others.

10 MAY 2019

Our instructions are to submit the following reasons for objection to the application under reply.

We enclose herewith:

1. Notice of objections and reason therefor. Annexure - Rkp1
2. Petition signed by community members residing in Buffeljagsbaai. Annexure - Rkp2
3. Photographs, Annexure - Rkp3 – Rkp 3.1 & Rkp 3.2
4. Various letters annexed to item 1, marked separately and referenced as "B"

Kindly acknowledge receipt hereof.

Yours faithfully
REHANA KHAN PARKER & ASSOCIATES

PER: _____
R K PARKER

Director: Rehana Khan Parker B. Proc, Certificate in AMA Guides, Marshall University
Professional Assistants: Rubina Ahmed LLB, Shahieda Mall BA LLB, Ayesha Abbas LLB
Candidate Attorneys: Stacy Lee Stemmers; Mogamat Yazeed Isaacs
VAT REGISTRATION NO.: 474 0136 892

OBJECTION TO APPLICATION IN TERMS OF RULE 52 OF OVERSTRAND MUNICIPAL BY-LAW ON MUNICIPAL LAND USE PLANNING 2015

THE FARM NO. 357, DIVISION BREDASDORP: PROPOSED AMENDMENT OF CONDITIONS OF APPROVAL (AMENDMENT OF THE APPROVED SITE DEVELOPMENT PLAN), CONSENT USE AND DEPARTURE: ELCO PROPERTY DEVELOPMENTS ON BEHALF OF VIKING FISHING COMPANY (PTY) LTD

REASONS FOR OBJECTION:

Points in *limine*

1. Annexures L, M and N were not attached to the Application; Rehana Khan Parker of Rehana Khan Parker & Associates on 10 May 2019 requested from the Overstrand Municipality, copies of which were emailed this morning.

2. From the above Record of Decision the following became evident that an application was lodged at Heritage Western Cape on 20 February 2019 with no notice to the objectors, the adjoining residents or the immediate Buffeljachtsbaai community.

3. A Record of Decision was granted on 25 April 2019 by Heritage Western Cape.

4. This Application under reply predated it. A full set of documentation was / requested by Rehana Khan Parker from Heritage Western Cape on 10 May 2019.

5. Had a copy of the Application of 20 February 2019 been served on the adjoining areas / community, then an objection would have been lodged with Heritage Western Cape, alternatively representations to Heritage Western Cape would have been made.

6. The Record of Decision of Heritage Western Cape states that "any additional new development on site that triggers the National Heritage Resources Act, must be submitted to Heritage Western Cape and dealt with by the appropriate committee. In essence this application fails as this application under reply was not served on Heritage Western Cape.

7. There is a pending Land Claims Court matter, case number LCC16/19 which was opposed by:

Albert Tobias Groenewald – First Respondent;
Albert Trevor Groenewald – Second Respondent
Natasje Richarddean Plaatjies – Third Respondent
All other person occupying portion 0 of Farm 340 Buffljachtsbaai – Fourth Respondent
and the defence for the eviction was on the grounds inter alia that a restitution claim is being considered and the Applicant in the eviction matter failed to give notice to:

The Government of the Republic of South Africa; and
Chief Land Claims Commissioner

8. As stated aforesaid the non-compliance of the above renders the application defective, null and void.

BACKGROUND

9. In and during 2017 Applicant erected the turbines with a flagrant disregard for the community of Buffeljachtsbaai, the adjoining occupier (Sarah Niemand) and the residents in the vicinity with no notice to them;

10. An immediate adjoining occupier is Sarah Niemand and her dwelling can been seen at Annexure B, figure 1 and Figure 2.

11. On the 13th July 2017 Mr A T Groenewald received a notice to vacate from the Overstrand Municipality. See Annexure "D".

12. On 6 November 2017 following an inspection in loco in relation to the Overstrand Municipality pursuant to its attempt to obtain the consent of an occupier, Mr Albert Trevor Groenewald to vacate and relocate elsewhere, the issue of the turbines being within a 100m radius was raised. See Annexure "E".

13. At site, the legal representatives questioned the validity of the turbines due to its proximity to adjoining residents and residents complained that they bore no knowledge, nor were any documents served on them nor were they invited for a public participation process.

14. As such the turbines were stopped.

15. On 5 September 2017 the Overstrand Municipality was informed in writing of a land claim. See Annexure F.

16. The community of Buffeljachtsbaai comprises a fourth (4th) generation inhabitants who have not only been living on the adjacent land but on the land forming part of this application for the wind turbines.

17. A further letter of demand dated 8 March 2018 for the eviction of one Albert Trevor Groenewald and others were pursued by the Overstrand Municipality, where the Municipality was made aware of a potential land claim by Mr Groenewald and other members of the community of Buffelsjachtsbaai. (See Annexure G).

MERITS OF CURRENT APPLICATION

18. The current application is the Applicants attempt to obtain a stamp of approval for a land which potentially will form part of a land claim and is by its nature given the proximity to the gravel road, the Niemand family and residents prejudice. In the Application mention is made of the proposed turbines will be within identified in no go areas. No details were provided as to where exactly the no go area is situated. At present the one turbine is 200m from the crèche and 400m from the house of Karen Groenewald. See Annexure J

19. The current applicant is now afresh and not merely for the 2 wind turbines of a height of 68.80m in lieu of 12m, but also a departure of a street building of 26.80m in lieu of 30m to allow a wind turbine together with amendments in respect of an existing approval dated 9 March 2012 and amendment of Site Development Plan to permit 2 wind turbines and consent use to permit utility service. No detail is provided for the departure of the street building of 26.8 in lieu of 30m.

20. Whilst the application states at paragraph 4.6, that there are no servitudes registered over the property, the residents have at best an unregistered servitude acquired by the effluxion of time. The residents bear knowledge of their existence for about a 100 years.Applicant's site was to be used for the erection of a Church, given that a graveyard is marked immediately outside the fence of Applicant, however, to the surprise of the community of Buffeljactsbaai it was found to have an owner, the Applicant.

21. It is stated at paragraph 5.3 of the application that most of the farms surrounding the above farm are vacant. This is not true. Immediately and on the doorstep is the Niemand Family

home shown in figure 1, a graveyard, a dormant crèche, and the dwelling of Mr Albert Trevor Groenewald. See figure 2 and 3.

22. A recent demolished structure (demolished by the Overstrand Municipality in 2018 belonged to the Jaars family remnants of which is still to be found between the Applicant's site, the crèche and the home of the Swartlands were also demolished by the Municipality earlier in and about 2017.

23. The Niemand family who is directly affected by the Applicant previous occupied the site in question. Later the Niemand family found themselves being cordoned off by the fence of the Applicant effectively "pushing" the Niemand family on to the pavement or what can be deemed as public space.

24. The Niemand family refuses to move and continuously being badgered to vacate. The Niemand family has occupied both dwellings for over a 100 years and had their stock sheds and water holes on the land of the Applicant and the land was earmarked for a Church, a Rehabiliation Centre as well as a cottage for the Niemand family.

25. It is due to the efforts of the legal representatives that the turbines has been partially removed and not that of the Applicant nor the Overstrand Municipality. The Applicant has as far back as 2011 filed an application to the Department of Enviromental Affairs and Development Planning, to which the aforesaid Department issued a two part decision, dated 23 November 2011 specifically drawing the Applicant's attention to Regulation 10(2)(d), in essence, applicant was required to cause a notice to be published:

    25.1 Informing interested and affected parties of the decision;
    25.2 Informing interested and affected parties where the decision can be checked;
    25.3 Drawing the attention of interested parties and affected parties to an appeal procedure.

26. This was not done.

27. In part 2 of the decision, a security fence was granted see paragraph 3.15. The application is to be set aside as this fence which essentially "cut off" or cordoned off or pushed out the Niemand family was never served on the Niemand Family, nor was the Niemand Family 's consent obtained. See Annexure H.

28. This flagrant disregard to the rights of people are being glossed over.

29. The amendments of conditions of approval consent to a height of 68.8 metres are objected to by the community, the Niemand family and Mr Albert Trevor Groenewald whose home is about 100 metres away. The Niemand's home is 5m – 10m away from the Applicant in the Turbine matter.

30. The Applicant shies away from giving distances from the turbines to the nearest resident or seeks to mask it as 'vacant farms" surrounding it. See Annexure RKP 3.1 & 3.2 (picture 3.2 shows the Niemand home 10m and less from the electric fence.

31. It intentionally omits to mention the Niemand family which is its immediate adjoining owner, on any of the Applicants documentation. Also see Annexure "B" figure 1.

32. Furthermore the relaxation of the building line from 30 metres to 26.8 metres is also being objected to as the encroachment may negatively impact our client's right to land and other road users. Already the space between the sea, the Niemand family and of Applicant is limited. No precise detail of where on the site the building line is to be relaxed.

33. The amendment of an existing approval which was granted on 9th March 2012, cannot be condoned as adjoining owners and occupiers were not consulted.

34. The extent of the Applicants property (Viking Fishing Company (Pty) Ltd is 10 hectares and our clients fail to understand why they need to relax the street building

35. At paragraph 6.2 on page 5 of the application it is stated that *the proposed structures are located within an agricultural setting away from major residential settlements,* this is a false statement. The structure will be unsympathetic to the rural settlement and poses as a danger as it is imposing on the road leading to the settlement. See figure where it is apparent how close the turbines are to the road and residents. Karen Niemand lives at No. 23 see Annexure "J". The distance from her stoep to the applicants' fence as measured by her, is 400m. The turbine is clearly visible from her stoep. Also see Annexure "K" which clearly shows the turbine visible.

36. A portion of the erven which was subdivided is now owned by Applicant. This site was earmarked for a Church and unbeknown to the community of Buffeljachtsbaai, it fell into

the hands of the Applicant. The site is either intending to be used for the expansion of Abalone farmers or Viking fishing Company. Should this be the case, then any potential to restitution will no longer be feasible.

37 The family possesses enough historical documentation including the existence of a graveyard linking not only the families but also the community to the land owned by the Applicant. The possibility of Restitution cannot be ignored and any purported further development application and the current application on this property and/or adjoining property already sold off, negatively impacts that of the community's right to restitution.

CANCELS

38 For this reason the application should not be permitted until such time that the issue of Restitution has been considered.

CONCLUSION

39. Turbines constitute a danger to the residents and the public of Buffelsjachtsbaai as the turbines are:

a. The turbine is 30metres away from the Niemand Family home;

b. The electric fence is 10metres away from Sarah Niemand's home who is at most directly affected;

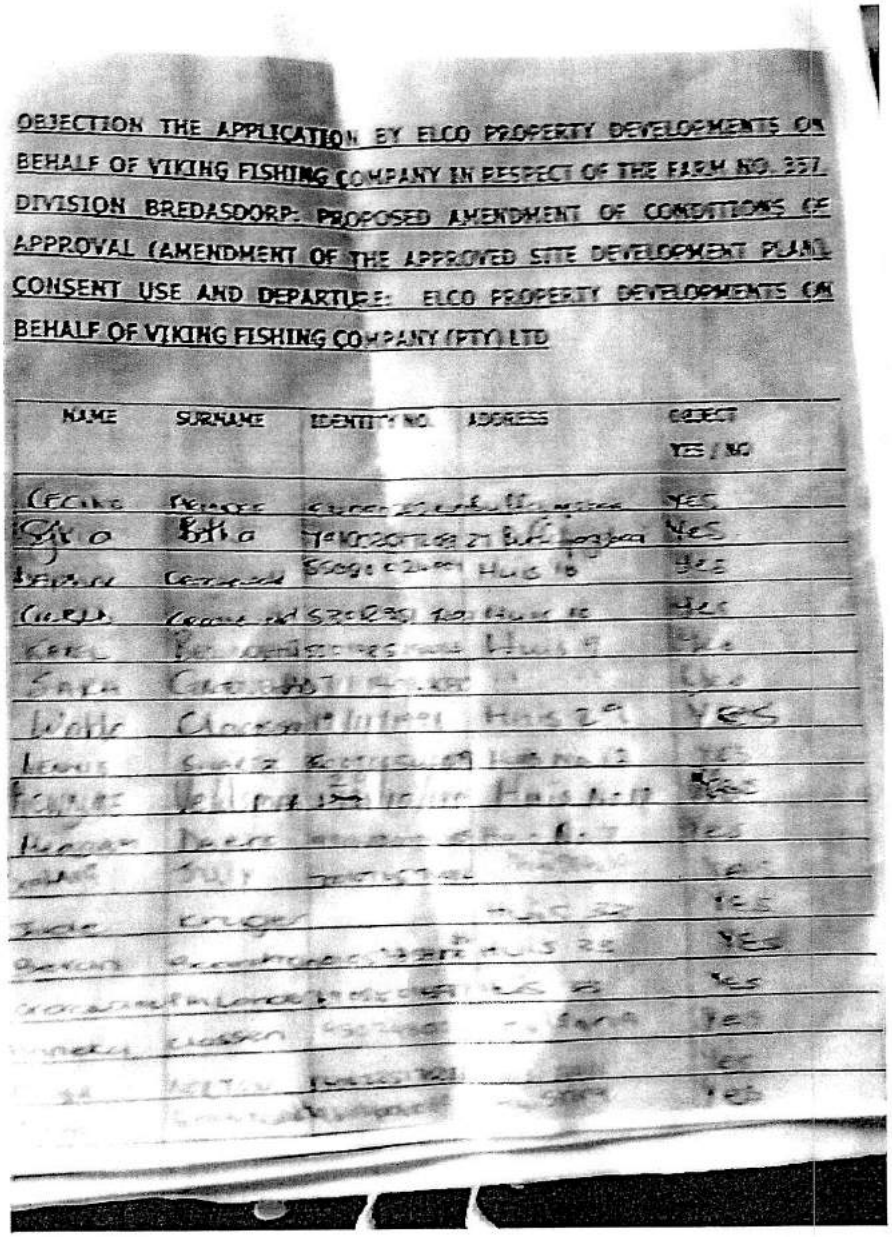
c. Constitutes a danger;

d. The continued usage will severely negate the potential claim of a community to land.

e. Is unsympathetic to the landscape.

40. Accordingly the application is to be rejected.

Rkp2 pg1



OBJECTION THE APPLICATION BY ELCO PROPERTY DEVELOPMENTS ON BEHALF OF VIKING FISHING COMPANY IN RESPECT OF THE FARM NO. 357, DIVISION BREDASDORP: PROPOSED AMENDMENT OF CONDITIONS OF APPROVAL (AMENDMENT OF THE APPROVED SITE DEVELOPMENT PLAN) CONSENT USE AND DEPARTURE: ELCO PROPERTY DEVELOPMENTS ON BEHALF OF VIKING FISHING COMPANY (PTY) LTD

NAME	SURNAME	IDENTITY NO.	ADDRESS	OBJECT YES / NO

Rkp2 pg2

OBJECTION THE APPLICATION BY ELCO PROPERTY DEVELOPMENTS ON BEHALF OF VIKING FISHING COMPANY IN RESPECT OF THE FARM NO. 357, DIVISION BREDASDORP: PROPOSED AMENDMENT OF CONDITIONS OF APPROVAL (AMENDMENT OF THE APPROVED SITE DEVELOPMENT PLAN), CONSENT USE AND DEPARTURE: ELCO PROPERTY DEVELOPMENTS ON BEHALF OF VIKING FISHING COMPANY (PTY) LTD

NAME	SURNAME	IDENTITY NO.	ADDRESS	OBJECT YES / NO
Sophia	BOSHOFF	701115014708O	NO.7 BUFFELJ.BAAI	~~NO~~ YES
Ronelle	Byers	7411210031058	No 7 Buf. BAAI	No
Madeline	Stibbed	7207210074088	No 7 B. Baai	Yes
BEVERLEY	ARDOON	7911090141083	NO.16 B.BAAI	YES
[illegible]	V.D. BERG	8801260149084	NO.15 B.BAAI	YES
Heather	April.	9412090094080	No. 21. B. BAAI	Yes
Janine	Zietsman	7606270059087	NO 16 B BAAI	Yes
John	V.D. BERG		No. 15 B BAAI	Yes.
SIMNE	KEAYS	6107315150087	No 26 B BAAI	No
Sheila	(Tienendeb)		NO. 16 B.BAAI	Yes.
		[illegible]	THE SMIT	Yes

Rkp2 pg3

OBJECTION THE APPLICATION BY ELCO PROPERTY DEVELOPMENTS ON BEHALF OF VIKING FISHING COMPANY IN RESPECT OF THE FARM NO. 357 DIVISION BREDASDORP: PROPOSED AMENDMENT OF CONDITIONS O[F] APPROVAL (AMENDMENT OF THE APPROVED SITE DEVELOPMENT PLAN) CONSENT USE AND DEPARTURE: ELCO PROPERTY DEVELOPMENTS O[N] BEHALF OF VIKING FISHING COMPANY (PTY) LTD

NAME	SURNAME	IDENTITY NO.	ADDRESS	OBJECT YES / NO
Verren	B[illegible]	[illegible]	BJ4	NO
Clifford	R[illegible]		BJ7	NO
Actule	Groenewald	8111220220 83	No 18 Buffeljagsbaai	YES
Arelda	Groenewald	9012300840 83	Buffeljagsbaai No 22	Yes
Morel	Groenewald	4502055011087	Buffeljagsbaai No 22	Yes.
Mehlin	Groenewald	9902245477083	Buffeljagsbaai No 22	Yes
Jason	Groenewald	[illegible]	No 23 Buffeljagsbaai	Yes
Sone	Groenewald	940221015408 5	No 23 Buffeljagsbaai	Yes
Albert	Groenewald	[illegible]	No 23 Buffeljagsbaai	Yes
Karen	Groenewald	[illegible]7088	No 23 Buffeljagsbaai	Yes
Samuel	Groenewald	[illegible]	No 25 Buffeljagsbaai	Yes
[illegible]	Groenewald	[illegible]	No Buffeljagsbaai	Yes
[illegible]	[illegible]	[illegible]	No 18 Buffeljagsbaai	Yes
[illegible]	Jor[illegible]	[illegible]	No 16 Buffeljagsbaai	Yes
[illegible]	Ch[illegible]	[illegible]	No 17 Buffeljagsbaai	Yes
	[illegible]	[illegible]	Buffeljagsbaai	No

Rkp2 pg4

OBJECTION THE APPLICATION BY ELCO PROPERTY DEVELOPMENTS ON BEHALF OF VIKING FISHING COMPANY IN RESPECT OF THE FARM NO. 357, DIVISION BREDASDORP: PROPOSED AMENDMENT OF CONDITIONS OF APPROVAL (AMENDMENT OF THE APPROVED SITE DEVELOPMENT PLAN), CONSENT USE AND DEPARTURE: ELCO PROPERTY DEVELOPMENTS ON BEHALF OF VIKING FISHING COMPANY (PTY) LTD

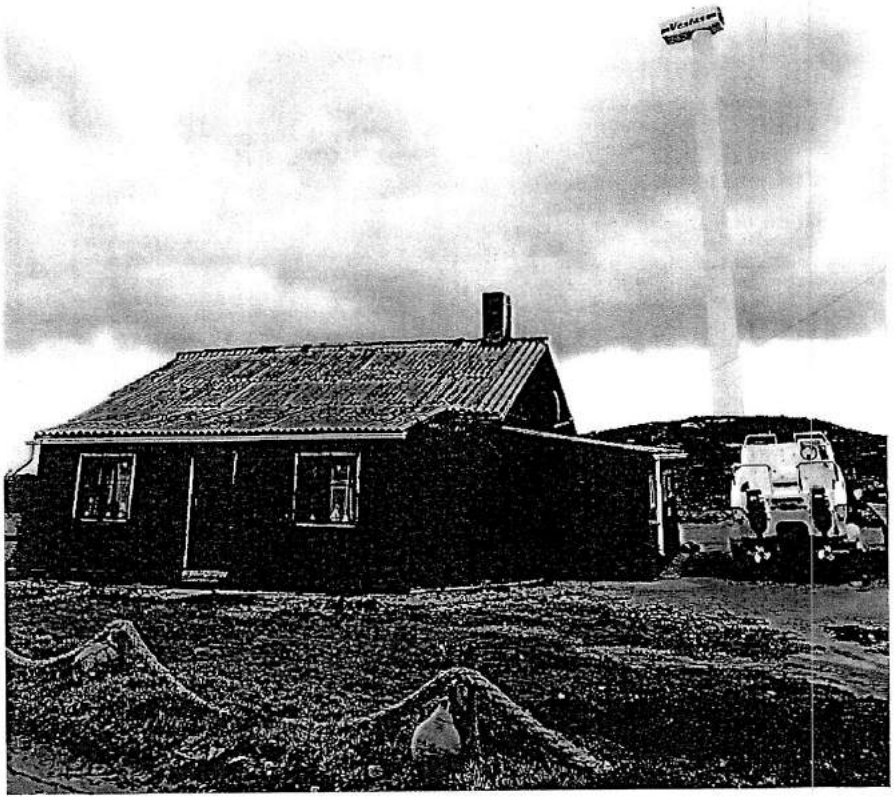
NAME	SURNAME	IDENTITY NO.	ADDRESS	OBJECT YES / NO
Chante	Minnies	[illegible]	BJ8 BJAG	YES
Shimone	Minnies	[illegible]	BJ10 BJAG	YES
Sharon	Kruger	[illegible]	BJ8 BJ	YES
A-Emma	Ellis	[illegible]	NO5 Buffeljags	Yes
Nichell	Ellis	[illegible]	NO Bu Ffeljags	Yes
Louisa	williams	07/02/1987	BJ4 Buffeljagsbaai	YES
Jaster	Ellis	[illegible]	BJ5 Buffeljagb.	yes
Amureay	Ellis	[illegible]	NO 5 buffeljagsbaai	YES
Emily	[illegible]	[illegible]	No. 32	Yes
Tony	Ballin		NO 32	Yes
[illegible]	[illegible]	[illegible]	NO 12	Yes
[illegible]	[illegible]	[illegible]	[illegible]	YES
Sarah	[illegible]	[illegible]	Buffeljagsbaai	Yes
Daniel	[illegible]	[illegible]	Buffeljagsbaai	Yes
[illegible]	[illegible]	[illegible]	No 17	Ja
[illegible]	[illegible]	[illegible]	NO 17	Ja

Rkp 3

Rkp 3.1

15/35

Rkp 3.2



FAIRBRIDGES WERTHEIM BECKER

ATTORNEYS since 1812

Our ref: DO/aa/OVE4/0110

Your ref:

Date: 13 July 2017

MR A T GROENEWALD & MR A T GROENEWALD (Jnr)
P O BOX 1547
GAANSBAAI
7220 — **BY REGISTERED POST**
PER HAND
REMAINDER FARM 340
BUFFELJACHTS BAAI — **BY HAND**

Dear Messrs A T Groenewald and AT Groenewald (Jnr)

RE: UNLAWFUL ERECTION OF A STRUCTURE AND OCCUPATION ON THE REMAINDER OF FARM 340 BUFFELJACHTS BAAI

We wish to advise that we act on behalf of the Overstrand Municipality. Our client is now the registered owner of the remainder of Farm 340, Buffeljachtsbaai ("the property") which was transferred to them on 18th March 2015 under title deed no.T442/1976.

We are instructed that Mr A T Groenewald (ID 710101511081) claims to be the owner of the structure unlawfully kept on the property and that Mr A T Groenewald (Jnr) (ID 9272295360087) unlawfully occupies same with his girlfriend (Ms Natasje Plaatjies - ID 9508080249082). We are further instructed that neither Mr A T Groenewald nor Mr A T Groenwald (Jnr) have any right in law or the consent of the Western Cape Housing Development Board of the Province of the Western Cape, the previous owners of the property, or the Overstrand Municipality, as the current owner, to keep a structure at, or to occupy the property. Your occupation of the property is accordingly unlawful. You currently have no services on Farm 340 and we understand you are using the bucket system and that the waste is disposed of in the ocean.

Seesterretjie Speelskool, a crèche which operated from the property in the past was given permission to occupy some structures on the property and use it as a crèche which was a much needed facility and service in the community. They had one structure donated to them in which the children were located, a further structure used as a kitchen and a sick bay and an ablution facility provided by the Municipality for the children under their care. Their occupation was however

Tel [illegible] • Fax [illegible] • Email [illegible] • Website [illegible]
[illegible], Cape Town [illegible] • P O Box [illegible], Cape Town [illegible], South Africa • [illegible], Cape Town

disturbed when the illegal occupant unlawfully occupied the structure right next to theirs and took over the ablution facility which they use as a storeroom and denied them access to it. This made it impossible for the crèche to operate out of the property or to use the ablution facilities as they are strictly regulated by law and could no longer operate from those premises. They had to be relocated, on a temporary basis, to a part of the hall used by the community as a church. This is a temporary and highly unsatisfactory solution as the community hall and church is for the general use of the public and the crèche has to vacate it on weekends with all of their equipment etc. and also it is not ideally suited for a crèche.

Farm 340 was acquired from the Province of the Western Cape for the purposes of development amongst other things. Only the crèche has the consent of the Municipality to occupy same.

