BASIC ASSESSMENT REPORT DRAFT Prepared for: Department of Economic Development, Environmental Affairs and Tourism (DEDEAT) DEDEAT REF ECM05/LN1/23(ii)/11-101 On behalf of: Mr and Mrs Wilmot, Belton Farm Prepared by: Coastal and Environmental Services 67 African Street P.O. Box 934 Grahamstown, 6140 Tel: (046) 622 2364/7 Fax: (046) 622 6564 February 2012

DEPARTMENT OF ECONOMIC AFFAIRS, ENVIRONMENT AND TOURISM, PROVINCE OF THE EASTERN CAPE

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Note on the Belton Farm Basic Assessment Report

First revision, August 2009

The original version of this Basic Assessment Report, dated 18th June 2008, was submitted to the Eastern Cape Department of Economic Development and Environmental Affairs (DEDEA) on 14th October 2008.

On 17th February 2009 DEDEA wrote to Coastal and Environmental Services and requested clarification on some aspects of the Report, and also asked for additional information, to enable a decision to be made on the application.

The original Report has been slightly amended in response to DEDEA's queries, and additional information has been sent to DEDEA under separate cover. Some aspects of the Environmental Management Plan (which was submitted to DEDEA with the Basic Assessment Report) have also been amended in response to DEDEA's queries, and this Plan has also been resubmitted to DEDEA.

Coastal & Environmental Services now intends to submit the current Draft Basic Assessment Report, dated **February 2012**, for public review.

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CES INTRODUCTION FOR INTERESTED AND AFFECTED PARTIES

Coastal and Environmental Services (CES) was appointed by Mr and Mrs Peter Wilmot to undertake a Basic Environmental Assessment for a proposed low density housing development on their farm; Belton. This farm is known formally as Portion 6 of the Farm Aquavista, Erf No. 299. It is proposed to build fifteen houses on a section of the farm that overlooks the Bushman's River Valley. The regulations for Basic Assessments require that the assessors do not write a normal type of EIA report, but present the details of the assessment in the format prescribed by the regulatory authority, the Eastern Cape Department of Economic Development Environmental Affairs and Tourism (DEDEAT), formally the Department of Economic Development and Environmental Affairs (DEDEA). It is this format that is presented for review and comment by interested and affected parties (IAPs). The Table of Contents provides an indication of the structure of this form. IAPs should take note that all of the illustrations and maps are provided in the Appendices, and not in the body of the report. Each section of the report starts off by providing a detailed explanation of the information required, and in some cases a list of specific questions that need to be answered. Boxes are provided for the answers or information requested.

Throughout sections B and C of the form considerable information about different aspects of the various alternatives considered is required. In this report three alternative options are described. These are: the proposed residential development; a private game farm with tourism facilities; or the No-Go option in which no development takes place at all. The impacts of these alternatives are considered in section E of the report.

Basic Assessment process and review period

The Basic Assessment is designed to inform the public of the proposed development, allow Interested and Affected Parties (IAPs) to register their interest and concerns in the project and to gather all relevant issues. This is a legal requirement. Environmental impacts (defined as social, economic and biophysical), will be identified using existing information, and ways to mitigate these impacts will be recommended.

Once the Draft Basic Assessment Report has been developed it must be placed in public places for all IAPs to review and comment on. Hard copies of the Draft report are therefore available at the Kenton-on-Sea and Grahamstown public libraries. The report will also be available for viewing or downloading at CES's website: www.cesnet.co.za – follow link to Public Documents. This Draft report will be available for public review until approximately the 13th of April 2012. IAPs need to provide any comments on the report before this date.

All comments received on the Draft Basic Assessment Report will be incorporated into the Final Report, which will be submitted to DEDEAT to review, and either issue an Environmental Authorisation (formerly known as a Record of Decision - RoD), or provide reasons why authorisation is refused. Whatever DEDEAT decides the decision must be made public for all IAPs to scrutinize, and provision is made for anyone to appeal the decision. I&APs will be informed of the details of how appeals must be made when they are informed of the decision.

