

ENVIRONMENTAL IMPACT ASSESSMENT:

PROPOSED EXPANSION OF AGRICULTURE ACTIVITIES: ESTABLISHMENT OF VINEYARDS AND THE CONSTRUCTION OF CHICKEN LAYER HOUSES ON BOTHA FARM, REMAINDER ERF 4000 AND ERF 981,

PRIESKA, NORTHERN CAPE PROVINCE

SUMMARY OF DRAFT SCOPING REPORT

**Enviro Logic
CONSULTANT**

**May 2019, Revision:0
Report Reference: 190202002**

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PROPONENT**

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1 INTRODUCTION

Enviro Logic was appointed by Oranjerivier Boerdery BK (Botha Farm) to undertake an EIA for the proposed agricultural development on Remainder Erf 4000 and on a portion of Erf 981 of the Botha Farm, near the town of Prieska, Northern Cape Province. The site is located ± 1.5 km outside the town of Prieska on the R357 towards Douglas (Figure 1).

The owner wishes to convert some of the undeveloped parts of the farm into vineyards as well constructing several chicken layer houses and associated infrastructure.

The proposed expansion of agriculture activities entails the following:

- 1) Establishment of vineyards for raisin production on an area of ± 68.22 ha, with a footprint of $\pm 36,52$ ha.
 - a. The proposed vineyards would be cultivated under an intensive drip irrigation system on a portion of the Remainder Erf 4000.
- 2) Construction of twelve (12) chicken layer houses and associated infrastructure on an area of $\pm 3,18$ ha with a footprint of $\pm 3,18$ ha.
 - a. The 12 chicken layer houses will be constructed on a portion of Erf 981. The number of chickens per chicken layer house would be $\pm 10\ 000$.

There will be a slight overlap in ancillary infrastructure from the chicken layer houses on Remainder Erf 4000 (e.g. water supply pipes to the chicken layer houses, fencing, etc.). The proposed vineyards would be cultivated under an intensive drip irrigation system and would involve deep ripping of the soils prior to planting. Existing lawful use from the Orange River will be utilised to irrigate the extension of vineyards and to supply water to the chicken layer houses.

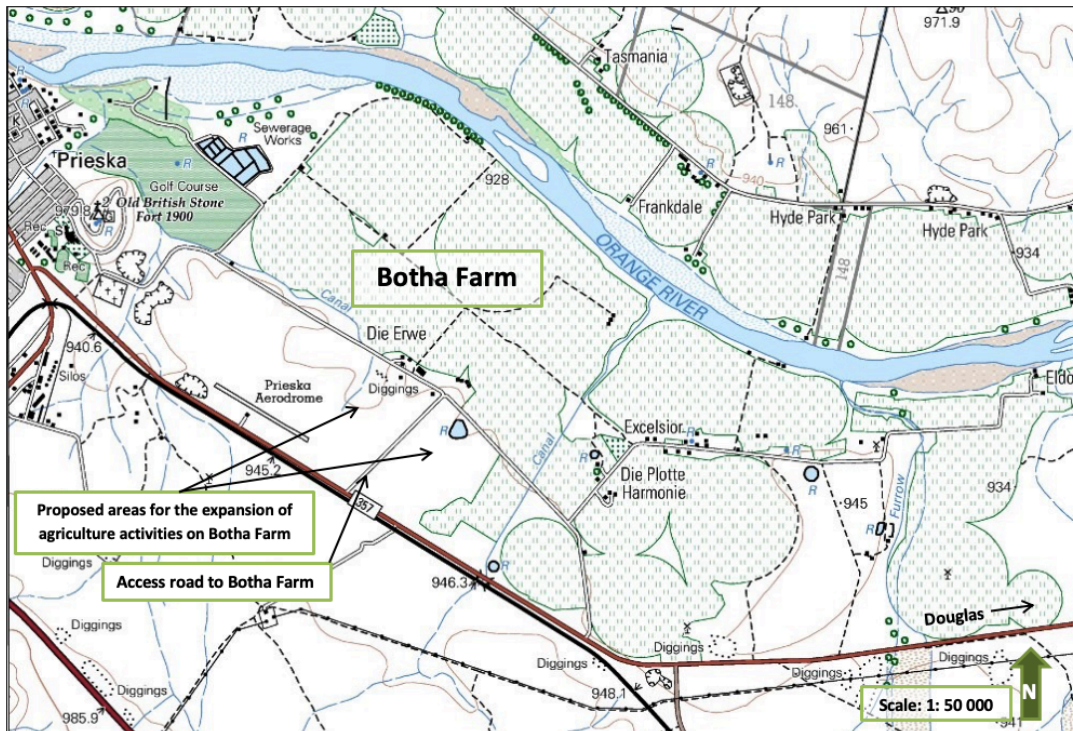


Figure 1 | A topographical map (2922DA&DB), indicating the locality of the proposed agricultural development