A Provincial Gazette in 1996 which proclaimed a less formal settlement on Portion 2 of Farm 340 where formal houses were erected for the community of Buffeljachtsbaai. It also specifically stated that no one would be allowed to retain structures or reside on the remainder of Farm 340. Your occupation is also in contravention of this Provincial Gazette.

You have been given notice to vacate the property on two occasions and have failed or neglected to vacate. Your occupation is unlawful. The municipality offered you space on a plot at Portion 3 of Farm 340 where there are already informal structures and where you will have access to shared ablution services and water and can apply by Eskom for electricity. They also offered to move the structure so you could relocate.

The municipality wishes to commence with its plans to develop Farm 340 and wishes to urgently relocate the crèche, for which purpose it has already placed a mobile classroom on the property. We accordingly hereby demand that you provide us with your undertaking, by no later than 31 July 2017 that you will vacate on 15 August 2017 and relocate to Portion 3 of Farm 340 or to other alternative lawful accommodation you may find. Should you fail to provide such an undertaking or should you then fail to vacate the property by 15 August 2017, we are instructed to bring an application for your eviction, demolition of the structure and removal of the materials and any of your furniture and effects from the property. The legal costs shall be claimed from you and will be substantial.

Yours faithfully
FAIRBRIDGES WERTHEIM BECKER

DEIRDRE OLIVIER
E-mail address: dolivier@fairbridges.co.za
Direct line: 021 405-7397
Direct fax: 0866452718

since 1812

Sumaya Williams

From:	Sumaya Williams <sumaya@rkparkerattorneys.co.za>
Sent:	Thursday, November 9, 2017 9:07 AM
To:	'Deirdre Olivier'
Subject:	FW: OVERSTRAND MUNICIPALITY REMAINDER OF ERF 340 BUFFELSJACHTBAAI // ALBERT GROENEWALD & FAMILY
Attachments:	171108221839_0001.pdf

Dear Deidre

Please see correspondence attached.

Yours Faithfully

Sumaya Sydow
Commercial / Litigation PA to ***R K PARKER*** *&* ***S MALL***

RENANA KHAN PARKER & ASSOCIATES

1 Parker's Building
cnr Third Avenue & Victoria Road
Grassy Park
7888
Telephone : (021) 7065801
Facsimile : 0865419070

Please note that our offices will close on 22nd December 2017 and re-open on 15 January 2018 for the festive season.

"E"

REHANA KHAN PARKER & ASSOCIATES

Attorneys • *Conveyancers* • *notaries*

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7th Floor, Mandela Rhodes Place
Cnr of Wale and Burg Street
Cape Town
Tel: 021 410 8925
Fax: 021 410 8901

VAT REGISTRATION: 474 0136 892

Your Ref: DATE: 6th NOVEMBER 2017
Our Ref : RKP/sw
Email: sumaya@rkparkerattorneys.co.za
Direct Fax: 0861 541 9070

FAIRBRIDGE WERTHEIM BECKER

Email: doliver@fairbridges.co.za

CAPE TOWN

Dear Sir

Re: **OVERSTRAND MUNICIPALITY REMAINDER OF ERF 340 BUFFELSJACHTBAAI / ALBERT GROENEWALD & FAMILY**

We refer to your letter dated 9th October 2017 and reply thereto as follows:

1. The alternative land as indicated is rejected.

2. Your client has successfully removed various people who were in occupation alongside our client.

3. Our instructions are that your client's area manager did not have his historical facts when he attended the site inspection when he attempted to state that a school was erected or in occupation prior to our client (and/or those entitled before him) being in possession.

4. We are also aware that your client is trying to obtain Affidavits from teachers at the school.

5. With regard to para 3 of your letter, you have failed to respond to our letter dated 5 September 2017 regarding the interruption of the water supply which your client unlawfully cut off.

6. Should you proceed with eviction proceedings, we will accept service on behalf of client.

7. We note you have also not replied to our request for proof of ownership, see the second last paragraph of our correspondence dated 5 September 2017.

TURBINES

Our instructions are that Turbines has been erected and it poses as a potential hazard to the community and client. The owner / tenant / sub-tenant failed to engage in a public participation process or the consent of people living within a 100 metres radius from it. If you can advise who the owner of this land is so we may address this issue.

We kindly await to hear from you, particularly with regard to para 4 above.

Yours faithfully
REHANA KHAN PARKER & ASSOCIATES

PER:_____
R K PARKER

Director: Rehana Khan Parker B. Proc, Certificate in AMA Guides, Marshall University
Professional Assistants: Rubina Ahmed LLB, Shahieda Mall BA LLB, Yazeed Samodien LLB
Candidate Attorneys:; Stacy Lee Stemmers
VAT REGISTRATION NO.: 474 0136 892

21/35

REHANA KHAN PARKER & ASSOCIATES

Attorneys • Conveyancers • notaries

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Cape Town: (GENERAL LITIGATION):
7th Floor, Mandela Rhodes Place
Cnr of Wale and Burg Street
Cape Town
Tel: 021 410 8925
Fax: 021 410 8901

VAT REGISTRATION: 474 0136 892

Your Ref:
Our Ref : RKP/sw
Email: sumaya@rkparkerattorneys.co.za
Direct Fax: 0861 541 9070

DATE: 5th September 2017

FAIRBRIDGE WERTHEIM BECKER

Email: doliver@fairbridges.co.za

CAPE TOWN

Dear Sir

Re: **OVERSTRAND MUNICIPALITY REMAINDER OF ERF 340 BUFFELSJACHTBAAI / ALBERT GROENEWALD & FAMILY**

We refer to your letter dated 13th July 2017.

We act for and on behalf of Mr Albert Groenewald & family who has handed us your letter of demand in respect of an unlawful erection of a structure and a notice to vacate.

INTERRUPTION OF WATER SUPPLY

Our instructions are that our client has lived on the plot his entire life and has until three (3) years ago been provided with water.

Regrettably our client was not aware of his rights, should have approached Court for a Mandament van Spolie when the water was cut off. Albeit that time has elapsed, our client is able to bring an Interdict ordering the landowner to restore the water supply.

I accept that I will have a difficulty in dealing with "the urgency" but I will deal with it in my application should your client fail to restore the water.

Please note that our client is in possession since birth and any deprivations of our clients' rights by switching it off unilaterally is tantamount to taking the law into its own hands.

EVICTION

Furthermore, any summons for eviction will be opposed as our firm has been appointed to investigate this claim to land by some 200 people who have been occupying this land from time immemorial.

It may very well turn out to be a land claim or any other claim which the history of the place and the presence there may show. I am in the process of conducting a full investigation for all those in occupation.

CONCLUSION

As such we request you to advise your client on the following for consideration:

1. The immediate resupply of water; in relation hereto we will afford you until Friday 8 September 2017 to reconnect same, failing which we will bring an application to Court for the water supply to be restored.

2. To withhold eviction proceedings to enable us to investigate the claim fully to land, and/or a servitude and/or any other right and/or access to it.

To facilitate matters, kindly provide us with proof of ownership as to who owned the land prior to the Overstrand Municipality taking transfer and its predecessors for the last 60 years.

We await to hear from you.

Yours faithfully
REHANA KHAN PARKER & ASSOCIATES

PER:_____
R K PARKER

Director: Rehana Khan Parker B. Proc, Certificate in AMA Guides, Marshall University
Professional Assistants: Rubina Ahmed LLB, Shahieda Mall BA LLB, Yazeed Samodien LLB
Candidate Attorneys:; Stacy Lee Stemmers
VAT REGISTRATION NO.: 474 0136 892

11 9 () 24/35

FAIRBRIDGES WERTHEIM BECKER

ATTORNEYS
since 1812

Our ref: DO/aa/OVE4/0110

Your ref:

Date: 08 March 2018

MR A T GROENEWALD & MR A T GROENEWALD (Jnr) and MS N PLAATJIES
P O BOX 1547
GAANSBAAI
7220 BY REGISTERED POST
PER HAND
REMAINDER FARM 340
BUFFELJACHTS BAAI BY HAND

Dear Messrs A T Groenewald and AT Groenewald (Jnr) and Ms N Plaatjies

RE: UNLAWFUL ERECTION OF A STRUCTURE AND OCCUPATION ON THE REMAINDER OF FARM 340 BUFFELJACHTS BAAI

1. We act for the Overstrand Municipality.

2. The Overstrand Municipality has been the registered owner of Portion 0 of Farm 340, Bredasdorp, Western Cape (the Property) since 2015.

3. Prior to that the Western Cape Housing Development Board of the Province of the Western Cape (the Housing Development Board) had been the registered owner of the Property.

4. We are instructed that you and Natasjie Richarddean Plaatjies (Ms Plaatjies) are currently in unlawful occupation of certain structures erected on the Property.

Tel: +27 21 405 7300 • Fax: +27 21 419 5135 • Email: attorneys@fairbridges.co.za • Website: www.fairbridges.co.za
16th Floor, South Tower, 1 Heerengracht, Cape Town 8001 • P O Box 536, Cape Town 8000, South Africa • Docex 2, Cape Town

5. We place on record that you have previously been advised that in terms of the Western Cape Provincial Gazette No. 094, PN491/1996 dated 22 November 2006 (the 1996 Proclamation),:

   5.1. The Property may only be developed for permanent residents entitled to land ownership and that ownership of the formal housing developed on the Property may only be transferable to the descendants of the owners; and

   5.2. That an informal area was required to be declared for the portion of the Property as depicted on the proposed layout plan (identified as Portion 3 of Farm 340) in order to ensure that no additional land was utilised for further expansion of development on the Property;

   5.3. All currently occupied structures situated outside of the proposed layout plan must be demolished and erected on erven within the proposed layout plan.

6. As a result of the 1996 Proclamation formal housing was developed on what is currently identified as Portion 2 of Farm 340, where many of the former residents of the Property, who also form part of the Buffelsjachtbaai community, who had previously been living in informal housing on the Property, were given ownership of formal homes.

7. We are instructed that you and Ms Plaatjies had previously been residing with Albert Tobias Groenewald in a formal house obtained by him through the process outlined above.

8. However, during or about June 2012 you and Ms Plaatjies, took occupation of certain structures which had previously been used as a creche known as Seesterretjie Speelskool.

since 1812

9. We are further instructed that you and Ms Plaatjies took occupation of these structures without the consent of the Housing Development Board and further that you remain in occupation of such structures without the consent of the Municipality.

10. We are instructed that Mr Albert Tobias Groenewald claims to be the owner of the structures unlawfully erected on the Property and in which you and Ms Plaatjies currently reside, together with your minor daughter.

11. We are further instructed that, the Seesterretjie Speelskool had been given permission by the Municipality to occupy certain structures on the Property for the purposes of utilising those structures as a creche for the local community.

12. One structure was to be used by the Seesterretjie Speelskool as a creche and a further structure was to be used as a kitchen, sick bay and ablution facility for the creche.

13. However, before the Seesterretjie Speelskool was able to take occupation of thes structures you and Ms Plaatjies unlawfully occupied and/or erected a structure next to the structure earmarked for use as the creche and you further took over the ablution facilities which you and Ms Plaatjies now use as a storeroom. We are instructed that you are currently denying the Seesterretjie Speelskool access to such facilities.

14. This made it impossible for the creche to operate given that the Seesterretjie Speelskool in the absence of these facilities is unable to comply with the relevant legislative requirements for the operation of a safe child care facility.

since 1812

15. We are further instructed that the Municipality has on at least two occasions approached you and Ms Plaatjies and requested that you vacate the Property.

16. In addition, the Municipality has offered to relocate the structure in which you and Ms Plaatjies and your minor child reside, to Portion 3 of farm 340 and where you will have access to shared ablution services, water and access to electricity.

17. We are advised that these offers have been summarily rejected by you and Ms Plaatjies.

18. You are hereby advised that the Municipality is of the view that your continued occupation of the Property is and always has been without consent and is consequently unlawful.

19. However, to the extent that you may claim any lawful right of occupation to the Property you are hereby invited to make submissions either in writing to the Municipality by no later than 31 March 2018, setting out the basis on which you claim such rights.

20. Further, you are hereby further invited to make such further representations in writing to the Municipality by no later than 31 March 2018, as to –

    20.1. why your relocation, with the assistance of the Municipality on the terms previously offered, ought not to be pursued, and/or

    20.2. any other matter related to your occupation of the Property.

since 1812

21. You are advised that should you make such representations, your representations will be duly considered by the Municipality and a response in writing will be provided to you within 14 (fourteen) days of receipt of your representations.

22. You are further advised that the Municipality will terminate any rights of occupation that you may claim in respect of the Property on 1 April 2018, should you fail to make such representations.

Yours faithfully
FAIRBRIDGES WERTHEIM BECKER

DEIRDRE OLIVIER
E-mail address: dolivier@fairbridges.co.za
Direct line: 021 405-7397
Direct fax: 0866452718

since 1812

DEPARTMENT of
ENVIRONMENTAL AFFAIRS
& DEVELOPMENT PLANNING
Provincial Government of the Western Cape

DIRECTORATE: LAND MANAGEMENT: REGION 2

Tel: 021 483 2986
Fax: 021 483 4372
1 Dorp Street, Cape Town, 8001
Private Bag X9086, Cape Town, 8000
www.capegateway.gov.za/eadp

REFERENCE: E12/2/4/2-E1/5-2004/10 and
E12/2/4/5-E1/5-2019/11

NEAS REFERENCE: WCP/EIA/0000135/2010

ENQUIRIES: Maboee Nthejane

DATE OF ISSUE: 23/11/2011

The Board of Directors
Viking Fishing Company (Pty) Ltd
P. O. Box 212
GANSBAAI
7220

Attention: Mr. R. Ferreira

Tel.: (021) 419 4140
Fax: (021) 419 6731

Dear Sir

THE ESTABLISHMENT OF THE BUFFELJAGS ABALONE FARM ON THE FARM NO. 357, BREDASDORP

With reference to your application for the abovementioned, find below the Decision (Part 1) and associated document (Part 2) with respect to this application.

PART 1

DECISION:

ENVIRONMENTAL AUTHORISATION GRANTED WITH EXEMPTION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998, as amended) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations of 18 June 2010 as amended, the competent authority is satisfied, on the basis of information available to it and subject to compliance with the conditions contained herein that the applicant be authorised to undertake the list of activities applied for and as included in Part 2 below and be exempted from the following provisions of the Regulations:

Regulation 10(2)(d) of Government Notice No. R. 543 which reads as follows:

10(2) The applicant must, in writing, within 12 days of the date of the decision of the application

(d) publish a notice –

(i) informing interested and affected parties of the decision;

(ii) informing interested and affected parties where the decision can be accessed; and

(iii) drawing the attention of interested and affected parties to the fact that an appeal may be lodged against the decision in terms of Chapter 7 of these Regulations, if such appeal is available under the circumstances of the decision,

In the newspapers contemplated in Regulation 54(2)(c) and (d) and which newspaper was used for the placing of advertisements as part of the public participation process.

Consequently, the competent authority herewith **grants environmental authorisation with exemption** to the applicant to undertake Layout **Alternative No. 1** described in the Basic Assessment Report ("BAR") dated February 2011 and as contained in Section A of Part 2 below. The granting of this environmental authorisation is subject to compliance with the conditions set out in Part 2 below and does not negate the requirement for compliance with any other applicable legislation.

PART 2

ENVIRONMENTAL AUTHORISATION WITH EXEMPTION

A. DESCRIPTION OF THE ALTERNATIVE

The authorised alternative entails the establishment of an abalone farm that can process approximately 500 tonnes of abalone per year on the Farm No. 357, Bredasdorp. The abalone farm will comprise of the following:

3.1 A hangar of approximately 300m², containing *inter alia*, a hatchery, nursery, office space, laboratory and broodstock area.

3.2 An abalone grow-out facility of 1500 grow-out tanks placed on eight distinct platforms. Each of the eight platforms will have its own seaweed cultivation unit and water recirculation system.

3.3 A maximum of two blower units, a transformer and a generator, all of which will be housed inside of three brick buildings of approximately 40m² each.

3.4 A sea water intake facility located on the eastern side of the site.

3.5 Underground sea water supply pipelines extending from the eastern side of the site to the water treatment system of the abalone farm and an underground outflow water pipeline traversing the southern portion of the site to discharge into the sea.

3.6 A maximum of 10 tanks for the storage of kelp.

3.7 A shed for the grading of the abalone and another shed for the packaging of the export grade abalone

3.8 A workshop building of approximately 250m² and store building of approximately 60m².

3.9 Office complex of approximately 80m² and two staff facilities of approximately 60m² each.

3.10 A maximum of two staff houses of approximately 60m² each. The two staff houses will accommodate the workers that will be responsible for after hours supervision of technical and biological operations on the abalone farm.

3.11 Water for drinking will be obtained from an on-site borehole in terms of an existing General Authorisation, as well as from an on-site desalination device. The brine from the desalination device will be directed into the outflow water pipeline.

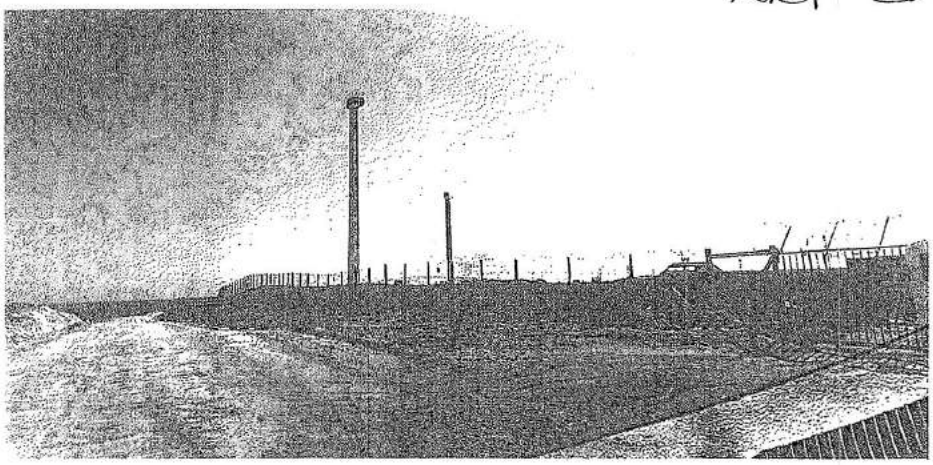
3.12 Ablution facilities will be connected to a conservancy tank that will be pumped out by the Overstrand Municipality. The waste water will be disposed of at the municipal waste water treatment works.

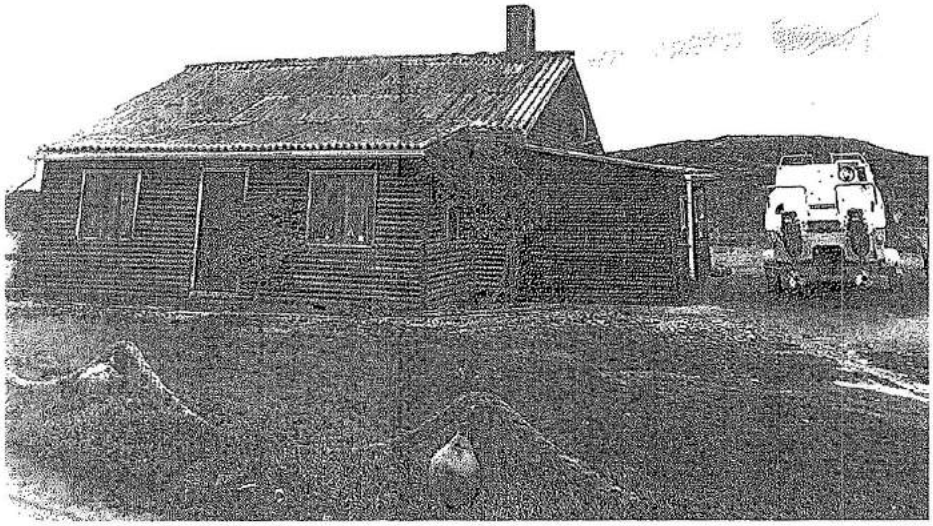
3.13 Solid waste will be transported to the municipal landfill site.

3.14 Electricity will be supplied by Eskom power lines.

3.15 A security fence will be erected around the abalone farm.

RICP 3 B1/35





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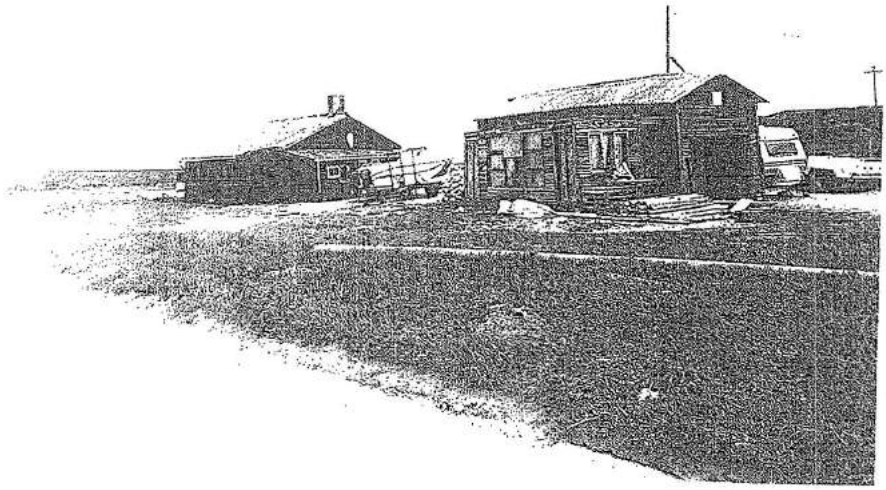
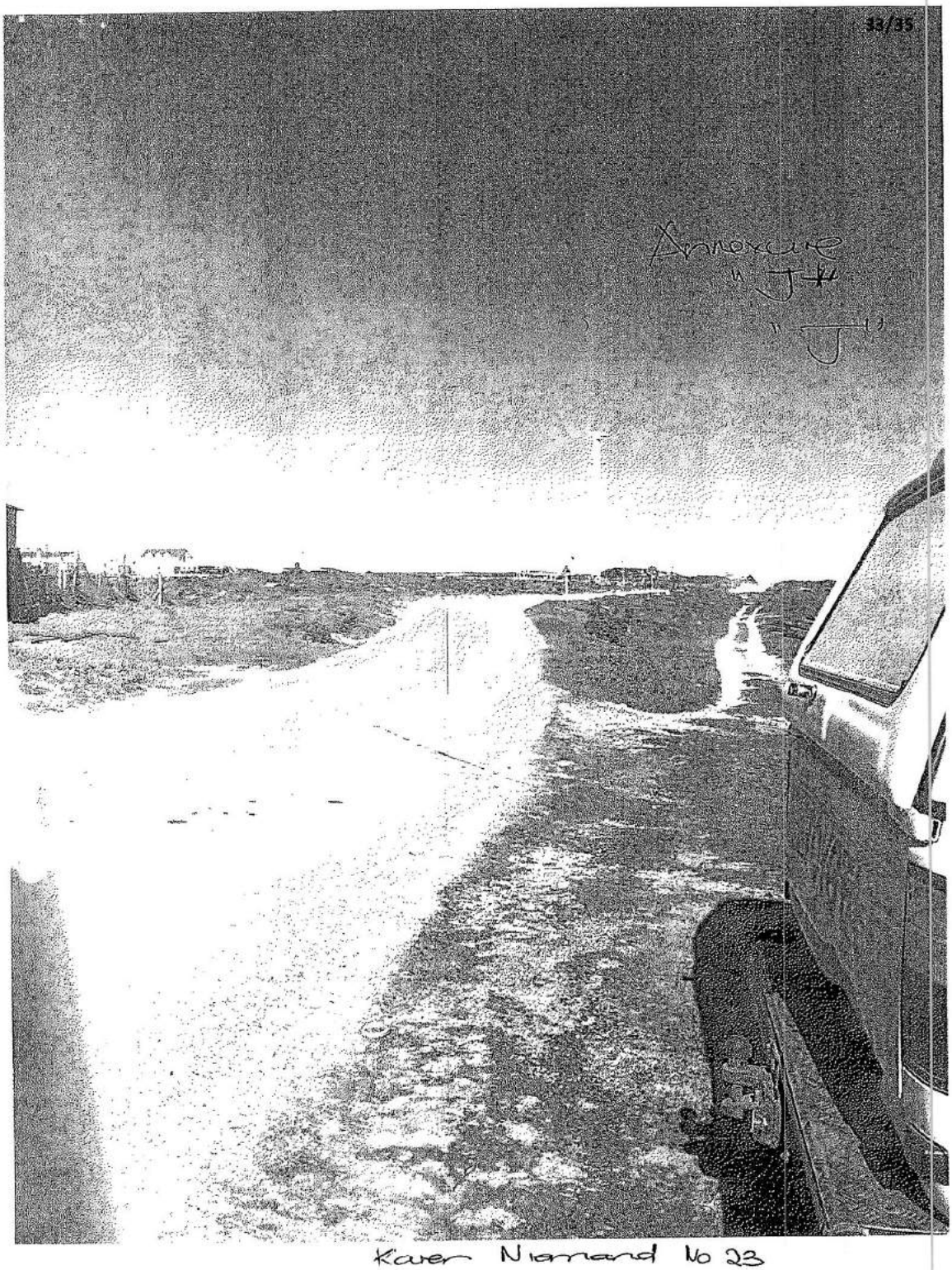
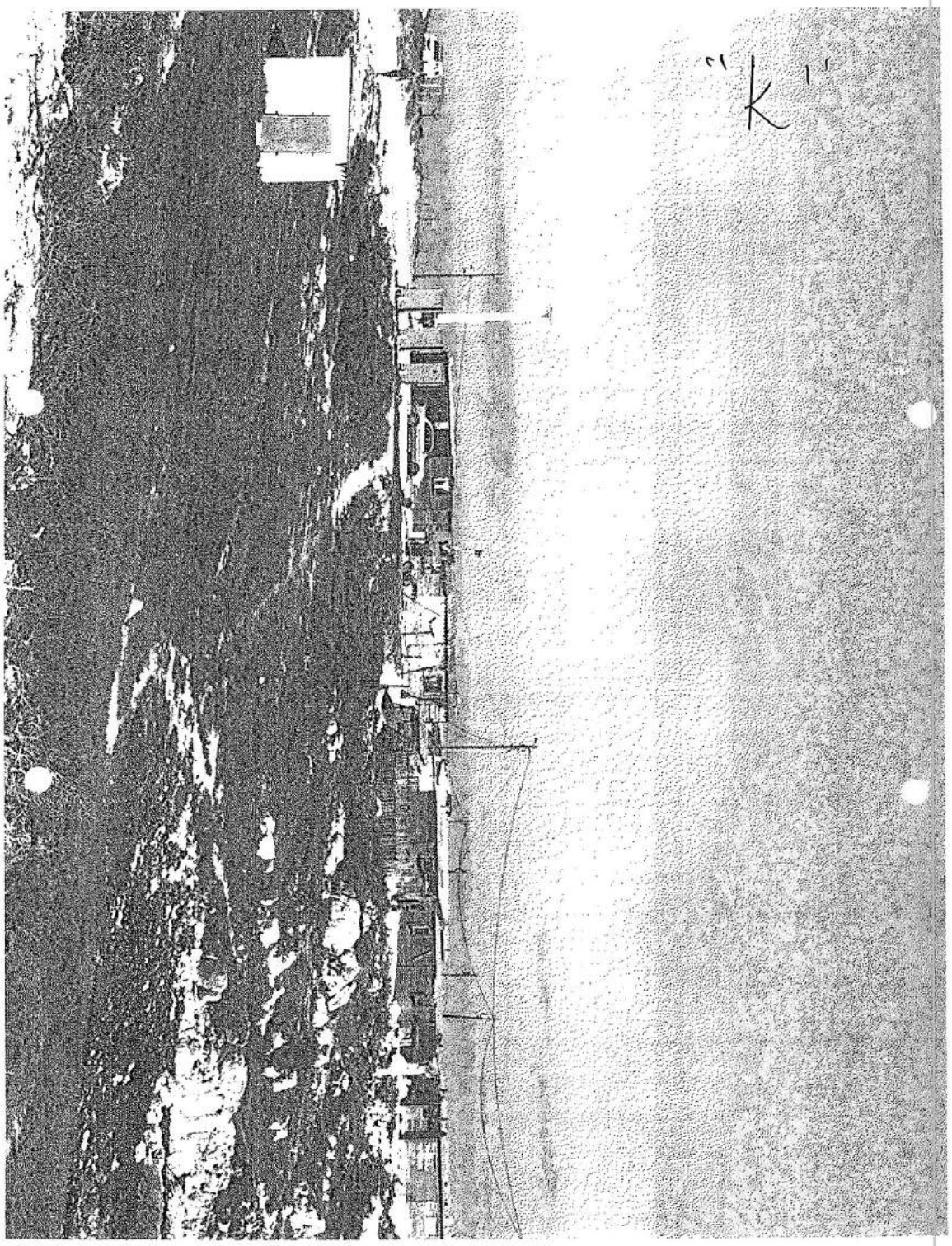