Should you have any queries please contact Ms Amber Jackson or Mr Bill Rowlston at Coastal and Environmental Services.

Telephone: 046 622 2364, Fax: 046 622 6564.

Please send any written comments to a.jackson@cesnet.co.za or fax to the above number. Comments on this report should be received on or before the 13th of April 2012.



PROVINCE OF THE EASTERN CAPE DEPARTMENT OF ECONOMIC DEVELOPMENT ENVIRONMENTAL AFFAIRS & TOURISM

BASIC ASSESSMENT REPORT

	(For official use only)
File Reference Number:	
Application Number: Date Received:	

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

- 1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
- 2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
- 3. Where applicable **tick** the boxes that are applicable or **black out** the boxes that are not applicable in the report.
- 4. An incomplete report may be returned to the applicant for revision.
- 5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
- 6. This report must be handed in at offices of the relevant competent authority as determined by each authority.

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- 7. No faxed or e-mailed reports will be accepted.
- 8. The report must be compiled by an independent environmental assessment practitioner.
- 9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
 - 9. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

DEPARTMENTAL CONTACT DETAILS

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[] 555		

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SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?

YES

If YES, please complete form XX for each specialist thus appointed: Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity which is being applied for in detail

1. Introduction:

It is envisaged that a low-density development will be established on the proponent's property.

This will involve the construction of 15 residential units on a section of Belton Farm. The applicant's proposal is to develop a small part of their land which is not suitable for agricultural activities (as explained in section A1). This means that the applicants will continue to farm their land, no agricultural production will be lost, and no employees will lose their jobs.

The section of land has views over the Bushman's River Valley and onto the Kariega game reserve. The total size of the farm is 296.3060 hectares and the area to be developed will be a total of 19.8ha including roads, pipelines, and a buffer zone around the proposed development. The rest of the farm will be utilised for game farming and livestock farming. A map of the proposed sites and services is attached as Appendix A. It is envisaged that the houses will be non-visually intrusive. As such, they will be designed and constructed to blend in with the existing indigenous vegetation. (see Appendix C). The houses will be sold separately to private buyers. It is envisaged that these houses will be attractive mainly to those who wish to have a holiday or weekend getaway home, and also to those who wish to move from the urban centres to a more rural setting. There is currently an increased demand for secure, low-density rural lifestyle accommodation in a protected and unique natural environment. This is due to more urban inhabitants desiring to live in a more rural environment where they can experience nature in a calm and peaceful setting.

The proposed development will assist in the economic development of the Ndlambe municipal area by stimulating investment in fixed infrastructure thereby creating an attraction to the area. Sustainable rural development can lead to revitalised rural areas, and relieves pressure on urban infrastructure. The proposed development will also contribute to maintaining employment in the shrinking rural job market and create an opportunity to broaden the skills base within the local community. The home owners will obtain goods and services from the surrounding area, and this will lead to spin-offs for the local community. There is currently a decline in employment figures due to the decreased amount of income obtained from pineapple production in the region.

All houses will collectively fall under the Belton Conservancy Trust, which will have its own regulations governing housing construction and house rules during occupation. These rules will be put in place and administered by a Home Owners' Association, to ensure that the development is as environmentally friendly as possible. Homeowners will need to comply with building regulations, energy efficient measures, and the manner and method of waste disposal. A small recycling company will be formed which will remove waste from the houses and recycle where possible. Organic waste will be taken to a compost heap in a suitable site elsewhere on the farm, and this compost will be utilised by the farmer as needed. Recyclable materials will be taken

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to the Ndlambe recycling facilities. There will also be positions available for the provision of domestic services to the houses, as well as the removal of alien vegetation from the site and surrounding areas. It is intended that these activities will provide employment to previously disadvantaged individuals. The remaining area around the houses will be rezoned as private open space. This land will form a small nature reserve as there are already game species in the thicket areas. Over time, additional small game will be reintroduced to the area. A game specialist will be consulted as to the recommended species and the carrying capacity of the area. The development will include the construction or appropriate upgrading of existing infrastructure such as electricity, water, sewerage and roads.