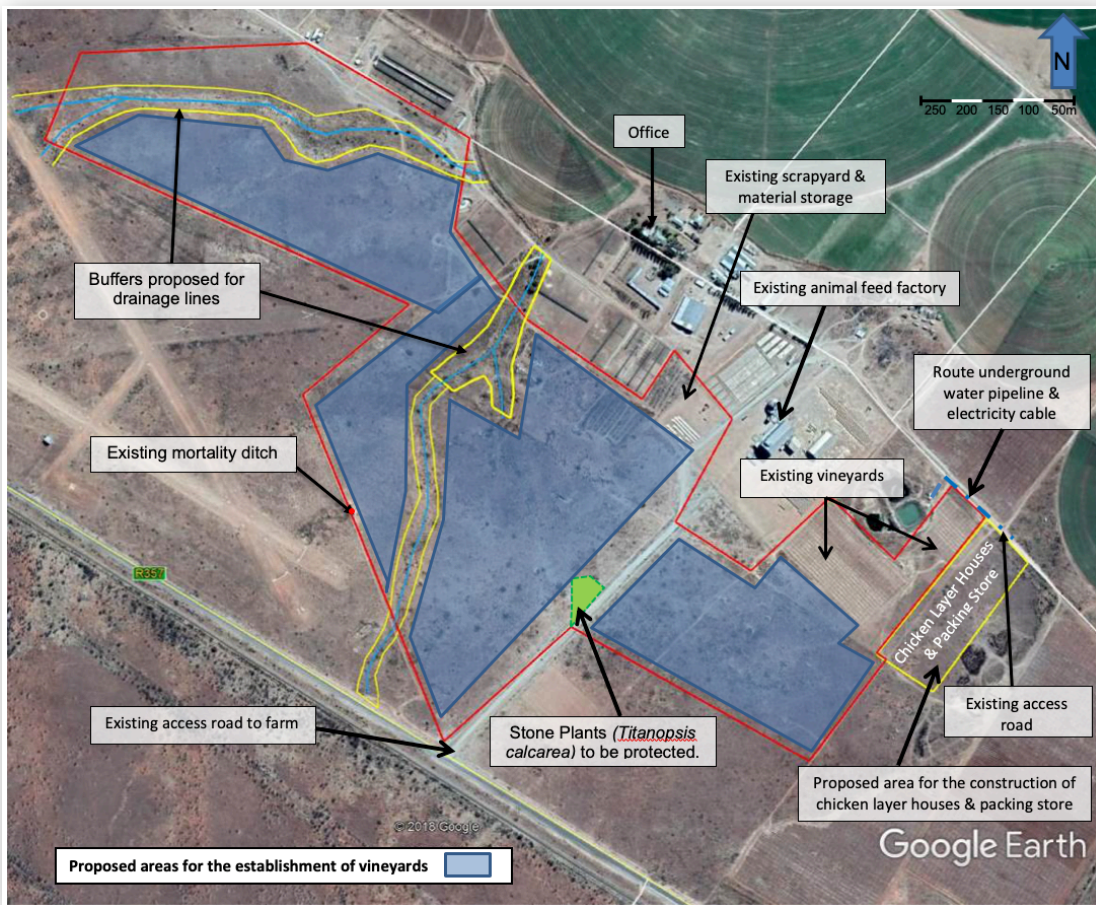


Figure 2 | Proposed areas for the establishment of vineyards & chicken layer houses

2 LEGAL REQUIREMENTS

Environmental decision making with regards to the establishment of vineyards and the construction of chicken layer houses is based on several policy and legislative documents. These documents inform decisions on project level environmental authorisations issued by the Department of Environment and Nature Conservation (DENC), as well as comments from local and district municipalities in terms of their IDPs and SDFs. Therefore, to ensure streamlining of environmental authorisations it is imperative for the proposed activity to align with the principles and objectives of key national, provincial and local development policies and legislation. The following acts and policies are of relevance in this EIA:

- The Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996)
- National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA)
- National Water Act, 1998 (Act No. 36 of 1998)
- The National Heritage Resources Act, 1999 (Act No. 25 of 1999)
- Conservation of Agricultural Resources Act, 1983 (Act No. 85 of 1983)
- NEM: Biodiversity Act, 2004 (Act No. 10 of 2004)
- NEM: Air Quality Act, 2004 (Act No. 39 of 2004)
- NEM: Protected Areas Act, 2003 (Act No. 57 of 2003)
- Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)
- Northern Cape Provincial Spatial Development Framework (PSDF) (2012)
- Northern Cape Nature Conservation Act, 2009 (Act No. 9 of 2009)
- Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) (SPLUMA)
- Pixley Ka Seme District Municipality Integrated Development Plan for 2011 – 2016
- Siyathemba Local Municipality Draft Integrated Development Plan for 2014/2015

In terms of the EIA regulations, certain activities are identified, which require authorisation from the competent environmental authority, in this case the Northern Cape Department of Environment and Nature Conservation (DENC), before commencing. Listed activities in Government Notice Regulation (GN R.) 984 require Scoping and EIA, whilst those in GN R. 983 and 985 require Basic Assessment (unless they are being assessed under an EIA process). The activities being applied for in this EIA process are listed in Table 1.

Table 1 | Listed activities in terms of NEMA GN R983, R984 and R985, December 2014 (as amended by GN R 327, GN R325, and GN R324, of 7 April 2017, respectively), to be authorised for the proposed agricultural activity expansion and chicken layer houses on Botha Farm

Listed activity as described in GN R. 983, GN R. 984 and GN R.985	
GN R.983 (Listing Notice 1), Activity 5	The development and related operation of facilities or infrastructure for the concentration of - (i) more than 1 000 poultry per facility situated within an urban area, excluding chicks younger than 20 days;
GN R.983 (Listing Notice 1), Activity 19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from: "(i) a watercourse".
GN R.984 (Listing Notice 2), Activity 15	The clearance of an area of 20 hectares or more of indigenous vegetation
GN R.985 (Listing Notice 3) Activity 12	The clearance of an area of 300 square metres or more of indigenous vegetation...In the "g. Northern Cape" and "ii. Within critical biodiversity areas identified in bioregional plans"

3 APPROACH TO THE PROJECT

There are three distinct phases in the EIA process namely the Scoping, EIA and decision-making phases. The EIA process is diagrammatically represented in Figure 1. This report covers the Scoping Phase of the EIA process. The Scoping Phase will be followed by the EIA Phase, which will culminate in a comprehensive document, the EIR.

