

BASIC ASSESSMENT REPORT

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

- **Grassland** is a complex community of small herbs, grasses, and some succulents and creepers). Plants are short, (<0.5m) with occasional pioneer shrub species such as *Diospyros dichrophylla*.
- ***Bobartia orientalis* / Grasslands** occur in the eastern part of the study site where there are Cape Super Group (Witteberg Quartzite) derived soils.
- ***Kikuyu* (*Pennisetum clandestinum*)** grasslands occur in some areas. These grasslands are very low in diversity and invasive species, such as the thorn apple (*Solanum sp.*) are found there.

Disturbed areas and cultivated lands occur some distance from the site and do not distract from the natural and indigenous vegetation setting.

A map of the vegetation is shown in Figure 1 below.



Figure 1: Map of the vegetation types, indicating the more sensitive and “pristine” Succulent Thicket.

4 Recommendations

- The proposed development should be set back from the edge of the cliffs. It is at this site that the Succulent Thicket vegetation with a great diversity of species occurs
- The alien species should be removed.
- The units should be sited on the approximate areas indicated in the layout plan but verified with an environmental site officer (ESO).
- Likewise the sitting of the road should be established under supervision of the ESO.
- Any succulent or species of plants that can be rescued should be relocated.

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5 References

Acocks, J P H 1975 Veld Types of South Africa. 2nd Edition. Botanical Surv. Memoir S.Afr. 40, Pretoria.

Bromilow, C. 2001. Problem Plants of South Africa. Briza Publications, Pretoria.

Chief Directorate Surveys and Mapping. 1998. Sheet 3326 DA & DC Boesmansriviermond, Third Edition, Mobray.

Council for Geosciences. 1995. 1: 250 000 Geological Series, 3326 Grahamstown.

Lewis, C. 1995. The Geomorphological Evolution of the Area between Grahamstown and the Indian Ocean. Rhodes University, Grahamstown.

Llyod, P. 1987. A vegetational study of the Blaaukrantz Nature Reserve, Eastern Cape, with particular reference to the vegetational gradients across the reserve. Unpublished B.Sc thesis, Rhodes University, Grahamstown.

Viljoen, M.J. and Reimold, W.U. 1999. An Introduction to South Africa's Geological and Mining Heritage. Mintek Publishers, South Africa.

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APPENDIX D3: A PLANT SPECIES LIST OF BELTON FARM

PTERIDOPHYTA

SCHIZAEACEAE (100)

120 *Mohria caffrorum* (L.) Desv.

ADIANTACEAE (280)

340 *Cheilanthes viridis* (Forssk.) Swartz

GYMNOSPERMAE

PINACEAE(022)

22 *Pinus pinaster* Ait.

ANGIOSPERMAE

MONOCOTYLEDONAE

POACEAE (KEW Numbers)

- 80 *Heteropogon contortus* (L.) Roem & Schult.
83 *Themeda triandra* Forrsk..
89 *Digitaria eriantha* Steud.
104 *Brachiaria serrata* (Thunb.) Stapf.
116 *Panicum deustum* Thunb.
Panicum maximum Jacq.
128 *Setaria flabellata* Stapf
Setaria lindenbergiana (Nees) Stapf
134 *Melinis repens* (Willd.) Zizka.
139 *Pennisetum clandestinum* Choiv.
204 *Karooocloa curva* (Nees) Conert & Tuerpe
283 *Sporobolus africanus* (Poir.) Robyns & Tournay
286 *Eragrostis capensis* (Thunb.) Trin.
Eragrostis curvula (Schrad.) Nees
Eragrostis racemosa (Thunb.) Steud
296 *Cynodon dactylon* (L.) Pers.

CYPERACEAE (452)

- 459 *Cyperus albostriatus* Schrad.
465 *Ficinia* sp.
471 *Bulbostylis humilis* Kunth.

RESTIONACEAE (804)

813 *Thamnochortus glaber* Pillans

COMMELINACEAE (0893)

896 *Commelina* sp.

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HYACINTHACEAE

- 985 *Bulbine frutescens* (L.) Willd.
Albuca sp.

ALOEACEAE

- 1026 *Aloe africana* Mill.
Aloe arborescens Mill.
Aloe ciliaris Haw.
Aloe ferox Mill.
Aloe speciosa Bak.

DRACAENACEAE (1109)

- 1109 *Dracena hookeriana* K. Koch
1110 *Sansevieria hyacinthoides* (L.) Druce

ASPARAGACEAE

- 1113 *Asparagus africanus* Lam.
Asparagus striatus (L.f.) Thunb.
Asparagus sp.