2. Disturbance of indigenous vegetation.

The site of the proposed development has been carefully chosen to be the most suitable in terms of minimal impact on the environment, while enhancing the sense of place of the region for the developers and consequently the future owners of the proposed houses. Each house will be carefully sited to avoid sensitive vegetation and unstable soil types. The developers have already taken into account the recommendations of the vegetation specialist and the geologist/hydrologist, and have revised the layout plan accordingly.

The development footprint of each erf will be positioned in such a way as to reduce the area of vegetation that will be affected. As far as possible sensitive vegetation will be avoided. Where units are placed inside areas of natural vegetation the existing vegetation will be maintained as far as possible and used as part of the landscaping aesthetics and as natural screening. Structural footprints are to be designed to avoid large indigenous trees wherever possible. Open space areas and natural corridors will be maintained to protect indigenous vegetation and animals.

During construction as little vegetation as possible will be disturbed. On each erf, sensitive vegetation will be cordoned off, and as much of the natural vegetation as possible will be left undisturbed, with each housing site clearly marked out. A Plant Rescue and Translocation Programme will be implemented where disturbance levels are considered high. A botanist will be employed to identify and/or mark any protected species or species of special concern. Plants will be removed to nurseries so that areas can be rehabilitated after construction.

Indigenous vegetation will be disturbed as little as possible. The design considers the construction of designated footpaths through appropriate bush clearing, using existing paths or creating boardwalks where necessary. The vegetation specialist will be consulted to design these footpaths through the nature reserve. Footpaths will be placed to avoid sensitive vegetation. No formal gardens will be allowed, but enhancement of the indigenous vegetation in the vicinity of each house will be in keeping with the nature of the development. Homeowners who wish to water surrounding vegetation will do so using recycled domestic grey water.

3. Removal of alien vegetation.

An alien removal programme will be implemented, which will decrease the alien vegetation in the area. This will be coupled with a re-vegetation programme that will also ensure that there are less open areas for aliens to establish themselves. The removal of alien vegetation and the revegetation of disturbed areas is seen as an employment opportunity for at least two part-time positions.

4. Employment Opportunities:

As far as possible, without compromising construction activities, local labour from the surrounding communities will be employed. During the operational phase permanent and part-time positions will be given to previously disadvantaged persons. Preference will be given to local people for employment in the refuse

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removal/recycling business, for domestic services at residences, for the alien eradication programme and for revegetation/maintenance work around the units/conservation area

The Conservancy Trust undertakes to support local business and operators as far as possible. It will also compile information on tourism attractions in the area to distribute to residents. One way of doing this will be to link to the Sunshine Coast Tourism Association so that residents and visitors are kept updated of tourism-related events and activities.

5. Visibility

The units have been placed in such a way as to maintain the sense of isolation and privacy within a natural environment that is the motivation for the development. Natural vegetation and topography will be used as a screen.

Buildings will be designed to blend in with the surrounding vegetation. Building material will include wood and/or stone and cement walls, with green tile or corrugated steel sheeting roofs. Buildings will be restricted to the specified construction footprint of each erf.

The type of design and scale of the proposed residences will be a maximum height of one storey above natural ground level, with space allowed for underground rainwater tanks should these be desired, and will be designed to remain visually unobtrusive. The proposed development will be guided by the suitability of the site to ensure minimum impact on the natural environment and surrounding visual characteristics. All homeowners will have to follow certain building design guidelines that reduce visibility, and facilitate residential units to blend into the natural landscape. No high-standing lights will be allowed, and all outside lights will be down-lighting to reduce light visibility. Natural vegetation will be planted as a screen in areas where the units (or above-ground rainwater tanks) will be visible.