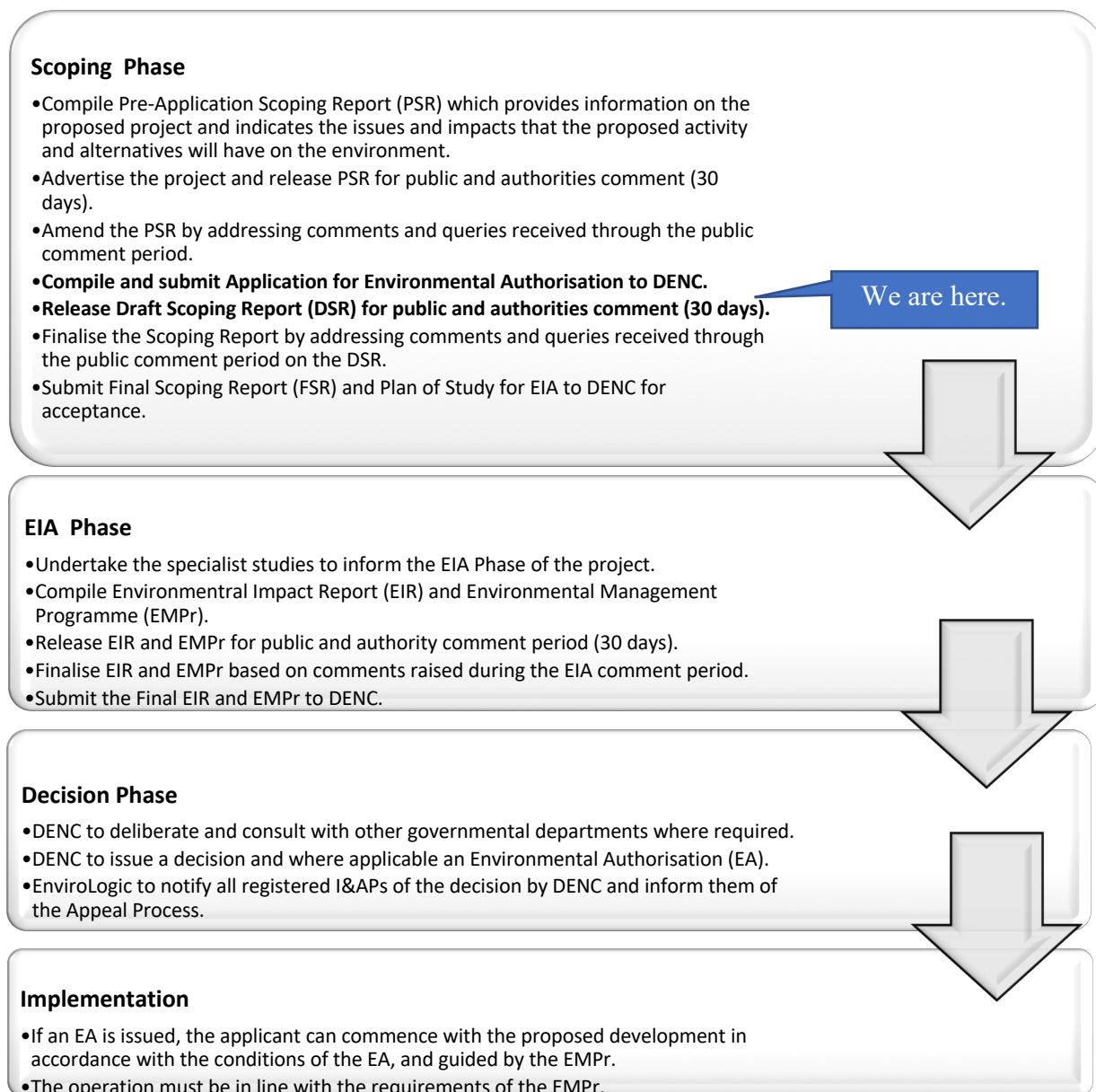


Figure 1 | EIA process to be followed for the proposed agricultural expansion and chicken layer houses

4 DETAILS OF THE SPECIALISTS

Regulation 13(1)(a) and (b) determines that an independent and suitably qualified, experienced and independent specialist should conduct the specialist study, in the event where the specialist is not

independent, a specialist should be appointed to externally review the work of the specialist as contemplated in sub regulation (2), must comply with sub regulation 1.

Details of specialists that have been appointed as part of the EIA process:

- **Botanical Impact Assessment:** Dr David J. McDonald Bergwind Botanical Surveys & Tours CC.
- **Archaeological Impact Assessment:** Jonathan Kaplan, Agency for Cultural Resource Management (ACRM)
- **Palaeontological Impact Assessment:** Dr. John E. Almond, CC, Natura Viva (Palaeontologist)
- **Freshwater Impact Assessment:** Mr Dana Grobler and Mr Stuart Barrow, BlueScience (Pty) Ltd
- **Irrigation Suitability Report:** Digital Soils Africa (DSA)
- **Agronomical Report:** H. J van Rensburg, Viticulturalist: GWK

5 DESCRIPTION OF THE BIOPHYSICAL ENVIRONMENT

The biophysical environment is described with specific reference to geology, soils, agricultural potential, vegetation and landscape features, climate, biodiversity and the visual landscape. Several specialists were consulted to assist with the compilation of this section of the report (see Annexure D for full reports).

A. Topography, Geology and Soils

The study area on Botha Farm near Prieska comprises semi-arid, fairly flat-lying terrain at elevations between c. 940 to 950 m amsl and situated $\pm 1,5$ kilometres southwest of the present banks of the Orange River. Much of the study area, which is situated close to the old aerodrome, is disturbed while the lands between the site and the river have been transformed for irrigation agriculture.

The entire Botha Farm is underlain at depth by glacial / interglacial sediments of the Permo-Carboniferous Dwyka Group (Karoo Supergroup). The Dwyka bedrocks are overlain in the study area by a thick (several meters) mantle of Late Caenozoic superficial sediments including gravelly alluvial deposits of the Orange River and its tributaries, calcrete hardpans, downwasted surface gravels, and wind-blown sands.