~~Figure~~ Annexure B fig 1

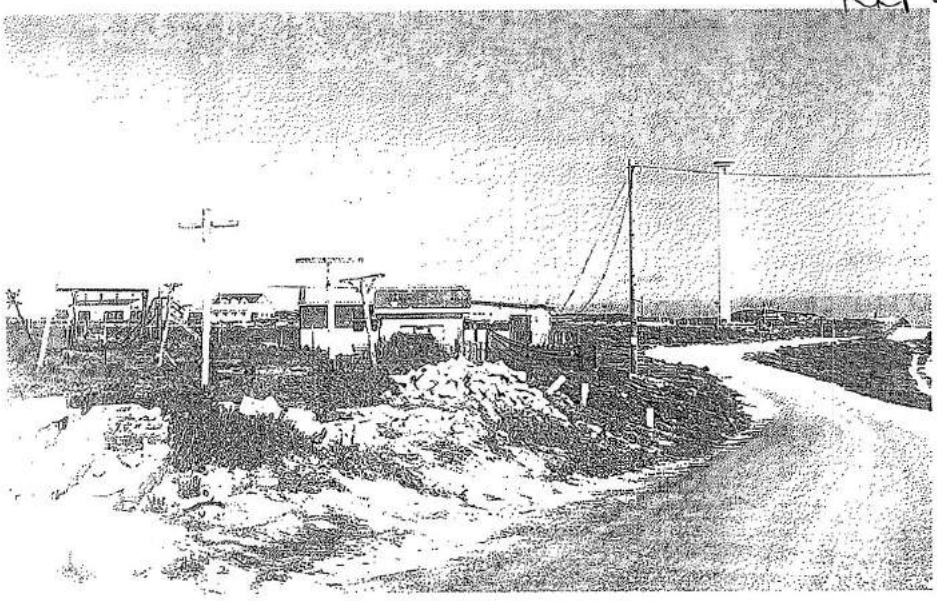


Kaver Niamand No 23

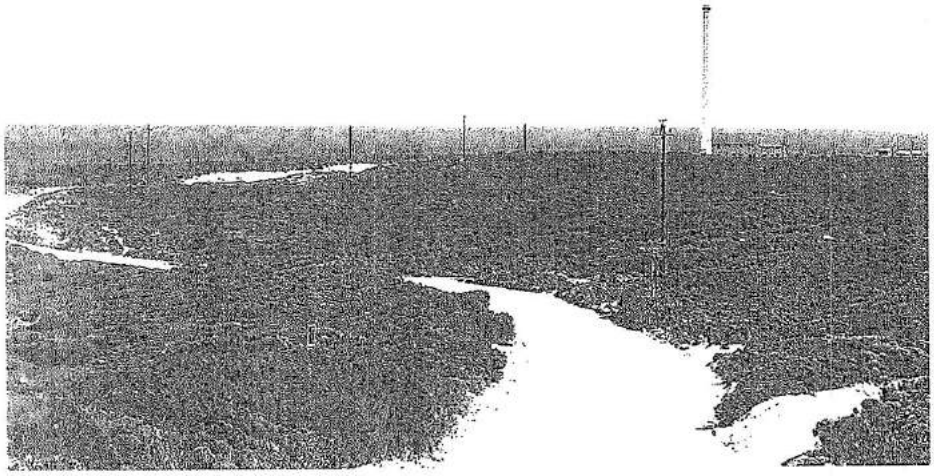
34/35



RCP 35/35



RCP 3



ANNEXURE K 1/5

elco
PROPERTY
DEVELOPMENTS

project management • town planning • development

3 June 2019

District Manager

Department of Planning and Building Development Management:
Magnolia Street,
Hermanus,
7200

Dear Sir/Madam,

APPLICATION FOR AMENDMENT OF CONDITIONS / SDP, CONSENT USE AND REGULATION DEPARTURES: FARM 357, BREDASDORP

The above mentioned application has reference. The application was scheduled for advertised and circulated from 5 September 2018 till 5 October 2018. A few internal department comments were received, with no external objections. On 9 April 2019 we were informed that due to an administrative error the application was never advertised to the surrounding property owners. The application therefore had to be advertised from 10 April 2019 till 10 May 2019. During this period a petition with thirty-seven (37) signatories objecting to the application was received. The objection and petition was compiled by Rehana Khan Parker & Associates. This letter serves to summarise the objections and provide response where necessary.

1. EXTERNAL OBJECTIONS

A petition of thirty-seven (37) members of the Buffelsjachtbaai community objecting to the wind turbines has been submitted. Their main concerns are listed below with the associated response.

tel 021 979 0959 | fax 086 654 1840 | e-mail devco@elcoprop.co.za | p.o. box 1036 cape gate 7562

1.1. Procedural Concerns

Comments:

The current opportunity for comment was only given after partial erection of the turbines and after HWC approval.

Response:

Our clients were not aware that wind farms on Agricultural land would require the consent from Council. After notice was received on 18 September 2017 that they were in contravention we were appointed to apply for the necessary rights. The application was submitted on 2 October 2017. Once all additional info requested by Council was submitted the application was advertised/circulated from 30 August 2018 till 5 October 2018. It was only on 1 April 2019 we were informed that due to an administrative error the application was never advertised to the surrounding property owners. Therefore the application was re-scheduled for advertisement from 10 April 2019 till 10 May 2019. The concerns raised in relation to the timelines for public participation was therefore due to an administrative error from Council. However, the required public participation was still incorporated into the process before the decision on the turbines are made. In relation to the above, all procedural and timeline requirements have been met by our clients in order to ensure the necessary land use rights are obtained.

1.2. Distance to Residents

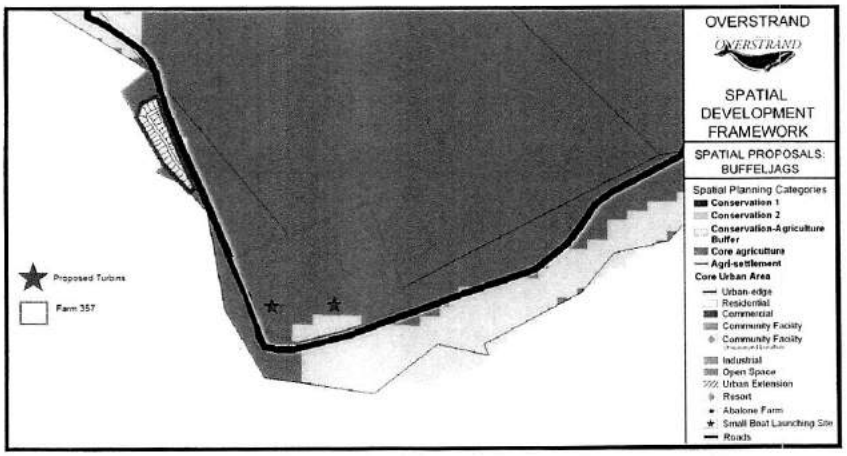
Comments:

The turbines are located 200m from a crèche and 400m from a residential unit.

Response:

The structures will be 68.8m in height (including the blades) and will therefore not be a safety hazard to the above mentioned uses which are located more than 100m away. Various references are made with regards to ongoing eviction cases within the area. Our client has nothing to do with the mentioned evictions. These are cases between the associated residents and the Municipality. The closest registered residential property will be located 380m away from the closest proposed wind turbine. Any other residential structures located closer than this is located outside the urban edge and on land identified as core agricultural or conservation-agricultural. In this case, given the

intension of the surrounding land for agricultural purposes and associated low residential density, the proposed wind turbines will have a minimal effect and is not out of character.



1.3. Departure from Street

Comments:

The proposed departure from the street will be dangerous for the associated residents and road users.

Response:

The Provincial Roads Department accepted engineering requirements and support the departure from the street. There is therefore no reason to believe that the proposed structures will cause any danger in this regard.

1.4. Residents Right to Land

Comments:

Multiple mention is made that the residents of Buffelsjachtbaai have claim to the land of our client.

Response:

There are various references to eviction and land expropriation cases surrounding the property in questions. It should be noted that this land was legally sold to our client in 2010 from an entity named Rispah Conference Park. Our client also has nothing to do with the mentioned evictions. These are cases between the associated residents and the Municipality. These statements should therefore be disregarded.

2. INTERNAL DEPARTMENT COMMENTS

Please note that the last documents required was a Bat Study which was submitted on 27 May 2019. All other internal department comments/concerns have been resolved.

Trust the abovementioned suffices.

Kind Regards,

Karla Burger

ELCO PROPERTY DEVELOPMENT (Email: karla@elcoprop.co.za)

tel 021 979 0959 | fax 086 654 1840 | e-mail devco@elcoprop.co.za | p.o. box 1036 cape gate 7562

From: Nick Loubser [mailto:nick@vikingaquaculture.co.za]
Sent: 03 June 2019 01:38 PM
To: 'Karla'; stephan@vikingaquaculture.co.za; TimR@seaharvest.co.za
Cc: 'Eldred Smith'
Subject: RE: BUFFELJAGS WINDTURBINES - Objection Received
Importance: High

Dear Karla

As discussed over the phone.

1. Procedural concerns
    a. The Applicant adhered to process and timeline of obtaining the consent use.
    b. The objection to the timeline of advertisements and notice of approvals is due to municipal error.
    c. However, the community was given enough time to respond to advertisements and approvals before the consent use application process was allowed to continue.
2. Distance to houses
    a. The wind turbine tower is 48m high. The blade diameter is 23m
    b. The crèche and Mr T Groenewald's house is 200m away.
    c. The eviction case of Mr T Groenewal has nothing to do with the Application and it is uncertain whether he is legally entitled to i) live on the property, ii) live in such close proximity to a crèche and iii) whether he can legally put in an appeal to the consent use application.
    d. Mr and Mrs Niemand's house is not in the urban area. It is uncertain whether they are legally occupying that piece of land and whether the house is still structurally safe to live in. Their house is 80m away from the electric fence which surrounds the abalone production area and 10m away from a normal agricultural farm fence. Their house is 65m away from the closest wind turbine and not in line with any of the prevailing strong winds (NW or SE).
    e. The closest registered house in the urban area is 400m away.
3. Distance from road
    a. An exemption was received from Western Cape based on the structural design, engineering certificates and construction certificates.
4. Land claims and evictions
    a. The applicant is not aware of any land claim for farm 357. The land was legally purchased with a title deed transfer. It appear that the land claims and eviction notes has to with farm 340.

Kind regards

Nick

ANNEXURE L 1/3

Eskom

OVERSTRAND MUNISIPALITEIT
17 SEP 2018
OVERSTRAND MUNICIPALITY

TR A Theart
(S vd Merwe)

The Municipal Manager
OVERSTRAND MUNICIPALITY
P O Box 20
HERMANUS
7200
Per email: bstewart@overstrand.gov.za
Attention: Brendelene Stewart

Date:
14 September 2018

Enquiries:
Shaun Swanepoel
Tel 021 980-3913
Fax 086 660 0941

Dear Madame

FARM 357 BREDASDORP DIVISION

OUR REF: 03101/18

This application affects the following Eskom power lines

- **BREDASDORP FARMERS 11 OVERHEAD POWERLINE**

Eskom has no objection to the abovementioned application, provided the following conditions are adhered to:

a) The following building and tree restriction on **either side of centre line** of overhead power line must be observed:

Voltage	Building restriction either side of centre line
11kV	9.0 m
66 kV	11.0 m
132 kV	15.5 m

b) No construction work may be executed closer than **6 (SIX) metres** from any Eskom structure or structure-supporting mechanism.

c) No work or no machinery nearer than the following **distances from the conductors**:

Voltage	Not closer than:
11kV	3.0 m
66kV	3.2 m
132kV	3.8 m

d) Natural ground level must be maintained within Eskom reserve areas and servitudes.

e) That a **minimum ground clearance** of the overhead power line must be maintained to the following clearances:

Voltage	Safety clearance above road:
11kV	6.3 m

FILE NO: Farm 357 Bredasdorp
SCAN NO:
COLLABORATOR NO: 1209888

Distribution Division - Western Region [Land Development]
Western Region
Eskom Road Brackenfell 7560 PO Box 222 Brackenfell 7561 SA
Tel +27 86 003 7566 www.eskom.co.za

Eskom Holdings SOC Limited Reg No 2002/015527/30

17 Sept 2018

66kV	6.9 m
132kV	7.5 m

f) That existing Eskom power lines and infrastructure are acknowledged as established infrastructure on the properties and any rerouting or relocation would be for the cost of the applicant/developer.

g) That Eskom rights or servitudes, including agreements with any of the landowners, obtained for the operation and maintenance of these existing power lines and infrastructure be acknowledged and honoured throughout its lifecycle which include, but are not limited to:

   i. Having 24 hour access to its infrastructure according to the rights mentioned in (a) above,

   ii. To perform maintenance (structural as well as servitude – vegetation management) on its infrastructure according to its maintenance programmes and schedules,

   iii. To upgrade or refurbish its existing power lines and infrastructure as determined by Eskom,

   iv. To perform any other activity not listed above to ensure the safe operation and maintenance of the Eskom power lines or infrastructure.

h) Eskom must have at least a 10m obstruction free zone around all pylons (not just a 10m radius from the centre).

i) Eskom shall not be liable for the death or injury of any person, or for loss of or damage to any property, whether as a result of the encroachment or use of the area where Eskom has its services, by the applicant, his/her agent, contractors, employees, successors in title and assignee.

j) The applicant indemnifies Eskom against loss, claims or damages, including claims pertaining to interference with Eskom services, apparatus or otherwise.

k) Eskom shall at all times have unobstructed access to and egress from its services.

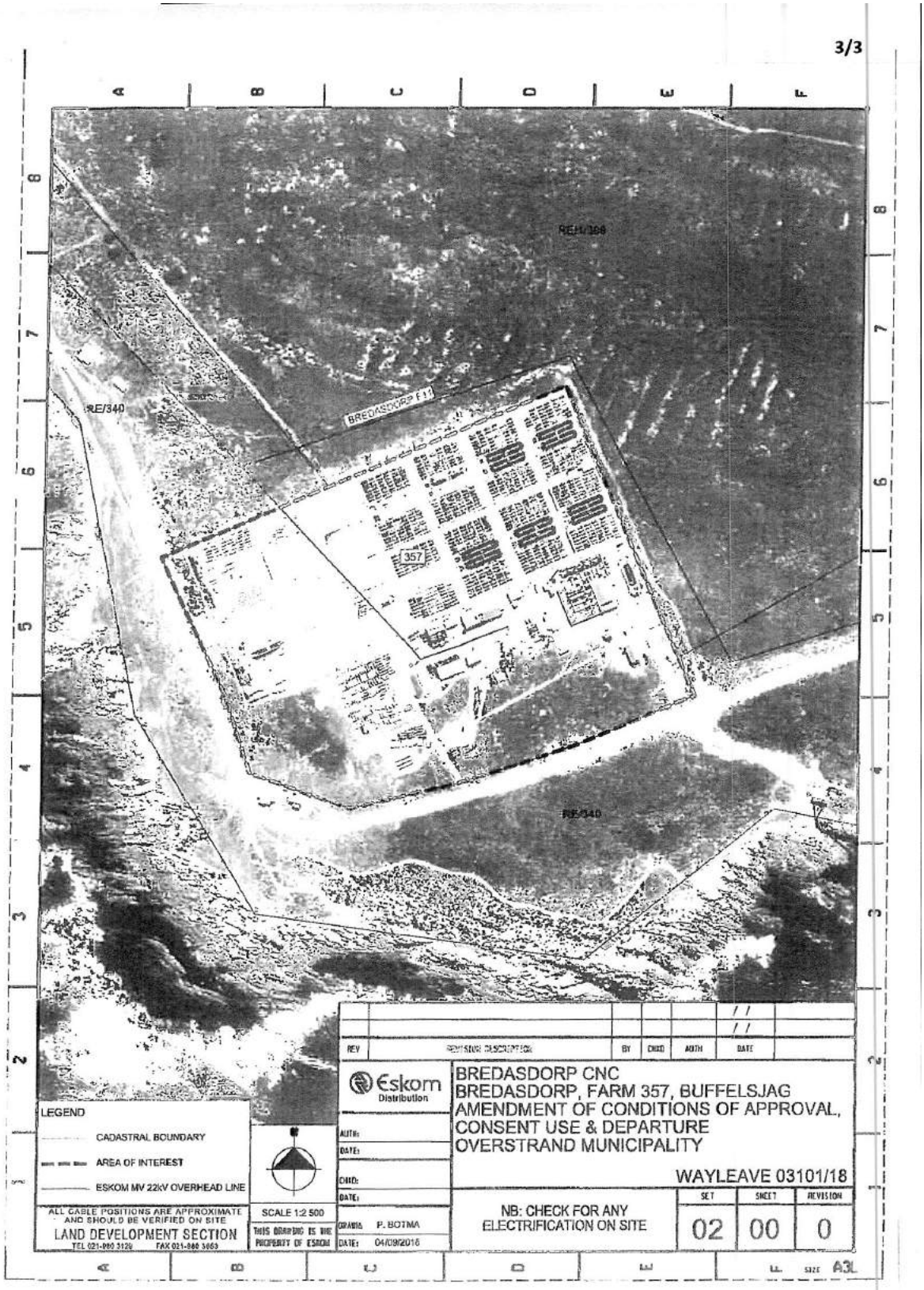
l) Any development which necessitates the relocation of Eskom's services will be to the account of the developer.

m) **KAY-OLCKERS, BREDASDORP CNC** must be contacted on **028 425 4908** before working in close proximity to the overhead power lines.

Kindly contact **Shaun Swanepoel** at Tel: 021 980 3913, should you require any further information.

Yours sincerely

Shaun Swanepoel
LAND DEVELOPMENT (BRACKENFELL)
(Transmitted electronically and thus not signed)



REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE
					/ /
					/ /

Eskom Distribution

BREDASDORP CNC
BREDASDORP, FARM 357, BUFFELSJAG
AMENDMENT OF CONDITIONS OF APPROVAL, CONSENT USE & DEPARTURE
OVERSTRAND MUNICIPALITY

WAYLEAVE 03101/18

LEGEND
CADASTRAL BOUNDARY
AREA OF INTEREST
ESKOM MV 22kV OVERHEAD LINE

ALL CABLE POSITIONS ARE APPROXIMATE AND SHOULD BE VERIFIED ON SITE

LAND DEVELOPMENT SECTION
TEL 021-960 3129 FAX 021-960 3663

SCALE 1:2 500

THIS DRAWING IS THE PROPERTY OF ESKOM

AUTH:
DATE:
CHKD:
DATE:
DRAWN: P. BOTMA
DATE: 04/09/2016

NB: CHECK FOR ANY ELECTRIFICATION ON SITE

SET	SHEET	REVISION
02	00	0

SIZE A3L

ANNEXURE M 1/3
Reg

TP- A Theart
(S v.d. Merwe)

OVERSTRAND MUNISIPALITEIT
25 SEP 2018
OVERSTRAND MUNICIPALITY

FILE NO: Farm 357 - Gansbaai B.dorp
SCAN NO: Farm 357
COLLABORATOR NO: 1213835

BREEDE-GOURITZ
Catchment Management Agency
Opvanggebied Bestuursagentskap
Iziko loLawulo lomMandla nokungqongileyo

51 Baring Street Worcester 6850, Private Bag X3055 Worcester 6850
Enquiries: Rafeeq Le Roux Tel: 023-346 8000 Fax: 023-347 2012 E-mail:rleroux@bgcma.co.za
Date: 10[TH] September 2018
Reference No: 4/10/1/G50A/FARM 357, BUFFELJAGRIVIER, GANSBAAI

The Municipal Manager
Overstrand Municipality
P.O. Box 20
Hermanus
7200

Attention: Brendelene Stewart

COMMENT ON THE APPLICATION FOR PROPOSED AMENDMENT OF APPROVED SITE DEVELOPMENT PLAN , CONSENT USE AND DEPARTURE: FARM NO 357, GANSBAAI.

With reference to the above mentioned application received by this office on **27/08/2018.**

This office, in principle, has not objection to the proposed amendment, consent use and departure, subject to the following conditions:

- All relevant sections and regulations of the National Water Act, 1998 (Act 36 of 1998) regarding water use must be adhered to.
- No additional use of surface water and/or storage of water is permitted, unless the applicant has formally obtained a license in terms of Section 41 of the National Water Act (Act 36 of 1998) and/or formal authorisation in terms of General Authorisations issued under Section 39 (Government Notice 538 dated 15 April 2016), and/or if it is authorised under Schedule 1 of the National Water Act, 1998 (Act 36 of 1998).
- The registration of all water uses as defined in Section 21 of the National Water Act 36 of 1998.The relevant registration forms may be accessed on the www.breedegouritzcma.co.za website or alternatively this office may be approached for assistance.
- Where the applicant has an existing lawful registered water use, used for agricultural purposes thus far, application should be made to this office to amend such use proportionally per annual volume for domestic, commercial, industrial and/or agriculture, if this is applicable.
- No pollution of surface water or ground water resources may occur due to any activity.
- No storm water runoff from any premises containing waste, or water containing waste emanating from industrial activities and premises may be discharged into a water resource. Polluted storm water must be contained.