6. Energy efficiency

Energy efficiency will be considered in the design, with such aspects as insulation, energy efficient appliances and lighting. Materials used will be in keeping with the recommendations for efficient energy usage. This includes stone/wooden walls which naturally regulate indoor temperatures. Roofs will be properly insulated and overhangs will be designed to shade during summer while allowing winter sun to penetrate into the house.

Solar power is recommended to supplement electricity requirements, with the option of installing solar panels to reduce electricity use, and solar water heaters for household water. Home owners will be advised to install compact fluorescent light bulbs both inside and outside their houses. External lighting, and any lighting required along the roads will be energy efficient, visually non-intrusive, low-mast, down-lighting of low intensity.

7. Water requirements

The development will be receiving water sourced from a borehole located on the farm that has adequate capacity, and from rainwater harvested from the impermeable roof areas. Piping required to take the water from the source to the houses will be 32 mm diameter Class 6 HDPE in all cases. Water will be used solely for domestic purposes such as personal hygiene, cooking, laundry and domestic cleaning.

All buildings will be required to harvest rainwater, and will be equipped with a tank (or a number of tanks) with storage capacity of at least 15 000 litres. Permanent residents will require more rainwater storage. Storage tanks can be situated underground or next to the house, and will be screened off if in a highly visible area with brush and/or indigenous vegetation.

The design will incorporate water saving devices such as dual flush toilets and low-

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flow shower heads. Where possible, (slope and indigenous vegetation permitting) grey water will be let out onto indigenous vegetation or areas that will be grassed to create pastures for game. Water recycling and maintenance will be the responsibility of the Home Owners' Association.

The Conservancy Trust will be responsible for monitoring water usage on the development to ensure that it does not exceed the permissible extraction limit. Only indigenous plants, which would enhance the natural vegetation and do not require extensive watering, are allowed to be planted on plots. These can be planted in areas that need rehabilitation, or areas where the plants will enhance the natural vegetation, or screen the house from view. No formal gardens and lawns are allowed. Non-indigenous plants should be kept in containers. As far as possible, plants should be watered with grey water.

No building or other structure will be allowed within 32 m of the stream, or in an area that would affect the water quality in the stream or its catchment area.

8. Sewage facilities

Due to the envisaged nature of the development (that is, the majority of the units will not be occupied full time) biolytic sewage treatment systems could not be considered, as they require a constant inflow of sewage to work optimally. More permanent residents can consider biolytic sewage systems and in this case the Lilliput system will be recommended. The geological/hydrological specialist has indicated that, due to the nature of the soil profiles on the site, a septic tank will be a suitable option for effluent disposal. The specialist has recommended that the septic tanks should consist of a receptor tank and an adequately sized French drain soakaway. The receptor tank should be divided into two, and the French drain must be at least 5 m long, 60cm wide and 1 m deep. To avoid pollution in the streams septic tanks will be sited a sufficient distance from watercourses for the travel time of effluent through the soil horizon to result in the mortality of pathogens, notably e-coli. During the design phase, the geologist/hydrologist will indicate to the engineer which areas on the erfs are suitable for septic tanks. The engineer will then mark these areas on the erf maps for home owners to ensure that septic tanks are carefully sited on stable ground away from any streams or potential catchment areas. Any disturbed ground will be revegetated after construction. The operational EMPr will consider measures to ensure that water pollution is avoided.

9. Refuse removal:

The removal of refuse is seen as an employment opportunity which will also enable the development to facilitate recycling. Residents in the development will be required to separate their waste into glass, paper, organic and general waste. This will be collected by the contractor on a regular basis, and taken to the nearest waste/recycling facility. All municipal requirements in this regard will be complied with

Garden refuse and organic biodegradables from kitchens will be taken to the composting site on the farm. Alien vegetation will be destroyed.