Soils of the farm are characterised by free carbonate containing subsoils. The prevalent soil forms are the Brandvlei and Augrabies soil forms, with small portions of Addo, Prieska and Coega. The area is dominated by the Brandvlei soil form, with deeper areas of Addo and Augrabies soil forms to the east and west. The soils have an orthic A horizon typical of arid regions of Southern Africa, reddish (or lighter) and sandy, generally base-rich and of high sodium content.

B. Vegetation

(i) General description

The site lies within the Nama-Karoo Biome, which covers an extensive area from the north-west through the central part of South Africa to the south and southeast of the country. It is an arid zone of grasslands and shrublands, small trees occurring only along drainage lines or rocky outcrops. Although it does not support a particularly rich flora, it features a high diversity of plant growth forms. The vegetation structure and dynamics are strongly influenced by natural disturbance factors and rainfall unreliability. This biome is divided into three bioregions – namely Upper Karoo, Lower Karoo and Bushman land. Each bioregion is subdivided at a finer scale into distinct vegetation units.

The vegetation in the study area has been mapped as part of the Northern Upper Karoo unit by Mucina *et al.* (2005) and updated by SANBI (2017). It is worth noting, however, that the site is adjacent to the eastern border of the Bushmanland Arid Grassland unit. The Botanical Specialist (Dr D. McDonald) stated in his report: "It was observed in the field that features representative of both units are present in this transition area between the two vegetation types" (Annexure D.1).

On the gentle slopes and dry flat lands, the vegetation is mostly relatively sparse and low to very low, except a stretch of denser grassland on deeper soil. Shrubs and grasses show various degrees of dominance throughout the site, and small trees are common in places but absent in other parts.

Two ephemeral drainage lines cross the area proposed to be cultivated. Seasonal drainage lines are an important feature in the Nama-Karoo, for they support a higher diversity and density of plants.

(ii) Habitat condition

Some areas on the farm have already been converted into vineyards or have been strongly affected by the construction of the earth dam. Some of the areas closest to human activities are also very much degraded.

On the rest of the site, for most parts the vegetation is currently in a near-natural state, supporting diverse indigenous plant communities and several populations of protected species. The principal source of disturbance, relatively significant in places, has been the selective mechanical removal of black-thorn trees (*Senegalia mellifera*), paving the way for encroaching or invasive pioneer plants to establish. As yet, invasion by alien species such as mesquite (*Prosopis glandulosa*) has been negligible or contained.

(iii) Conservation Status

The Northern Upper Karoo and Bushmanland Arid Grassland vegetation units are both classified as Least Threatened (Mucina *et al.*, 2006). The national conservation target for each unit is 21% of their original extent. As of 2006, no Northern Upper Karoo and very little Bushmanland Arid Grassland were statutorily conserved. Most of the land is privately owned therefore conservation is strongly dependent on landowners' management practices.

(iv) Protected Plant Species

No species recognized of conservation concern in the Red List of South African Plants (Raimondo *et al.*, 2009) were found by Dr McDonald in the natural or near-natural vegetation in the study area.

According to Dr McDonald stone plants (*Titanopsis calcarea*) and the *Euphorbia* species are restricted to a specific location, which should not be developed. One clump of *Hoodia gordonii*, about ten colonies of *Aloe claviflora*, and a large number of Shepherd's trees (*Boscia albitrunca*) were seen growing throughout the site (Annexure D.1).

Removal of *Boscia albitrunca* would require a permit from the Department of Agriculture, Forestry & Fisheries (DAFF). Removal or translocation of provincially protected species would require a permit from the Department of Environment and Nature Conservation, Northern Cape Province.

C. Aquatic Features

Aquatic features within the study area consist of drainage features associated with the Orange River System. At its closest point, the proposed cultivated area is more than 1.4 km away from the top of bank of the main channel of the Orange River. The Orange River however dominates the surrounding landscape, with braided features and secondary channels that are only active during high flow events.

Small, intermittently flowing dendritic streams and drainage lines dissect the landscape, draining towards the Orange River.

Two ephemeral drainage lines cross the area proposed for cultivation. The eastern drainage line is dominated by grass species and in the lower part of the line contains larger woody tree species. The western drainage line is less prominent and contains little woody plant species. Both the drainage line does not connect with the Orange River as the lower portions of the drainage lines have been developed and drainage take place via storm water drains around the agricultural fields. The lower lying areas of the remaining drainage lines are “blocked” by the roads situated south of the main centre pivot fields. The retention of water has resulted in the development of more grass dominated habitats of the drainage lines and creates the impression during wet season of wetlands. The grass is however quickly grazed down annually.