- All relevant sections and regulations of the National Environmental Management: Waste Act 2008 (Act 59 of 2008) regarding the disposal of solid waste must be adhered to. Solid waste may only be disposed of onto an authorised solid waste facility in terms of abovementioned legislation.

- No permanent structures may be constructed within the 100 year flood line or within 100 meters of any watercourse (seasonal or permanent river, stream, etc.), whichever is furthest, without the appropriate authorization in terms of the National Water Act,1998 (Act 36 of 1998).

Water for domestic use

- The water provided for domestic use must comply with the SANS 241: 2011 guidelines for drinking water (edition 1). Regular monitoring must be done to ensure compliance. If the quality of the water is of such a nature that it is a threat to human health, then this office and the Provincial Department of Health must be informed of the procedures to rectify the problem.

- Where the applicant has an existing lawful registered source, used for agricultural purposes thus far, application should be made to this office to amend such use proportionally per annual volume for domestic, commercial and/or agricultural.

Disposal of Waste Water

- The disposal of Waste Water must comply with Government Notice 665 in terms of Section 39 of the National Water Act, 1998 or a Water Use License must be applied for in terms of Section 40 of the National Water Act, 1998 (Act 36 of 1998).

- A water quality management plan as well as the applicable DW forms must be submitted to this office for evaluation.

Disposal of sewage

- The disposal of sewage must at all times comply with the requirements of Sections 22 and 40 of the National Water Act 36, Act 36 of 1998.

- The construction site for a conventional sewerage disposal system (french drain system) and/or conservancy tank must be placed above the 100 year flood line, or alternatively, more than 100 metres from the edge of a water resource, whichever is further.

- Conventional sewerage disposal systems can only be considered where the residential structures are more than a 75m radius apart and are limited only to single residential units, if and where the geology supports such system and must be supported by District Municipal Health.

  (Conference facilities, lodges, schools, restaurants, tasting facilities and hotels will require alternative methods of sewage treatment for disposal and/or treatment.)

- The construction of a conservancy tank must be of such a nature that no water will enter the system or leave it by means of seepage. Special care must be taken with the placing of the damp proof coarse during the construction phase. The tank needs to be inspected on a regular basis for seepage as a precautionary approach against any sewage leaving the system and causing pollution.

- When a conservancy tank is used for the disposal of sewage, this office must be furnished with a signed copy of the contract between the contractor or the *Overstrand*

Municipality which is appointed to pump the conservancy tank and the applicant. A contingency plan must be developed and furnished to this office.

The volume of sewage needs to be metered on a monthly basis and a removal programme needs to be scheduled to ensure that the conservancy tank is pumped well within time before overflowing. Alternatively, floating devices should be installed within the tanks that initiate an alarm at 75% full capacity to arrange for collection and disposal.

Please be advised that all relevant sections and regulations of the National Water Act, 1998 (Act 36 of 1998) regarding water use must be adhered to. The use of water without the required authorization in terms of the National Water Act, 1998 (Act 36 of 1998) may be regarded as unlawful and a criminal offence.

The onus remains on the registered property owner to confirm adherence to any relevant legislation with regards to the activities which might trigger and/or need authorization for

Please do not hesitate to contact this office if you have any further queries.

Please ensure to quote the above reference in doing so.

Yours Faithfully

MR. JAN VAN STADEN

CHIEF EXECUTIVE OFFICER (ACTING)

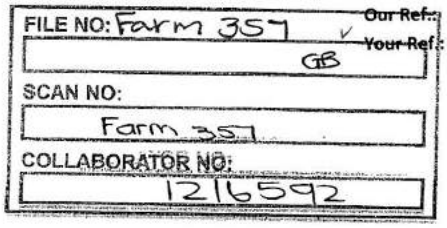
ANNEXURE N 1/4

TP- A Theart
(Svld merkle)

Division of Telkom SA SOC Ltd

10 Jan Smuts Drive
Pinelands
7404

Candice Spammer
Tel: 021 414 5582
Fax: 086 480 0617
Email: spammec1@telkom.co.za



~~Our Ref.:~~ WWIP_WBRP3005_18
~~Your Ref.:~~ Farm NO 357 GBRE 3814

1 October 2018

Attention: S Muller

Overstrand Municipality
HERMANUS

PROPOSED AMENDMENT OF CONDITIONS OF APPROVAL, CONSENT USE AND DEPARTURE - FARM 357 BREDASDORP

With reference to your letter received **August 2018.**

I hereby inform you that Open Serve approves the proposed work indicated on your drawing in principle. This approval is valid for 12 months only, after which reapplication must be made if the work has not been completed.

Any changes or deviations from the original planning during or prior to construction must immediately be communicated to this office.

Approval is granted, subject to the following conditions.

As per the drawing supplied, Open Serve infrastructure **will not be affected**. However, care should still be taken should it be evident that there is in fact Open Serve network present on the actual sites.

Please notify this office immediately if you locate any Open Serve plant that was not indicated. Please contact our representative **Frederik Swart** at telephone number **028 514 1199 / 081 363 7815 / FrederikS@openserve.co.za**

It would be appreciated if this office can be notified within 30 days of completion of the construction work. Confirmation is required on completion of construction as per agreed requirements.

Should Open Serve infrastructure be damaged while work is undertaken, kindly contact our representative immediately.

Yours faithfully

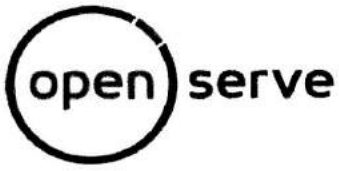
pp

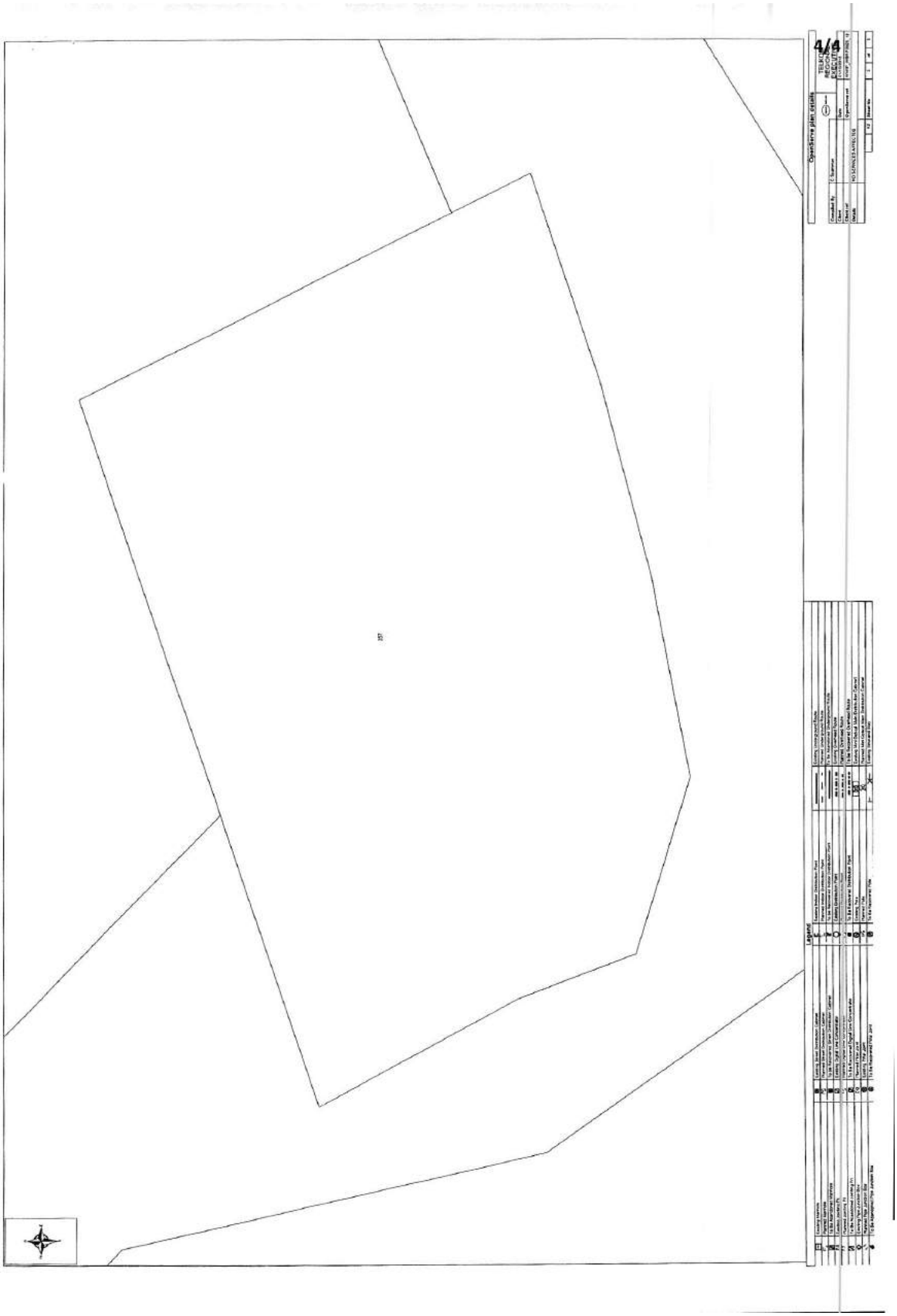
Selwyn Bowers
Operations Manager
Wayleave Management: Western Region

PLANT NOT AFFECTED

If any plant not indicated exists and information or supervision is required please contact this office at least 48 hours before any work commences.

Frederik Swart	081 363 7815	
Refence number **WWIP_WBRP3005_18**	**Marked Up** **Candice Spammer**	**Date** **01-Oct-18**





ANNEXURE O 1/1

COMMENTS FROM THE ENGINEERING SERVICES DEPARTMENT FOR: APPLICATION FOR AMENDMENT OF CONDITIONS OF APPROVAL (AMENDMENT OF SITE DEVELOPMENT PLAN) CONSENT USE & DEPARTURE: FARM NO 357, BREDASDORP DIVISION (3814)

Water	:	No service available
Sewer	:	No service available
Roads and traffic	:	No service available
Stormwater	:	No service available
Electricity	:	Escom

Conditions:

1. that the developer arrange with ESCOM for the provision of electricity and that he complies with all conditions as may be set by ESCOM;

2. that no water and sewer services from Overstrand Municipality is available and the developer will be responsible to obtain the necessary approval, licence and permits from the applicable authorities (Water and Sanitation, Health, Bocma etc.) for the use of any other water resources and the extraction thereof;

3. that the developer is responsible to provide potable water to the development that complies with SANS0241 standards and that relevant proof be submitted to the Manager: Water Infrastructure and Quality, Overstrand Municipality. The developer will only utilize a SANS accredited laboratory ;

4. that waste water disposal be done in a safe and healthy manner and that plans thereof be submitted to the Municipality and DWA for approval;

5. that, as no municipal refuse removal services are rendered in the area, the owner is responsible for removal of all refuse generated on the property, and disposal thereof at a registered municipal waste transfer station or –waste disposal facility;

6. that the developer complies to all the conditions set by Department Of Water Affairs & Bocma;

7. that the developer will arrange with Provincial Administration to obtain approval for any new access from the Provincial road.

p.p. R Chicken
DENNIS HENDRIKS
SENIOR MANAGER: ENGINEERING SERVICES

01/11/2018
DATE

ANNEXURE P 1/38

Western Cape Government
Transport and Public Works

OVERSTRAND MUNISIPALITEIT
03 APR 2019
OVERSTRAND MUNICIPALITY

ROAD NETWORK MANAGEMENT
Email: Grace.Swanepoel@westerncape.gov.za
tel: +27 21 483 4669
Rm 335, 9 Dorp Street, Cape Town, 8001
PO Box 2603, Cape Town, 8000

TRA Theart
C s vd Merwe

REFERENCE: 16/9/6/1-21/159 (Job 26339)
ENQUIRIES: Ms GD Swanepoel
DATE: 25 March 2019

FILE NO: Farm 357
SCAN NO: 04
COLLABORATOR NO: 1272489

The Municipal Manager
Overstrand Municipality
PO Box 20
HERMANUS
7200

Attention: Ms Alida Conradie

Dear Madam

FARM 357, BREDASDORP: DIVISIONAL ROAD 1206: PROPOSED AMENDMENT OF CONDITIONS OF APPROVAL, CONSENT USE AND DEPARTURE

1. The following refer:

1.1 Your e-mail sent on 27 August 2018;

1.2 This Branch's even-numbered letters dated 10 October 2018 and 16 November 2018 and

1.3 Your e-mail dated 11 February 2019.

2. This Branch acknowledges receipt of the following from the Applicant for the wind turbines:

2.1 Certified design by a registered professional engineer;

2.2 A certified statement by a registered professional engineer stating that what has already been constructed complies with the design;

2.3 Records of quality assurance (steel and concrete) and

2.4 A certified statement by a registered professional engineer certifying that construction complies with the design together with quality assurance documentation.

3. Accordingly, this Branch withdraws its objection to the land use application in terms of Act 3 of 2014.

Yours faithfully

SW CARSTENS
For CHIEF DIRECTOR: ROAD NETWORK MANAGEMENT

3/38

No. 721168

SOUTH AFRICAN COUNCIL FOR PROFESSIONAL ENGINEERS

THIS IS TO CERTIFY THAT

PATRICK GUY FRERE HART

IS REGISTERED AS A

PROFESSIONAL ENGINEER

IN TERMS OF THE PROVISIONS OF SECTION 18 OF THE PROFESSIONAL ENGINEERS' ACT, 1968 (ACT No. 81 OF 1968)

ANNESBURG

EMBER 27, 1972

PRESIDENT

REGISTRAR

CONTRACTING (PTY) LTD.
(VAT NO. 4050145798)
(CO. NO. 94/06309/7)

26 Sixth Avenue
Voëlklip
Hermanus 7200
South Africa
Tel: 082 566 0029
hartpgf@telkomsa.net

H CONTRACTING – LIST OF COMPLETED CONTRACTS
As of 2018

H001 – 50Mgl Reservoir for Bloemfontein Municipality, completed 1996, value R8.8mil, floated roof, 100m in diameter, design and construct.

H004 – 3Mgl reservoir for Langebaan Municipality, completed 1997, value R1.5mil. floated roof, design and construct.

H017 – 8Mgl reservoir for Mossel Bay Municipality, completed 1998, value R3.3mil, floated roof, design and construct.

H019 – 3Mgl reservoir for Stilbaai Municipality, completed 1998, value R1.1mil, floated roof, design and construct.

W078 – 3Mgl reservoir for Stilbaai Municipality, completed 1990. Designed and construct with floated roof.

W069 – 20Mgl reservoir for Kraaifontein Municipality, completed 1990, value R2.2mil, floated roof, design and construct.

W093 – 200m3 water tower for Mossel Bay Municipality, completed 1993.

W017 – 300m3 water tower for Public Works Dept, Mental Hospital, Mitchells Plein, Cape Town, completed 1983, 41m overall height.

W088 – Alterations to all services to the Buffelsjag Prison at Swellendam for PWD, including a small sewage works and a water tower of 150m3 capacity, completed 1993. Designed and built the water tower.

H025 – Extensions to the Mossel Bay Sewage Works, completed 2000, value R6.6mil.

H034 – 2 No.x 4Mgl reservoirs etc for Caledon Municipality, completed 2001, value R4.4mil, floated roofs, design and construct.

H035 – 3Mgl reservoir for Yzerfontein Municipality, completed 2001, value R1,2mil, floated roof, design and construct.

H039 – Helderberg Winery sewage works. Designed and built all structures. Value R1.1mil, completed May 2004.

CONTRACTING (PTY) LTD.
(VAT NO. 4050145798)
(CO. NO. 94/06309/7)

26 Sixth Avenue
Voëlklip
Hermanus 7200
South Africa
Tel: 082 566 0029
hartpgf@telkomsa.net

H042 – Designed and constructed 8 silo bases for Meadow Feed Mills in Paarl. Value R6.6 mil, completed 2005.

H046 – Religned/rehabilitated 12 silos for SASKO in Paarl. Value R6.2mil, completed 2006.

H048 – Mile 7 10Mgl reservoir near Walvis Bay, for Namwater. JV with Cycad Construction. Value N$ 7mil, completed 2003. Designed the reservoir and floated the roof.

H051 – Water Tower and reservoir for Namport in Walvis Bay harbour. Value N$2.2mil, completed 2005. JV with Walcon.

H054 – 3Mgl reservoir for Grabouw Municipality. Value R 1.7mil, completed 2005. Designed and built and floated roof.

H056 – 3 x3Mgl reservoirs for Namwater for Langer Heinrich Mine, together with Walcon in a JV. Completed 2006.

H058 – Structural investigation into leaking concrete tanks at Langer Heinrich Mine, near Swakopmund. Completed 2007

H065 – 8Mgl reservoir for Weskus Dienste Raad near Malmesbury. Value R8.0mil. Designed and constructed with floating roof. JV with EMPA Structures CC.

H067 – Project managed, For EMPA Construction, extensive alterations and additions to the Cape Flats Sewage Works over a period of 21/2 years with total value of R33.0mil. Completed in 2013

H072 – Extensions to the Navachab Gold Mine in Namibia. Value N$18.0mil. Contract advisor to Walcon Construction CC.

H075 – As part of EMPA designed and built 62No. Wind Farm Bases near Bedford in the E Cape, a massive project.

H077 – Design and construct small reservoir Rozendal Farms outside Paarl.

H081 – Appointed to design and project manage a large development for Valley Ministries in Paarl. Design includes all services and structural aspects.

H082 – Project managed, including structural design, for EMPA Construction, of alterations and rehabilitation of the Tanker Turning Basin in the Cape Town Harbour for Portnet (SA Railways & Harbours) R12.0mil.

H083 – Design and construct factory premises in Wellington.

CONTRACTING (PTY) LTD.

6/38
(VAT NO. 4050145798)
(CO. NO. 94/06309/7)

26 Sixth Avenue
Voëlklip
Hermanus 7200
South Africa
Tel: 082 566 0029
hartpgf@telkomsa.net

H085 -- Design and construction of Swakopmund 15Mgl reservoir with Walcon Construction completed 2014. N$ 15.0mil.

H086 – Design and construction of extensions to LHMathinussen factory in Cape Town completed in 2014. R1.8mil.

H087 – Did the tender and was structural advisor to the rehabilitation of the Salt River Railway Bridge in the Cape Town harbour for EMPA for Portnet. Total value R13mil.

H088 – Project Manager for the extensions and alterations to the Borcherds Quarry Sewage Works for EMPA Construction. Completed 2014. Value R23mil.

H090 – Design and construction of extensions to Old Olive Factory in Wellington, W Cape, completed in 2013. R2.45mil.

H092 – Tendered and Project Managed the civil works for Veolia who were the main contractors to Distell Winery in Stellenbosch. Completed in April 2016. Value R5mil.

H093 – Investigations into cracked and leaking reservoirs for EMPA in Saldanha Bay.

H096 – Contractors consultant on repairs and extensions to the Walvis Bay Sewage Works, due for completion in April 2018. Value N$ 19mil.

H098 – Design and construction of 2 No. wind farms bases at Bufflejags on the southern cape coast. Completed July 2017, value R1.5mil.

H000 – Investigations into leaking water retaining structures all over Southern Africa, including 3 no. in Cape Town, 2 No. on West Coast, in Bloemfontein, and in Windhoek.

H101 – Contractors consultant and consultant for Namwater for repairs to 2 No. 20Mgl reservoirs near Rossing in Namibia. Value N$ 10mil. Completion February 2018.

H102 – Raising of Keerom Dam wall for the Nuy Farmers in the little Karoo. Value R5.5mil. Completion May 2018.

H103 – Design for EMPA two conveyor tunnels for BSB Mine on the west coast. Completion November 2018.

As a specialist in water retaining structures, numerous designs and investigations done for work all over Southern Africa.

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hartpgf@telkomsa.net

Vestas

Viking Fishing Aquaculture (PTY) Ltd
357 Farm
Bredasdorp
7280
Republic of South Africa

Vat registration number: 4870258904
Our VAT number: DK28118171

Videbæk, d. 21 December -2016/ISN

Offer: Two renovated V47-660kW used turbine, with 45-meter tower EXW.

Vestas Northern Europe A / S (hereinafter referred to as Vestas) is pleased to submit the following offer for two used V47-660kW turbines.

Incl. following:
Turbine ID 11452 and ID 11456 Two secondhand V47-660kW turbines. With renovated gearbox, generator and new oil cooler and hoses. Including transport equipment for nacelles + towers.
2 years of warranty included on main components, delivery agreed as incoterms 2010: EX Works.
Total amount: 386,000.00 EUR. Payment acc. to agreement.

All prices are stated excl. VAT.

Description of the turbines to be delivered:

- Renovated nacelle V47-660kW 50 HZ Mounted with following:
- Renovated Gearbox (Full load Tested)
- Renovated Generator (Load Tested)
- Renovated Controller
- Yaw system checked
- Hub renovated
- Internal hoist checked
- New carpet in the nacelle
- Blades (New type Alu-ring) not painted, has to be done locally
- Renovated blade bearing
- New tower bolts, Nacelle, Hub and blades.
- Bottom Controller has been checked
- Used Tower mounted with all cables

Adresse: Vestas Northern Europe · Hemingvej 5-7 · 6920 Videbæk · Danmark
Tlf.: +45 9730 0000 · Fax: +45 9730 2273 · E-mail: vestas-northerneurope@vestas.com · Web: www.vestas.com
Bank: Nordea Bank Danmark A/S · Konto nr. 2149 5496 664 886 · IBAN: DK47 2000 5496 6648 86 · SWIFT: NDEADKKKXXX
CVR-nr.: DK 28 11 81 71
Selskabsnavn: Vestas Northern Europe A/S

This offer is valid one month from December 21, 2016. Stated on this offer and otherwise subject to the following conditions :

a) Subject to errors and omissions in the offer.

b)Replaced parts belong to Vestas.

c)Two years from delivery / installation date Vestas is liable for defects in the goods and services so that Vestas has the right and obligation to rectify defects identified and reported to Vestas before the expiry of the two year period. You have no other remedy or guarantees than what is listed here. Vestas' obligation to rectify any defect lapse if 1) You or any third party service, repairs or otherwise make interventions in the turbine without a written approval from Vestas or 2) the turbines are operated in violation of applicable standards and recommendations issued by Vestas or 3) upon termination (for any reason, other than Vestas' repeated, substantial breach) of the service agreement with Vestas. The warranty is applicable for following main components : Gear, generator, blades, blade bearings, main shaft and hub.

Making reference to the inco term Ex Works, then we will prepare the replacement part (renovated part, and a new part if no renovated part on stock) for pick up from our stock in either Videbæk or Skjern. The freight cost as well as any other cost related to the exchange, for instance the cost for a technician is to be borne by the buyer. Vestas will of course assist with providing for instance a technician or book transportation etc., but the cost is borne by the buyer.

d) Vestas is only liable for damages if Vestas has acted wrongfully and if damage or loss is not covered by Your insurance. Vestas is not liable for indirect loss, including consequential loss, loss of profits, loss due to price difference, loss of use or physical consequential damages. Vestas' total liability for damages is limited to the value of this offer excluding VAT. This provision also applies to product liability.

e) As customer you must ensure that Vestas has access to the wind turbine site and that Vestas is able to bring heavy cranes and trucks to the wind turbine site.

f) The delivered goods belong to Vestas, the ownership of the delivered goods is transferred to you when the offer price including VAT has been received by Vestas.

g) If the offer price excluding VAT exceeds EUR 34,000.00 You must provide a guarantee for the payment which is approved by Vestas or prepay the entire offer price including VAT before delivery.

h) In case of delayed payment you will have to pay an interest on overdue payment of 2% per month.

i) Vestas determines delivery and installation time after the receipt of compliant

acceptance. Vestas is not liable for delay. Limitation of liability scheme above in d) also includes delay.

j) Vestas' obligations lapse completely in cases of force majeure or force majeure similar situations.

k) Vestas reserves the right to change the offer price and terms, if unforeseen complications or damages other than the identified are found as well as weathering such as strong wind.

l) Only written offers from Vestas are binding for Vestas.

If you wish to initiate repair and thus choose to accept the above quote, please sign, date and return the enclosed identical copy of this letter

If you have any questions regarding the above, please do not hesitate to contact the undersigned.

Sincerely,
Best Regards
Vestas Northern Europe
Ivan Smedegaard
Ivan Smedegaard
After Sales Specialist
Herningvej 5 - 7
6920 Videbæk
Tlf: +45 7022501

Vestas®
Vestas Northern Europe A/S
Service
Herningvej 5-7 · 6920 Videbæk · Denmark
Tel.: +45 97 30 00 00 · Fax.: +45 97 30 22 73

Vestas Northern Europe A/S
Herningvej 5 – 7
6920 Videbæk
Denmark

Attn.: ISN

Order form:

The undersigned hereby as stated below order: 2 secondhand V47 660kW Turbines, with 45-meter tower.