10. Erosion:

Only minimal vegetation clearing will be permitted within the construction area. Only the development footprints of the units may be cleared and disturbed areas will be rehabilitated as soon as possible. Large trees will be removed only if absolutely necessary. No disturbed soil should be left exposed, but will be mulched and revegetated as soon as possible.

Erosion as a result of runoff will be mitigated through the adequate provision of gutters and the collection of runoff into rainwater tanks for household water use. In terms of pathways, log and wire barriers/steps will be constructed where the gradient

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is steep and erosion is likely. Indigenous vegetation will also be planted to ingibit erosion. Walking trails will follow the contour of the landscape as far as possible. Residents/employees must keep to pathways/trails.

The use of vehicles is to be restricted to the designated roads. The vegetation specialist will be consulted to route designated footpaths through the nature reserve. Footpaths will be placed to avoid sensitive vegetation. They will be regularly maintained, and any further footpaths that are requested will be designed under the supervision of the vegetation specialist. The Belton Conservancy Trust will be responsible for ensuring that *ad hoc* footpaths are not created, and should any occur they will be repaired and the natural vegetation reinstated.

11: Mitigation and monitoring of impacts

During the planning and construction phases the developer together with an independent, suitably qualified person(s) will be responsible for monitoring the impacts and implementation of mitigation measures. A project-specific Construction Environmental Management Programme (EMPr) containing mitigation measures will be compiled which will guide the construction process from inception to completion. A suitably qualified Environmental Control Officer will be appointed to ensure the provisions of the EMPr are implemented and/or adhered to.

During the operational phase the Home Oowners' Association and the Conservancy Trust will be responsible for financing management functions, environmental auditing and conservation.

An operational Environmental Management Programme (EMPr) will be compiled and strictly adhered to. This will determine the environmental management roles and responsibilities during the operational phase and how the site will be managed. Home owners, as members of the Belton Conservancy Trust, will need to abide by the regulations set out in the EMPr.

An Environmental Control Officer (ECO) will monitor identified impacts and mitigation measures.

2. FEASIBLE AND REASONABLE ALTERNATIVES

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity; The property on which the proposed development is to be situated is owned by the applicant / developer. No other properties have been considered for the proposed development.

The location of the proposed development is in an area of the farm not suitable for agricultural activities: no other parts of the farm are suitable for the type of development proposed. No other locations on the property have been considered for the proposed development.

(b) the type of activity to be undertaken;

Alternative Activity - A2:

The alternative to the proposed activity is to create a private game reserve with ecotourism facilities. Such a development would involve the construction of five self-catering lodges to house tourists. This alternative would be placed on the sites of the first five units of the proposed project (A1) site plan, as indicated in appendix A. A selection of small and large game would be introduced into the area and waterholes, viewing platforms and hides would be constructed at appropriate locations. A game specialist would be consulted as to the recommended species and the carrying capacity of the area.

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- (c) the design or layout of the activity:
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Paragraphs 3 – 13 below should be completed for each alternative.

3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection. List alternative sites if applicable.

Alternative:

Alternative S1¹ (preferred or only site alternative) (Centre Cluster No 1) (Centre Cluster No 2)

Alternative S2 (if any)

In the case of linear activities:

Alternative:
Alternative S1 (preferred or only route alternative)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

Alternative S2 (if any)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

Alternative S3 (if any)

Latitude (S):	Longitude (E):
---------------	----------------

33°	34'33.5"	026°	33'28.9"
33°	34'30.9"	026°	33'12.5"
0	1	0	•

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	0	<u> </u>	0	<u> </u>

Longitude (E):

θ	<u>'</u>	0	<u>'</u>
θ	1	0	1
			_

θ	-	θ	<u>'</u>
θ	-	0	-
θ	-	θ	-

_

Latitude (S):

¹ "Alternative S.." refer to site alternatives.