D. Climate

The study area falls within the Nama-Karoo Biome and has a continental, arid climate. This biome has the second most variable rainfall and extreme temperatures in South Africa. Most rivers are ephemeral (non-perennial). The unpredictable and mostly autumn rainfall soon followed by winter frost events results in a short growing season, particularly in years of drought. Prieska normally receives about 132mm of rain per year, with most rainfall occurring mainly during autumn. The lowest rainfall occurs in June and the highest in March. As a result, most of the rivers are ephemeral with only the larger Orange River flowing perennially. The average midday temperatures for the area range from 17.9°C in June to 32.7°C in January. The region is the coldest during July when the mercury drops to 1.3°C on average during the night.

E. Biodiversity

Examination of the Critical Biodiversity Areas (CBA) map for the middle Orange River valley shows that the study site is entirely classified as a CBA2. CBAs are critical for sustaining biodiversity and ecosystem functions and services. They are associated with land management objectives and are required to meet conservation targets. CBA2 corresponds to a land management objective of near-natural landscape, maintained or rehabilitated to be largely intact and undisturbed; some components might be lost without compromising the targets but the ecosystem is approaching the limits of acceptable change.

Ground-truthing of the site by Dr McDonald (Botanical Specialist), confirmed that the northern section of Area B which has been ploughed for vineyard plantation, has undergone irreversible changes and therefore does not meet the requirements to be qualified as a CBA2. Likewise, the dumps along the north-eastern boundary of the site have been significantly disturbed and currently have low botanical sensitivity. In contrast, the two seasonal drainage systems are highly sensitive and should be protected and buffered.

F. Visual landscape

The visual impact of the proposed cultivated area and chicken layer houses depends on the complex relationship between the visual environment (landscape), the development (object), and the observer/receptor (e.g. farmer). Although the site itself offers a pleasant rural view, the nearby area is mainly used for irrigated cropland and vineyards

The proposed cultivated area is bordered by the R357 road to the south and Prieska Aerodrome in the south-west. Existing cultivated areas and vineyards occur to the east, while livestock (sheep) farming and infrastructure is in the north. Further north lies the Orange River with irrigated crops (mostly pivot irrigation systems) dominating the floodplain between the site and the river. The terrain can broadly be described as being arid and of a low relief that slopes gently down to the Orange River. Small, intermittently flowing dendritic streams and drainage lines dissect the landscape, draining towards the Orange River.

G. Land use

Economic development opportunities are the key determinant in the settlement pattern of the province. Economic development, in turn, typically responds to the availability of Environmental Capital (e.g. water, suitable agricultural soil, mining resources, etc.) and Infrastructural Capital (e.g. roads, electricity, etc.).

The Orange River provides water via an irrigation scheme that has resulted in virtually every inch of soil in the immediate area of the river being developed, under irrigation. Lying in an otherwise arid region, the area along the southern parts of the Orange River is green with grapes, lucerne, and wheat and in places corn. Residences are spread nearly throughout the area, although they are generally concentrated along the Orange River.

H. Traffic consideration

The main entrance to Botha Farm/ sites is on a gravel road entrance from the R357. The R357 provides access to other farms in the area and is also the main road linking major towns in the area. There is already heavy vehicle traffic on the R357 to and from Prieska, however the construction and operational phase of this project is unlikely to significantly add to the traffic load. The impact of the noise levels and the load of the traffic on the road are likely to be low.

6 DESCRIPTION OF THE SOCIO-ECONOMIC ENVIRONMENT

A. Socio-economic environment

(i) Demographic Context

The Siyathemba Local Municipality is located within the central eastern parts of the Northern Cape Province on the banks of the Orange River. The municipal area falls within the boundaries of the Pixley ka Seme District within the province. This municipal area consists of the following main towns and their surrounding suburbs, Prieska, Marydale, Niekerkshoop and Copperton. According to the 2011 Census the total population for the Siyathemba Local Municipality is approximately 21 591 people.

According to the Siyathemba Municipality Integrated Development Plan (IDP) of 2014/2015 the most dominant population group in this municipal area is coloured (80%), while the black population consists of 12% and the white population group of 8%. The IDP further states that according to the 2011 Census the male distribution of the population accounted for 48.6%, while 51.4% of the population is female. The population size of the Siyathemba Municipal area has declined over the years, but according to the IDP, this decline was mainly driven by lower fertility rates.