Turbine ID 11452 and ID 11456 Two secondhand V47-660kW turbines. With renovated gearbox, generator and new oil cooler and hoses. Including transport equipment for nacelles + towers.
2 years of warranty included on main components, delivery agreed as incoterms 2010: EX Works.
Total amount: 386,000.00 EUR. Payment acc. to agreement.

All prices are stated net of VAT.

Description of the turbines to be delivered:

- Renovated nacelle V47-660kW 50 HZ Mounted with following:
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- Renovated Generator (Load Tested)
- Renovated Controller
- Yaw system checked
- Hub renovated
- Internal hoist checked
- New carpet in the nacelle
- Blades (New type Alu-ring) not painted, has to be done locally
- Renovated blade bearing
- New tower bolts, Nacelle, Hub and blades.
- Bottom Controller has been checked
- Used Tower mounted with all cables

This offer is valid for one month from this offer dating and otherwise subject to the following conditions :

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If you wish to initiate repair and thus choose to accept the above quote, please sign, date , and return this letter.

Viking Fishing Aquaculture (PTY) Ltd
357 Farm
Bredasdorp
7280
Republic of South Africa

Dato: 07/02/2016 _____ Signature

SA Steelworks

ROLLING MILL TEST CERTIFICATE OF CHEMICAL ANALYSIS AND MECHANICAL PROPERTIES

Form Ref: 7.5.1/52
Rev 1
Rev Date: 01/03/2012

SA METAL GROUP (Pty) Ltd
P.O. Box 373
Eppindust 7475
Cape Town
South Africa
Tel (021) 590 3900
Fax (021) 590 3973

Customer: REINFORCING & MESH SOLUTIONS PTY LTD
Customer Order Number: CAP17-72 - CAP17-77
Delivery Note: 12087

Certificate No: SAS 1111281

Date Issued: 12/06/2017

Ladle Chemical Analysis (%)												Mechanical properties						
Cast No	C	Cr	Cu	Mn	Mo	Ni	P	Si	S	V	CE	Product	Length	YS	UTS	% Elong	180°Bend	Rebend
70819	0.29	0.28	0.20	0.68	0.01	0.06	0.03	0.19	0.03	0.01	0.48	Y25	13	548	709	21	OK	OK
70820	0.25	0.27	0.17	0.73	0.01	0.06	0.03	0.22	0.03	0.01	0.45	Y25	13	581	725	17	OK	OK
71270	0.26	0.36	0.19	0.71	0.01	0.06	0.04	0.23	0.03	0.01	0.47	Y12	13	548	684	26	OK	OK
71271	0.24	0.34	0.20	0.69	0.01	0.06	0.04	0.23	0.03	0.01	0.45	Y12	13	568	689	25	OK	OK
70968	0.27	0.27	0.19	0.68	0.01	0.06	0.03	0.21	0.03	0.01	0.45	Y25	13	504	689	15	OK	OK
71305	0.26	0.29	0.21	0.68	0.01	0.06	0.04	0.21	0.03	0.01	0.45	Y12	13	573	690	27	OK	OK
71308	0.31	0.29	0.21	0.71	0.01	0.06	0.04	0.21	0.03	0.01	0.50	Y12	13	557	697	26	OK	OK

SABS APPROVED

SANS 920:2011

High yield stress steel bars may only be considered capable of being welded if the Carbon Equivalent (CE) value does not exceed 0.51%

Signed :

P. le Grange FOR AND ON BEHALF OF THE SA METAL GROUP (e-mail pierre@sasteelworks.co.za)

SA Steelworks

ROLLING MILL TEST CERTIFICATE OF CHEMICAL ANALYSIS AND MECHANICAL PROPERTIES

Form Ref: 7.5.1/52
Rev 1
Rev Date: 01/03/2012

SA METAL GROUP (Pty) Ltd
P.O. Box 373
Eppindust 7475
Cape Town
South Africa
Tel (021) 590 3900
Fax (021) 590 3973

Customer: REINFORCING & MESH SOLUTIONS PTY LTD
Customer Order Number: CAP17-72
Delivery Note: 12078

Certificate No: SAS 1111272

Date Issued: 09/06/2017

Ladle Chemical Analysis (%):

Cast No	C	Cr	Cu	Mn	Mo	Ni	P	Si	S	V	CE
70819	0.29	0.28	0.20	0.68	0.01	0.06	0.03	0.19	0.03	0.01	0.48
70968	0.27	0.27	0.19	0.68	0.01	0.06	0.03	0.21	0.03	0.01	0.45
71181	0.29	0.19	0.30	0.76	0.01	0.06	0.03	0.21	0.03	0.01	0.49
71263	0.31	0.27	0.19	0.66	0.01	0.05	0.03	0.21	0.03	0.01	0.49
71261	0.28	0.26	0.17	0.66	0.01	0.05	0.03	0.19	0.02	0.01	0.46

Mechanical properties

Product	Length	YS	UTS	% Elong	180°Bend	Rebend
Y25	13	548	709	21	OK	OK
Y25	13	504	689	15	OK	OK
Y16	13	580	712	20	OK	OK
Y16	13	535	687	15	OK	OK
Y16	13	576	702	15	OK	OK

SABS APPROVED

SANS 920:2011

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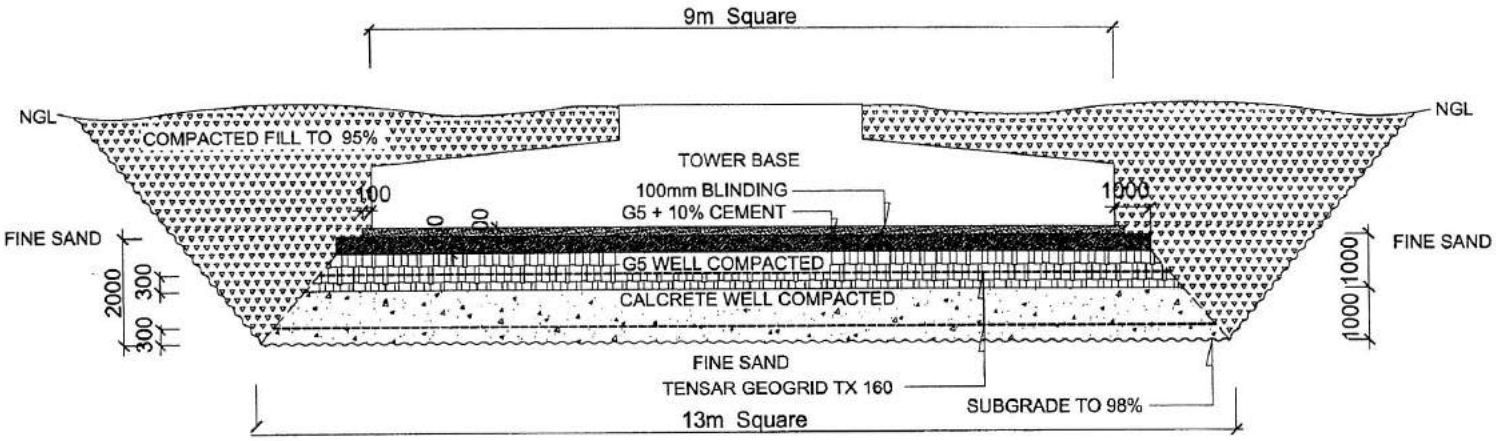
Signed :

P. le Grange FOR AND ON BEHALF OF THE SA METAL GROUP (e-mail pierre@sasteelworks.co.za)

WTG 1



NOTES:
1. ALL WORK SUBJECT TO ENGINEERS INSPECTION AND APPROVAL
2. TESTING OF ALL LAYERS
3. LAYERS IN 250mm INCREMENTS
4. GEOGRIP TO TENSAR SPECIFICATION WITH 500mm LAPS

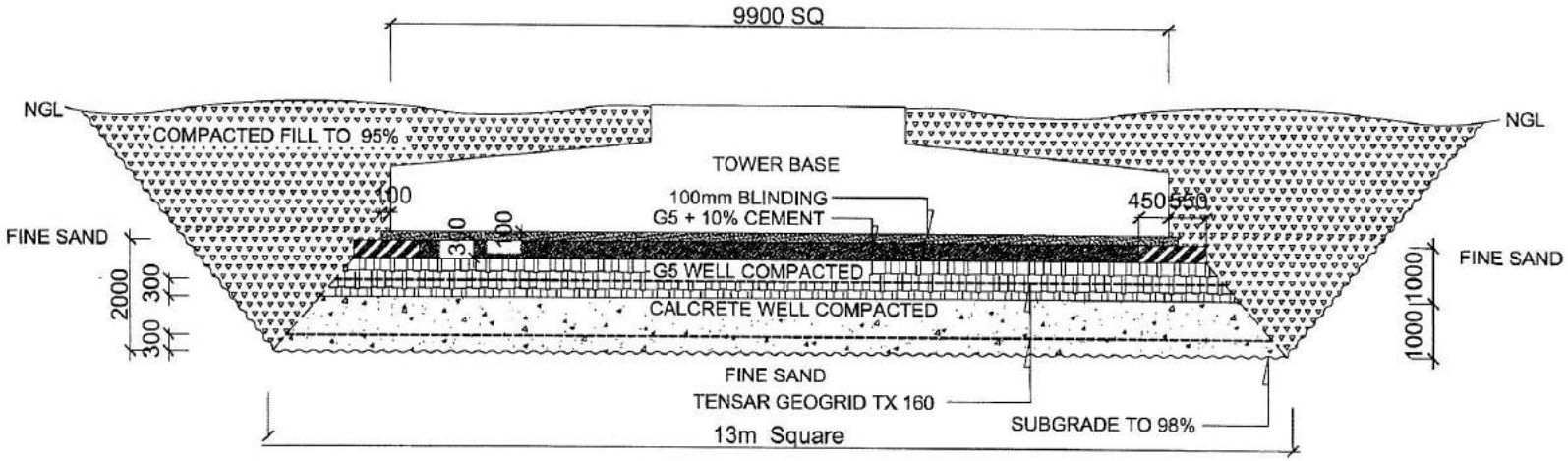
NOTES:
A. EXCAVATION 1160m3
B. CALCRETE 225m3
C. G5 200m3
D. COMPACTED FILL 610m3
E. GEOGRID 340m2

ISSUED FOR CONSTRUCTION	COMMENTS

CONTRACTING (PTY) LTD
5 Tarryn Close
Paarl 7646
South Africa
Tel: 082 566 0029
Fax: (021) 872 0953

DRAWN: WA CARSTENS		TITLE: BUFFELSJAGS WIND FARM	
DESIGNED: P HART Pr.Eng., Pr.CM., B.Sc., M.I.C.E. PE (NAM)		CLIENT: EMPA STRUCTURES cc	
ORIG. DATE: 12/05/2017	DRAWING NO: H098/1	SHEET: SHT 1 OF 2	REVISION: 1 31 - 05 - 2017

WTG 1



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WTG 1
NGL
COMPACTED FILL TO 95%
FINE SAND
2000
300
300
300
FINE SAND
NGL
TOWER BASE
10% SOIL/CEMENT WELL COMPACTED
5% SOIL/CEMENT WELL COMPACTED
FINE SAND
TENSAR GEOGRID TX 160
13m Square
SUBGRADE TO 98%
FINE SAND
1000
1000
NOTES:
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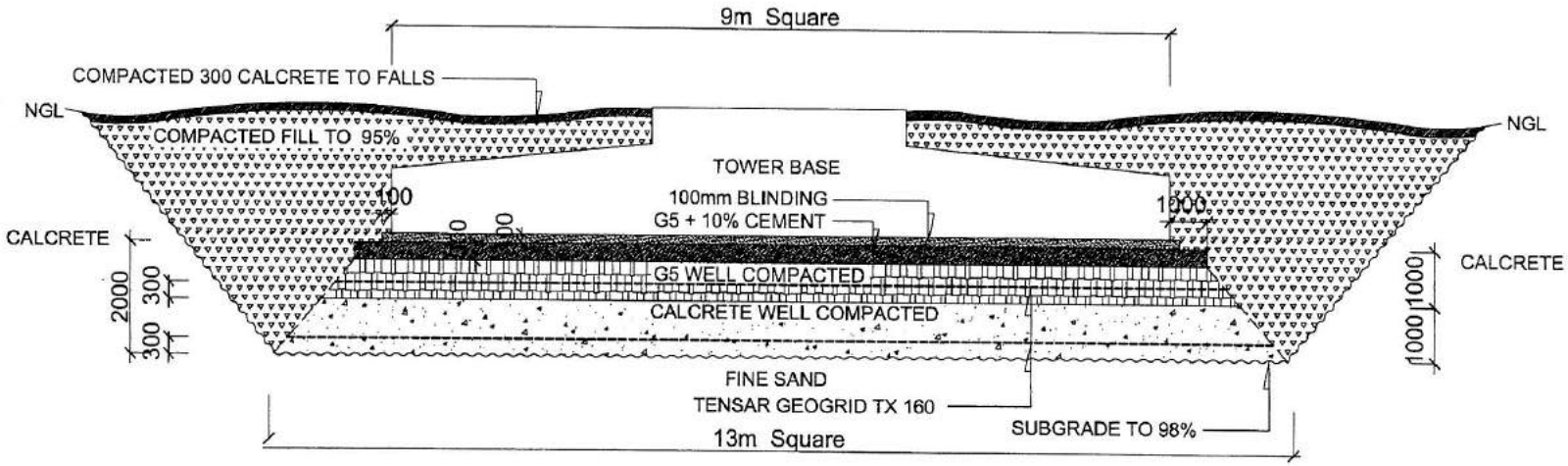
DRAWING NO : H098/1
SHEET : SHT 1 OF 2
REVISION : 0
12 - 05 - 2017

WTG 2



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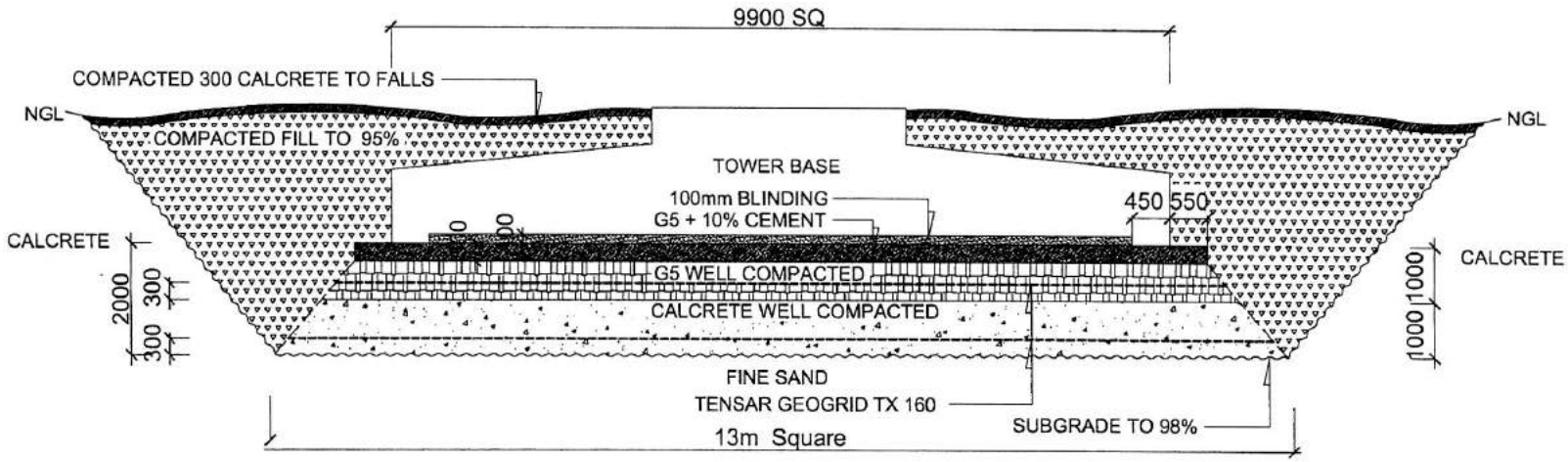
ORIG. DATE: 12/05/2017	DRAWING NO: H098/1	SHEET: SHT 2 OF 2	REVISION: 1 31 - 05 - 2017

19/38

WTG 2



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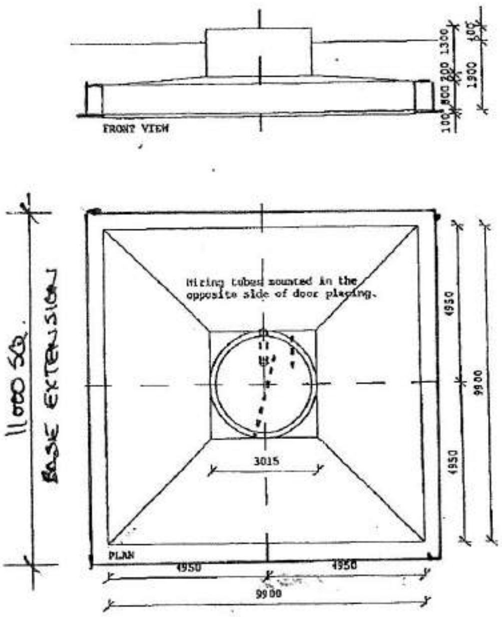
ORIG. DATE: 12/05/2017	DRAWING NO: H098/1	SHEET: SHT 2 OF 2	REVISION: 2 01 - 06 - 2017

20/38

943133.00



SOIL

The soil, on which the foundation is placed, must fulfill the following conditions.

Foundation upon sand	:	$\varphi \geq 30°$
Foundation upon clay	:	$Cv \geq 80$ kN/m²
Effective density of filling soil	:	$\gamma \geq 16$ kN/m³
Dynamic bearing capacity	:	Es, dyn $\geq$ 75000 kN/m²

Highest ground water level is presumed to be below foundation. Soil survey has to be done, to secure the bearing capacity and effective density.

LOADS

The foundation is calculated for the following extreme loads, stated by VESTAS.

Nd	=	592 kN	(Normal load)
Vd	=	266 kN	(Transverse force)
Md	=	9988 kNm	(Bending moment)
Mvd	=	515 kNm	(Twisting moment)

In the mensioned loads following safeties are included :
1,0 on dead load
1,3 on wind load
Calculation for fatigue load.

SPECIFICATIONS

For the carrying out, the following is current.

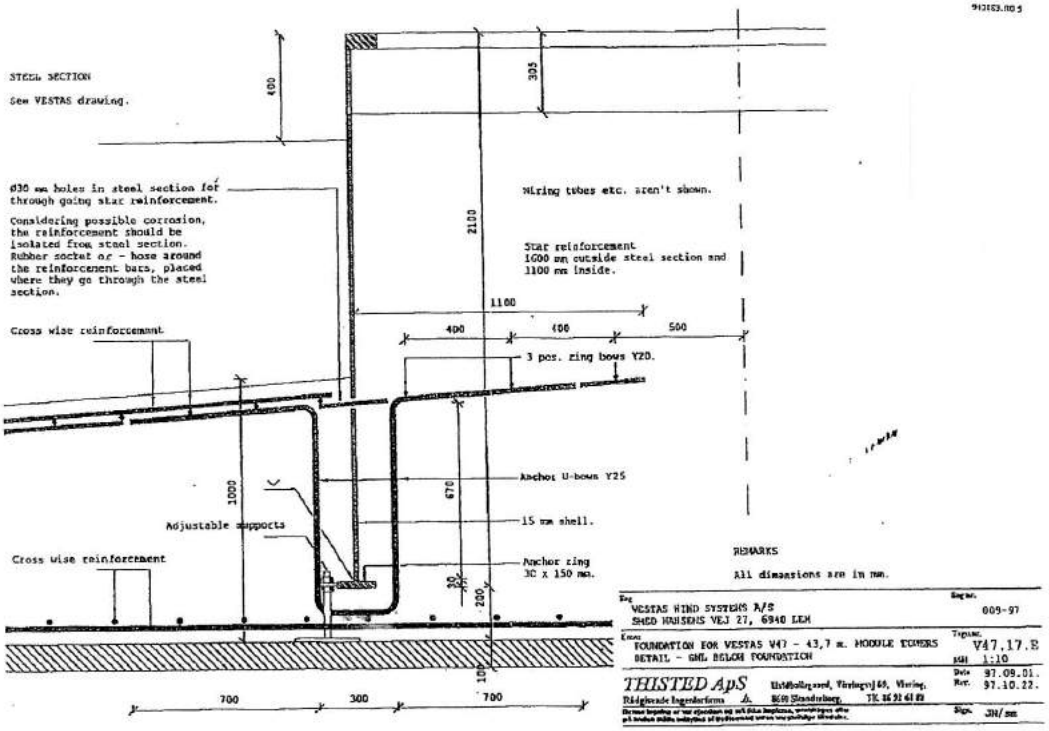
Concrete structures	:	DS 411
Foundation	:	DS 415
Basisbetonbeskrivelsen	:	BBB

REMARKS

All dimensions are in mm.
Concerning further demands and conditions, for the carrying out of foundation, see detail drawings and specifications.

Sag: VESTAS WIND SYSTEMS A/S, SMED HANSENS VEJ 27, 6940 LEM	Sag nr. 009-97
Emne: FOUNDATION FOR VESTAS V47 - 43,7 m. MODULE TOWERS, VIEW PLAN - GNL BELOW FOUNDATION	Tegn.nr. V47.15.E; Mål 1:75
THISTED ApS, Rådgivende Ingeniørfirma, Thisted, Viningvej 43, Virring, 8660 Skanderborg, Tlf. 86 92 44 83	Dato 97.09.01.; Rev. 97.10.22.
	Sign. JH/sm

P. HART
FR. ENG.



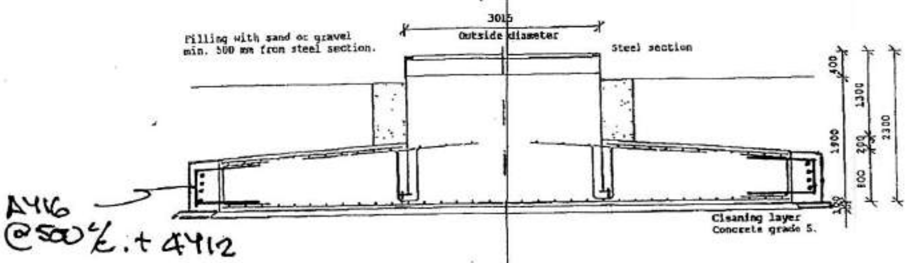
REMARKS

All dimensions are in mm.

Eng. VESTAS WIND SYSTEMS A/S SKED HAUSENS VEJ 27, 6940 LEM	Dagsnr. 009-97
Emne FOUNDATION FOR VESTAS V47 - 43,7 m. MODULE TOWERS DETAIL - GML BOLCH FOUNDATION	Tegnnr. V47.17.E M 1:10
THISTED ApS Rådgivende Ingeniørfirma A/S	Dato 97.09.01. Rev. 97.10.22.
	Sign. JH/ms

P. HART
PE. ENG.

$13193.00



FOUNDATION SECTION

The steel section is delivered by VESTAS.
Regulation screws, bracings, wiring tubes, etc. are mounted at delivery.
The steel section is set upon the cleaning layer, after laying out the bottom reinforcement net.
The section is adjusted to accurate level, vertical as well as horizontal, by use of the 3 regulation screws, after which the counter nuts are tightened.

The steel section is delivered with surface treatment.
The section may not touch the reinforcement, neither in top nor in bottom of the foundation plate.

During casting, which must be done simultaneously both inside and outside the steel section, great accuracy must be shown, to secure that it doesn't displace.
Max. vertical deviation, after concreting, may be ±4 mm.

For further information, see specification.

REINFORCEMENT

Y = rib bar Ks 550 (fyk ≥ 550 N/mm²).

CONCRETE

The concrete must be composed, mixed and prepared according to "Basisbetonbeskrivelsen (BBB)".
Following defines the types of concrete:

Environment class	Moderate
Strenght class	30 MPa
Control class	Normal
Max. gravel size	32 mm
Water/cement	0,55

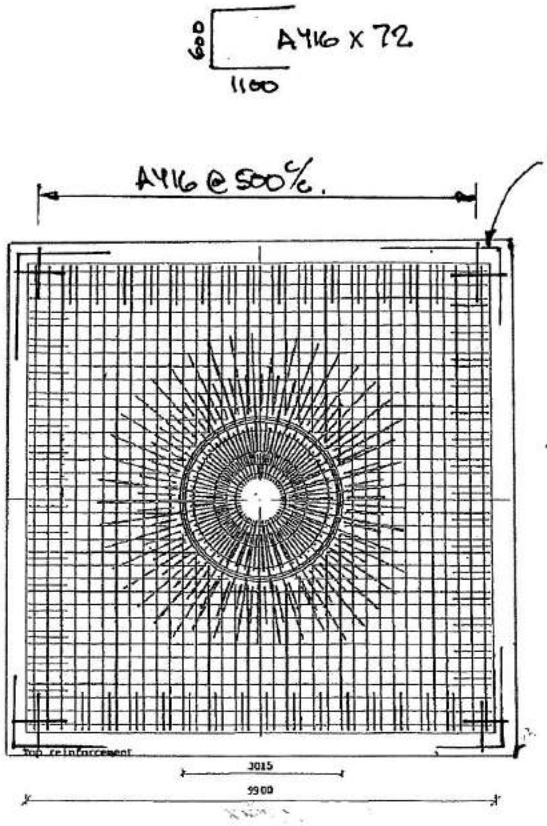
Covering concrete layer against form work = 50 mm.
Covering concrete layer against soil = 100 mm.
Concrete control according to "Dansk IngeniorForenings Code" DS 411.