ALLIACEAE (1046)

- 1046 *Agapanthus* sp.

HYPOXIDACEAE (1229)

- 1230 *Spiloxene* sp.

IRIDACEAE (1259)

- 1284 *Bobartia orientalis* J.B.Gillett
1311 *Gladiolus* sp.
1265 *Dietes* sp.

ORCHIDACEAE (1407)

- Orchidaceae sp. indet.

DICOTYLEDONAE

VISCACEAE (2093)

- 2093 *Viscum obscurum* Thunb.
Viscum rotundifolium L.f.

SANTALACEAE (2096)

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2104 *Rhoiacarpos capensis* (Harv.) DC.

CHENOPODIACEAE (2221)

2226 *Exomis microphylla* (Thunb.) Aell.

AIZOACAEAE (2374)

2401 *Aizoon rigidum* L.f.

MESEMBRYANTHACEAE (2405)

2405 *Aptenia cordifolia* (L.f.) Schwant.
var. *cordifolia*
Mesembryanthemaceae sp. Indet.

BRASSICACEAE (2875)

2875 *Heliophila linearis* (Thunb.) DC.

CAPPARACEAE (3082)

3103 *Capparis sepiaria* L.

CRASSULACEAE (3161)

3166 *Kalanchoe rotundifolia* (Haw.) Haw.
3168 *Crassula arborescens* (Mill.) Willd.
Crassula cultrata L.
Crassula perfoliata L.
Crassula sp.
Crassula sp.

FABACEAE (3436)

3446 *Acacia karroo* Hayne
3506 *Schotia afra* (L.) Thunb.
3657 *Lotononis* sp.
3702 *Indigofera* sp.
3718 *Tephrosia capensis* (Jacq.) Pers.
3905 *Vigna* sp.
Fabaceae sp. Indet.

GERANIACEAE (3924)

3925 *Monsonia grandifolia* Kunth.
3928 *Pelargonium peltatum* (L.) L'Herit.
Pelargonium reniforme Curtis

OXALIDACEAE (3935)

3936 *Oxalis smithiana* Eckl. & Zeyh.
Oxalis sp.

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LINACEAE (3945)

3945 *Linum thunbergia* Eckl. & Zehr.

RUTACEAE (3986)

3991 *Zanthoxylon capense* (Thunb.) Harv.

PTAEROXYLACEAE (4157)

4157 *Ptaeroxylon obliquum* (Thunb.) Radlk.

EUPHORBIACEAE (4286)

4299 *Phyllanthus verrucosus* Thunb.

4348 *Croton* sp.

4407 *Acalypha glabrata* Thunb.

4448 *Clutia daphnoides* Lam.

4498 *Euphorbia pentagona* Haw.

Euphorbia tetragona Haw.

Euphorbia triangularis Desf.

ANACARDIACEAE (4543)

4594 *Rhus dentata* Thunb.

Rhus incisa L.f.

Rhus lucida L.

Rhus pyroides Burch.

Rhus refracta Eckl. & Zeyhr.

Rhus undulata Jacq.

4562 *Harpephyllum caffrum* Bernh. Ex Krauss

CELASTRACEAE (4618)

4626 *Gymnosporia heterophylla* (Eckl. & Zeyh.) Loes.

Maytenus undata (Thunb.) Blakelock

4628 *Putterlickia pyracantha* (L.) Szyszyl

4630 *Pterocelastrus tricuspidatus* (Lam.) Sond.

4641 *Cassine aethiopica* Thunb.

Cassine tetragona (L.f.) Loes.

ICACINACEAE (4671)

4686 *Apodytes dimidiata* E.Mey. ex Arn.

RHAMNACEAE (4858)

4874 *Scutia myrtina* (Burm.F.) Kurz.

SAPINDACEAE (4726)

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- 4784 *Pappea capensis* Eckl & Zehr.
4836 *Hippobromus pauciflorus* (L.f.) Radlk.

VITACEAE (4909)

- 4917 *Rhoicissus digitata* (L.F.) Gilg & Brandt

TILIACEAE (4937)

- 4966 *Grewia occidentalis* L.
Grewia robusta Burch.

MALVACEAE (4980)

- 4998 *Sida rhombifolia* L.
Malvaceae sp.indet.

OCHNACEAE (5112)

- 5112 *Ochna arborea* Burch. ex DC.

CACTACEAE (5401)

- 5417 *Opuntia ficus-indica* (L.) Mill.

THYMELAEACEAE (5435)

- 5435 *Gnidia capitata* L.f.
5461 *Passerina vulgaris* Thoday

ARALIACEAE (5839)

- 5872 *Cussonia spicata* Thunb.

APIACEAE (5893)

- 5894 *Centella asiatica* (L.) Urb.
Apiaceae sp.indet.

PLUMBAGINACEAE (6343)

- 6343 *Plumbago auriculata* Lam.

SAPOTACEAE (6353)

- 6360 *Sideroxylon inerme* L.

EBENACEAE (6403)

- 6404 *Euclea natalensis* A.DC.
Euclea undulata Thunb.
6406 *Diospyros dichrophylla* (Gand.) De Winter
Diospyros lycioides Desf.
Diospyros scabrida (Harv. Ex Hiern.) De Winter

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Diospyros *Isp.*

OLEACEAE (6419)

- 6434 *Olea europaea* L.
subsp. *africana* (Mill.) P.S.Green

SALVADORACEAE (6444)

- 6444 *Azima tetraacantha* Lam.

APOCYNACEAE (6549)

- 6558 *Acokanthera oppositifolia* (Lam.) Codd
6559 *Carissa bispinosa* (L.) Desf. ex Brenan

ASCLEPIADACEAE (6752)

- 6791 *Gomphocarpus physocarpus* E. Mey.
6849 *Sarcostemma viminale* (L.) R. Br.
6860 *Secamone alpinii* Schultes

CONVOLVULACEAE (6968)

- 7003 *Ipomoea* sp.

BORAGINACEAE (7038)

- 7043 *Ehretia rigida* (Thunb.) Druce

VERBENACEAE (7138)

- 7144 *Lantana camara* L.
7191 *Clerodendrum glabrum* E.Mey.

LAMIACEAE (7211)

- 7350 *Plectranthus* sp.

SOLANACEAE

- 7379 *Lycium afrum* L.
7407 *Solanum* sp.

SCROPHULARIACEAE (7460)

- 7519 *Sutera campanulata* (Benth.) Kuntze
Sutera sp.

SELAGINACEAE (7566)

- 7568 *Selago corymbosa* L.

BIGONIACEAE (7705)

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7713 *Tecomaria capensis* (Thunb.) Spach

ACANTHACEAE (7908)

7914 *Thunbergia capensis* Retz.

8032 *Hypoestes aristata* R.Br.

8094 *Justicia capensis* Thunb.

RUBIACEAE (8116)

8281 *Burchellia bubalina* (L.f.) Sims

8283 *Xeromphis rudis* (E.Mey. ex Harv.) Codd

8352 *Canthium inerme* (L.f.) Kuntze

8383 *Pavetta revoluta* Hochst.

8435 *Galopina circaeoides* Thunb.

DIPSACACEAE (8539)

8546 *Scabiosa columbaria* L.

LOBELIACEAE (8681)

8681 *Cyphia heterophylla* Presl. ex Eckl. & Zeyhr.

8694 *Lobelia erinus* L.

8695 *Monopsis scabra* (Thunb.) Urb.

ASTERACEAE (8729)

8930 *Chrysochoma ciliata* L.

9006 *Helichrysum anomalum* Lees.

Helichrysum cymosum (L.) D.Don

Helichrysum lineare DC.

Helichrysum nudifolium (L.) Less.

Helichrysum rugulosum Less.

Helichrysum sp.

9037 *Stoebe vulgaris* Levyns

9043 *Metalsia muricata* (L.) D.Don.

9351 *Cotula sericea* Thunb.

9411 *Senecio inaequidens* DC.

Senecio liniifolius L.

Senecio speciosus Willd.

Senecio pterophorus DC.

Senecio sp.

Senecio sp.

9432 *Actotis* sp.

9432 *Haplocarpha* sp.

9247 *Chrysanthemoides monilifera* (L.) T.Norl.

9343 *Gazania krebsiana* Less.

9438 *Berkheya decurrens* (Thunb.) Willd.

9462 *Cirsium vulgare* (Savi) Ten.

9592 *Taraxacum* sp.

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Appendix E – Comments and Response Report

The Public Participation process was followed in accordance with the current legislation. A public meeting was not deemed necessary as there were only a few IAPs who expressed concern over the development. Contact was therefore telephonic, via email, or by letter.

No comments have been received to date.

Name	Affiliation
Land owners	
Mr Peter and Mrs Wilmots	
Neighbours	
Mark Rushmere (PE) Tony Fuller (local)	Kariega park (owner)
Alan Weyer General Manager	Kariega park
Clive Shone	Manager for Mr Coetzee
Mr Coetzee	
Government	
Viwe Ngunge	Dept. Economic Development, Environmental Affairs and Tourism
Rolly Dumezweni	Ndlambe Municipality: Municipal Manager
Key stake holders	
Anneliza Collett	DAFF Agri
S.Gwen	DAFF EC Forestry
Richard Pote	Ndlambe Local Municipality
M Mateti	Ward 1 Councillor
Tony Versfeld	Ratepayers and Residents Association (PARRA)
Jack Landile	DWA
Nanna Gouws	SANRAL
Mariagrazia Galamberti	SAHRA
Xolani Wana	ESKOM
Irene de Moor	WESSA
Jenny Gon	WESSA
Registered IAPs	
Mr Neave	
John Gillam	
Chris Jordaan	

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Background information document

BACKGROUND INFORMATION DOCUMENT & INVITATION TO COMMENT: THE PROPOSED ESTABLISHMENT OF A HOUSING DEVELOPMENT AND CONSERVANCY ON BELTON FARM IN THE EASTERN CAPE

Background

The development of an 'eco-estate' or 'eco-residential' housing estate has been proposed by Mr and Mrs Wilmot of Belton Farm. The owners currently farm pineapples and cattle and wish to supplement this income by the creation of a small, eco-friendly housing estate. Such estates attempt to reduce the impact on the bio-physical environment by incorporating large areas of open space and maintaining or introducing indigenous fauna. The aim is to ensure that development is undertaken in a sustainable manner and that the unique environment is preserved. The vast majority of the land will be retained as a nature reserve. Previously endemic game such as small antelope will be reintroduced to the area.

The proposed plots will be just below the ridge of a hill, avoiding any streams and catchment areas, and the vegetation specialist will inform us if there are any sensitive areas which can then be avoided by the development.

Project Description

The proposed Belton Conservancy development constitutes a small area (less than 20 hectares) on Belton farm. This farm is known formally as Portion 6 of the Farm Aquavista, ERF No. 299, and is located along the Kenton-Grahamstown road, in the Bathurst- non-urban area of Ndlambe Municipality.

The development will consist of 15 residential units, which will fall under the name of the Belton Conservancy Trust. The plots on which the houses will be built are roughly 40 x 40m, although a minimal amount of vegetation will be removed and the indigenous bush will be retained around the houses.

The proposed residential development will include the following:

- Roads – a new gravel road will be built to provide access to the houses, existing roads will be upgraded, and small service roads leading to the houses will be created.
- Water pipelines will be extended from the farm's borehole
- Electricity will be upgraded to the area
- 15 residential house

No development of any kind, including gardening, will be permitted outside the designated footprints. It is also proposed that foot and bridal paths be established. The extent and position of these paths will be planned to avoid sensitive indigenous vegetation.



View from proposed housing site overlooking over the Bushman's River Valley

AIM OF THIS DOCUMENT

The aim of this Background Information Document is to provide people affected by and interested in the proposed project with information about this project, the process being followed and to provide them with an opportunity to be involved in the EIA process.

Interested and Affected Parties (IAPs) may raise issues of concern; these along with potential environmental, social and economic impacts will be examined in the EIA process.

The findings of the EIA will be provided to DEDEA for final decision making as to whether or not the project will go ahead and in what form.

Return address for comments:

Ms Amber Jackson
P.O Box 934
Grahamstown, 6140
Tel: (046) 622 2364
Fax: (046) 622 6564
Email:
a.jackson@cesnet.co.za

Your involvement in this process is important and will help ensure that all relevant issues are raised and assessed in the EIA process.

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Details of Services

Infrastructure

- A new gravel road will be created to lead from the R343 to the new houses. This road will be carefully planned in order to cause minimal damage to sensitive soils and natural vegetation.
- Electricity supply will be primarily from Eskom. Homeowners can choose to supplement this with energy from alternative power sources such as solar panels.

Water supply

- Every house built will be required to include rain water storage facilities and grey water management systems.
- It is planned that the development will supplement this with water from the farm's borehole.

Sewage Reticulation

- Sewage disposal will be by way of septic tanks with a French drain system. The geological specialist has ascertained that the environment can support such a system, and that the low number of houses will mean that there will be little impact on the surrounding ecological area and groundwater.

Alternatives

Alternatives to the proposed development will be assessed as part of the Basic Assessment.

The land where the development is proposed is unsuitable for agricultural use. As such, a viable alternative to the proposed development would be the creation of a private game reserve with eco-tourism facilities. Such a development would require the construction of small, self-catering lodges to house tourists. The proposed area would be fenced off, and a selection of small game would be introduced.

The proposed development will also be compared against the no-go option. The no-go option requires evaluating the impacts that would occur should the situation remain as it is without any development taking place.

Potential issues for investigation

Ecological Issues

- Loss of indigenous vegetation and habitat for fauna
- Impact on indigenous fauna (e.g. red data species, fencing etc)
- Alteration of drainage patterns and the water table
- Impact on water resources
- Introduction of game
- Loss of topsoil and soil erosion
- Cumulative impacts of the development on the natural resources (as above)

Socio-economic Issues

- Market demand for housing in the area
- Visual and aesthetic impacts
- Loss of 'Sense of Place'
- Pollution (air, noise and water)
- Development within the context of existing plans

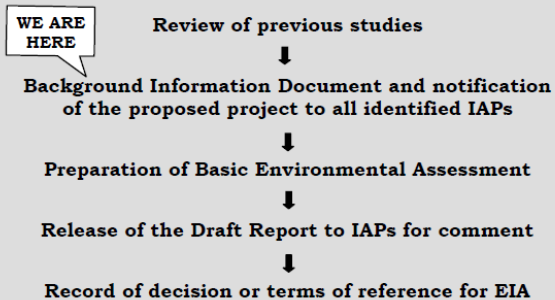
Relevant legislation

According to Environmental Impact Assessment (EIA) regulations, promulgated under the National Environmental Management Act (No. 107 of 1998) as amended in 2006, listed activities need to be assessed. In this case the application is to undertake the following listed activities: 23(i) of GN No. R. 544.

The application has been submitted to the Department of Economic Development and Environmental Affairs (DEDEA). The development will also be evaluated in the context of current planning frameworks.

Approach to this Basic Assessment

The process required for the proposed project is a Basic Environmental Assessment. This process serves primarily to inform the public and relevant authorities about the proposed project and to determine any impacts. Should all impacts and issues be adequately addressed in the report, it will serve as the final document. However, if not, the process will proceed into the next stage which is a full Environmental Impact Assessment.



How can you be involved?

A Public Participation Process (PPP) is being conducted as part of the Basic Assessment. The aim of the PPP is to allow everyone who is interested in, or likely to be affected by, the proposed eco-residential development to provide input into the process.

The Public Participation Process will include:

- Advertisement in the The Herald and The Grocotts
- Circulation of the BID (this document) to all IAPs identified.
- Comments period
- Review of the draft Basic Assessment by all IAPs.
- A public meeting (if required)

The Draft Basic Assessment Report is expected to be made available at public libraries and public access areas as well as on the CES website at www.cesnet.co.za (Click on public documents link) for 14 working days following the release of the draft report which will be advertised in newspapers.

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I hereby wish to register as an Interested and Affected Party (IAP) for the Belton Farm BA process

Name: _____
Organization: _____
Postal address: _____
Email: _____
Phone #: _____ Fax#: _____

My initial comments, issues or concerns are:

Other individuals, stakeholders, organisations or entities that should be registered are:

Name: _____
Organization: _____
Postal address: _____
Email: _____
Phone #: _____ Fax #: _____

Please return details to: **Ms Amber Jackson**: P.O. Box 934, Grahamstown, 6140
Telephone: (046) 622 2364 Fax: (046) 622 6564 Email: a.jackson@cesnet.co.za

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SITE NOTICES

The following site notice was placed at the boundary fence entrance to the proposed development. This is opposite the entrance to Belton's Milking Parlour accommodation facilities, and is the most visible place for the notice, as IAPs would have little reason to go onto the site themselves.



NOTICE ENVIRONMENTAL IMPACT ASSESSMENT

Notice is hereby given in terms of Regulation 54 of the regulations published in Government Notice No. R 543 under Chapter 5 of the National Environmental Management Act (Act 107 of 1998), as amended in 2010, of the intent to submit an application for an Basic Assessment to the Department of Economic Development and Environmental Affairs (Provincial).

Project Activity: Mr and Mrs Wilmot of Belton Farm propose the construction of 15 residential units and rezoning of remaining land as Private Nature Reserve

Listed Activities: The proposed project is a listed activity in terms of GN R 544, activity 23 (ii): "The transformation of undeveloped, vacant or derelict land to residential, mixed, retail, commercial, industrial or institutional use where such development does not constitute infill and where the total area to be transformed is bigger than 1 hectare" and therefore requires a Basic Assessment.

Coastal & Environmental Services has been commissioned by Mr and Mrs Wilmot of Belton Farm to undertake the Basic Assessment. You are hereby invited to register as an Interested & Affected Party (I&AP)

For more information, registration as an I&AP or submission of written comments contact by post, phone, fax or e-mail:

**Ms Amber Jackson, PO Box 934, Grahamstown, 6140
Tel: 046 622 2364, Fax: 046 622 6564, Email: a.jackson@cesnet.co.za**