(ii) Economic Context

The Northern Cape economy has shown significant recovery since 2000/2001 when it had a negative economic growth rate of -1.5% (Local Economic Development (LED) Strategy). The provincial economy reached a peak of 3.7% in 2003/2004 and remained the lowest of all provinces. The Northern Cape is the smallest contributing province to South Africa's economy (only 2% to South Africa GDP per region in 2007). The Northern Cape Province is divided into five Districts and each District contributes to the economy of the Province. The Pixley ka Seme District Municipality (PKSDM) is the poorest contributor, contributing 10%.

According to the PKSDM IDP the key strengths of the district's economy are community services, agriculture, transport and tourism. The small towns in the district mainly functions as agricultural service centres for farmers. All communities are affected in terms of poverty and development deficit. Improvement of the local economy has therefore been a key area of focus for the district municipality. Due to the magnitude of poverty (43.5%) in the district, the PKSDM has undertaken to do everything in its power to create jobs.

B. Cultural and heritage aspects

The Northern Cape has a rich history dating back millions of years. Rock art and artefact sites and dating back thousands of years are found across the province. These include remains of the Stone Age primarily along rivers or around pans. The Agency for Cultural Resource Management (ACRM), confirmed that the proposed area for the establishment of vineyards is covered in a low-density scatter of stone tools, dominated by implements assigned to the Middle Stone Age. Many of the tools, the majority in banded ironstone, have been utilized and retouched. No formal tools such as points, or scrapers were found, although many of the flakes have been miscellaneously retouched. Most of the tools were recorded on large patches of ironstone gravels, some which were also probable sources of raw material.

No graves or typical grave markers were encountered during the field study. There are no old buildings, structures, or features on the proposed development site.

7 SCOPING PHASE ASSESSMENT

In Table 2 a summary of the a scoping phase assessment of potential impacts to reach the proposed preferred activity, site and location of the development footprint within the site are provided.

Table 2| A summary of the scoping phase impact assessment, it assumed that industry standard mitigation will be undertaken.

Impact	Phase	Description	Significance with mitigation
Chicken Layer houses (CLH) - Loss of natural vegetation	Construction	Clearing of vegetation for construction of chicken layer houses and packing store; excavation of trenches for water supply pipelines and electrical cable.	Minor - negative
CLH - Disturbance of freshwater ecosystem habitat.	Construction	No foreseeable impact on the above or below ground freshwater resources are expected.	Minimal negative -
CLH - Impact on archaeological resources.	Construction	Construction of chicken layer houses and packing store; excavation of trenches for water supply pipelines and electrical cables.	Minimal negative -

Impact	Phase	Description	Significance with mitigation
CLH - Impact on palaeontological resources.	Construction	Construction of chicken layer houses and packing store; excavation of trenches for water supply pipelines and electrical cable.	Minimal negative -
CLH - Visual Impact	Construction	Construction of chicken layer houses and packing store.	Minor - negative
CLH - Noise Impact	Construction	Noise generated during construction of chicken layer houses and associated infrastructure.	Minimal negative -
CLH - Socio-economic Impact	Construction	Socio-economic benefits	Minor - positive
CLH - Impact on land-use, agriculture	Construction	Transformation of agricultural land to chicken layer houses	Moderate positive -
CLH - Noise Impact	Operation	Ventilation (fans) of the chicken layer houses; transportation to and from the layer houses.	Minor - negative
CLH - Odours	Operation	Chicken manure; chicken mortalities.	Minimal negative -
CLH - Socio-economic	Operation	Increase in social and economic wealth.	Moderate positive -
Vineyards - Loss of natural vegetation	Establishment	Establishment of vineyards on ± 68,22 ha (footprint of ± 36,52 ha) and installation of underground water supply pipelines	Moderate negative -
Vineyards - Disturbance of freshwater ecosystem habitat	Establishment	Establishment of vineyards i.e. ripping of soil, planting of poles and installation of underground water supply pipelines	Minimal negative -
Vineyards - Impact on archaeological resources.	Establishment	Establishment of vineyards and installation of underground water supply pipelines	Minimal negative -
Vineyards - Impact on palaeontological resources.	Establishment	Establishment of vineyards and installation of underground water supply pipelines.	Minimal negative -
Vineyards - Visual Impact	Establishment	Establishment of vineyards	Minimal negative -
Vineyards - Noise Impact	Establishment	Ripping of soil for plantings and excavation of trenches for installation of underground water supply pipelines.	Minimal negative -
Vineyards - Socio-economic Impact	Establishment	Socio-economic benefits	Minor - positive
Vineyards - Impact on land-use, agriculture	Establishment	Transformation of agricultural land used as low yielding grazing land to vineyards	Moderate positive -
Loss of natural vegetation	Operation	Impact on vegetation occurring in drainage lines and buffer zones.	Minor - negative
Vineyards - Disturbance of	Operation	Impact on drainage lines and buffer zones.	Minimal negative -