REMARKS

All dimension are in mm.

VESTAS WIND SYSTEMS A/S SMED HANSENS VEJ 27, 6940 LEM	Sag nr. 009-97
FOUNDATION FOR VESTAS V47 - 43,7 m. MODULE TOWERS VERTICAL SECTION - GWL BELOW FOUNDATION	Tegn.nr. V47.15.1 Mål 1:40
THISTED ApS Rådgivende Ingeniørfirma	Dato 97.0?.01 Rev. 97.1?.2?
	Sign. JH/sn

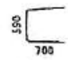
P. HART
P. ENG.



TOP REINFORCEMENT

Cross wise reinforcement - 44 pcs. Y20/250 mm - L = 8700 mm.

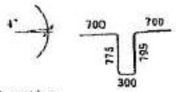
The reinforcement bars opposite the steel section
20 pcs. Y20/250 mm - L = 2750 mm.
8 pcs. Y20/250 mm - L = 2900 mm..
8 pcs. Y20/250 mm - L = 3100 mm.
8 pcs. Y20/250 mm - L = 3300 mm.
8 pcs. Y20/250 mm - L = 3700 mm.



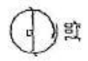
Edge bows Y20/500 mm 56 pcs.

Star reinforcement through holes in steel section -
45 pcs. Y20 - L = 2700 mm.
1600 mm outside steel section and 1100 mm inside.

45 pcs. Y25 anchor U-bows, placed as shown
in drawing Y47.17.E.



3 pcs. Y20 ring bows - in steel section.
D = 1000, 1800 and 2600 mm.
All dimensions are at centre lines.
Min. bending diameter is D = 6xd.



Supports for top reinforcement in the necessary amount.

REMARKS

All dimensions are in mm.
The reinforcement is tied up in every second cross.

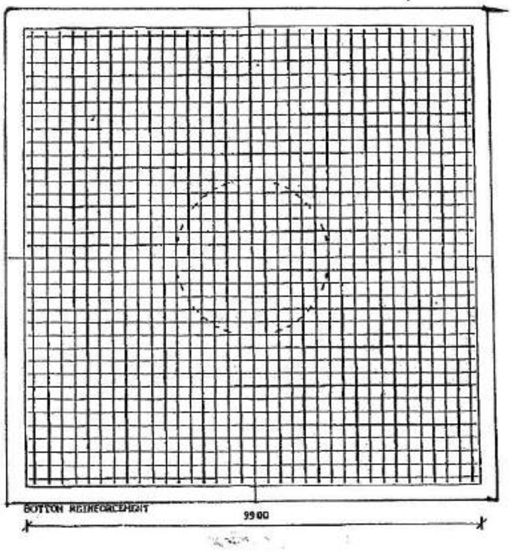
Steel section, with through going reinforcement, is rotated,
to place the tower door in right direction.

Sag VESTAS WIND SYSTEMS A/S SMED HANSENS VEJ 27, 6940 LEM	Sag nr. 009-97
Emne FOUNDATION FOR VESTAS V47 - 43,7 m. MODULE TOWERS HORIZONTAL SECTION - GWL BELOW FOUNDATION	Tegn.nr. V47.18.E Mål 1:50
THISTED ApS Rådgivende Ingeniørfirma Holdbøllegaard, Vinkelvej 69, Viering, 6660 Skanderborg. Tlf. 86 92 64 81	Dato 97.09.01. Rev. 97.10.22.
[illegible] [illegible]	JH/mm

P. HART
PR. ENG.

REBAR INSPECTED

943183.80 7



BOTTOM REINFORCEMENT

Cross wise reinforcement - 10 pcs. Y25/250 mm - L - 8700 mm.

Supports for top reinforcement in the necessary amount.

REMARKS

All dimensions are in mm.
The reinforcement is tied up in every second cross.

Steel section, with through going reinforcement, is rotated, to place the tower door in right direction.

VESTAS WIND SYSTEMS A/S SMED HANSENS VEJ 27, 6940 LEM	009-97
FOUNDATION FOR VESTAS V47 - 43,7 m. MODULE TOWERS HORIZONTAL SECTION - ON BELOW FOUNDATION	V47.19.E 1:50
THISTED ApS Rådgivende Ingeniørfirma	97.05.01. 97.10.22.
	JH/sn

P. HART
PR. ENG.

REBAR INSPECTED

CONTRACTING (PTY) LTD.
(VAT NO. 4050145798)
(CO. NO. 94/06309/7)

5 Tarryn Close
Paarl
7646
South Africa
Tel: 082 566 0029
Fax: (021) 872 0953
pathart@pixie.co.za
www.hcontractingptyltd.webs.com

To Gareth Stander
EMPA Structures
Durbanville

01 08 2017

Re: Final Inspection to the Two Buffeljags Wind Turbine Bases

Due to the fact that the founding conditions varied from what was planned, and due to the fact that the sand recovered from the excavations could not be stabilised effectively with cement, we have made a number of changes to the subsoil conditions and enlarged the base.

1) The sand with 10% cement did not manage 1Mpa strength.
2) We then changed the lower 2 metres of the 4 metres of subsoil foundation to compacted Calcrete. DCP's of this material gave an average of 100mm for 10 blows which Alex Lodenkemper gave as between 200 & 300 kpa which was acceptable.
3) The top 2 metres of the of the subsoil material was then changed to a well compacted G5 material with the very top 300mm being stabilised with 10% cement. The G5 was tested and found to be acceptable, and the G% + 10% cement crushed at 6 Mpa at 28 days.
4) Note must be taken of the reinforcing layers of Tensar Geogrid TX 160 in both 2 metres layers under the foundation.
5) The tower base was increased from 8.8m square to 9.9m square, an increase of 26.6% which will provide extra stability. The concrete quality was good and will give a 28 day crushing strength of nearly 40Mpa, well in excess of the 30Mpa required.
6) The filling in the base was inspected and found to be adequate. The Calcrete was spread over the top WTG2 to falls and well compacted. DCP's were done on both bases and found to be adequate.
7) The topsoil is to be spread over the two bases, and the thicker the better, for added over-turning stability. Final compacted filling to be 100mm below the flange.
8) Please refer to the drawings for both bases Drawing No.s H098 Rev 0, and 1, and 2.
9) The workmanship was good and the bases will be able to function adequately.

Yours faithfully

P Hart

CONTRACTING (PTY) LTD.

To Gareth Stander
EMPA Structures
Durbanville

01 08 2017

Re: Final Inspection to the Two Buffeljags Wind Turbine Bases

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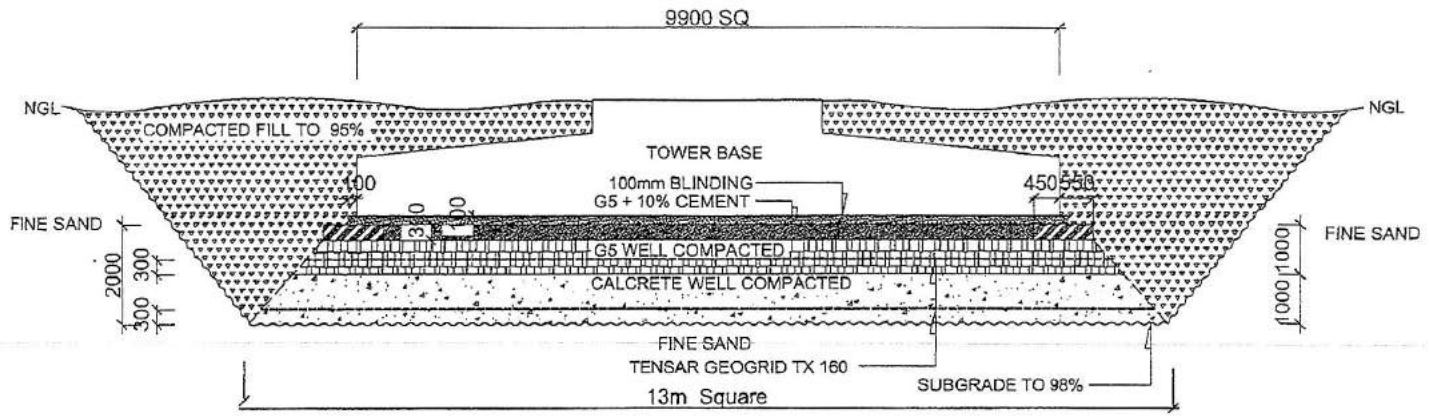
Yours faithfully

P Hart

WTG 1



NOTES:

1. ALL WORK SUBJECT TO ENGINEERS INSPECTION AND APPROVAL
2. TESTING OF ALL LAYERS
3. LAYERS IN 250mm INCREMENTS
4. GEOGRIP TO TENSAR SPECIFICATION WITH 500mm LAPS

NOTES:

A. EXCAVATION 1160m3
B. CALCRETE 225m3
C. G5 200m3
D. COMPACTED FILL 610m3
E. GEOGRID 340m2

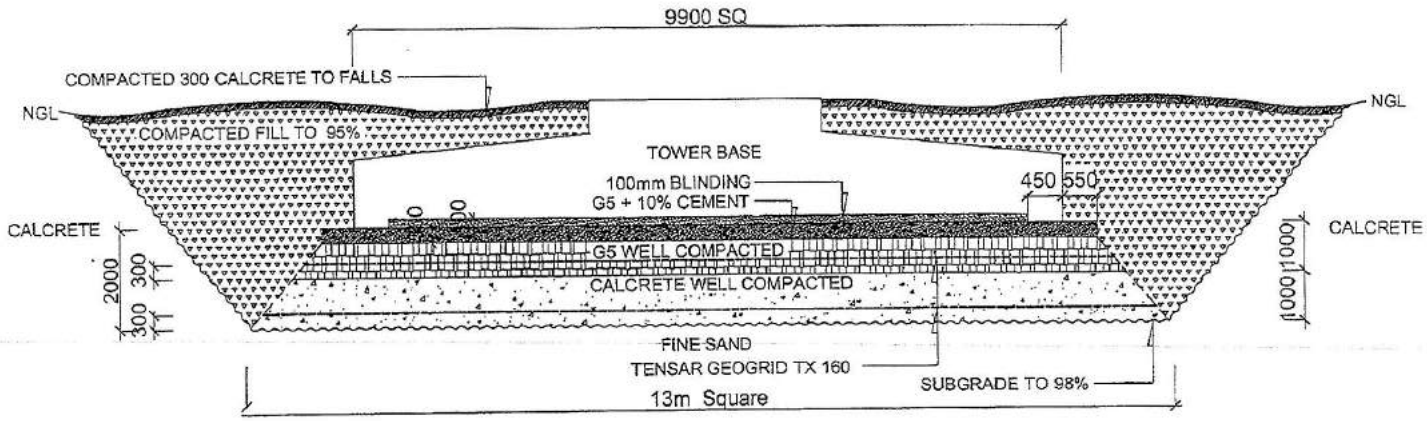
ISSUED FOR CONSTRUCTION	COMMENTS

CONTRACTING (PTY) LTD

5 Tarryn Close
Paarl 7646
South Africa
Tel: 082 565 0029
Fax: (021) 872 0953

DRAWN: WA CARSTENS	TITLE: BUFFELSJAGS WIND FARM
DESIGNED: P HART Pr.Eng., Pr.CM., B.Sc., M.I.C.E. PE (NAM)	CLIENT: EMPA STRUCTURES cc
ORIG. DATE: 12/05/2017	DRAWING NO: H098/1 · SHEET: SHT 1 OF 2 · REVISION: 2 · 01 - 06 - 2017

WTG 2



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ORIG. DATE: 12/05/2017	DRAWING NO: H098/1 · SHEET: SHT 2 OF 2 · REVISION: 2 · 01 - 06 - 2017

SGS MATROCAST

sanas T0245

SGS MATROCAST (PTY) LTD
- CIVIL ENGINEERING SERVICES -
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4 HARBOT CLOSE , BRACKENFELL , 7560
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Tel. : 0219815558
Fax : 0219816724
Email :

TEST RESULT

EMPA STRUCTURES
P.O BOX 3846
DURBANVILLE
7550
Attention: MR G. STANDER

Project : BUFFELSJAG WIND TURBINES

Your Ref :
Our Ref : 70789
Date Received : 19.07.2017

CURING & COMPRESSIVE STRENGTH OF CONCRETE CUBES (SANS 5861/3, 5863)

DETAILS AS SUPPLIED BY CLIENT

ORIGIN	REQ-UIRED (MPa)	SLUMP (mm)	DATE REPORTED	CUBE NUMBER	DATE CAST	DATE TESTED	AGE DAYS	MASS (g)	COMPRESSIVE STRENGTH (MPa)
WIND TURBINE 1	30	80	20.07.2017	WTG1/1	13.07	20.07	7	7812	28.0
AFRIMAT BREDASDORP				WTG1/2	13.07	20.07	7	7772	25.0
				WTG1/3	13.07	20.07	7	7884	27.5
								AVERAGE	26.5
	30	80	20.07.2017	WTG1/4	13.07	20.07	7	7895	29.0
				WTG1/5	13.07	20.07	7	7881	29.5
				WTG1/6	13.07	20.07	7	7890	29.0
								AVERAGE	29.5

Remarks: CUBES MADE BY CLIENT

Form: D1 Program ver 5.0(A)(27/10/2016)

Technical Signatory: Mr Gabriel Januarie/Mr Raymond van Niekerk

SGS MATROCAST

sanas T0345

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				WTG1/2	13.07	20.07	7	7772	29.0
				WTG1/3	13.07	20.07	7	7884	27.5
								AVERAGE	28.5
	30	80	20.07.2017	WTG1/4	13.07	20.07	7	7895	29.0
				WTG1/5	13.07	20.07	7	7881	29.5
				WTG1/6	13.07	20.07	7	7890	29.0
								AVERAGE	29.5
			10.08.2017	A9520	13.07	10.08	28	8035	50.0
				A9521	13.07	10.08	28	7940	49.0
				A9522	13.07	10.08	28	7899	49.0
								AVERAGE	49.5
			10.08.2017	A9523	13.07	10.08	28	8009	49.0
				A9524	13.07	10.08	28	8037	48.5
				A9525	13.07	10.08	28	7914	49.5
								AVERAGE	49.0

Remarks: CUBES MADE BY CLIENT

Form: D1 Program ver 5.0(A)(27/10/2016)

Technical Signatory: Mr Gabriel Januarie/Mr Raymond van Niekerk

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TEST RESULT

EMPA STRUCTURES
P.O BOX 3846
DURBANVILLE
7550
Attention: MR G. STANDER

Project : BUFFELSJAG ABERLONE FARM

Your Ref :
Our Ref : 71024
Date Received : 24.07.2017

CURING & COMPRESSIVE STRENGTH OF CONCRETE CUBES (SANS 5861/3, 5863)

DETAILS AS SUPPLIED BY CLIENT

ORIGIN	REQ-UIRED (MPa)	SLUMP (mm)	DATE REPORTED	CUBE NUMBER	DATE CAST	DATE TESTED	AGE DAYS	MASS (g)	COMPRESSIVE STRENGTH (MPa)
SLAB	30	75	25.07.2017	WTG2/1	18.07	25.07	7	7925	28.5
				WTG2/2	18.07	25.07	7	7881	29.0
				WTG2/3	18.07	25.07	7	7925	29.0
								AVERAGE	29.0
	30	75	15.08.2017	WTG2/4	18.07	15.08	28	7884	45.5
				WTG2/5	18.07	15.08	28	7885	46.0
				WTG2/6	18.07	15.08	28	7876	45.0
								AVERAGE	45.5
	30	75	25.07.2017	WTG2/7	18.07	25.07	7	7828	32.5
				WTG2/8	18.07	25.07	7	7795	31.5
				WTG2/9	18.07	25.07	7	7759	30.5
								AVERAGE	31.5
	30	75	15.08.2017	WTG2/10	18.07	15.08	28	7885	44.5
				WTG2/11	18.07	15.08	28	7971	45.5
				WTG2/12	18.07	15.08	28	7942	45.5
								AVERAGE	45.5

Remarks: CUBES MADE BY CLIENT

Form: D1 Program ver 5.0(A)(27/10/2016)

Technical Signatory: Mr Gabriel Janusrie/Mr Raymond van Niekerk

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7550
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Project : BUFFELSJAG ABERLONE FARM

Your Ref :
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Date Received : 24.07.2017

CURING & COMPRESSIVE STRENGTH OF CONCRETE CUBES (SANS 5861/3, 5863)

DETAILS AS SUPPLIED BY CLIENT

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				WTG2/2	18.07	25.07	7	7881	29.0
				WTG2/3	18.07	25.07	7	7925	29.0
								AVERAGE	29.0
	30	75	25.07.2017	WTG2/7	18.07	25.07	7	7828	32.5
				WTG2/8	18.07	25.07	7	7795	31.5
				WTG2/9	18.07	25.07	7	7759	30.5
								AVERAGE	31.5

Remarks: CUBES MADE BY CLIENT

Form: D1 Program ver 5.0(A)(27/10/2016)

Technical Signatory: Mr Gabriel Januariel/Mr Raymond van Niekerk

SGS MATROCAST

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7550
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Project : BUFFELSJAG WIND TURBINES
Your Ref :
Our Ref : 70789
Date Received : 19.07.2017

CURING & COMPRESSIVE STRENGTH OF CONCRETE CUBES (SANS 5861/3, 5863)

DETAILS AS SUPPLIED BY CLIENT

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WIND TURBINE 1	30	80	20.07.2017	WTG1/1	13.07	20.07	7	7812	28.0
AFRIMAT BREDASDORP				WTG1/2	13.07	20.07	7	7772	29.0
				WTG1/3	13.07	20.07	7	7884	27.5
								AVERAGE	28.5
	30	80	20.07.2017	WTG1/4	13.07	20.07	7	7895	29.0
				WTG1/5	13.07	20.07	7	7881	29.5
				WTG1/6	13.07	20.07	7	7890	29.0
								AVERAGE	29.5

Remarks: CUBES MADE BY CLIENT

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WIND TURBINE 1	30	80	20.07.2017	WTG1/1	13.07	20.07	7	7812	28.0
AFRIMAT BREDASDORP				WTG1/2	13.07	20.07	7	7772	29.0
				WTG1/3	13.07	20.07	7	7884	27.5
								AVERAGE	28.5
	30	80	20.07.2017	WTG1/4	13.07	20.07	7	7895	29.0
				WTG1/5	13.07	20.07	7	7881	29.5
				WTG1/6	13.07	20.07	7	7890	29.0
								AVERAGE	29.5
			10.08.2017	A9520	13.07	10.08	28	8035	50.0
				A9521	13.07	10.08	28	7940	49.0
				A9522	13.07	10.08	28	7899	49.0
								AVERAGE	49.5
			10.08.2017	A9523	13.07	10.08	28	8009	49.0
				A9524	13.07	10.08	28	8037	48.5
				A9525	13.07	10.08	28	7914	49.5
								AVERAGE	49.0

Remarks: CUBES MADE BY CLIENT

Form: D1 Program ver 5.0(A)(27/10/2016)

Technical Signatory: Mr Gabriel Januarie/Mr Raymond van Niekerk

SGS MATROCAST

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TEST RESULT

EMPA STRUCTURES
P.O BOX 3846
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7550
Attention: MR G. STANDER

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Your Ref :
Our Ref : 71024
Date Received : 24.07.2017

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								AVERAGE	29.0
	30	75	25.07.2017	WTG2/7	18.07	25.07	7	7828	32.5
				WTG2/8	18.07	25.07	7	7795	31.5
				WTG2/9	18.07	25.07	7	7759	30.5
								AVERAGE	31.5

Remarks: CUBES MADE BY CLIENT

Form: D1 Program ver 5.0(A)(27/10/2016)

Technical Signatory: Mr Gabriel Januarie/Mr Raymond van Niekerk

SGS MATROCAST

SGS MATROCAST (PTY) LTD
- CIVIL ENGINEERING SERVICES -
Reg.No.: 2000/030983/07 - VAT. Reg.No.: 4130197405
a SANAS Accredited Testing Laboratory, No. T0245

4 HARBOT CLOSE, BRACKENFELL, 7560
P.O BOX 1105, BRACKENFELL, 7560
Tel. : 0219815558
Fax : 0219816724
Email :

CLIENT :	EMPA STRUCTURES	OUR REF.:	71024
ADDRESS :	P.O BOX 3845 DURBANVILLE 7550	YOUR REF.:	
ATTENTION :	MR G. STANDER	DATE :	15.08.2017

PROJECT : BUFFELSJAG ABERLONE FARM

SGS MATROCAST
a SANAS Accredited Testing Laboratory, No. T0245
Tests marked * "Not SANAS Accredited" in this Report are not included in the SANAS Schedule of Accreditation for the laboratory.

TEST REPORT / RESULTS

Sample/s: Sampled by : CUSTOMER
Date Received / Sampled : 24.07.2017
Date Tested : 15.08.2017

Sampling method : AS PER CUSTOMER

Section / Position tested identified by :

Number of pages in this Report : 2

General : CUBES [INCLUDING DEVIATIONS IF APPLICABLE] TESTED AS INSTRUCTED BY CUSTOMER.
All cubes regarding squarness, size, flatness are found to be within range.
Breaking patterns all reported as satisfactory.

Technical Signatory : Mr Gabriel Januarie/Mr Raymond van Niekerk

SGS MATROCAST

sanas T0245

SGS MATROCAST (PTY) LTD
- CIVIL ENGINEERING SERVICES -
Reg.No.: 2000/030983/07 VAT Reg.No.: 4130197405
4 HARBOT CLOSE , BRACKENFELL , 7560
P.O BOX 1106 , BRACKENFELL , 7560

Tel. : 0219815558
Fax : 0219816724
Email :

TEST RESULT

EMPA STRUCTURES
P.O BOX 3846
DURBANVILLE
7550
Attention: MR G. STANDER

Project : BUFFELSJAG ABERLONE FARM
Your Ref :
Our Ref : 71024
Date Received : 24.07.2017

CURING & COMPRESSIVE STRENGTH OF CONCRETE CUBES (SANS 5861/3, 5863)

DETAILS AS SUPPLIED BY CLIENT

ORIGIN	REQ-UIRED (MPa)	SLUMP (mm)	DATE REPORTED	CUBE NUMBER	DATE CAST	DATE TESTED	AGE DAYS	MASS (g)	COMPRESSIVE STRENGTH (MPa)
SLAB	30	75	25.07.2017	WTG2/1	18.07	25.07	7	7925	28.5
				WTG2/2	18.07	25.07	7	7881	29.0
				WTG2/3	18.07	25.07	7	7925	29.0
								AVERAGE	29.0
	30	75	15.08.2017	WTG2/4	18.07	15.08	28	7884	45.5
				WTG2/5	18.07	15.08	28	7885	46.0
				WTG2/6	18.07	15.08	28	7876	45.0
								AVERAGE	45.5
	30	75	25.07.2017	WTG2/7	18.07	25.07	7	7828	32.5
				WTG2/8	18.07	25.07	7	7795	31.5
				WTG2/9	18.07	25.07	7	7759	30.5
								AVERAGE	31.5
	30	75	15.08.2017	WTG2/10	18.07	15.08	28	7885	44.5
				WTG2/11	18.07	15.08	28	7971	45.5
				WTG2/12	18.07	15.08	28	7942	45.5
								AVERAGE	45.5

Remarks: CUBES MADE BY CLIENT

Form: D1 Program ver 5.0(A)(27/10/2016)

Technical Signatory: Mr Gabriel Januarie/Mr Raymond van Niekerk

ANNEXURE Q 1/3

Western Cape Government
Environmental Affairs and Development Planning

Directorate: Biodiversity and Coastal Management
Ms L. Jacobs
E-mail: Lynn.Jacobs@westerncape.gov.za

OVERSTRAND MUNISIPALITEIT
29 NOV 2018
OVERSTRAND MUNICIPALITY

TP

DEA&DP REFERENCE: 16/3/3/6/1/E1/5/1224/15
CMU REFERENCE: 032/2018
DATE: 24 October 2018

The Municipal Manager
Overstrand Municipality
PO Box 20
HERMANUS
7200

FILE NO:
SCAN NO:
COLLABORATOR NO: 1224518

Attention: Ms A Conradie

Tel: 028 313 8900
Fax: 028 313 2093
E-mail: alida@overstrand.gov.za

Dear Madam

PROPOSED AMENDMENT OF CONDITIONS OF APPROVAL (AMENDMENT OF THE APPROVED SITE DEVELOPMENT PLAN), CONSENT USE AND DEPARTURE: ELCO PROPERTY DEVELOPMENTS ON BEHALF OF VIKING FISHING COMPANY (PTY) LTD ON FARM 357, BREDASDORP.