Impact	Phase	Description	Significance with mitigation
freshwater ecosystem habitat			
Vineyards - Socio-economic Impact	Operation	Socio-economic benefits	Moderate positive -

The preferred feasible alternatives to be assessed in the EIAR include the following

Cultivation	Chicken layer houses
Location alternatives	
Remainder Erf 4000	Erf 981
Layout alternatives	
Vineyards ± 36,52 ha	Twelve (12) chicken layer houses and ancillary infrastructure ±3,18ha
Design alternatives	
See design diagrams in main report.	See design diagrams in main report.
Activity alternatives	
Vineyards	Chicken Layer houses
Technology alternatives	
Drip irrigation	Energy efficient chicken layer houses
No-go alternatives	
<i>Status quo grazing</i>	<i>Status quo vacant land</i>

8 PUBLIC PARTICIPATION PROCESS (PPP) I.E. HOW YOU CAN GET INVOLVED

The PPP will be undertaken to ensure participatory consultation with members of the public are undertaken in a manner that provides the public an opportunity to comment on the proposed project. Consultation with the public forms an integral component of this investigation and enables I&APs (e.g. directly affected landowners, authorities, environmental groups, civic associations and communities), to identify their issues and concerns, relating to the proposed activities, which they feel should be addressed in the EIA process. Comments on the PSR, DSR and EIR will be solicited from the public. The objectives of public participation are to provide information to the public, identify key issues and concerns at an early stage, respond to the issues and concerns raised, provide a review opportunity, and to document the process properly. Opportunities for you to give comment on the proposed project are indicated in Table 3 below. All comment should be directed to the contact person (EAP) who's contact detail are provided on the first page of this document.

9 THE WAY FORWARD

An "Application Form for Environmental Authorisation" will be submitted to DENC at the same time as making this draft version of the Scoping Report available for review and comment.

Following the 30-day period (i.e. until 10 June 2019) in which I&APs are afforded an opportunity to submit comment on the DSR to EnviroLogic, the comments will be incorporated into the FSR which will be submitted to the DENC for their consideration. DENC will either reject the report or instruct the applicant to proceed to the EIA Phase, either as proposed in the Plan of Study for EIR, or direct

that amendments are made before continuing. All registered I&APs will be kept informed throughout the EIA process.

A summary of the proposed programme is given in Table 3 below.

Table 3 | Proposed EIA programme, dates are relative and may change during the project course

Activity	Proposed date	Deliverable
1st round of public engagement, PSR:		
■ Specialist studies initiated	2017/2018	Specialist reports
■ Lodge PSR in public venues	15 March 2019	PSR in Siyathemba Municipal Office Prieska and in Prieska Public library
■ Email / letter to I&APs & newspaper adverts ■ PSR Public comment period starts	15 March 2019	Informed I&APs
■ PSR Public comment period ends	18 April 2019	Updated CRR and PSR
2nd round of public engagement DSR:		
■ Lodge DSR in public venues	7 May 2019	DSR in Siyathemba Municipal Office Prieska and in Prieska Public library
■ Email / letter to I&APs ■ DSR Public comment period starts	7 May 2019	Informed I&APs
■ DSR Public comment period ends	10 June 2019	Updated CRR and DSR
■ Submit FSR (incl. Plan of Study for EIA) to DENC	21 June 2019	Review of FSR & Plan of Study for EIA by DENC
■ Final FSR	31 July 2019	Decision from DENC
3rd round of public engagement, EIR:		
■ Lodge draft EIR & EMPr in public venues	16 August 2019	Draft EIR & EMPr in Siyathemba Municipal Office Prieska and in Prieska Public library
■ Email / letter to I&APs ■ Public comment period starts	16 August 2019	Informed I&APs
■ Public comment period ends	16 September 2019	Updated CRR
■ Submit final EIR & EMPr to DENC	23 September 2019	Review of final EIR & EMPr by DENC
■ Letter to I&APs to notify them on DENC decision	27 January 2020	DENCs decision.