1. Your request for comment from the sub-directorate: Coastal Management on the Amendment Report for the above mentioned application received on 31 August 2018, refers.

2. The *National Environmental Management: Integrated Coastal Management Act*, 2008 (Act No. 24 of 2008) ("ICM Act") is a Specific Environmental Management Act under the umbrella of the *National Environmental Management Act*, 1998 (Act No. 107 of 1998) ("NEMA"). The ICM Act sets out to manage the nation's coastal resources, promote social equity and best economic use of coastal resources whilst protecting the natural environment. The ICM Act established the coastal protection zone in order to manage, regulate and restrict the use of land adjacent to coastal public property, or land that plays a significant role in the coastal ecosystem for the purpose of, *inter alia*, protecting the ecological integrity and natural character of the coast and to protect people, property and economic activities from the risks or threats which may arise from dynamic coastal processes. In terms of Section 38 of ICM Act, the Department of Environmental Affairs and Development Planning is the provincial lead agency for implementation of relevant provisions of the ICM Act in the Western Cape as well as the competent authority for the administration of the

NEM: ICM Act: *Management of Public Launch Sites in the Coastal Zone Regulations, 2014* (GN No. 497 of 27 June 2014) "Public Launch Site Regulations".

3. The sub-directorate: Coastal Management ("SD: CM") has reviewed the Amendment Report referred to above, and have the following commentary:

   3.1. Due to the effects of climate change, it was predicted that the Western Cape would experience, inter alia; changes in temperature, decrease in rainfall and an increase in the frequency and magnitude of storm surges along the coast. It is in light of this complex and dynamic nature of the coastline that the ICM Act was promulgated. The ICM Act provides a framework for the integrated management of the coast with the aim of preserving, protecting, extending and enhancing the status of coastal public property and securing equitable access to the benefits and opportunities of the coast. As such, the ICM Act provides for various zones and provides a framework for the management of these zones.

   3.2. The increased effects of climate change, sea level rise and increased storm surges in coastal environments obliges the Department to take a more cautious approach with regard to considering development along the coast. In 2015/6, the Department commissioned the revision of the delineation of the Overberg Coastal Management Line project to ensure that development is regulated in a manner appropriate to risks and sensitivities in the coastal zone. The principle purpose of the coastal management line ("CML") is to protect coastal public property ("CPP"), private property and public safety; to protect the coastal protection zone ("CPZ"), and to preserve the aesthetic value of the coastal zone. The use of CML's is of particular importance in response to the effects of climate change, as it involves both a quantification of risks and pro-active planning for future development. It is however noted that the proposed development is located along a rocky shore and is therefore unlikely to be impacted by impacts of erosion. However, the proposed design and location of infrastructure should consider the nature and magnitude of storm surges to ensure its durability and intended life span.

   3.3. The SD:CM notes the Abalone Farm falls seaward of the CML and within the CPZ as defined in Section 16 of the ICM Act and delineated as part of the Overberg CML project in 2016. In terms of Section 17 of the ICM Act, "The coastal protection zone is established for enabling the use of land that is adjacent to coastal public property or that plays a significant role in a coastal ecosystem to be managed, regulated or restricted in order to-

   a) protect the ecological integrity, natural character and the economic, social and aesthetic value of coastal public property;
   b) avoid increasing the effect or severity of natural hazards in the coastal zone;
   c) protect people, property and economic activities from risks arising from dynamic coastal processes, including the risk of sea-level rise;
   d) maintain the natural functioning of the littoral active zone;
   e) maintain the productive capacity of the coastal zone by protecting the ecological integrity of the coastal environment; and
   f) make land near the seashore available to organs of state and other authorized persons for-
      i. performing rescue operations; or

ii. temporarily depositing objects and materials washed up by coastal waters."

3.4. It is acknowledged that the nature of the activity warrants the siting thereof within the coastal protection zone and that the development of wind turbines will ensure that the farm is self-sufficient through the use of renewable energy infrastructure, however, Section 63 of the ICM Act must be adequately considered. In addition, an important object of the ICM Act is to provide equitable public access to the coast. The coastal access audit for the Overberg District that is currently being conducted by the Department, in conjunction with the relevant municipalities, depicts the coastline adjacent to the property as 'restricted access'. Although the required security for facility is acknowledged, where there is a conflict with respect to public access to the coast, it must be addressed in consideration of the prescripts of the ICM Act.

3.5. Although the vegetation on the site is listed as "least threatened", it must be noted that the proposed sites for the wind turbines falls within a Critical Biodiversity Area (CBA). This is an area in a natural condition that is required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure. Therefore, it is imperative that mitigation measures be implemented to ensure that the impact on the CBA is not as significant.

3.6. The "no-go" areas within which the wind turbines are proposed to be located, contains the Agulhas Limestone Fynbos which is classified as threatened. This species of fynbos is endemic to the area and any decrease in this vegetation type will contribute to the extinction thereof. These "no-go" areas should continue to be avoided and alternative sites for the turbines should be investigated. It is advised that any portion of the natural fynbos area which was impacted on by the initial development of the wind turbines should be rehabilitated.

4. The applicant must be reminded of their general duty of care and the remediation of environmental damage, in terms of Section 28(1) of NEMA, which, specifically states that: "...Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment..." together with Section 58 of the ICM Act which refers to one's duty to avoid causing adverse effects on the coastal environment.

5. The SD: CM reserves the right to revise its comments and request further information based on any information that may be received.

Yours faithfully

CONTROL ENVIRONMENTAL OFFICER
SUB-DIRECTORATE: COASTAL MANAGEMENT

ANNEXURE R 1/1

TRA Theart
(S vd Merwe)

OVERSTRAND MUNISIPALITEIT
30 NOV 2018
OVERSTRAND MUNICIPALITY

Western Cape Government
Agriculture

Cor Van Der Walt
LandUse Management
Email: LandUse.Elsenburg@elsenburg.com
Tel: +27 21 808 5099 fax: +27 21 808 5092

OUR REFERENCE : **20/9/2/4/1/158**
YOUR REFERENCE : **Farm No 357 GBRE (3814)**
ENQUIRIES : **Cor van der Walt**

FILE NO: Farm 357
SCAN NO: 10
COLLABORATOR NO: 1237174

Overstrand Municipality
PO Box 20
HERMANUS
7200

Att: S van der Merwe

PROPOSED AMENDMENT OF CONDITIONS OF APPROVAL, CONSENT USE AND DEPARTURE: DIVISION BREDASDORP
FARM NO 357

Your application of 27 August 2018 has reference.

The Western Cape Department of Agriculture has no comment to the amendment of conditions.

Please note:

- Kindly quote the above-mentioned reference number in any future correspondence in respect of the application.
- The Department reserves the right to revise initial comments and request further information based on the information received.

Yours sincerely

Mr. CJ van der Walt
LANDUSE MANAGER: LANDUSE MANAGEMENT
2018-11-12

Copies:
Department of Environmental Affairs & Development Planning
1 Dorp Street
CAPE TOWN
8001

ANNEXURE S 1/3

Western Cape Government
Environmental Affairs and Development Planning

DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 2)

Helene.Janser@westerncape.gov.za
Tel: +27 21 483 3544 Fax: +27 21 483 3633
1 Dorp Street, Cape Town, 8000
www.westerncape.gov.za/eadp

OVERSTRAND MUNISIPALITEIT
05 NOV 2018
OVERSTRAND MUNICIPALITY

TR A Theart (S.v.d.Merwe)

TOWN PLANNING ENQUIRIES: Helene Janser
REFERENCE: 15/3/2/12/BO3

FILE NO: Farm 357 B-dorp
SCAN NO: Farm 357
COLLABORATOR NO: 1228443

Director: Infrastructure & Planning
Overstrand Municipality
P.O. Box 20
HERMANUS
7200

e-mail: svdmerwe@overstrand.gov.za

COMMENT: CONSENT USE, DEPARTURE AND AMENDMENT OF A CONDITION OF APPROVAL AND SITE DEVELOPMENT PLAN:
FARM NO.357, DIVISION BREDASDORP

1. Your request for comment, dated 27 August 2018, refers.

2. **BACKGROUND**

2.1 The proposed application entails a consent use, regulation departures and the amendment of a condition of approval and Site Development Plan, in order to erect two wind turbines on Farm 357, Division Bredasdorp.

2.2 The subject property is zoned Agriculture I in terms the Overstrand Municipal Bylaw and measures 10ha in extent.

3. **PLANNING COMMENT:**

3.1 The Provincial Spatial Development Framework (PSDF) (2014) sets out broad principles to guide future spatial developments in the Western Cape.

3.2 POLICY E1 encourages off-grid infrastructure technologies to serve new development outside the urban edge and to assess biodiversity, heritage, scenic landscape and agricultural considerations in evaluating the suitability of sites for these infrastructure projects.

- 5 NOV 2018

3.3 POLICY E2 support activities that are appropriate in a rural context, generate positive socio-economic returns, do not compromise the environment and which is of an appropriate scale and form to be accommodated outside the urban edge.

3.4 Policy frameworks state that wind farms should be located on sites where it will cause the least visual impacts. The existing abalone farm is within an agricultural setting, is away from major residential areas and visual impacts from the R43 will be minimal.

3.5 The Overberg District Rural Development Plan, March 2014, promotes and encourage future renewable energy facilities that do not affect the scenic beauty of the coastline and areas of importance in terms of biodiversity.

3.6 The Overstrand Zoning Scheme permits a consent use under Agriculture I for utility services in order to erect wind turbines, but does not prescribe development rules for renewable energy structures. As such, the land use restrictions as prescribed in the 2012 amendments to the Zoning Regulations applicable to Renewable Energy Structures as adopted by this Department should be considered.

3.7 For wind turbines, the following land use restrictions apply:

- A maximum height of 200m, measured from the mean ground level of the footprint of each structure to the highest point of the blade.
- A building line setback is calculated as a distance equal to 1.5 times the overall blade tip height of the turbine, measured from the cadastral boundary of the land unit, the nearest agricultural structure or public road or private or public right of way.

4. ENVIRONMENTAL COMMENTS

4.1 This Directorate's initial response, dated 26 August 2015, advised that the installation of the wind turbines themselves did not require environmental authorisation as their proposed locations were situated more than 100m from the high water mark of the sea and the requisite threshold applicable to indigenous vegetation clearance was not exceeded. The combined output of the turbines and footprint of the development did not trigger the listed activity relevant to renewable energy.

4.2 Discussions with the Municipality at a later stage revealed that the wind turbines were to be located within a portion of the site forming part of an on-site corridor of indigenous vegetation and that development of that portion of the site was not in line with the site development plan submitted with the environmental application for which Environmental Authorisation was issued on 23 November 2011.

4.3 The matter was subsequently referred to this Department`s Environmental Law Enforcement component (D:ELE) for investigation. Following the investigation it

was the opinion of D:ELE that although the base of one wind turbine extends into the on-site corridor, the impacts associated are considered minimal and that the 30m wide corridor has re-established itself through rehabilitation.

4.4 It is hereby concluded that the apparent non-compliance with the Environmental Authorisation is relatively minor in nature and limited to the encroachment of the base of the one wind turbine into the 30m boundary. The matter will thus not be pursued criminally.

5. RECOMMENDATION

5.1 From a town planning perspective, this Directorate has no in principle objection to the establishment of off-grid infrastructure technologies to serve development outside the urban edge.

5.2 That having been said, the evaluation must be guided by several factors, including visual and environmental impacts, the size of the property and the placement on the site relative to roads, boundaries and agricultural structures.

5.3 Whereas the proposed height of the turbine, i.e. 68.80m is within acceptable limits, a building line setback of only 26.8m is cause for concern, given the recommended setback of 103.2m.

5.4 Setbacks are required for safety reasons (turbine topple and blade disintegration events) and should not be deviated from. In this instance, both Divisional Road 1206 and infrastructure associated with the Buffeljags Abalone Farm are located within 50m of the turbine site.

5.5 The above comment is based on the information provided and this sub-directorate reserves the right to amend its comment, should any additional or new information be obtained.

K. MUNRO
DIRECTOR: DEVELOPMENT MANAGEMENT: REGION 2
DATE: 2 · 11 · 2018

ANNEXURE T 1/8

Schalk van der Merwe - RE: Proposed Windturbines Buffeljags Farm 357

From: Schalk van der Merwe
To: Chanel Rampartab
Subject: RE: Proposed Windturbines Buffeljags Farm 357

>>> Chanel Rampartab <crampartab@capenature.co.za> 2019/06/21 07:10 AM >>>
Good morning Mr van der Merwe
My apologies for the lateness of this reply – CapeNature is in the midst of restructuring, and as a result, I have been placed into a new position (Conservation Innovation Manager). However, I will continue to provide land use advice as best I can until a replacement is appointed.
Regarding the proposal by Inkululeko:
CapeNature has reviewed the methodology and is in full support of the proposal. Given that the managing director of Inkululeko is also the chair of the South African Bat Assessment Advisory Panel (SABAAP), we trust that the correct guidelines and monitoring will be implemented, and that the resulting data is submitted to the correct data custodian.
Further, I recommend that the specialist receives a copy of CapeNature's comments for reference.
Please do let me know if you require the above information on a formal letterhead.
Kind regards
Chanel

From: Schalk van der Merwe <svdmerwe@overstrand.gov.za>
Sent: 20 June 2019 10:56
To: crampartab@capenature.co.za; Penelope Aplon <pmichaels@overstrand.gov.za>
Subject: RE: Proposed Windturbines Buffeljags Farm 357
Dear Chanel
I refer to the emails below. Can you please indicate whether you had a chance to consider the information provided by our Environmental Management Services Department and when I can expect your comment?
Kind regards

Schalk van der Merwe
Senior Town Planner, Town & Spatial Planning Department
Overstrand Municipality
A: 16 Paterson Street, Hermanus, 7200 **P**: P O Box 20, Hermanus, 7200
T: 028 313 8900 | **F**: 028 313 2093 **E**: svdmerwe@overstrand.gov.za

>>> Penelope Aplon 2019/06/05 02:16 PM >>>
Good afternoon,
Is it possible that you could provide comments by the 14th of June? If this is to short a time period the week of the 17th of June will be in order. Could you please include Schalk van der Merwe (Senior Town Planner) in your correspondence since I may not be in office all the time.
Thank you.

Penelope Aplon
Environmental Manager
Environmental Management Section
Directorate: Infrastructure and Planning
Overstrand Municipality
T: +27 (0)28 313 8724 Ext: 8272 (tel:0283138190) F: +27 (0)28 313 4053
C: +27(0) 72 286 8641 (tel:0283123010) E: paplon@overstrand.gov.za
>>> Chanel Rampartab <crampartab@capenature.co.za> 2019/06/05 10:25 AM >>>
Would 20th June be suitable?

From: Penelope Aplon <pmichaels@overstrand.gov.za>
Sent: 04 June 2019 08:04
To: crampartab@capenature.co.za
Subject: RE: Proposed Windturbines Buffeljags Farm 357
Good morning,

TP-A Theart 2/8 (S vd Merwe)

CapeNature

FILE NO: Farm 357 B.dorp
SCAN NO: Farm 357
COLLABORATOR NO: 1246891

SCIENTIFIC SERVICES

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telephone +27 21 866 8017 fax +27 21 866 1523
email crampartab@capenature.co.za
reference SSD14/2/5/1/7/2/357-0_wind_abalone_Buffeljags
date 8 January 2019

OVERSTRAND MUNISIPALITEIT 15 JAN 2019 OVERSTRAND MUNICIPALITY

Overstrand Municipality
P.O. Box 20
Hermanus
7200

Attention: Alida Conradie

Dear Ms Conradie

Application for amendment, departure and consent use for two wind turbines on existing abalone facility on FA 357/0, Buffeljags
(Overstrand Municipality ref: Farm No 357 GBRE (3814))

CapeNature would like to thank you for the opportunity to comment on the application and would like to make the following comments. Please note that our comments only pertain to the biodiversity-related impacts and not to the overall desirability of the application.

The application is for the amendment of the authorised site development plan, departure from building lines and height restrictions, and consent use for the development of two 70 m high wind turbines, a control room and two generator rooms on the existing abalone facility on FA 357/0, Buffeljags.

The two wind turbines were initially erected without authorisation; and subsequently partially dismantled. A letter from the Department of Environmental Affairs and Development Planning (DEA&DP reference: 16/3/3/6/1/E1/5/1224/15) confirmed that the National Environmental Management Act (NEMA) is not triggered by the proposed development (paragraph 3). However, the turbines footprint is within the no-go area determined by the botanical specialist during the NEMA process for the abalone facility. The initial erection of the turbines in this area has caused significant damage to the vegetation and constituted an infringement of the environmental authorisation. The case has been referred to the DEA&DP Environmental Compliance and Enforcement Directorate (paragraph 9). The DEA&DP are yet to receive a formal revised site development plan to confirm whether an application for the amendment of the environmental authorisation is required (paragraph 5). CapeNature therefore recommends that the applicant submit the revised site development plan to the DEA&DP.

CapeNature has commented previously during the NEMA process for the abalone facility. The comments therein remain valid. In particular, according to the Western Cape Biodiversity Spatial Plan (CapeNature 2017), the property is a Critical Biodiversity Area in good condition (CBA1), owing to the area's contribution to coastal resource protection and a climate adaptation corridor. The site also contains pristine Overberg Dune Strandveld with at least one threatened plant species and patches of vulnerable Agulhas Limestone Fynbos, which typically contain a high number of Species of Conservation Concern (SCC). The relevant reports received included the (i) botanical specialist's original and rehabilitation reports; and (ii) avifaunal (bird and bat) report. However, the scanned copies of both these reports only contained every alternate page of the reports, thereby omitting half of the reports and rendering them unreadable. CapeNature would like to receive both these reports in their full and original format before any further comment is made.

15 JAN 2019

In conclusion, CapeNature recommends that the applicant send: (i) the revised site development plan to the DEA&DP; and (ii) the botanical and avifaunal reports to CapeNature in their full and original format.

CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.

Yours sincerely

Rampartab

Chanel Rampartab
For: Manager (Scientific Services)

CapeNature

OVERSTRAND MUNISIPALITEIT
21 JAN 2019
OVERSTRAND MUNICIPALITY

SCIENTIFIC SERVICES

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email crampartab@capenature.co.za
reference SSD14/2/5/1/7/2/357-0_wind_abalone_Buffeljags2
date **21 January 2019**

TP-A Theart (Suidkus)

FILE NO: Farm 357 Buffeljags B.dor
SCAN NO: 17/4/B
Farm 357
COLLABORATOR NO:
1248330

EnviroAfrica
P.O. Box 4
Onrus River
7201

Attention: Charel Bruwer

Dear Mr Bruwer

Specialist reports received for application for amendment, departure and consent use for two wind turbines on existing abalone facility on FA 357/0, Buffeljags
(Overstrand Municipality ref: Farm No 357 GBRE (3814))

CapeNature would like to thank you for the opportunity to comment on the application and would like to make the following comments. Please note that our comments only pertain to the biodiversity-related impacts and not to the overall desirability of the application.

CapeNature commented previously (ref: 357-0_wind_abalone_Buffeljags) on the town planning application administered by the Overstrand Municipality. The comments therein remain valid.

The layout plan supplied includes three wind turbines, whereas the above-mentioned town planning application mentioned two turbines. WTG No. 3 was not previously included. CapeNature requests clarity on the number and location of the wind turbines that have been erected initially and proposed to be erected.

Legality of activities
The initial erection of the wind turbines did not trigger a listed activity of the National Environmental Management Act (NEMA). However, the turbines (and other structures – see Figure 1) were erected in the natural fynbos corridor, which conflicted with Condition 22 and Appendix B of the Environmental Authorisation (EA, Figure 2). The case was therefore referred to the Department of Environmental Affairs and Development Planning: Environmental Compliance and Enforcement Directorate (DEA&DP ref: 16/3/3/6/1/E1/5/1224/15, 2017-12-21), and the investigation has since closed with the associated evidence accepted (DEA&DP ref: 16/3/3/6/1/E1/5/1224/15, 2018-12-04).

As mentioned above, satellite imagery dated 18 May 2017 (Figure 1) shows additional structures and infrastructure within the fynbos corridor. CapeNature requests confirmation that these structures formed part of the investigation.

Botanical report and botanical rehabilitation report
The site contained pristine Overberg Dune Strandveld with elements of thicket and Agulhas Limestone Fynbos (vulnerable). The ground orchid (*Satyrium carneum*, near threatened) was recorded and earmarked for search and rescue; other seasonal Species of Conservation Concern (SCC) were not recorded at the time of the survey, but are likely to occur. The botanical specialist had assigned a medium negative impact with regards species and a low-medium negative impact with regards ecological processes.

21 JAN 2019

Approximately 5844 m^2 of the natural fynbos corridor was since disturbed. In December 2017, the botanical specialist recommended both passive (natural germination) and active (planting of cuttings and Invasive Alien Plant (IAP) management) methods of rehabilitation. CapeNature is in full support of the rehabilitation plan and strongly recommends that a horticulturalist be appointed to undertake the rehabilitation, which is in line with Condition 21 of the EA.

Should the wind turbines be permitted, rehabilitation must still take place along the disturbed areas apart from the access road, and the footprint of the turbines themselves. If the application is refused, rehabilitation must take place across the entire fynbos corridor.

Avifaunal report

Birds

Abalone farms attract both Hartlaub's Gull and Kelp Gull, which become damage causing animals due to predation on captive abalone. CapeNature requests that mitigation measures are proposed to reduce the number of birds attracted to the farm, which will reduce the number of birds flying through the rotor swept area of the two turbines. Placement of the turbines in areas with lower avifaunal activity is a more effective mitigation measure; however, the masts for the turbines have already been erected.

The report indicates that the impacts of the turbines would be minimal due to the low conservation-value gulls that may collide with the rotor blades, and the low chance that any bird SCC recorded on site will collide with the rotor blades. However, this was based on relatively low sampling effort; therefore, in order to predict more accurately and precisely the impacts of the turbines on avifauna, CapeNature requires that monitoring be undertaken in accordance with the BirdLifeSA Bird and Wind Energy Best Practice Guidelines (Jenkins et al. 2015):

1. Pre-construction monitoring for one year prior to the attachment of the rotor blades. Since the masts have already been erected, only vantage point monitoring is required to determine flight paths and species richness.
2. Post-construction monitoring once the blades have been fitted. The data must be submitted to BirdLifeSA for inclusion into the database of mortalities caused by wind turbines.

Bats

No bats were recorded during the survey, which took place between 15h00-18h00 on 29-04-18, and 07h00-09h00 on 30-04-2018. The sampling method was insufficient due to the following reasons:

1. There was a full moon on 30-04-18, when bats are known to be less active to avoid predation in higher light conditions.
2. Sunset was approximately 18h00 on 29-04-18, when bats would begin increasing activity and when sampling ended.
3. Sunrise was approximately 07h15 on 30-04-18, when bats would begin decreasing activity and when sampling began.
4. Bats were sampled purely from sight observations. No acoustic detectors were set up to record the diagnostic echolocation frequencies of bats in the vicinity.

CapeNature therefore recommends that a full bat survey be undertaken in parallel with the bird monitoring as described above, following the protocols of the South African Bat Assessment Association (SABAA) pre-construction monitoring (Sowler et al. 2017) and post-construction monitoring (Aronson et al. 2014). SABAA has recently published South African Bat Fatality Threshold Guidelines (McEwan et al. 2018), which proposed a method of determining site-specific bat fatality threshold levels that trigger mitigation measures. According to the calculation, based on the area of the property (10 ha), the bat fatality threshold that triggers mitigation measures within lowland fynbos and renosterveld ecoregions is 0.45 individuals per annum. That is, if one bat mortality is recorded in one annum, then mitigation measures must be implemented in accordance with Mitigation Guidance for Bats at Wind Energy Facilities in South Africa (Aronson et al. 2018).

Visual impact
CapeNature does not typically comment on visual impacts of proposed developments; however, recommends that SANParks be contacted for comment as the wind turbines are likely to be within the Zone of Influence of the Agulhas National Park.

Conclusion
1. The town planning process should take cognisance of the outcome of the DEA&DP investigation regarding the erection of the wind turbine masts in the fynbos corridor.
2. CapeNature is in support of the proposed rehabilitation plan, which must be undertaken by a horticulturalist.
3. The applicant must implement mitigation measures to reduce the number of gulls attracted to the abalone farm, and undertake pre- and post-construction monitoring.
4. A full bat survey must be undertaken parallel with the avifaunal monitoring, with appropriate mitigation measures implemented if necessary.
5. SANParks must be contacted for input on the visual impact of the wind turbines as it may be within the Zone of Influence of the Agulhas National Park.

CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.

Yours sincerely

Rampartab

Chanel Rampartab
For: Manager (Scientific Services)

cc. Alida Conradie, Town and Spatial Planning, Overstrand Municipality
Kevin Shaw, Ornithologist, CapeNature
Rhett Smart, Land Use Advice, CapeNature

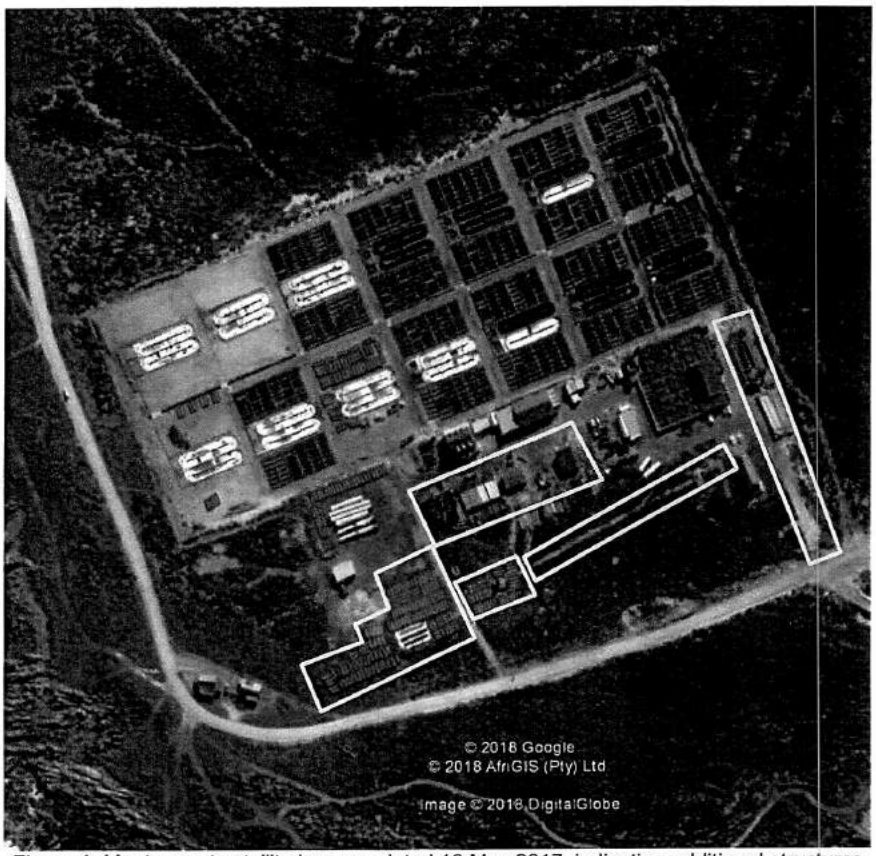

Figure 1: Most recent satellite imagery dated 18 May 2017, indicating additional structures and infrastructure within the fynbos corridor.

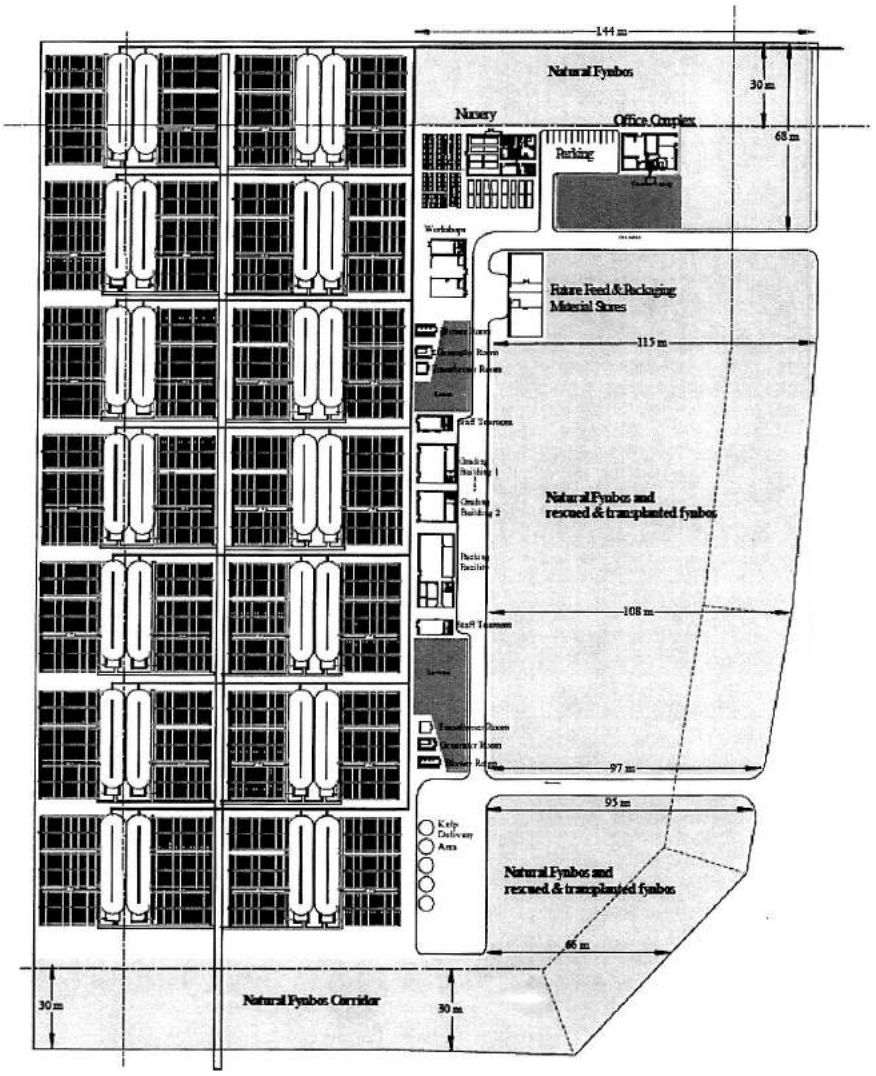

Figure 2: Fynbos corridor as per EA, Condition 22 and Appendix B.

ANNEXURE U 1/3

Office of the Director:
Infrastructure & Planning
Environmental Management

OVERSTRAND
ENVIRONMENTAL SECTION

Kantoor van die Direkteur:
Infrastruktuur & Beplanning
Omgewingsbestuur

Date: 17 January 2019

To: Mr Charel Bruwer

From: Ms Liezl de Villiers
Co Molteno and Viljoen Street
Onrus
7200

RE: PROPOSED ERECTION OF WIND TURBINES ON FARM NO. 357, BUFFELJAGS

(Ref No.18030515SB0308E Buffeljags)

1. Visual Impact Study

The study only includes the visual impacts from land based tourism activities but does not speak to the visual impacts from the sea. I would like to request that this is also included in the study in order to determine how the visual impact will influence marine based tourism.

2. Fynbos Rehabilitation Plan

We support the Rehabilitation Plan and agree with the information on the rehabilitation processes suggested.

3. Bird and Bat Study

In our previous communication, we requested a specialist Bird and Bat Study to be concluded and submitted with the report. The study was not compiled by an avifaunal specialist or chiroptologist and therefore we have reservations on the quality of the information submitted.

The report was compiled in accordance with the "Best practice guidelines for assessing and monitoring the impact of wind energy facilities on birds in Southern Africa" but the study did not include seasonal migratory birds and this could have an impact on the comprehensiveness of the study. This variation must therefore be estimated in terms of existing information for the site through the experience of the consulting specialist. We do not see this in the study.

In the "Best practice guidelines for assessing and monitoring the impact of wind energy facilities on birds in Southern Africa" it is stated that with all new EIA processes for Wind Farms or smaller turbines, data should be collected by means of an integrated programme of pre-construction (baseline) monitoring and impact assessment, and post-construction (operational-phase) on all proposed development sites. Given the rate and extent of proposed wind-energy developments, these studies should be done as quickly as possible, but using scientific methods to generate accurate, comparable information.

We do not see this pre-and-post monitoring in this study. There is a suggestion of a weekly patrol of the area after erection of the turbines but we do not think this is enough and would request a proper assessment as suggested in the "Best Practice guidelines" as part of the approval. The study should also include mitigating factors to further decrease the impact on bird and bat species in the area.

We would also like to reiterate that not enough information was presented on the impact of these wind turbines on the local bat species in the area in order for the Environmental Section to formulate a conclusive decision on the outcomes of the study.

It is not clear if various options of alternative wind turbines have been investigated. This should have been investigated before the turbines were erected without approval. The possibility of other alternatives could suggest less impact on the surrounding environment from a visual and an fanual perspective.

Our concern is that money has been spent on the purchasing and erection of the current turbines and therefore the investigation into alternative, more environmentally friendly options will been seen and wastage by the owner, although these actions should not have been done prior to approval.

The Environmental Section reserves the right to change the comment at any time if more information is presented on the project.

Kind regards,

Ms Liezl de Villiers

Senior Manager: Environmental Management Section

Overstrand Environmental Management Services

Office of the Director:
Infrastructure & Planning
Environmental Management

MEMORANDUM

Kantoor van die Direkteur:
Infrastruktuur & Beplanning
Omgewingsbestuur

Date : 03 June 2019

To: Mr. S van der Merwe (Senior Town Planner)
Cc: Ms. L de Villiers (Senior Manager: Environmental Management)

From: Penelope Aplon (Environmental Manager)

RE: **Buffeljags Abalone Farm: Bat study**

The Environmental Management Section (EMS) thanks the applicant for the submission of a proposal for post-construction/operational live bat and bird carcass monitoring at the Buffeljags Abalone Farm, compiled by Inkululeka Wildlife Services (Pty) Ltd.

The proposal addresses the following key issues to the satisfaction of the EMS.

- Use of accepted guidelines to inform programme
- Desktop review of study area
- Live bat monitoring
- Bat and bird carcass searches
- Proposed mitigation measures

The EMS requests that the following recommendations made in the report should be implemented:

1) Continued carcass searching after the 12 month period and implementation of mitigation measures based on monitoring results.

2) Implementation of operational mitigation programme as outlined on page 3 of 6 of the proposal.

Kind regards,

Penelope Aplon
Environmental Manager

OVERSTRAND

ANNEXURE V 1/1

HERITAGE AND AESTHETICS COMMITTEE

MINUTES OF MEETING

Date: Thursday - 17 JANUARY 2019
Time: 14h00 – 17h00

Members present

Mr N. Clark (Chairman)

Mr A. Greeff

Mrs K. Smuts

Mrs N. Lloyd

Mr B. Jones

Mr S. February

Mr A. Finlayson

Mr B. Brink

Mr C. Roux

Mr E. Grobler

In Attendance:

Mr J Simson (Manager Building Services) . Gerrit Coetzee (Building inspector) & Mrs E. Lowings (Admin Assistant: Building Services)

3.1 ***GANSBAAI : ERF 357/1-6 ; AESTHETICS COMMENT : DICUSSION ON WIND TURBINES:***
DISCUSSED
Comment:
Visual impact study and associated documents discussed. Supported.

Action:
None

NEXT MEETINGS:

14TH FEBRUARY 2019 & 14th March 2019

ANNEXURE W 1/1

Our Ref:	HM/OVERBERG/CAPE AGULHAS/BREDASDORP/ BUFFELJAGS ABALONE FARM 357
Case No.:	18030515SB0308M
Enquiries:	Stephanie Barnardt
E-mail:	stephanie.barnardt@westerncape.gov.za
Tel	021 483 9543
Date:	26 April 2019

OVERSTRAND MUNISIPALITEIT / OVERSTRAND MUNICIPALITY
24 MAY 2019
ILifa leMvelo Erfenis Heritage

Charel Bruwer
PO Box 4
Onrus River
7201

TRA Theart (sdd Merwe)

FINAL COMMENT
In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999) and the Western Cape Provincial Gazette 6061, Notice 298 of 2003

FINAL COMMENT: PROPOSED CONSTRUCTION OF TWO WIND ENERGY TURBINES ON THE BUFFELJAGS ABALONE FARM, FARM 357, PEARLY BEACH, BREDASDORP DISTRICT, OVERBERG, SUBMITTED IN TERMS OF SECTION 38(8) OF THE NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999)

CASE NUMBER: 18030515SB0308M

The matter above has reference.

Heritage Western Cape is in receipt of your application for the above matter received on 20 February 2019 & the findings of the Committee site inspection conducted on the 28th March 2019. This matter was discussed at the Impact Assessments Committee Meeting held on the 10 April 2019. Amongst other things the following was discussed:

The Committee was satisfied with the site inspection report, and noted its findings.

The Committee agreed that the cease works order can be lifted.

FINAL COMMENT
The HIA complies with the provisions of s38(3) of the NHR Act.

APM graded the site which had been partially destroyed by the WTG1 as Grade IIIC. The development may proceed, with conditions, however no new areas of the site should be encroached.

Any additional new development on site that triggers the NHRA, must be submitted to HWC and be dealt with by the appropriate committee.

No further archaeological work is required on condition that there is no further construction in the vicinity of the archaeological site, and that the remaining in-situ midden material must be stabilised with netting, plant growth and a fence to minimise pedestrian movement across the site, as well as to limit further encroachment on the heritage resource.

If any unexpected archaeological or palaeontological material or evidence of burials is discovered during earth-moving activities all works must be stopped and Heritage Western Cape must be notified immediately.

This approval does not exonerate the applicant from obtaining any necessary approval from any other applicable statutory authority.

HWC reserves the right to request additional information as required. Should you have any further queries, please contact the official above and quote the case number.

Yours faithfully

pp .....
Dr. Mxolisi Dlamuka
Chief Executive Officer, Heritage Western Cape

FILE NO: Farm 357
SCAN NO:
COLLABORATOR NO: 128790

www.westerncape.gov.za/cas
Street Address: Protea Assurance Building, Green Market Square, Cape Town, 8000 • Postal Address: P.O. Box 1665, Cape Town, 8000 • Tel: +27 (0)21 483 5959 • E-mail: capeheritage@westerncape.gov.za
Straatadres: Protea Assuransie-gebou, Groentemarkplein, Kaapstad, 8000 • Posadres: Posbus 1665, Kaapstad, 8000 • Tel: +27 (0)21 483 5959 • E-pos: capeheritage@westerncape.gov.za
Idilesi yendawo: kumgangatho 3, kwisakhiwo laseProtea Assurance, Green Market Square, eKapa, 8000 • Idilesi yeposi: inomako yeposi: 1665, eKapa, 8000 • linombolo zomnxeba: +27 (0)21 483 5959 • Idilesi ye-imeyile: capeheritage@westerncape.gov.za

24 MAY 2019

ANNEXURE X 1/1

To develop, expand, manage and promote a system of sustainable national parks that represent biodiversity and heritage assets, through innovation and best practice for the just and equitable benefit of current and future generations.

South African NATIONAL PARKS

OVERSTRAND MUNISIPALITEIT / OVERSTRAND MUNICIPALITY
12 JUN 2019

TP-A Theart (Sold merke)

11 June 2019

Alida Conradie
Administrator, Town & Spatial Planning Department
Overstrand Municipality
A: 16 Paterson Street, Hermanus, 7200 **P:** P O Box 20
T: 028 313 8900 | **F:** 028 313 2093 | **E:** alida@overstrand.gov.za

Dear Madam,

RE: Buffeljags Abalone farm wind turbines.

SANParks will not object to the erection of the proposed turbines at Buffejags Abalone farm. Reasoning as follows:

- The turbines are relatively small (62m total height (47m hub + 25m blade)) compared to those found in nearby in Caledon (120m total height, (80m hub + 40m blade).
- Although the wind turbines fall within the Viewshed protection area of the Agulhas National Park, the Visual impact study indicate that the turbines are not visible from the Ratel river side of Agulhas National Park.

Kind regards,

Dr A Oosthuizen
Park Planning & Development
South African National Parks
***CC:** Johan Taljaard, G de Kock*

addo elephant
agulhas
IAi-IAis-/ richtersveld
augrabies
bontebok
camdeboo
garden route
golden gate highlands
groenkloof
karoo
kgalagadi transfrontier
kruger
mapungubwe
marakele
mokala
mountain zebra
namaqua
table mountain
tankwa karoo
west coast

FILE NO: Farm 357 Bokrp
SCAN NO: Farm 357
COLLABORATOR NO: 1292679

2019
12 JUN 2019

ANNEXURE Y 1/8

Western Cape Government
Environmental Affairs and Development Planning

OVERSTRAND MUNISIPALITEIT / OVERSTRAND MUNICIPALITY
05 DEC 2018

Directorate: Development Management
(Region 1)

TRA Theart (S vd Merwe)

REFERENCE: 16/3/3/6/E2/27/1403/18
ENQUIRIES: Ms. Arabel McClelland
DATE: 2018 -12- 04

FILE NO: Farm 357 Buffeljags - Bdorp
SCAN NO: Farm 357
COLLABORATOR NO: 1239097

The Municipal Manager
Overstrand Municipality
P.O. Box 20
HERMANUS
7200

Attention: Mr. S. van der Merwe

Tel: (028) 313 8900
Fax: (028) 313 2093

Dear Sir

RE: FARM NO. 357, DIVISION BREDASDORP: PROPOSED AMENDMENT OF CONDITIONS OF APPROVAL (AMENDMENT OF THE APPROVED SITE DEVELOPMENT PLAN), CONSENT USE AND DEPARTURE: ELCO PROPERTY DEVELOPMENTS ON BEHALF OF VIKING FISHING COMPANY (PTY) LTD

1. The abovementioned document, dated 7 November 2018, received by this Department on 12 November 2018, this Directorate's correspondence dated 20 November 2018, and the Directorate: Environmental Law Enforcement's correspondence, dated 7 November 2018, as received electronically on 26 November 2018 (attached for ease of reference), refer.

2. Further to this Directorate's previous correspondence issued on 21 December 2017, to which the Overstrand Municipality was copied, notice was given of the matter of potential non-compliance with the conditions of the Environmental Authorisation, issued on 23 November 2011 (reference numbers E12/2/4/2-E1/5-2004/10 and E12/2/4/5-E1/5-2019/11) for the Buffeljags Abalone Farm, and the alleged unlawful commencement of listed activities related to the installation of wind turbines on the abovementioned property. This matter was referred internally within the Department to the Directorate: Environmental Law Enforcement for further investigation.

3. According to the aforementioned correspondence received from the Directorate: Environmental Law Enforcement on 26 November 2018, representations and evidence provided during the course of the investigation were accepted, the investigation has been concluded and the file has been closed. Please refer to the attached correspondence in Addendum A.

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Tel: +27 21 483 2660 Fax: +27 21 483 3098
Email: Arabel.McClelland@westerncape.gov.za

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

- 4 DEC 2018

4. In light of this, this Directorate has the following response with respect to the abovementioned application for the subject property:

   4.1. The intention of the current application is to obtain the necessary authorisation to permit two wind turbines on the subject property.
   4.2. The construction of the two wind turbines, along with a control room and two generator store rooms, does not trigger listed activities in terms of the EIA Regulations, 2014 (as amended). The previously cited determination based on the checklist received in 2015, and the response issued on 26 August 2015, attached for ease of reference in Addendum B, remain valid.

5. Based on the above, environmental authorisation is not required from this Department prior to the development thereof, nor is an amendment of the existing Environmental Authorisation, issued on 23 November 2011, for the abalone farm.

6. Please note that should any revision of the proposed development constitute a listed activity(ies) in terms of the NEMA EIA Regulations, 2014 (as amended) as defined in Listing Notices 1, 2 and/or 3, an application must be submitted and environmental authorisation obtained before such activity(ies) may commence.

7. The applicant is reminded of his/her general duty of care and the remediation of environmental damage, Section 28(1) of NEMA specifically states that – *"Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment."*

8. Please note that the applicant must comply with any other statutory requirements that may be applicable to the undertaking of the activity.

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

10. This Department reserves the right to revise or withdraw any comments or request further information from you based on any information received.

Yours faithfully

HEAD OF COMPONENT
ENVIRONMENTAL IMPACT MANAGEMENT SERVICES: REGION 1
DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

ADDENDUM A

V4_2016/10

Western Cape Government
Environmental Affairs and Development Planning

Directorate: Environmental Law Enforcement

REFERENCE: 14/1/1/E2/6/6/3/0371/18
ENQUIRIES: Fahd Said

The Board of Directors
Viking Fishing Company (Pty) Ltd
P. O. Box 691
GANSBAAI
7220

Emails: info@vikingaquaculture.co.za

Attention: Mr Tim Reddell (in your capacity as Director)

Dear Sir

NON-COMPLIANCE WITH AN EA ON FARM 357, BREDASDORP

1. The above matter and Anchor Environmental consultants written response dated 6 July 2018 has reference.
2. The Directorate wishes to inform you of the outcome of the investigation conducted by Environmental Management Inspectors ("EMI's") from the Department's Directorate: Environmental Law Enforcement pertaining to the abovementioned matter.
3. The Directorate hereby accepts your written representations and evidence provided in your letter dated 6 July 2018, and conclude that you have not

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Email: Fahd.said@westerncape.gov.za
Complaints: Law.Enforcement@westerncape.gov.za

triggered a listed activity in terms of the National Environmental Management Act, 1998 ("NEMA") Environmental Impact Assessment Regulations 2014 nor have you contravened the conditions of your Environmental Authorisation (Ref no. E12/2/4/2-E1/5-2004/10 and E12/2/4/5-E1/5-2019/11).

4. You are however reminded of your obligations towards protecting the environment in terms of section 28 of the NEMA. Should you wish to develop your property further you are advised to submit the necessary application to the Department for consideration and recommendations.

5. In light of the above, the Directorate's investigation into this matter has been concluded and the file will now be closed.

Achmad Bassier
Director: Environmental Law Enforcement
Date: 7/11/2018

Cc: A McClelland (DEA&DP) Email: Arabel.McClelland@westerncape.gov.za
V Massie-Liebau (Anchor Environmental) Email: vera@anchorenvironmental.co.za

ADDENDUM B

Western Cape Government
Environmental Affairs and Development Planning

Directorate: Development Management
(Region 2)

REFERENCE: 16/3/3/6/1/E1/5/1224/15
ENQUIRIES: Ms. Arabel McClelland
DATE: 2015 -08- 26

The Director
Enviro Africa
P.O. Box 4
ONRUS
7201

Attention: Mr. Charel Bruwer

Tel: (028) 316 2888
Fax: (086) 513 2141

Dear Sir

APPLICABILITY OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) ("NEMA") ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 WITH RESPECT TO THE PROPOSED ERECTION OF THREE WIND TURBINES OF 666KW EACH ON FARM NO. 357, BUFFELJAGS

1. The correspondence (undated), received by the Department on 31 July 2015, refers.

2. Following review of the information submitted to this Department, the following is noted:

   2.1. The proposal is for the installation of three separate wind turbines of 666kW each.
   2.2. The turbines will be situated on Farm No. 357, near Buffeljags, which is currently an operational abalone farm for which an Environmental Authorisation was previously issued, dated 23 November 2010 (reference number E12/2/4/2-E1/5-2004/10).
   2.3. Each wind turbine will be placed on a concrete base measuring 12m by 12m. The turbine will be approximately 28m high with blades approximately 15m in diameter.
   2.4. A total area of 432m² will be cleared for the construction of the wind turbines.
   2.5. Energy supply infrastructure will be laid on site across the existing facility's footprint.
   2.6. The portion of the site where the proposed turbines are to be located contains natural vegetation and comprises largely Overberg Dune Strandveld.
   2.7. The proposed positions of the turbines are further than 100m from the high water mark.

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2.8. The site is currently zoned Agriculture with consent use approval for an abalone farm.

3. On 4 December 2014 the Minister of Environmental Affairs promulgated regulations in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), *viz*, the Environmental Impact Assessment ("EIA") Regulations, 2014 (Government Notice ("GN") No. R. 982, R. 983, R. 984 and R. 985 in Government Gazette No. 38282 of 4 December 2014). These regulations came into effect on 8 December 2014. The EIA Regulations, 2014 replace the EIA Regulations that were promulgated in 2010 and also introduce new provisions regarding EIA's.

4. In light of the above, your attention is drawn to the listed activities in terms of the NEMA EIA Regulations, 2014 as defined in GN No. R. 983, R. 984 and R. 985 of 4 December 2014. Please be advised that the proposed development of the three wind turbines does not constitute any listed activities in terms of the NEMA EIA Regulations, 2014, as the indigenous vegetation to be cleared is not categorised as critically endangered or endangered in terms of section 52 of the National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) or located within 100m of the high water mark of the sea. Environmental authorisation is therefore not required from this Department prior to the development.

5. However, should any revision of the proposed development constitute a listed activity(ies) in terms of the NEMA EIA Regulations, 2014 as defined in GN No. R. 983, R. 984 and/or R. 985 an application must be submitted and environmental authorisation obtained before such activity(ies) may commence.

6. The applicant is reminded of his/her general duty of care and the remediation of environmental damage, Section 28(1) of NEMA specifically states that – *"Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment."*

7. Please note that the applicant must comply with any other statutory requirements that may be applicable to the undertaking of the activity.

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

9. The Department reserves the right to revise its comments and request further information from you based on any new or revised information received.

Yours faithfully

HEAD OF DEPARTMENT
DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING