SPECIALIST REPORT

A FAUNA HABITAT ASSESSMENT

FOR THE PROPOSED ESTABLISHMENT OF NEW PIGGERY SOW AND GROWER UNITS TOGETHER WITH AN EXPANSION OF THE EXISTING BEEF FEEDLOT AT BIRBURY FARMS NEAR VREDEFORT, FREE STATE PROVINCE

Prepared for

BIRBURRY AGRI

Prepared by

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DATE: MARCH 2022

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Contents of this report in terms of Regulation GNR 982 of 2014, Appendix 6	Cross reference section
(a) details of— the specialist who prepared the report; and the expertise of that specialist to compile a specialist report including a curriculum vitae;	1.4
(b) a declaration that the specialist is independent in a form as may be specified by the competent authority;	Page i
(c) an indication of the scope of, and the purpose for which, the report was prepared;	1.1
(d) the date and season of the site investigation and the relevance of the season to the outcome of the assessment;	2.4
(e) a description of the methodology adopted in preparing the report or carrying out the specialised process;	2
(f) the specific identified sensitivity of the site related to the activity and its associated structures and infrastructure;	4
(g) an identification of any areas to be avoided, including buffers;	4
(h) a map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;	Figure 4-1
(i) a description of any assumptions made and any uncertainties or gaps in knowledge;	1.3
(j) a description of the findings and potential implications of such findings on the impact of the proposed activity, including identified alternatives on the environment;	3 & 5
(k) any mitigation measures for inclusion in the EMPr	5.2
(l) any conditions for inclusion in the environmental authorisation	5.2 & 6
(m) any monitoring requirements for inclusion in the EMPr or EA	N/A
(n) a reasoned opinion if the activity should be authorised	6
(o) a summary and copies of any comments received during any consultation process and where applicable all responses thereto; and	N/A – Will be updated after comments received relevant to specialist study
(p) a summary and copies of any comments received during any consultation process	
(q) any other information requested by the competent authority	N/A

EXECUTIVE SUMMARY

KEMS has been appointed to undertake a Fauna Habitat Assessment on the areas earmarked for the proposed establishment of a new Commercial Sow Unit (5000 sows), a new Multiplier Sow Unit (3000 sows), and two new Grower Units. Further to this the Proponent proposes to expand the existing onsite Beef Feedlot. The findings of this report have been based on numerous resources, both literature review and physical field work.

The general approach and angle adopted for this type of study is to identify any potential fauna species that may be affected by the proposed development. This means that the focus of this report will be on rare, threatened, protected and conservation-worthy species. The general approach adopted for this type of study is thus to identify any critical biodiversity issues that may lead to the decision that the proposed project cannot take place, i.e. to specifically focus on red flags and/or potential fatal flaws.

A desktop assessment was conducted to establish whether any potentially sensitive species/receptors might occur within the study area. The South African National Biodiversity Institute's online biodiversity tool, ADU (Animal Demography Unit) Virtual Museum was used to query a species list for the 2727AB Quaternary Degree Square (QDS) across which the study area is situated. To describe the overall site characteristics, and to identify points of interest within the site for evaluation, Google Earth Imagery and the 1:50 000 topographical maps were examined. The importance of a desktop study is to provide a reference condition to determine the current state of the environment and to draw comparisons between the potential of the area and current degradation from surrounding land uses. A field investigation was undertaken on 20 February 2022 to supplement and confirm several findings from the desktop study. This mainly served as a fatal flaw analyses to determine whether any major ecological concerns exist with regards to the study area surface infrastructure establishment. During the field investigation the observed and derived presence of fauna species associated with the recognised habitat types of the study site, were recorded. In addition, species were also identified by means of tracks, droppings, burrows, or shelters. No trapping or mist netting was conducted, as the scope of work did not require such intensive work.

The proposed development will take place across four distinct development sites, however, will collectively be referred to as the study area. The study area is situated roughly 15 km south-east of Vredefort within the jurisdiction of the Ngwathe Local Municipality, Free State Province.

Some faunal species of conservation concern does/could potentially occur within the vicinity of the study area.

Without any mitigation, the proposed development is expected to have a Moderate impact on faunal habitat and species. However, with the implementation of the mitigation measures recommended in this report, the impact will be reduced to a Low to Very Low significance and will be limited to the development footprint area as far as possible.

At the time of the assessment, all aquatic features within the study area, both natural and artificial were deemed to be of a moderate sensitivity due to agricultural impacts from livestock grazing. Further to this the aquatic feature on Site 4 was dry. Although the pan within Site 2 contained some water, the feature was heavily trampled by cattle. It is recommended that a qualified aquatic specialist be appointed to appropriately delineate aquatic features within the study area and to calculate appropriate exclusion buffer zones, if applicable.

The major species of concern for the region is the Vulnerable *Felis nigripes* (Black-footed Cat), while some other protected species potentially occur within the study area. SCC's is not expected to be significantly impacted by the proposed development. The developments will be localised and will allow for movement around the facilities.

The following factors warrants a moderate sensitivity rating for the grassland areas:

- The scale to which planned agriculture will influence natural grassland areas within the study area compared to grassland habitat availability within the greater regional surroundings;
- Sensitivity and adaptability and/or tolerance of grassland species potentially occurring within the study area;

Further to the above, the already disturbed/transformed areas, including agriculture, gravel roads and its disturbed areas such as firebreaks, areas where land clearance has taken place, houses and structures are regarded as having a low sensitivity.

The Environmental Management Plan (EMPr) should make adequate provision to protect local faunal species and habitat. This will be ensured by taking all mitigation measures listed in this report into account to control the impacting activities of the proposed development on the site. An Environmental Control Offer (ECO) must be appointed prior to construction to oversee mitigation measures during

construction and whom will be responsible for the monitoring and auditing of the Contractor's compliance. Since the potential exists for sensitive faunal species to reside on site, the appointed ECO must conduct a thorough pre-construction site investigation of the areas to be affected to limit impacts to species potentially residing in these areas at the time of construction.

Taking all information contained within this study into account, the Specialist is of the opinion that the project should be authorised with the implementation of the recommended mitigation measures.

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LIST OF ABBREVIATIONS AND UNITS OF MEASURE

%	Percentage
ADU	Animal Demography Unit
(B)GIS	(Biodiversity) Geographic Information Systems
CARA	Conservation of Agricultural Resources, 1967 (Act No. 43 of 1967)
CBA	Critical Biodiversity Area
CITES	Convention on International Trade in Endangered Species
CR	Critically Endangered
DD	Data Deficient
DEA	Department of Environmental Affairs
DEFF	Department of Environment, Forestry and Fisheries
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMF	Environmental Management Framwork
EMPr	Environmental Management Programme
EN	Endangered
ESA	Ecological Support Area
GN	Government Notice
IAIA	International Association for Impact Assessment
IUCN	International Union for Conservation of Nature
km	Kilometres
LC	Least Concern

LUDS	Land Use Decision Support
m	Metres
MBSP	Mpumalanga Biodiversity Sector Plan (MBSP) Terrestrial Assessment (2014)
ME	Mitigation Efficiency
MNCA	Mpumalanga Nature Conservation Act (MNCA), 1998 (Act No. 10 of 1998)
MTPA	Mpumalanga Tourism and Parks Agency
NBA	National Biodiversity Assessment
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEMBA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NT	Near Threatened
NWA	National Water Act, 1998 (Act No. 36 of 1998)
PR	Protected
QDS	Quarter Degree Square
RE	Remaining Extent
RAMSAR	Intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.
SA	South Africa
SACAD	South African Conservation Areas Dataset
SANBI	South African National Biodiversity Institute
SAPAD	South African Protected Areas Dataset
SFSD	Strategic Framework for Sustainable Development
TOPS	Threatened or Protected Species
VU	Vulnerable
WM	With Mitigation
WOM	Without Mitigation
ZSSA	Zoological Society of Southern Africa

1 INTRODUCTION

This report contains the data gathered and interpreted specifically taking faunal habitat and abundance on site into account. A discussion on sensitive areas and species have also been included in the report together with mitigation measures proposed to limit the extent of the impact (if any). Literature and Quarter Degree Grid Square readings were undertaken, which was then followed by a comparative field survey to allow for physical scanning of the proposed construction/operational areas (hereafter also referred to as the study area).

This Specialist Study forms part of the Environmental Impact Assessment (EIA) Process currently underway for the proposed project. For the purpose of the EIA Process, it is necessary to assess the faunal habitat potential of the study area to determine the possible impact of the proposed development activity on the relevant environment.

1.1 SCOPE AND OBJECTIVES OF THE STUDY

KEMS has been appointed to undertake a Fauna Habitat Assessment on the areas earmarked for the proposed activity. The findings of this report have been based on numerous resources, both literature review and physical field work. The main objectives of this study are as follows:

- To provide a description of the potentially affected faunal habitat by making use of available literature resources, and in so compiling a list of fauna species likely to occur on site;
- To list and record endangered, red data or protected fauna species found or likely to occur on site;
- To assess the condition of suitable habitat on site for sensitive fauna species;
- To compile a sensitivity map indicating sensitive or non-sensitive or transformed areas and relevant buffer zones;
- To identify anticipated impacts of the proposed development on fauna species; and
- To provide mitigation measures to limit and/or eliminate the anticipated impacts.

1.2 LOCALITY AND BACKGROUND

The Proponent is planning to establish a new Commercial Sow Unit (5000 sows), a new Multiplier Sow Unit (3000 sows), and two new Grower Units. Further to this the Proponent proposes to expand the existing onsite Beef Feedlot. **Figure 1-1** below indicates the properties on which the assessment sites are situated. The proposed development will take place across four distinct development sites, however, will collectively be referred to as the study area. The study area is situated roughly 15 km south-east of Vredefort within the jurisdiction of the Ngwathe Local Municipality, Free State Province.

Table 1-1: Property description per proposed development site

Site	Description	Property(ies)
Site 1	New Multiplier Sow Unit and Beef Feedlot Expansion	Portion 0(RE) of the Farm Samaria 484 Vredefort RD Portion 0(RE) of the Farm Aankom 1199 Vredefort RD
Site 2	New Commercial Sow Unit	Portion 2 of the Farm De Rust 488 Vredefort RD
Site 3	New Grower Unit No. 1	Portion 0(RE) of the Farm Rewiesie 1085 Vredefort RD
Site 4	New Grower Unit No. 2	Portion 0(RE) of the Farm Mara 1084 Vredefort RD Portion 0(RE) of the Farm Klipdam 52 Vredefort RD

Figure 1-1 below provides an indication of the proposed study area (inclusive of the four development sites) within its regional setting.

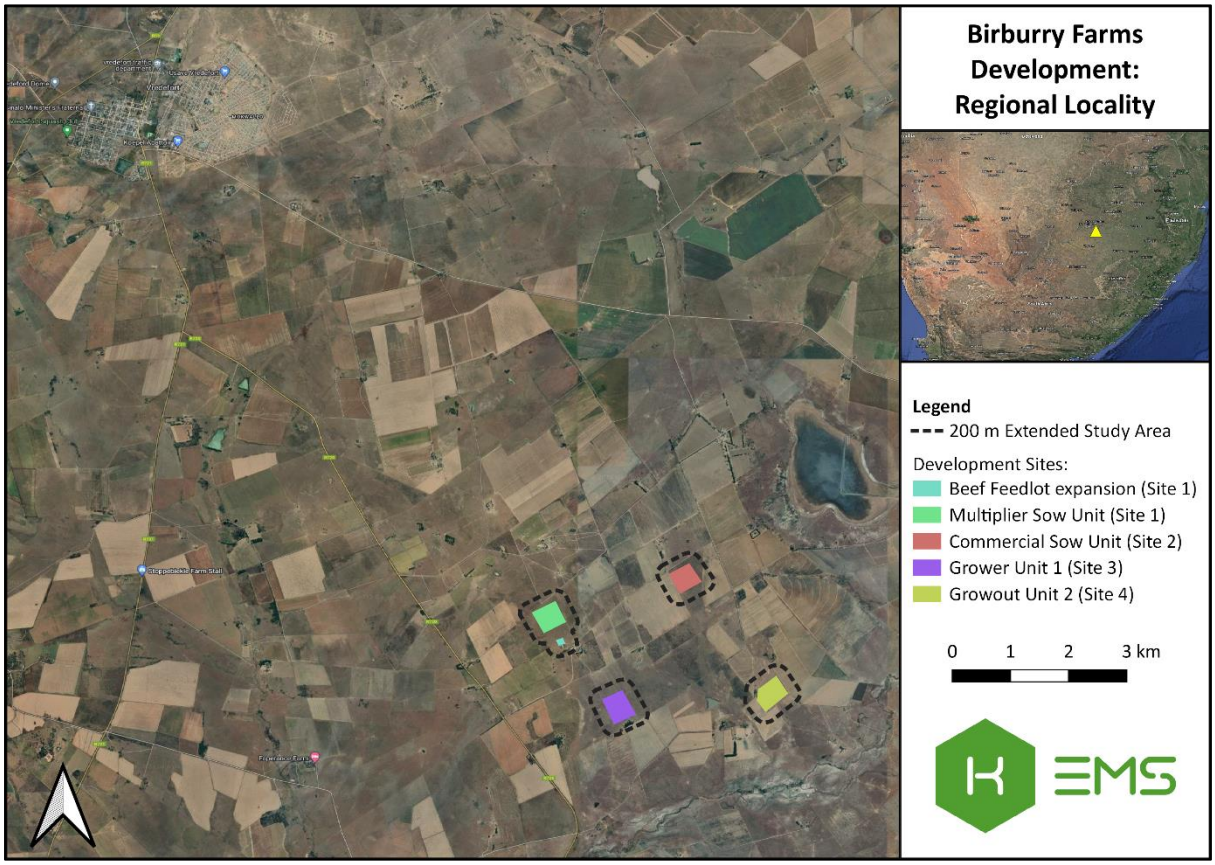

Figure 1-1: Regional Locality of the Study Area

1.3 ASSUMPTIONS AND LIMITATIONS

While every care is taken to ensure that the data presented is qualitatively adequate, inevitably conditions are never of such a nature that the data is entirely satisfactory. To conduct a comprehensive, completely factually based faunal study, requires an extensive amount of time over

different seasons. Unfortunately, such comprehensive studies are generally limited by budget constraints and most importantly by time constraints subject to submission of EIA Applications. As a result, typical surveys provide only a snapshot of the existing faunal community and should/can only be used as a general guideline.

This study does not focus on or include avi-faunal habitat availability within the study area. A separate avi-faunal input will be obtained specifically for this purpose.

It should be noted that the findings of this study were largely based on desktop/historical assessments and findings of a single site visit within which to identify faunal habitat availability. Visibility of fauna indicators vary throughout seasons, and it is therefore noted that, if in future, any further indicators are found on site, the author cannot be held liable for conclusions deducted in good faith based on the available resources and information provided at the time of the study. Furthermore, this study, mainly focuses on the faunal habitat directly related to the study area and does not include any areas outside of this scope. It is important that this report be viewed and acted upon with these limitations in mind.

1.4 PARTICULARS OF THE SPECIALIST

A summary of the Environmental Assessment Practitioner's details is provided below.

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CONTACT INFORMATION

Name and Surname: Chantél Muller

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PROFESSIONAL AFFILIATIONS

Member of the Zoological Society of Southern Africa (ZSSA) No. 753

Member of the International Association for Impact Assessment South Africa (IAIAsa) No. 5885

Chantél has obtained her B.Sc. (Hons) in Environmental Science and her B.Sc. in Environmental and Biological Sciences (with main subjects Geography and Zoology) from the North-West University,

South Africa. Her Honours research project aimed to evaluate the quality of the public participation process in terms of International Best Practice Principles by comparing the current situation for Basic Assessment Reports under the National Environmental Management Act, 1998 (Act No. 107 of 1998) to that of the Beefed-up Scoping Reports previously compiled under the Environmental Conservation Act, 1989 (Act No. 73 of 1989). With 9 years of applicable experience within the environmental field, Chantél has gained extensive integrated environmental management knowledge, including, but not limited to Environmental Law, Water Use License Applications, Basic Assessment Reports, Environmental Impact Assessments, Public Participation Processes, Environmental Monitoring, Surface Water Assessments, Fauna Assessments, Project Management and general environmental support.

Chantél's reports provide a number of outcomes for developments across South Africa. Her job as an environmental specialist involves providing advice to applicants, government officials, other environmental assessment practitioners and other specialists on a day-to-day basis. The findings from her field assessments and reports are used to direct projects on all levels. She provides input about site-specific legislative requirements, sensitive areas, re-alignment of projects and also provide a number of management options across the environmental field. She acts in an independent manner to aid in the environmental assessment processes. Her employment as a specialist therefore has a number of responsibilities particularly in the advisory field.

2 APPROACH AND METHODOLOGY

2.1 GENERAL APPROACH TO THE STUDY

It is important to note that many parts of South Africa contain high levels of biodiversity at species and ecosystem level. At any single site there may be large numbers of species or high ecological complexity. Sites also vary in their natural character and uniqueness and the level to which they have previously been disturbed. Assessing the impacts of a proposed project often requires evaluating the conservation value of the site relative to other natural areas in the surrounding area.

A simple approach to evaluating the relative importance of a site and the species found within it includes assessing the following:

- Is the site unique in terms of natural or biodiversity features?
- Are there any red list data species known to occur in the study area?
- Is the protection of biodiversity features on site of national/provincial importance?
- Would development of the site lead to contravention of any international, national or provincial legislation, policy, convention or regulation?
- Is the site modified/disturbed in any way?

Thus, the general approach and angle adopted for this type of study is to identify any potential fauna species that may be affected by the proposed development. This means that the focus of this report will be on rare, threatened, protected and conservation-worthy species. The general approach adopted for this type of study is thus to identify any critical biodiversity issues that may lead to the decision that the proposed project cannot take place, i.e. to specifically focus on red flags and/or potential fatal flaws.

Biodiversity issues are assessed by documenting whether any important biodiversity features occur on site, including species, ecosystems or processes that maintain ecosystems and/or species. Rare, threatened, protected and conservation-worthy species and habitats are considered to be the highest priority, the presence of which is most likely to result in significant negative impacts on the ecological environment. The focus on national and provincial priorities and critical biodiversity issues is in line with National Legislation protecting environmental and biodiversity resources.

2.2 LEGISLATIVE ASSESSMENT

The conservation and wise use of biodiversity and terrestrial ecosystems (including indigenous fauna and flora) is recognised internationally and in South Africa at a National and Provincial level. Several

pieces of legislation and policies have been put in place to ensure the protection of South Africa's biodiversity heritage. The most relevant pertaining to this study has been summarised in **Table 2-1** below.

Table 2-1: Relevant Legislation/Agreements pertaining to Terrestrial Ecosystems and Biodiversity in SA and Free State

Level	Legislation	Description
International	Ramsar convention (1971)	The Convention on Wetlands of International Importance especially as Waterfowl Habitat, commonly referred to as the Ramsar Convention, provides the framework for the conservation and wise use of wetlands and their resources.
International	Bonn Convention (1979)	The Bonn Convention was adopted in Bonn, Germany, in 1979 and came info force in South Africa in 1985. The objective of the convention is to promote the conservation of migratory species worldwide wit the parties to the convention acknowledging the importance of conserving migratory species. To avoid the migratory species from becoming endangered, the parties must: (a) Conserve or restore the habitats of endangered species; (b) Prevent, remove, compensate for or minimize the adverse effects of activities or obstacles that impede the migration of the species; and (c) Prevent, reduce or control factors (to the extent feasible and appropriate) that are endangering or are likely to further endanger the species.
International	The Convention of Biological Diversity (Rio de Janeiro, 1992).	The purpose of the Convention on Biological Diversity is to conserve the variability among living organisms, at all levels (including diversity between species, within species and of ecosystems). Primary objectives include (i) conserving biological diversity, (ii) using biological

Level	Legislation	Description
		diversity in a sustainable manner and (iii) sharing the benefits of biological diversity fairly and equitably.
International	CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora)	CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.
National	South African Constitution 108 of 1996	The Constitution is the supreme law of the land and includes the Bill of rights which is the cornerstone of democracy in South Africa and enshrines the rights of people in the country. It includes the right to an environment which is not harmful to human health or well-being and to have the environment protected for the benefit of present and future generations through reasonable legislative and other measures.
National	Strategic Framework for Sustainable Development in South Africa	The development of a broad framework for sustainable development was initiated to provide an overarching and guiding National Sustainable Development Strategy. The Strategic Framework for Sustainable Development (SFSD) in South Africa (2008) is a goal orientated policy framework aimed at meeting the Millennium Development Goals. Biodiversity has been identified as one of the key crosscutting trends in the SFSD. The lack of sustainable practices in managing natural resources, climate change effects, loss of habitat and poor land management practices were raised as the main threats to biodiversity.

Level	Legislation	Description
National	National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998)	This is a fundamentally important piece of legislation and effectively promotes sustainable development and entrenches principles such as the 'precautionary approach', 'polluter pays' principle, and requires responsibility for impacts to be taken throughout the life cycle of a project NEMA provides the legislative backing (Including Impact Assessment Regulations) for regulating development and ensuring that a risk-averse and cautious approach is taken when making decisions about activities.
National	Environmental Impact Assessment (EIA) regulations	Amendments to the regulations have been promulgated and were published on 07 April 2017 in Government Notice (GN) No. 326. In addition, Listing Notices 1-3 (GN 324, 325 and 327 of 07 April 2017) lists activities which are subject to an Environmental Authorisation. Development and land use activities which require Environmental Authorisation in terms of the NEMA EIA Regulations, 2014 (as amended), are in Listing Notice 3 identified via geographic areas with the intention being that activities only require Environmental Authorisation when located within designated sensitive areas. These sensitive/geographic areas were identified and published for each of the nine (9) Provinces. The Critical Biodiversity Areas (CBAs) is one of the sensitive layers against which several activities are listed, and which would require environmental authorisation if the project falls within the CBA identified areas.
National	National Environmental Management: Biodiversity Act	The Biodiversity Act provides for the management and conservation of South Africa's

Level	Legislation	Description
	(NEMBA), 2004 (Act No. 10 of 2004)	biodiversity within the framework of the National Environmental Management Act. The intention of this Act is to protect species and ecosystems and promote the sustainable use of indigenous biological resources. It addresses aspects such as protection of threatened ecosystems and imposes a duty of care relating to listed alien invasive species. The South African National Biodiversity Institute is established by this Act and is responsible for coordinating and implementing programs.
National	Government Notice 389 of 2013 and Government Notice 255 of 2015 (Amendment)	Publication of lists of species that are threatened or protected, activities that are prohibited and exemption from restrictions.
National	Conservation of Agricultural Resources, 1967 (Act No. 43 of 1967)	The intention of this Act is to control the over-utilization of South Africa's natural agricultural resources, and to promote the conservation of soil and water resources and natural vegetation. The CARA has categorised a large number of invasive plants together with associated obligations of the landowner, including the requirement to remove categorised invasive plants and taking measures to prevent further spread of alien plants.
National	National Forests, 1998 (Act No. 84 of 1998)	The protection, sustainable management and use of forests and trees within South Africa are provided for under the National Forests Act, 1998 (Act No. 84 of 1998). Government Gazette No 26731 of August 2004, and any later revisions as released, provides a list of tree species protected under the National Forests Act.

Level	Legislation	Description
National	National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003)	This Act provides for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes. It also seeks to provide for the sustainable utilization of protected areas and to promote participation of local communities in the management of protected areas.
National	Mountain Catchments Areas Act, 1970 (Act No. 62 of 1970)	The conservation, use, management and control of land situated in mountain catchment areas is provided for under the Mountain Catchment Areas Act, 1970 (Act No. 63 of 1970). Under this act, land users and landowners within mountain catchment areas are directed to manage that land appropriately through prevention of soil erosion, removal of exotic and alien invasive vegetation, and fire protection.
National	National Heritage Resources Act, 1999 (Act No. 25 of 1999)	This legislation aims to promote good management of the national heritage resources, and to enable and encourage communities to nurture and conserve their legacy so that it may be bequeathed to future generations.
National	National Water Act (NWA), 1998 (Act No. 36 of 1998)	The NWA clearly indicates its purpose, amongst others, to protect aquatic and associated ecosystems and their biological diversity (Section 2(g)) and to reduce and prevent pollution and degradation of watercourses (Section 2(h)).
Provincial	Free State Nature Conservation Ordinance, 1969 (GN No. 113 of 1994)	The purpose of the Free State Nature Conservation Ordinance is to provide for the conservation of fauna and flora and the hunting of animals causing damage and for matters incidental thereto.

Level	Legislation	Description
Provincial	Free State Terrestrial Critical Biodiversity Areas (2015)	A key output of the systematic biodiversity planning process is a map indicating Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs). CBAs are areas that are important for conserving biodiversity while ESAs are areas that are important to ensure the long-term persistence of species or functioning of other important ecosystems. Degradation of CBAs or ESAs could potentially result in the loss of important biodiversity features and/or their supporting ecosystems.

2.3 LITERATURE REVIEW AND DESKTOP STUDY

A desktop assessment was conducted to establish whether any potentially sensitive species/receptors might occur within the study area. The South African National Biodiversity Institute's online biodiversity tool, ADU (Animal Demography Unit) Virtual Museum was used to query a species list for the 2727AB Quaternary Degree Square (QDS) across which the study area is situated.

To describe the overall site characteristics, and to identify points of interest within the site for evaluation, Google Earth Imagery and the 1:50 000 topographical maps were examined.

Information regarding species of conservation concern was obtained prior to the field investigation. This was conducted by researching all available information resources including, but not limited to, the following:

- International Union for Conservation of Nature (IUCN) Red List of Threatened Species;
- The Endangered Wildlife Trust's Red List of Mammals of South Africa, Lesotho and Swaziland;
- NEMBA List of Threatened or Protected Species (TOPS List);
- Animal Demography Unit (ADU) Virtual Museum;
- CITES Appendices I, II and III;
- SANBI Biodiversity GIS tool; and
- Environmental Affairs EIA Screening Tool Report for the study area.

Note that all resources used has been listed in the reference section of this report.

The importance of a desktop study is to provide a reference condition to determine the current state of the environment and to draw comparisons between the potential of the area and current degradation from surrounding land uses.

2.4 FIELD INVESTIGATION

A field investigation was undertaken on 20 February 2022 to supplement and confirm several findings from the desktop study. This mainly served as a fatal flaw analyses to determine whether any major ecological concerns exist with regards to the study area surface infrastructure establishment. During the field investigation the observed and derived presence of fauna species associated with the recognised habitat types of the study site, were recorded. In addition, species were also identified by means of tracks, droppings, burrows, or shelters. No trapping or mist netting was conducted, as the scope of work did not require such intensive work.

2.5 EIA REGULATIONS (AS AMENDED) REQUIREMENTS

The Environmental Impact Assessment (EIA) 2014 Regulations [as amended] promulgated in terms of Sections 24(5), 24M and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) [as amended] (NEMA), requires that all identified potential impacts associated with the proposed project be assessed in terms of their overall potential significance on the natural, social and economic environments. The criteria identified in the EIA Regulations (2014) include the following:

- Nature of the impact;
- Extent of the impact;
- Duration of the impact
- Probability of the impact occurring;
- Degree to which impact can be reversed;
- Degree to which impact may cause irreplaceable loss of resources;
- Degree to which the impact can be mitigated; and
- Cumulative impacts.

The impact assessment methodology whereby the Significance of a potential impact is determined through the assessment of the relevant temporal and spatial scales determined of the Extent, Magnitude and Duration criteria associated with a particular impact is defined below. This method

does not explicitly define each of the criteria but rather combines them and results in an indication of the overall significance.

2.6 IMPACT ASSESSMENT METHODOLOGY

The impact assessment methodology scoring system used to determine the significance of impacts prior and after mitigation is presented below.

Table 2-2: Impact Assessment Methodology Scoring System

Extent of the Impact		
The EXTENT of an impact is the physical extent/area of impact or influence		
Score	**Extent**	**Description**
1	Footprint	The impacted area extends only as far as the actual footprint of the activity.
2	Site	The impact will affect the entire or substantial portion of the site/property.
3	Local	The impact could affect the area including neighbouring properties and transport routes.
4	Region	Impact could be widespread with regional implication.
5	National	Impact could have a widespread national level implication.
Duration of the Impact		
The DURATION of an impact is the expected period of time the impact will have an affect		
Score	**Extent**	**Description**
1	Short term	The impact is quickly reversible within a period of less than 2 years, or limited to the construction phase, or immediate upon the commencement of floods.
2	Short to medium term	The impact will have a short term lifespan (2–5 years).
3	Medium term	The impact will have a medium term lifespan (6 – 10 years)
4	Long term	The impact will have a medium term lifespan (10 – 25 years)

5	Permanent	The impact will be permanent beyond the lifespan of the development

Intensity of the Impact

The INTENSITY of an impact is the expected amplitude of the impact

Score	Extent	Description
1	Minor	The activity will only have a minor impact on the affected environment in such a way that the natural processes or functions are not affected.
2	Low	The activity will have a low impact on the affected environment.
3	Medium	The activity will have a medium impact on the affected environment, but function and process continue, albeit in a modified way.
4	High	The activity will have a high impact on the affected environment which may be disturbed to the extent where it temporarily or permanently ceases.
1	Minor	The activity will only have a minor impact on the affected environment in such a way that the natural processes or functions are not affected.

Reversibility of the Impact

The REVERSIBILITY of an impact is the severity of the impact on the ecosystem structure

Score	Extent	Description
1	Completely reversible	The impact is reversible without any mitigation measures and management measures
2	Nearly completely reversible	The impact is reversible without any significant mitigation and management measures. Some time and resources required.
3	Partly reversible	The impact is only reversible with the implantation of mitigation and management measures. Substantial time and resources required.
4	Nearly irreversible	The impact is can only marginally be reversed with the implantation of significant mitigation and management measures. Significant time and

		resources required to ensure impact is on a controllable level.
5	Irreversible	The impact is irreversible.

Probability of the Impact		
The PROBABILITY of an impact is the severity of the impact on the ecosystem structure		
Score	**Extent**	**Description**
1	Improbable	The possibility of the impact occurring is highly improbable (less than 5% of impact occurring).
2	Low	The possibility of the impact occurring is very low, due either to the circumstances, design or experience (5% to 30% of impact occurring).
3	Medium	There is a possibility that the impact will occur to the extent that provision must be made therefore (30% to 60% of impact occurring).
4	High	There is a high possibility that the impact will occur to the extent that provision must be made therefore (60% to 90% of impact occurring).
5	Definite	The impact will definitely take place regardless of any prevention plans, and there can only be relied on migratory actions or contingency plans to contain the effect (90% to 100% of impact occurring).

The Significance Rating of an impact is determined through a synthesis of the various impact characteristics and represents the combined effect of the Irreplaceability (Extent, Duration, Intensity and Reversibility) multiplied by the Probability of the impact occurring (refer to **Equation 1**). The Significance of an impact is then rated according to the scores as presented below.

Equation 1:

Significance (WOM) = Irreplaceability (Extent + Duration + Intensity + Reversibility) x Probability

Table 2-3: Calculation of Significance Rating of Impact

Significance Rating		
Score	**Significance**	**Color Code**
1 to 20	Very low	

21 to 40	Low	
41 to 60	Medium	
61 to 80	High	
81 to 100	Very high	

The degree to which the impact can be mitigated is the effect of mitigation measures on the impact. The Significance With Mitigation is therefore calculated as indicated in **Equation 2** below.

Equation 2:

Significance (WM) = Significance (WOM) x Mitigation Efficiency

Table 2-4: Mitigation Efficiency Scores

Mitigation Efficiency (ME)	
High	0.2
Medium to High	0.4
Medium	0.6
Low to Medium	0.8
Low	1.0

The Confidence Rating is the level of certainty of the impact occurring.

- Certain
- Sure
- Unsure

The Cumulative Impacts refer to the effect the combination of past, present and "reasonably foreseeable" future actions have on aspects.

- Very Low cumulative impact
- Low cumulative impact
- Medium cumulative impact
- High cumulative impact

3 RESULTS AND EVALUATION

3.1 BASELINE ENVIRONMENTAL ASSESSMENT

3.1.1 LAND COVER

The South African National Biodiversity Institute (SANBI) Land Use Decision Support (LUDS) tool was used to conduct a brief synopsis of the study area in terms of general biodiversity for the region. According to the SANBI Land Use Map (2014) the majority of the study area consist of natural grassland areas impacted by cultivated commercial fields of various densities. Refer to **Figure 3-1** below for an indication of the study area land coverage.

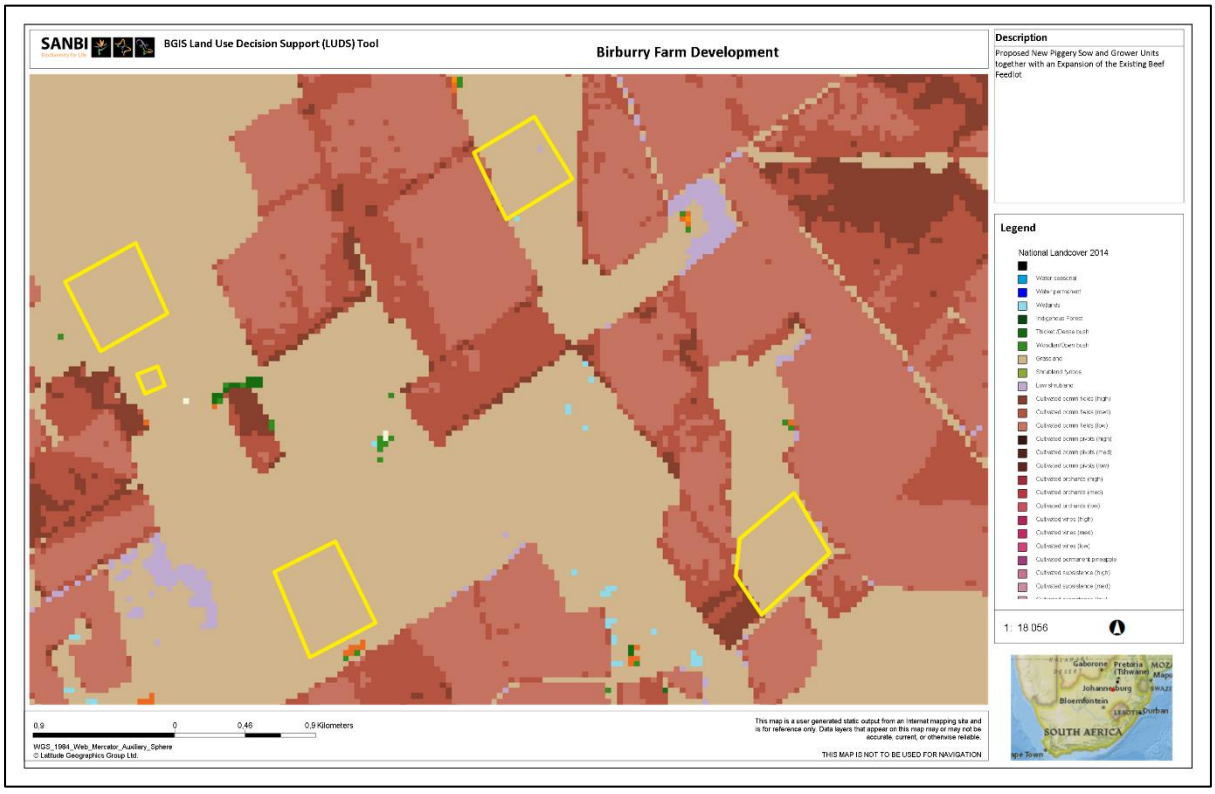

Figure 3-1: Study area land coverage (SANBI, 2014)

3.1.2 VEGETATION AND LANDSCAPE FEATURES

As indicated by Mucina and Rutherford (2006), the study area falls within the Central Free State Grassland (Gh 6) Vegetation Unit (refer to **Figure 3-2**). This Vegetation Unit comprises undulating plains supporting short grassland, in natural condition dominated by *Themeda triandra* while *Eragrostis curvula* and *E. chloromelas* become dominant in degraded habitats. Dwarf karoo bushes establish in severely degraded clayey bottomlands. Overgrazed and trampled low-lying areas with heavy clayey soils are prone to *Acacia karroo* encroachment.

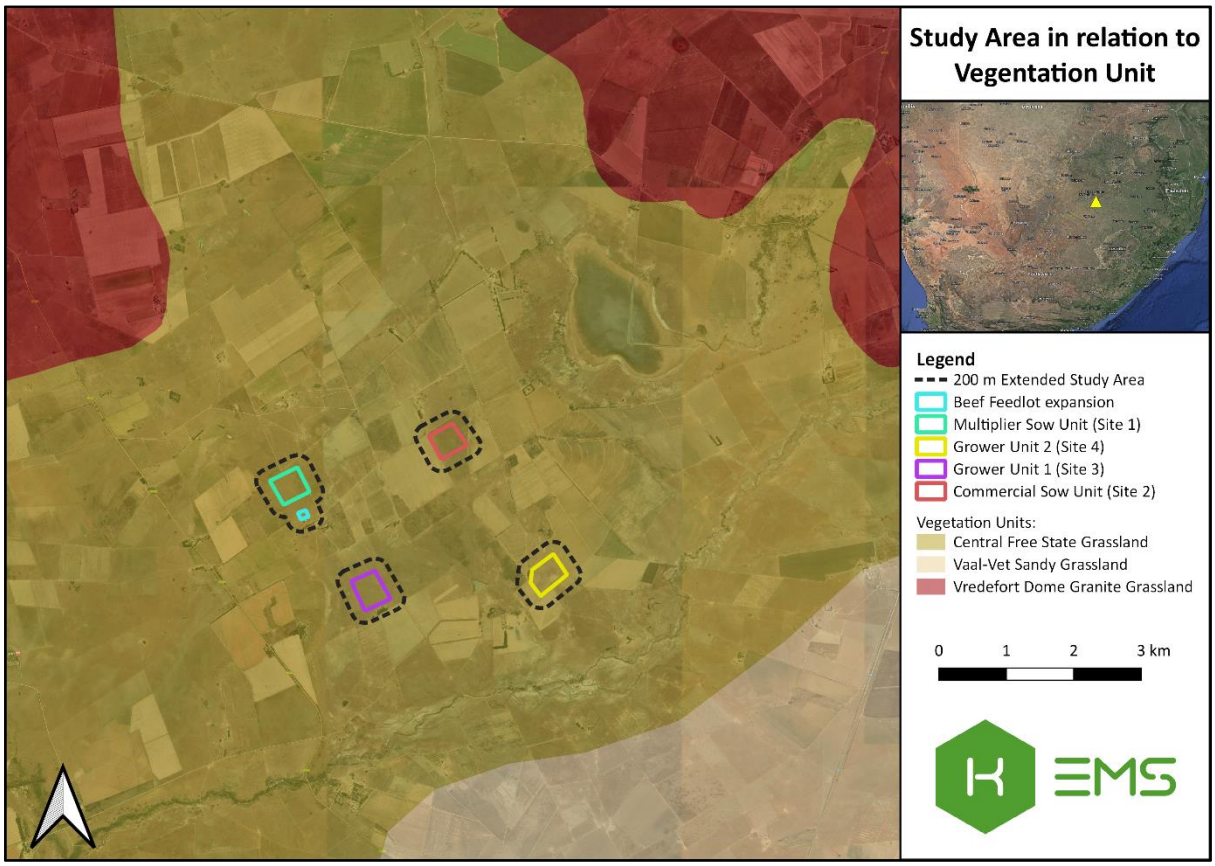

Figure 3-2: Vegetation Units relevant to the study area

3.1.3 THREATENED ECOSYSTEMS

The study area is not situated within any Critically Endangered, Endangered or Vulnerable ecosystems. For an indication of the study area relevant to threatened ecosystems listed in the National List of Ecosystems that are threatened and in need of protection (GN No. 1002 of 09 December 2011) refer to **Figure 3-3.**

3.1.4 PROTECTED AND CONSERVATION AREAS

There are no formal land-based protected areas within the immediate vicinity of the study area with the nearest, at approximately 20 km from the study area, being the Chazen Game Lodge (SAPAD, 2019). **Figure 3-4** indicates the locality of these areas. The South African Conservation Areas Dataset (SACAD, 2019) furthermore indicates no Conservation Areas within 100 km from the study area.

3.1.5 NATIONAL BIODIVERSITY ASSESSMENT

The National Biodiversity Assessment (NBA) is the primary tool for monitoring and reporting on the state of biodiversity in South Africa. According to the NBA (2018) the study area is considered of Least Concern (LC). **Figure 3-5** indicates the NBA (2018) threat status for the study area.

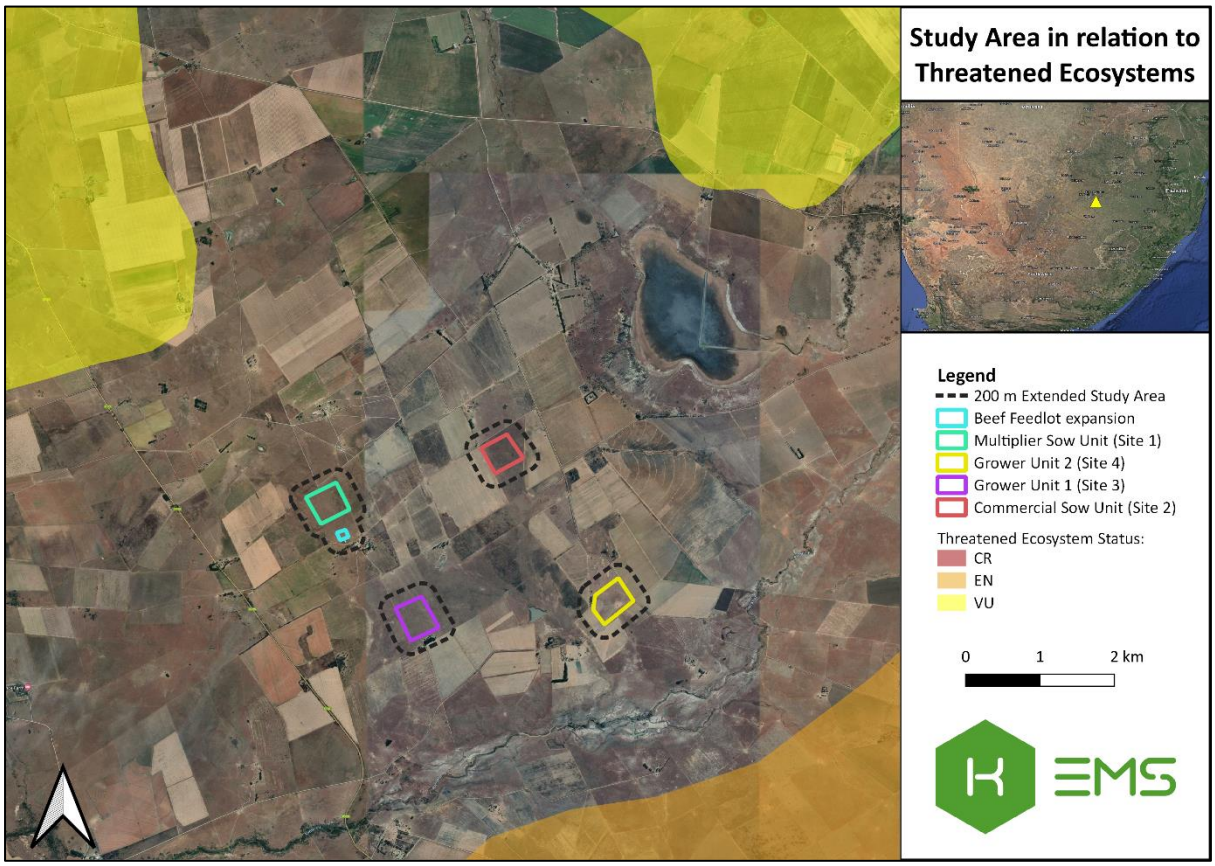

Figure 3-3: Threatened Ecosystems relevant to the study area

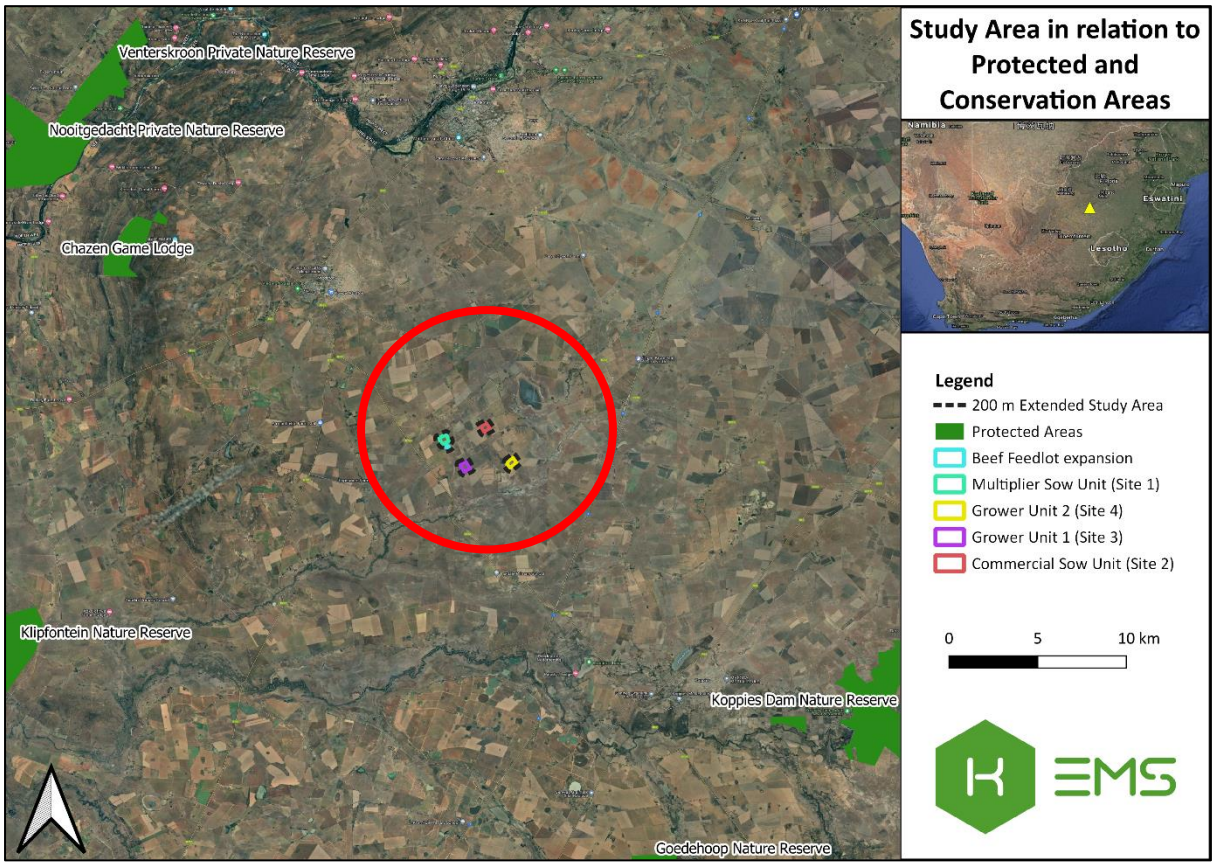

Figure 3-4: Protected and Conservation Areas relevant to the study area

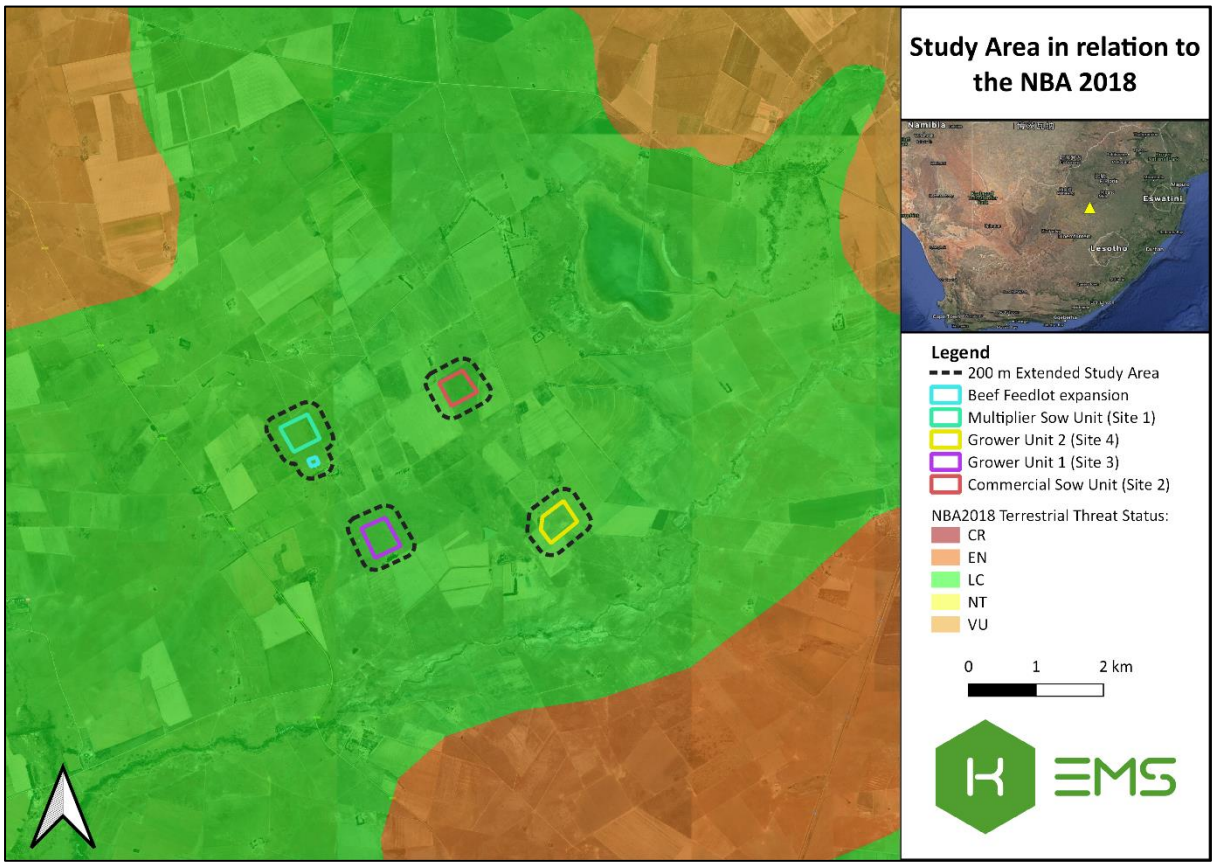

Figure 3-5: NBA (2018) threat status for the study area

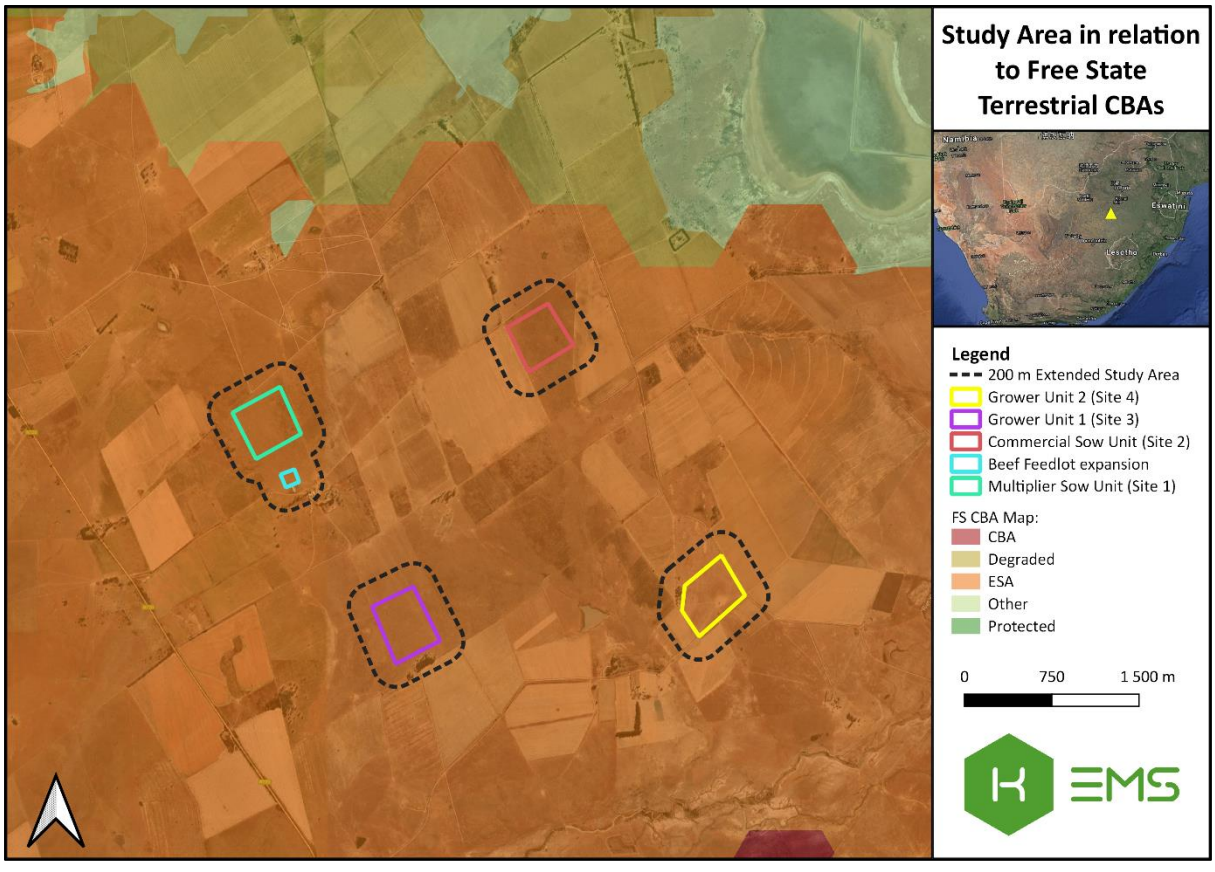

Figure 3-6: The study area in relation to the Mpualanga Biodiversity Sector Plan

3.1.6 FREE STATE TERRESTRIAL CRITICAL BIODIVERSITY AREAS

The study site lies within the Free State Terrestrial CBAs area. This biodiversity assessment identifies Critical Biodiversity Areas (CBAs) which represent priority areas requiring safeguarding to maintain ecosystem functioning. The entire study area is characterised as Ecological Support Areas (ESAs). ESAs are areas that are important to ensure the long-term persistence of species or functioning of other important ecosystems. **Figure 3-6** indicates the study site in relation to the Free State CBA Map.

3.2 THE STUDY AREA HABITAT TYPES

The development sites, together with an extended study area of 200 m surrounding each site, consists of four main habitat types, namely:

- Aquatic (including artificial and natural);
- Primary Vegetation (Grassland);
- Agriculture (Cultivated Land); and
- Developed/Transformed Areas.

Figure 3-7 below provides an indication of the habitat types observed during the field investigation.

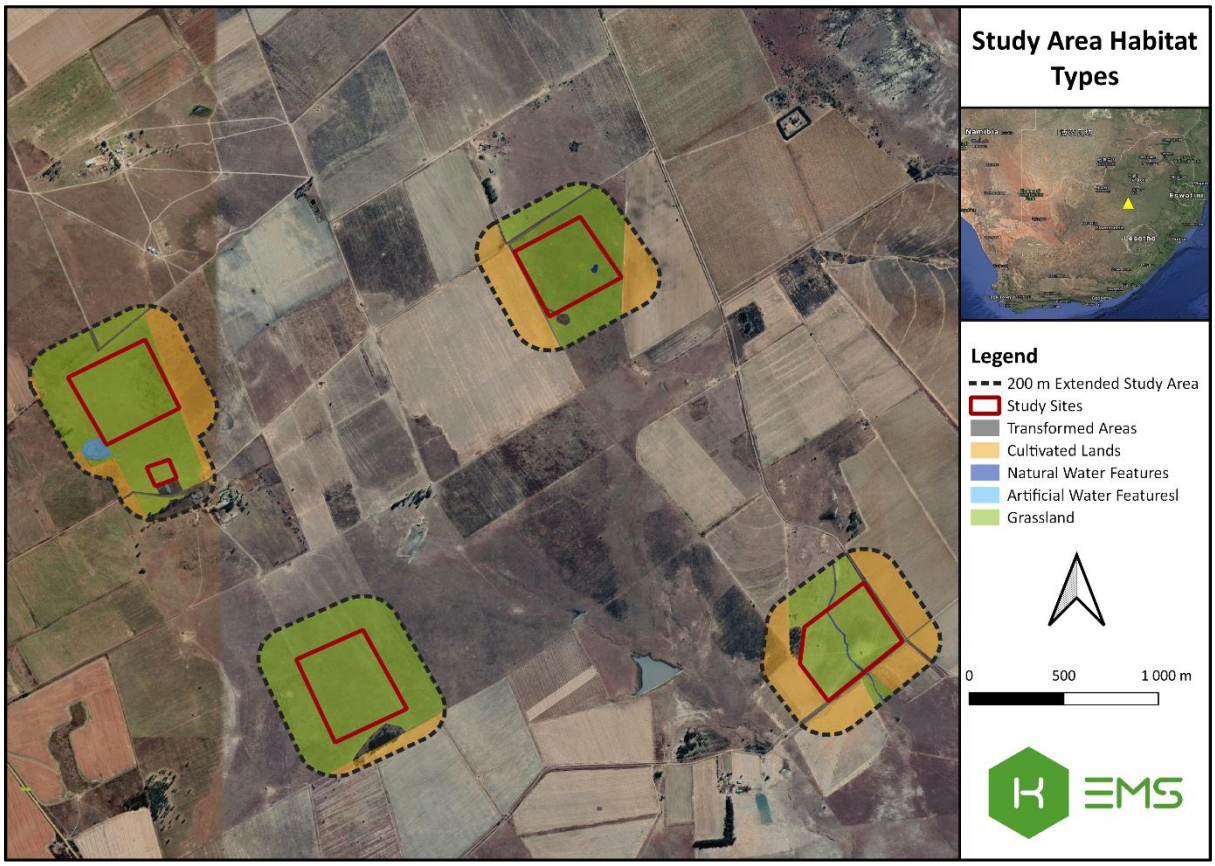

Figure 3-7: Habitat types observed within the study area (and extended study area)

3.2.1 AQUATIC (ARTIFICIAL AND NATURAL)

Three aquatic features were observed within the extended study area, including an artificial impoundment at Site 01, a natural depression at Site 02 and a non-perennial watercourse at Site 04. No aquatic features were found at Site 03.

The artificial dam wall situated just outside the boundary of the proposed Multiplier Sow Unit is dry and does not seem to have a specific watercourse feeding the dam. Its historic purpose is unknown. The depression found within Site 02 seems natural, however, this should be confirmed by a qualified wetland specialist. Within Site 02, this wet depression seems to be favoured by cattle, with the depression heavily impacted on by trampling. Refer to **Figure 3-8** below for an indication of the depression condition.

Figure 3-8: Heavily impacted depression within Site 02

Further to the above, a natural non-perennial watercourse seems to transect Site 04. Although this watercourse was not visible on site due to the dense layer of primary vegetation, the watercourse is

traced between two dam walls to the north and south of Site 04. The exact boundary of the channel needs to be confirmed by a qualified aquatic specialist.

3.2.2 GRASSLAND

Vast Central Free State grasslands dominate the study sites. These are however utilised for cattle grazing. **Figure 3-9** illustrates the typical condition of grasslands within the study area.

Figure 3-9: Grasslands typical of the study area

3.2.3 CULTIVATED LANDS (AGRICULTURE)

Agriculture is the major economic driver within the study area and the proponent is proposing to further develop agriculture in the area. Although necessary for socio-economic benefit, agriculture has had an impact to the environment, especially to the central free state grasslands of the study area. Agriculture may alter large sections of natural vegetation and remove invertebrate biodiversity found in the local ecosystem. It furthermore causes many habitats to decline and fragment and consequently cause the disappearance of faunal diversity.

3.2.4 TRANSFORMED AREAS

The remaining sections within the study area have been altered through past and present human activities. Other than transformation through cultivation, additional anthropogenic impacts within the study area include roads, existing feedlot area, cattle pads, and farm buildings and associated eucalyptus stands.

Figure 3-10: Developed/transformed areas typical of the study area

3.3 SPECIES OF CONSERVATION CONCERN

It is noted that not all of the species listed in this section of the report may necessarily occur on the study sites as suitable habitats or microhabitats may not be present, or the levels of disturbance may be too high. Conversely, it is equally likely that additional species, not listed here, may be present within the study area. The information provided here is based on the greater area and not specifically to the study area. The main purpose of this report is therefore to determine the level of site sensitivity based on the likelihood of important or sensitive species to occur. This section of the report focusses specifically on red data species potentially occurring within the study area. To compile a list of conservation worthy species, numerous literature sources were investigated. Refer to

Table *3-1* below for an indication of sensitive mammal species potentially occurring within the study area.

Table 3-1: Species of Conservation Concern potentially occurring within & surrounding the study area

Species	Common Name	Status	Comments/ References	Potential to occur on the study site
Felis nigripes	Black-footed Cat	VU	Mammal Red List	Likely
Orycteropus afer	Aardvark	PR	ToPS	Likely
		PR	FS Nature Conservation Ordinance	
Vulpes chama	Cape Fox	PR	ToPS	Likely
Caracal caracal	Caracal	PR	CITES App. II	Likely
Lepus spp.	Hares	PR	FS Nature Conservation Ordinance	Likely
Chamaeleo dilepis dilepis	Common Flap-neck Chameleon	PR	MNCA	Likely
		PR	CITES App. II	
		PR	FS Nature Conservation Ordinance	

3.4 SPECIES IDENTIFIED ON SITE DURING THE SITE INVESTIGATION

As mentioned earlier in this report result, typical surveys provide only a snapshot of the existing fauna community and should/can only be used as a general guideline. The snapshot provides an indication of species types which the habitat can support. **Table 6** below summarises species positively identified within the study site at the time of the site investigation.

Table 3-2: Faunal species identified within the study area

Class	Scientific Name	Common Name
Insecta	Geometridae	Looper Moth
Insecta	*Eurema brigitta brigitta*	Broad-bordered Grass Yellow
Insecta	*Junonia hierta ceberene*	Yellow Pansy
Insecta	*Danaus chrysippus*	African Plain Tiger
Insecta	*Lycas sp.*	Net-winged Beetle
Insecta	*Lagria sp.*	Hairy Darkling Beetle
Insecta	*Platycorynus sp.*	Milkweed Leaf Beetle
Insecta	*Palparus sp.*	Antlion
Insecta	Tabanidae	Horse Fly
Insecta	*Paracinema sp.*	Vlei Grasshopper

Class	Scientific Name	Common Name
Arachnida	Salticidae	Jumping Spider
Mammalia	*Xerus inauris*	Cape Ground Squirrel

Figure 3-11: (a) Geometridae moth; (b) *Eurema brigitta brigitta*; (c) *Junonia hierta ceberene*; (d) *Danaus chrysippus*

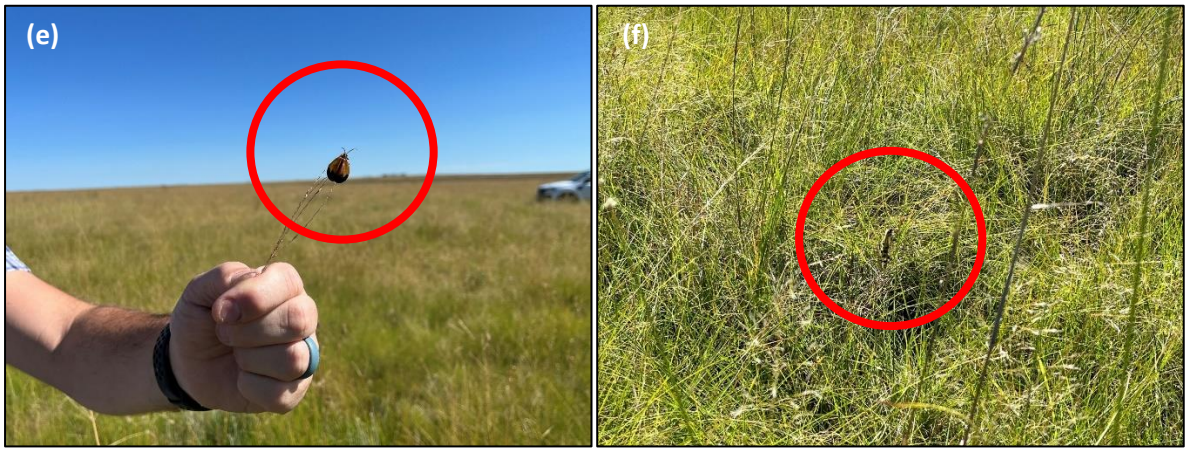

Figure 3-12: (e) *Lycas sp.*; (f) *Palparus sp.*

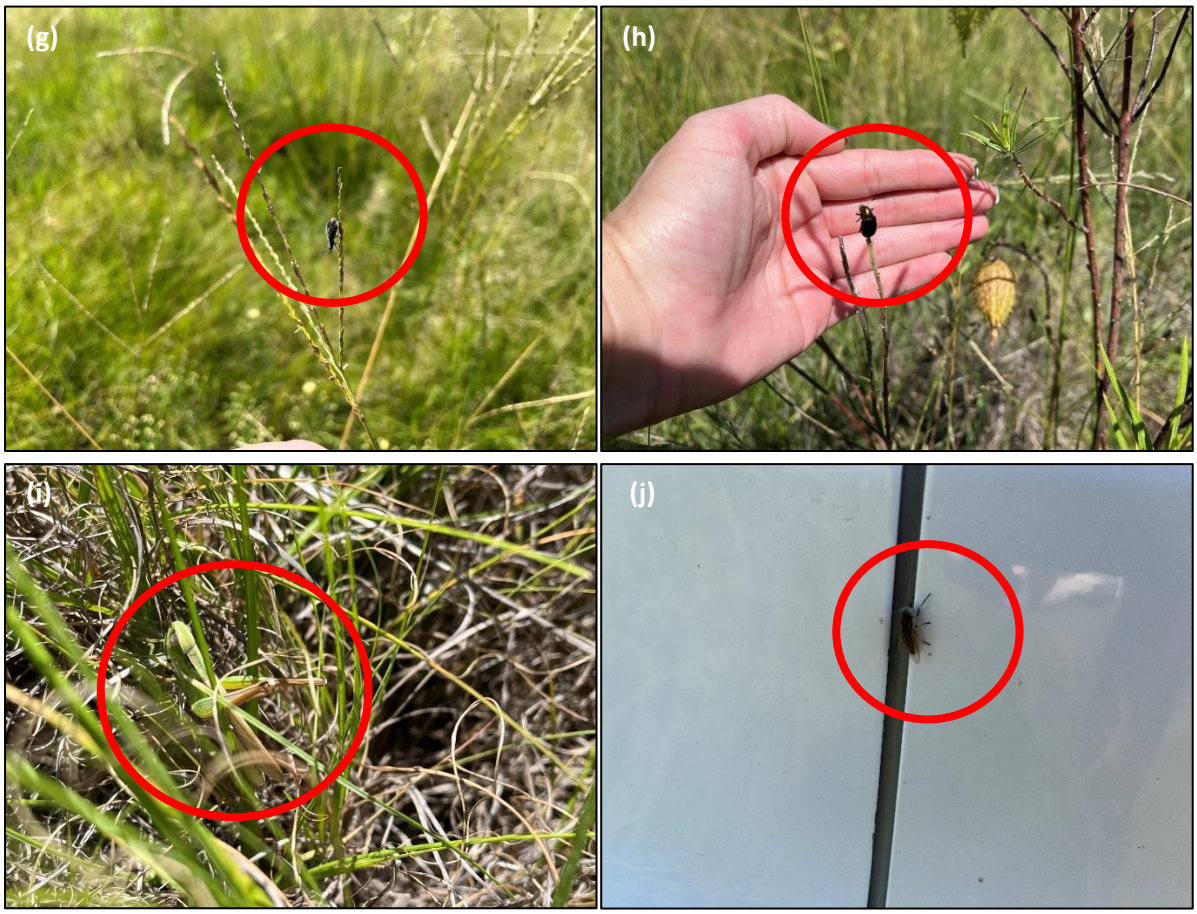

Figure 3-13: (g) *Lagria sp.*; (h) *Platycorynus sp.*; (i) *Paracinema sp.*; (j) Tabanidae

Figure 3-14: Salticidae (Jumping Spider)

Figure 3-15: *Xerus inauris* (Cape Ground Squirrel)

4 SENSITIVITY ASSESSMENT

4.1 HABITAT AVAILABILITY FOR SESITIVE FAUNAL SPECIES

Some faunal species of conservation concern does/could potentially occur within the vicinity of the study area. A brief description of the habitat preference for each listed species of conservation concern is provided in **Table 4-1** below. Note that, where species are listed by more than one resource, its highest sensitivity rating has been applied.

Table 4-1: Habitat preference for species of conservation concern

Status	Species and Common Name	Habitat Preference within the study area
VU	*Felis nigripes* (Black-footed Cat)	• Wide variety of habitats including scrub grassland. • They have also been recorded from agricultural landscapes where they use tall crops such as maize as shelter.
PR	*Orycteropus afer* (Aardvark)	• Broad range of habitats including grasslands, woodlands and thickets • Avoids very rocky terrain and steep slopes • Known to occupy farmlands
PR	*Vulpes chama* (Cape Fox)	• Open country (grassland, grassland with scattered thickets and lightly wooded areas)
PR	*Caracal caracal* (Caracal)	• Wide variety of habitats including montane grassland and enters agricultural areas for small stock predation
PR	*Lepus spp.* (Hares)	• Very adaptable and lives in a wide variety of grassland and open habitat, avoiding only bushy or closed habitats. • Modified landscapes, such as those overgrazed by livestock, are suitable habitats
PR	*Chamaeleo dilepis dilepis* (Common Flap-neck Chameleon)	• Widespread and common occurring in bushy grasslands, rural and suburban areas • Abundant around wetlands where vegetation is protected from fire

4.2 SENSITIVITY MAPPING

The sensitivity assessment determines the status and ecological quality of the study area. Areas consisting of natural vegetation of conservation concern, high species diversity, habitat complexity, red list organisms and/or systems vital to sustaining ecological function are considered sensitive. In contrast, areas that are transformed and have little importance for ecological functioning are considered to be of low sensitivity.

Taking all relevant criteria into account (as discussed throughout this report), the sensitivity maps indicated below was compiled. The sensitivity assessment placed focus on the Species of Conservation Consern (SCC) potentially occurring within the study area.

At the time of the assessment, all aquatic features within the study area, both natural and artificial were deemed to be of a moderate sensitivity due to agricultural impacts from livestock grazing. Further to this the aquatic feature on Site 4 was dry. Although the pan within Site 2 contained some water, the feature was heavily trampled by cattle. It is recommended that a qualified aquatic specialist be appointed to appropriately delineate aquatic features within the study area and to calculate appropriate exclusion buffer zones, if applicable.

The major species of concern for the region is the Vulnerable *Felis nigripes* (Black-footed Cat), while some other protected species potentially occur within the study area. SCC's is not expected to be significantly impacted by the proposed development. The developments will be localised and will allow for movement around the facilities.

The following factors warrants a moderate sensitivity rating for the grassland areas:

- The scale to which planned agriculture will influence natural grassland areas within the study area compared to grassland habitat availability within the greater regional surroundings;
- Sensitivity and adaptability and/or tolerance of grassland species potentially occurring within the study area;

Further to the above, the already disturbed/transformed areas, including agriculture, gravel roads and its disturbed areas such as firebreaks, areas where land clearance has taken place, houses and structures are regarded as having a low sensitivity.

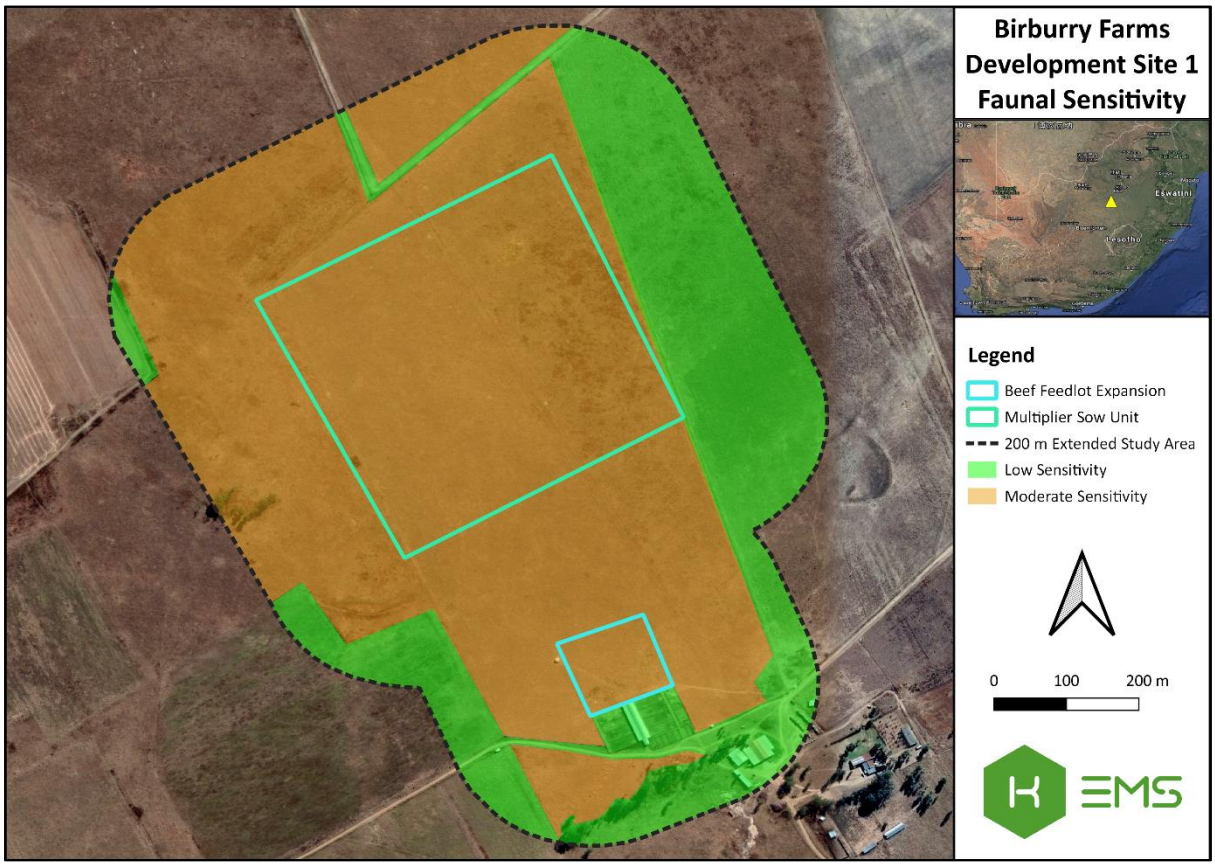

Figure 4-1: Faunal habitat sensitivity map for Site 1 (and an extended 200 m study area)

Figure 4-2: Faunal habitat sensitivity map for Site 2 (and an extended 200 m study area)

Figure 4-3: Faunal habitat sensitivity map for Site 3 (and an extended 200 m study area)

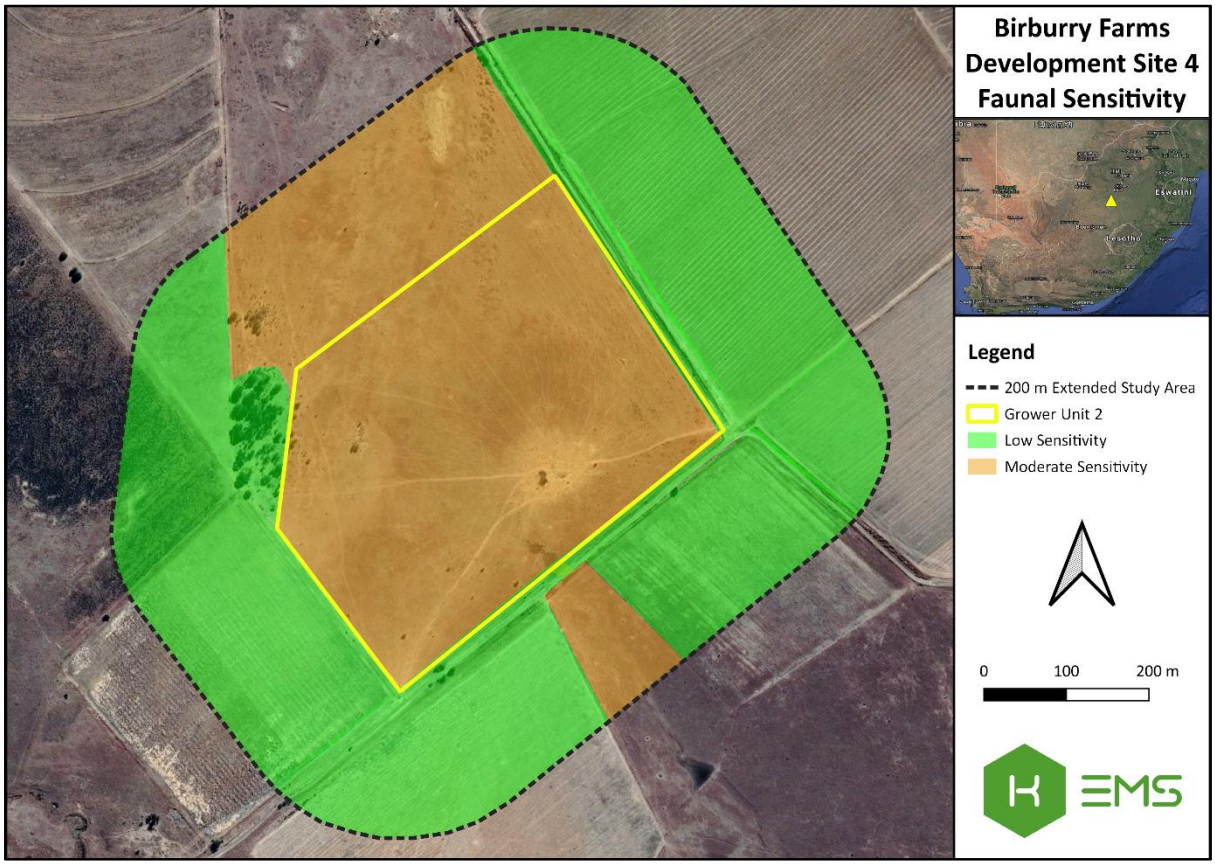

Figure 4-4: Faunal habitat sensitivity map for Site 4 (and an extended 200 m study area

5 IMPACT ASSESSMENT

5.1 ASSESSMENT OF IMPACTS

This section of the report evaluates the potential impacts of the proposed development on faunal habitat during the construction and operational phase of the project. The significance of potential impacts was determined using the criteria given in **Section 2.6** of this report.

The impact assessment will provide an evaluation of the significance of the Construction (C) and, Operational (O) Phases only. The Closure Phase will not be assessed at this stage as it is not anticipated that the proposed development will be decommissioned in the near future. The development aspects are expected to be permanent features following the construction phase. Should closure and decommissioning become a requirement and infrastructure needs to be removed, this section of the report needs to be updated to reflect potential impacts on faunal species associated with the Closure Phase. A summary of all identified possible impacts on faunal habitat is provided in **Table 5-1**.

Table 5-1: Potential impacts associated with the proposed development

Phase	Impact	Extent	Duration	Intensity	Reversibility	Probability	Significance Pre-Mitigation	Mitigation Potential	Significance Post-Mitigation	Confidence Rating	Cumulative Impact
C	Inadequate planning not taking layout, sensitive receptors and legislation into account.	3	4	4	2	4	52	0.2	10.4	Certain	High
C, O	Disturbance of site due to increased traffic, vehicles & machinery and personnel & residents.	3	5	3	1	5	60	0.4	24	Certain	Medium
C, O	Site clearing and destruction of faunal habitat leading to	3	2	4	2	5	55	0.6	33	Certain	Medium

Phase	Impact	Extent	Duration	Intensity	Reversibility	Probability	Significance Pre-Mitigation	Mitigation Potential	Significance Post-Mitigation	Confidence Rating	Cumulative Impact
	increased habitat loss, disturbance of sensitive species and alteration of natural food webs.										
C, O	Increased erosion risk due to land clearing and increased runoff to the aquatic features.	4	4	3	1	4	48	0.6	28.8	Certain	High
C, O	Invasion of alien plants and weeds in disturbed area. These might migrate to adjacent areas which will reduce the natural faunal habitat.	3	4	4	2	4	52	0.4	20.8	Certain	High
C, O	Pollution of adjacent watercourse areas due to inadequate waste management practices.	4	3	4	3	4	56	0.4	22.4	Certain	High
C, O	Fire hazards as result of cooking by either construction or operational personnel will lead to loss in habitat, especially if an overnight construction camp will be located on the site and also if security is	4	2	4	2	3	36	0.2	7.2	Certain	Medium

Phase	Impact	Extent	Duration	Intensity	Reversibility	Probability	Significance Pre-Mitigation	Mitigation Potential	Significance Post-Mitigation	Confidence Rating	Cumulative Impact
	allowed to make fires during night patrols.										
C, O	Inadequate solid waste management could attract scavenging animals into the footprint area.	2	4	4	1	4	44	0.4	17.6	Certain	Medium
C, O	Continuous added human activity over a long period may further impact on faunal communities as result of increased noise, the smell of humans, lighting etc. may lead to ever declining populations.	2	4	3	2	5	55	0.6	33	Certain	Medium
C	Reduction in natural migratory and faunal dispersal routes (corridors) and associated fragmentation of species and habitats.	3	4	3	2	5	60	0.2	12	Certain	High

5.2 MITIGATION MEASURES TO BE IMPLEMENTED

Mitigation measures need to be implemented to limit potential impacts and to lower the significance thereof if inevitable. **Table 5-2** below provides the mitigation measures which should be implemented for the proposed development. These mitigation measures should form part of the Environmental Management Programme (EMPr) to be submitted to the Regulatory Authority for approval.

Table 5-2: Mitigation Measures to be implemented

Mitigation Measures	Applicable Project Phases
▪ No land clearing is to take place prior to obtaining the necessary authorisations and conducting the necessary specialist studies. ▪ Appoint and engineer to appropriately design the instream dam walls. ▪ Design and implement climb-out aids where practicable within all relevant construction trenches/foundations to prevent drowning of smaller faunal species. ▪ Appoint a qualified aquatic specialist to determine the ecological function, present ecological state and ecological importance and sensitivity of the watercourse areas situated in the area earmarked for development. ▪ Appoint a qualified aquatic specialist to delineate the boundary of all wetland/riparian areas and to calculate appropriate protection buffers where relevant. ▪ Construction should ideally be scheduled for the winter/dry season so as to prevent interruptions due to flooding or high flows which could cause impacts further downstream.	Planning and Design
▪ Only areas targeted for the proposed development should be cleared of vegetation, no other areas. ▪ Ensure that stockpiles are well-managed and have measures in place to minimize the mobilization of sediments. These include the use of sand bags, hessian sheets etc. ▪ Mixing of concrete and storage of building material must be restricted to transformed, already disturbed areas, or must take place on lined/bunded areas to minimize the potential for pollution. ▪ Dumping of excess rubble, building material or refuse within the wetland/riparian areas are strictly prohibited. ▪ Storage of any waste material/chemicals (petroleum etc.) must be lined/bunded appropriately to minimise the potential for pollution. ▪ Oil, diesel, petroleum or any other harmful spillages must be cleaned immediately. Oil trays must be placed under construction vehicles likely to leak substances.	Construction

Mitigation Measures	Applicable Project Phases
▪ Access to the site must only be through existing roads or temporary roads approved by the engineer and the Environmental Control Officer (ECO). ▪ Animals may under no circumstances be handled, removed, killed or interfered with by the Contractor, his employees, his Sub-Contractors or his Sub-contractors' employees. This includes foraging, food and wood collecting outside of the construction site. ▪ If animals become trapped in trenches and diggings, a specialist must be contacted to adequately and safely remove these and relocate them to the adjacent habitat. ▪ No burning of material will be allowed on site. ▪ The Environmental Management Programme (EMPr) must be kept on site at all times and must strictly be adhered to. ▪ The EMPr must include all mitigation measures listed in this report.	
▪ If required, access road maintenance should include cutting and removal of vegetation rather than seasonal burning. ▪ No veld burning is allowed without the required burning permits. ▪ Snaring and poaching by employees are strictly forbidden. Regular snare assessment and removal actions are recommended. ▪ Ensure that relevant employees have been trained on how to appropriately handle and clean spills in accordance with an onsite emergency response procedure. ▪ Spill kits must be readily available on site and must be kept in good order. ▪ Suitable terrestrial movement corridors such as the watercourse areas should be demarcated as no-go areas to facilitate safe movement of animals. ▪ Prevent the runoff of fertilizers from crop areas towards watercourses. Crop areas must be sloped in a manner which will prevent runoff towards watercourses. ▪ Where applicable, the confined animal feeding operations must be appropriately fenced off to prevent the entry of wildlife. ▪ Appropriate rodent and vermin control must be implemented to avoid attracting wildlife to the confined animal feeding operations.	Operational

Mitigation Measures	Applicable Project Phases
▪ Implement strict vehicle speed limits on access roads to prevent unnecessary killing of animals by vehicles. ▪ Continuous rehabilitation and maintenance of the site should occur during construction and operation. Seed mixes used for rehabilitation should match the surrounding vegetation types. ▪ Adequate erosion control should be implemented during construction and operation to prevent increased silted runoff to the watercourse areas as result of erosion. ▪ Measures must be taken to ensure that workers are aware of laws and restrictions governing the hunting, capturing or trapping of animals and should be advised on the penalties associated with the needless destruction of wildlife. ▪ Conservation orientated clauses should be built into contracts for construction and operational personnel, complete with penalty clauses for non-compliance. ▪ The surface infrastructure site should be well-demarcated and workers (both construction and operational) should not enter into adjacent areas. ▪ Limit artificial lighting, which attracts faunal species. Yellow Sodium lighting is recommended as they do not attract invertebrates at night and will not disturb the existing wildlife within the study area. ▪ The construction and operational sites must be kept clean and tidy and free from litter that could attract rodents and other animal species. ▪ Limit fencing to the project area boundary so as to avoid movement barriers as far as possible. ▪ The establishment of alien invasive plant species should be prevented and dealt with as indicated in the Vegetation Specialist Study and/or Alien Eradication Plan/Programme.	Construction and Operational

6 CONCLUSION AND RECOMMENDATIONS

Some faunal species of conservation concern does/could potentially occur within the vicinity of the study area.

Without any mitigation, the proposed development is expected to have a Moderate impact on faunal habitat and species. However, with the implementation of the mitigation measures recommended in this report, the impact will be reduced to a Low to Very Low significance and will be limited to the development footprint area as far as possible.

At the time of the assessment, all aquatic features within the study area, both natural and artificial were deemed to be of a moderate sensitivity due to agricultural impacts from livestock grazing. Further to this the aquatic feature on Site 4 was dry. Although the pan within Site 2 contained some water, the feature was heavily trampled by cattle. It is recommended that a qualified aquatic specialist be appointed to appropriately delineate aquatic features within the study area and to calculate appropriate exclusion buffer zones, if applicable.

The major species of concern for the region is the Vulnerable *Felis nigripes* (Black-footed Cat), while some other protected species potentially occur within the study area. SCC's is not expected to be significantly impacted by the proposed development. The developments will be localised and will allow for movement around the facilities.

The following factors warrants a moderate sensitivity rating for the grassland areas:

- The scale to which planned agriculture will influence natural grassland areas within the study area compared to grassland habitat availability within the greater regional surroundings;
- Sensitivity and adaptability and/or tolerance of grassland species potentially occurring within the study area;

Further to the above, the already disturbed/transformed areas, including agriculture, gravel roads and its disturbed areas such as firebreaks, areas where land clearance has taken place, houses and structures are regarded as having a low sensitivity.

The Environmental Management Plan (EMPr) should make adequate provision to protect local faunal species and habitat. This will be ensured by taking all mitigation measures listed in this report into account to control the impacting activities of the proposed development on the site. An Environmental

Control Offer (ECO) must be appointed prior to construction to oversee mitigation measures during construction and whom will be responsible for the monitoring and auditing of the Contractor's compliance. Since the potential exists for sensitive faunal species to reside on site, the appointed ECO must conduct a thorough pre-construction site investigation of the areas to be affected to limit impacts to species potentially residing in these areas at the time of construction.

Taking all information contained within this study into account, the Specialist is of the opinion that the project should be authorised with the implementation of the recommended mitigation measures.

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Appendix E: Public participation information

- Appendix E1: Proof of site notice
- Appendix E2: Written notices (BIDS) issued as required in terms of the regulations & Proof of receipt of BIDS
- Appendix E3: Proof of newspaper advertisements
- Appendix E4: Comments received from I&APs including stakeholders
- Appendix E5: Comments and response sheet
- Appendix E6 – Comments from I&APs on Basic Assessment (BA) Report
- Appendix E7 –Comments from I&APs on amendments to the BA Report
- Appendix E8: Register of I&APs-

Attached

Appendix E1: Proof of site notice

NOTICE: ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

PROPOSED 8000 SOW UNIT PIGGERY ON PORTIONS OF THE FARMS SAMARIA, DE RUST, REWIESIE AND MARA, FREE STATE PROVINCE.

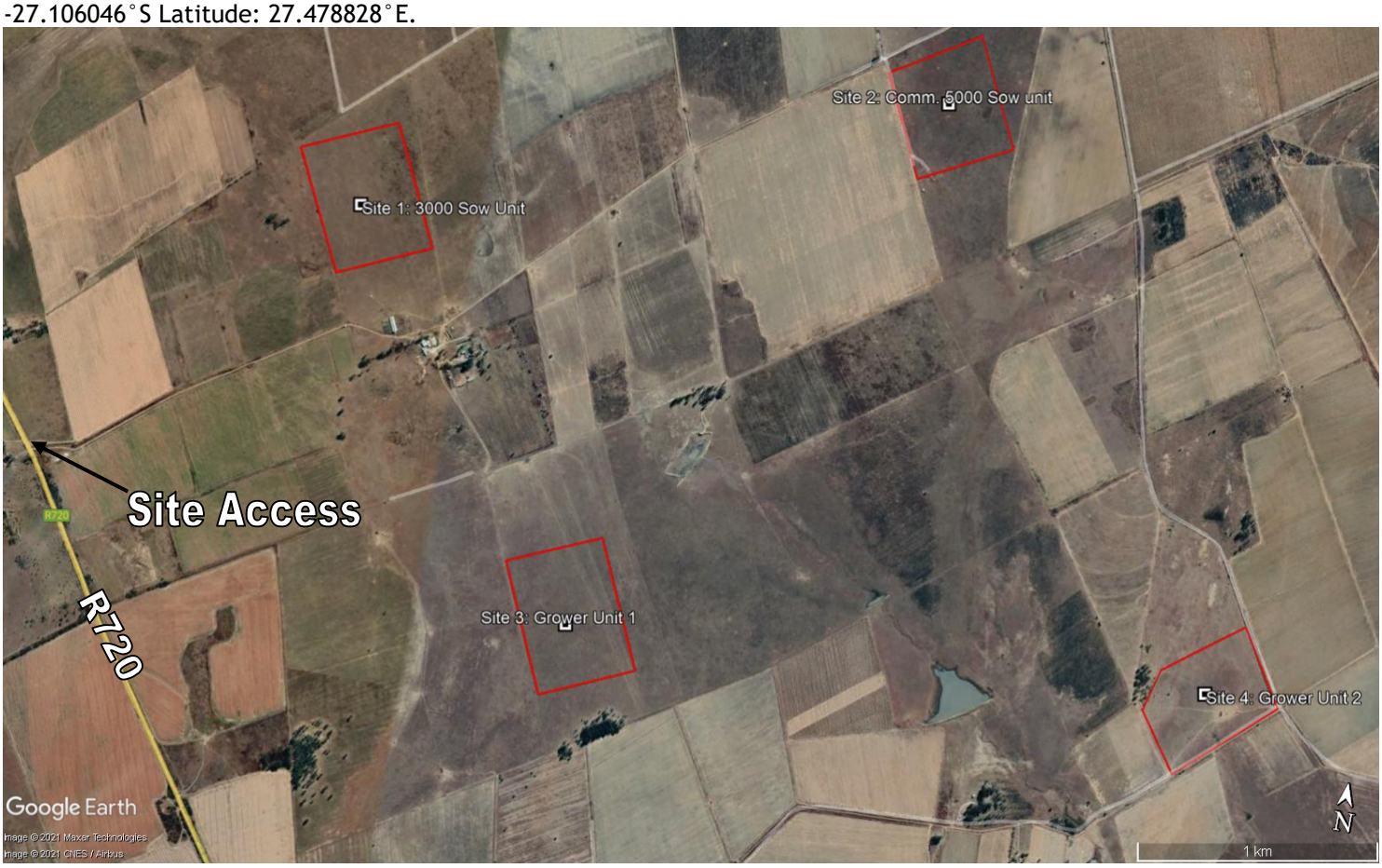
Notice is hereby given in terms of Regulation 41 of the Regulations published in Government Notice 326 of 7 April 2017 - Chapter 6 of the National Environmental Management Act, 1998 (Act no. 107 of 1998), as amended, for an application submitted for the following activity:

- NEMA: GN No. R 327 of 7 April 2017 (Listing 1): Activity No.: 4, 27.

A Phase 1 Heritage Impact Assessment to take place in terms of Section 38 of the National Heritage Resources Act (Act 25 of 1999), for Birbury Agri. Section 38(1) (c): exceeding 5000m^2 in extent.
The National Water Act, 1998 (Act 36 of 1998) with regards to the application for a General Authorisation and/or Registration of the water use activities associated with the proposed development, which includes: (a)(b)(c)(e)(g).

PROJECT DESCRIPTION:
The planned configuration is as follow:
Site 1: Multiplier – 3000 Sows on the farm Samaria. Site 2 – Commercial sow unit – 5000 sows on the farm DE RUST. Site 3 – Grow out unit – Growers on the farm REWIESIE. Site 4- Grow out unit – Growers on the farm MARA. The extension of the current small feed lot. New slurry dam. Footprint of proposed piggery: less than 20 Ha.

PROJECT LOCATION:
The nearest town to the farms is Vredefort, Free State Province, about 14 km to the northwest. Koppies is 24km southeast of the farm. Access to the farms is from the R720. Site 1: Longitude: -27.093682°S Latitude: 27.440556°E. Site 2: Longitude: -27.086437°S Latitude: 27.463916°E. Site 3: Longitude: -27.107736°S Latitude: 27.452143°E. Site 4: Longitude: -27.106046°S Latitude: 27.478828°E.



APPLICANT:
Birbury Agri

ENVIRONMENTAL CONSULTANT:
REC Services (Pty) Ltd.
PO Box 40541, Moreleta Park, 0044
Tel: (012) 997 4742
Fax: (012) 997 0415
Email: rowan@recservices.co.za
Contact Person (s): Rowan van Tonder / Pieter van der Merwe

REC SERVICES
ENVIRONMENTAL CONSULTANTS

In order to register as an interested and/or affected party, or to obtain more information on the proposed development, please submit your name, contact details and interest in the matter within 30 days of the date of this notice: **13 Dec. 2021.** No later 31 of January 2022.

Proof of Site Notice

Appendix E2: Written notices (BIDS) issued as required in terms of the regulations & Proof of receipt of BIDS

BACKGROUND INFORMATION DOCUMENT

PROPOSED 8000 SOW UNIT PIGGERY ON PORTIONS OF THE FARMS SAMARIA, DE RUST, REWIESIE AND MARA, FREE STATE PROVINCE.

THIS BACKGROUND INFORMATION DOCUMENT SERVES TO INFORM THE PUBLIC OF THE APPLICATION LODGED IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT 107 OF 1998 (NEMA) AS AMENDED.

APPLICANT:	ENVIRONMENTAL CONSULTANT:
BIRBURY AGRI	REC SERVICES (PTY) LTD
Mr Etienne Biddulph	Mr. Rowan van Tonder/Mr Pieter van der Merwe
Posbus 755	P.O. BOX 40541
Parys	MORELETA PARK
9585	0044
Cell: 082 524 7231	Tel: (012) 997 4742
E-Mail: etienne@adnutrix.co.za	Fax: (012) 997 0415
	E-mail: rowan@recservices.co.za

13 DECEMBER 2021

1. PURPOSE OF THIS BACKGROUND INFORMATION DOCUMENT

The purpose of this document is to:

i) Notify the identified Interested and Affected Parties (I&APs) of the Environmental Impact Assessment (EIA) Regulations in accordance with stipulations made in Government Notice R. 326 of 7 April 2017 published in terms of chapter 6 of the National Environmental Management Act (Act No. 107 of 1998) as amended.
ii) Present stakeholders with an overview of the perceived environmental, biophysical and social impacts of the proposed development.
iii) Provide I&APs with a Locality Map (Appendix 1) indicating the proposed development.
iv) Obtain issues and concerns from the I&APs regarding the environmental assessment process and proposed activity, which will be addressed for the planning, construction and operational phases of the proposed development.

2. INTRODUCTION AND STATEMENT OF INDEPENDENCE

2.1 INTRODUCTION

REC Services (Pty) Ltd. (REC) was appointed by Birbury Agri, for:
Proposed 8000 sow unit piggery on Portions of the Farms Samaria, De Rust, Rewiesie and Mara, Free State Province.

The public participation process aims to provide an opportunity for I&APs to comment on the proposed development, such that relevant information exchanges will enable the EIA process to focus the study on reasonable and relevant issues, predominantly relating to environmental impacts that the proposed development may have. The Environmental Impact Assessment Report to be compiled by REC will focus on the possible issues and impacts associated with the proposed development, and where negative impacts are identified, recommendations will be made to mitigate such impacts.

REC and its environmental assessment practitioners have no connection with the applicant. REC is not a subsidiary, legally or financially of the applicant. Remuneration for services pertaining to this assessment and application is not linked to approval by decision-making authorities responsible for authorizing the development. REC and its environmental assessment practitioners have no interest in secondary or downstream developments as a result of the authorisation of the development.

3. KEY LEGISLATION APPLICABLE TO THIS NOTICE

3.1 NATIONAL ENVIRONMENTAL MANAGEMENT ACT 108 OF 1998 AS AMENDED

Listed activity triggered in the 2017 NEMA regulations:

R. 327, 7 APRIL 2017- Listing Notice 1: Basic assessment Activities	
Activity No	Listed Activity Description:
4	The development and related operation of facilities or infrastructure for the concentration of animals in densities that exceed: ii) 8 square metres per small stock unit and; b) More than 250 pigs per facility excluding piglets that is not yet weaned.
27	The clearance of an area of 1 ha or more but less than 20 ha of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for – i) the undertaking of a linear activity; or ii) maintenance purposes undertaken in accordance with a maintenance management plan.

3.2 NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999)

Notice is also given of a Phase 1 Heritage Impact Assessment to take place in terms of The National Heritage Resources Act (Act 25 of 1999), for Birbury Agri.

- Section 38 (1) (c): any development or other activity which will change the character of a site-

v) exceeding 5 000m^2 in extent;

3.3 NATIONAL WATER ACT (ACT 36 OF 1998)

Notice is also herewith given in terms of section 21 of the National Water Act, 1998 (Act 36 of 1998) with regards to the application for a Water Use License and/or Registration of the water use activities associated with the proposed development, which includes:

- Section 21(a): taking water from a water resource;
- Section 21(b): storing water;
- Section 21(c): impeding or diverting the flow of water in a watercourse (Due to closeness to a drainage way closer than 500m);
- Section 21(e): engaging in a controlled activity (treatment of the pig wastewater);

- Section 21(g): disposing of waste in a manner which may detrimentally impact on a water resource; (irrigation of pig waste effluent on fields); and

4. PROJECT INFORMATION

4.1 PROPOSED ACTIVITY

A proposed 8000 sow unit piggery on Portions of the Farms Samaria, De Rust, Rewiesie and Mara, Free State Province.

4.2 BASIC PROJECT DESCRIPTION

The nearest town to the farms is Vredefort, Free State Province, about 14 km to the northwest. Koppies is 24km southeast of the farm.

The proposed preliminary lay-out / concept lay-out, indicate that the units will be grouped on certain parts of the farms SAMARIA, DE RUST, REWIESIE & MARA, in the Free State Province. The planned configuration is as follow:

- Site 1: Multiplier – 3000 Sows on the farm Samaria.
- Site 2 – Commercial sow unit – 5000 sows on the farm DE RUST.
- Site 3 – Grow out unit – Growers on the farm REWIESIE.
- Site 4- Grow out unit – Growers on the farm MARA.
- The extension of the current small feed lot.
- New slurry dam.
- Footprint of proposed piggery: less than 20 Ha

Water for the farm is supplied by boreholes. The effluent/slurry currently from the pig production facilities is stored in a lined slurry dam. The liquid effluent is used to irrigate the land around the piggery.

4.3 LOCALITY

The nearest town to the farms is Vredefort, Free State Province, about 14 km to the northwest. Koppies is 24km southeast of the farm. Access to the farms is from the R720.
Coordinates:
Site 1: Longitude: -27.093682°S Latitude: 27.440556°E
Site 2: Longitude: -27.086437°S Latitude: 27.463916°E
Site 3: Longitude: -27.107736°S Latitude: 27.452143°E
Site 4: Longitude: -27.106046°S Latitude: 27.478828°E

Please refer to the Google Earth image below. The locality plan is presented in Appendix 1 of this notice.

4.4 CONSIDERATION OF ALTERNATIVE SITES

Alternatives can be considered at this stage, i.e. Activity and Design (layout). Technology wise, only the most current state of the art technology in the Pig farming industry will be used.

5. ENVIRONMENTAL STUDY PROCESS

The Environmental Impact Assessment process consists of two main components, namely (i) the technical/biophysical process and (ii) the public participation process.

i) The technical process includes, but is not limited to, the following aspects:

- Terrain investigations;
- Specialist Studies;
- The identification and assessment of biophysical elements within the study area;
- Compilation of a Basic Environmental Impact Assessment Report with Environmental Management Programme.

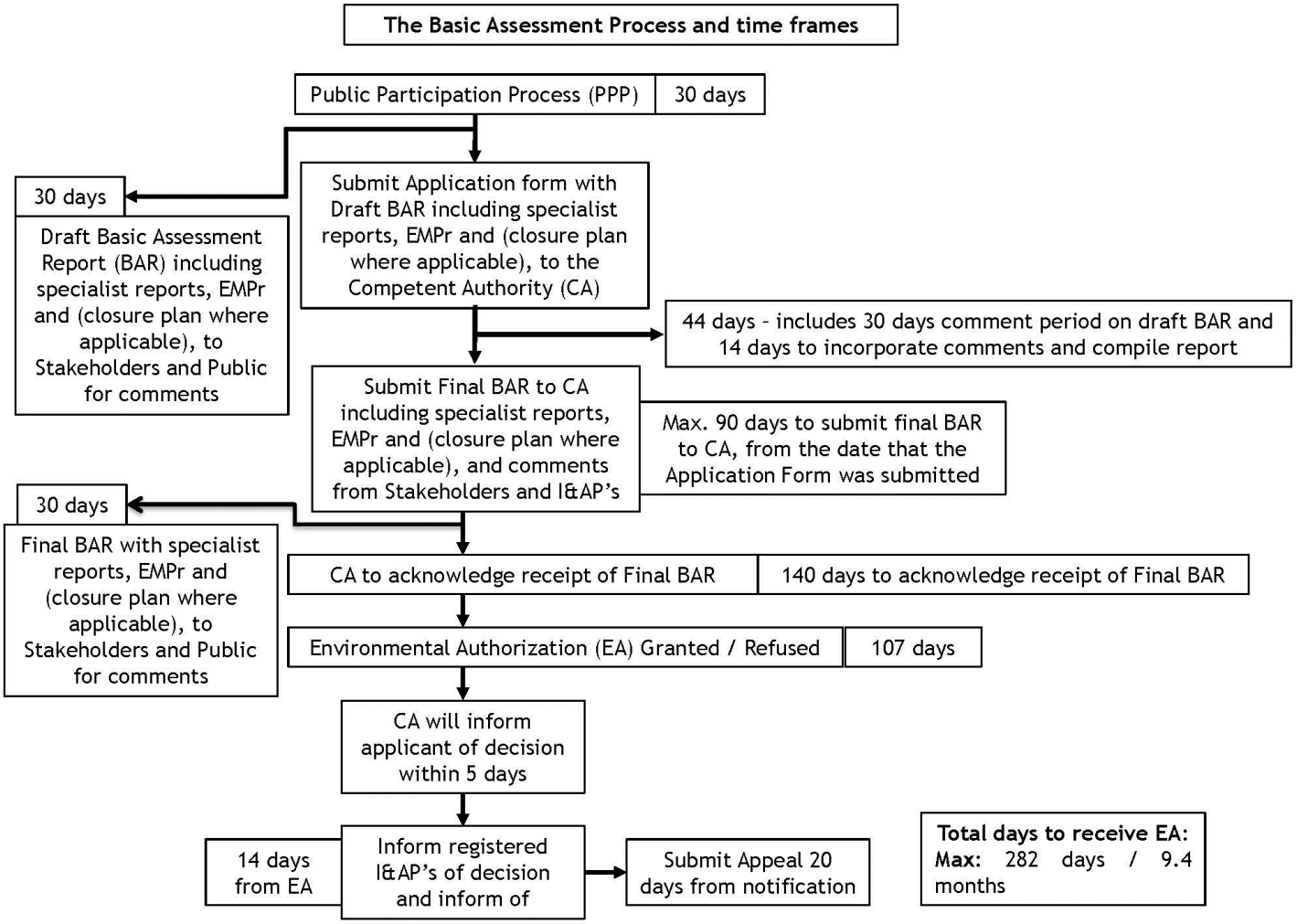
ii) The public participation process includes:

- Compilation of a database of stakeholders and Interested and Affected Parties;
- Legal notices of the environmental process (press advertisement and on-site);
- Dissemination of information to stakeholders and I&APs;

- If needed, conduct an open day(s) or meetings where Interested and Affected Parties can view the lay-out plan and be informed of the functioning of the piggery process in basic terms;
- Identification of environmental, as well as social issues and concerns, as raised by I&APs or other relevant stakeholders, and
  Addressing all concerns raised by I&APs.

The public participation process is conducted in parallel with the Environmental Impact Assessment process (technical/biophysical process). The public participation process does not aim to promote agreement amongst I&APs or quell possible opposition against a project. The process is made open and transparent to all those involved. Additionally, it is considered important to involve I&APs as early in the Environmental Impact Assessment process as possible, to ensure informed decision-making and effective participation throughout the study.

The Environmental Impact Assessment Process contains the following steps (Basic Assessment):



6. PRELIMINARY ENVIRONMENTAL RELATED ISSUES IDENTIFIED

The following steps are identified on a preliminary basis:

- Inside an Ecological Support Area in terms of systematic biodiversity plans.
- Dust generation from construction during construction phase.
- Possible hazardous (Diesel, oil) fluids being spilled during construction phase.
- Removal of vegetation (natural and alien).
- Traffic Safety during construction phase.

7. COMMENTS / OBJECTIONS

Kindly submit the attached Registration and Comment Sheet, to register as an Interested and Affected Party, with possible issues and concerns relating to the

proposed development, to the Environmental Consultant (refer to the contact details given above).

The Registration and Comment Sheet should reach us no later than 30 days (excluding public holidays) from the date of this BID.

We thank you for your interest and for taking the time to read through this document.

REGISTRATION AND COMMENT SHEET:

PROPOSED 8000 SOW UNIT PIGGERY ON PORTIONS OF THE FARMS SAMARIA, DE RUST, REWIESIE AND MARA, FREE STATE PROVINCE.

Please complete and return as soon as possible, but no later than 31 January 2021 to:

Mr. Rowan van Tonder, PO Box 40541, Moreleta Park, 0044

Tel: (012) 997 4742|Fax: (012) 997 0415|e-mail: rowan@recservices.co.za

---

Title_____Initials_____Surname_____

Organisation/Firm/Position/Nature of Involvement in the project e.g. property owner:

_____

Street / Physical Address:

_____

Postal address:

_____

Postal Code: _____

Telephone Work: _____ Telephone Home:_____

Cell phone: _____ Fax: _____

E-mail: _____

COMMENTS:

It would be useful if you could answer the questions below but please feel free to provide any comments you would like to raise. Please continue on additional paper if required.

1. What are the primary concerns faced by you/your community or our organization with regards to the development?

_____

_____

_____

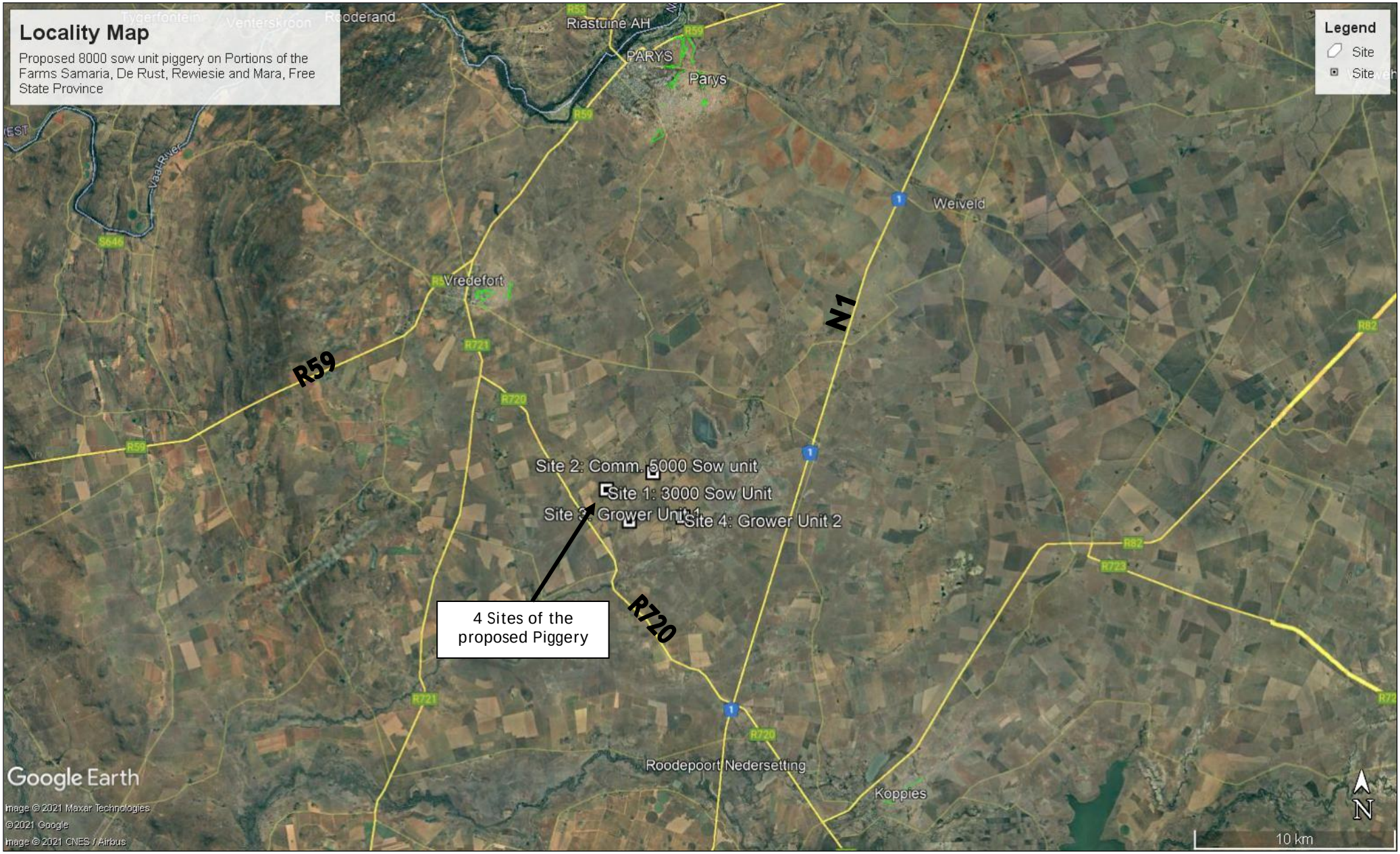
_____

_____

Thank you for your participation.

Appendix 1: Locality Maps

NEXT PAGE


Locality Map
Proposed 8000 sow unit piggery on Portions of the Farms Samaria, De Rust, Rewiesie and Mara, Free State Province
Legend
Site
Site
Riastuine AH
PARYS
Parys
Vaal River
Vredefort
Weiveld
N1
R59
R721
R720
R82
R723
Site 2: Comm. 5000 Sow unit
Site 1: 3000 Sow Unit
Site 3: Grower Unit 1
Site 4: Grower Unit 2
4 Sites of the proposed Piggery
Roodepoort Nedersetting
Koppies
Google Earth
Image © 2021 Maxar Technologies
©2021 Google
Image © 2021 CNES / Airbus
10 km
N

Rowan van Tonder

From: Rowan van Tonder <rowan@recservices.co.za>
Sent: Monday, December 13, 2021 2:01 PM
To: 'mike@rentabull.net'; 'ejacobs@lantic.net'; 'martinronellouw@gmail.com'; 'keerpunt@lantic.net'; 'lourens.jansevanrensburg@afgri.co.za'; 'nicobt@yahoo.co.uk'; 'logberg123@webmail.co.za'; 'smrcloete@gmail.com'
Subject: Birbury Agri Piggery: Background Information Document (BID): Adjacent Landowners
Attachments: BID Birbury Agri.doc

To Whom It May Concern: Adjacent Landowners,

REC Services (Pty) Ltd. was recently appointed by Birbury Agri to conduct an EIA process on Portions of the Farms Samaria, De Rust, Rewiesie and Mara, Free State Province. The public participation commenced 13 December 2021.

We have also attach the BID for your information.

Kind Regards/Groete,

ROWAN VAN TONDER
Environmental Assessment Practitioner
SACNASP(Pri.Sci.Nat): 119204 | B. Sc. Environmental Science | B. Sc. (Hons) Physical Geography | M.Sc. Botany

t: 0129974742 f: 0866190994 c: 0828794218
P.O. Box 40541, Moreleta Park, 0044
2nd Floor, Rubenstein Office Park,
566 Rubenstein Drive, Moreleta Park, 0181
† www.recservices.co.za

Rowan van Tonder

From: Rowan van Tonder <rowan@recservices.co.za>
Sent: Monday, December 13, 2021 1:58 PM
To: 'Mbatha.npz@sacr.fs.gov.za'
Subject: Birbury Agri Piggery: Background Information Document (BID)- Notification: PHRA FS
Attachments: BID Birbury Agri.doc

To Whom It May Concern: (PHRA FS),

REC Services (Pty) Ltd. was recently appointed by Birbury Agri to conduct an EIA process on Portions of the Farms Samaria, De Rust, Rewiesie and Mara, Free State Province. The public participation commenced 13 December 2021.

We have also attach the BID for your information.

Kind Regards/Groete,

REC SERVICES
ENVIRONMENTAL CONSULTANTS

ROWAN VAN TONDER
Environmental Assessment Practitioner
SACNASP(Pri.Sci.Nat): 119204 | B. Sc. Environmental Science | B. Sc. (Hons) Physical Geography | M.Sc. Botany

t: 0129974742 f: 0866190994 c: 0828794218
P.O. Box 40541, Moreleta Park, 0044
2nd Floor, Rubenstein Office Park,
566 Rubenstein Drive, Moreleta Park, 0181
† www.recservices.co.za

Rowan van Tonder

From: Rowan van Tonder <rowan@recservices.co.za>
Sent: Monday, December 13, 2021 1:56 PM
To: 'groblerw@dws.gov.za'; 'khorommbik@dws.gov.za'
Subject: Birbury Agri Piggery: Background Information Document (BID)- Notification: DWS
Attachments: BID Birbury Agri.doc

To Whom It May Concern: DWS,

REC Services (Pty) Ltd. was recently appointed by Birbury Agri to conduct an EIA process on Portions of the Farms Samaria, De Rust, Rewiesie and Mara, Free State Province. The public participation commenced 13 December 2021.

We have also attach the BID for your information.

Kind Regards/Groete,

REC SERVICES
ENVIRONMENTAL CONSULTANTS

ROWAN VAN TONDER
Environmental Assessment Practitioner
SACNASP(Pri.Sci.Nat): 119204 | B. Sc. Environmental Science | B. Sc. (Hons) Physical Geography | M.Sc. Botany

t: 0129974742 f: 0866190994 c: 0828794218
P.O. Box 40541, Moreleta Park, 0044
2nd Floor, Rubenstein Office Park,
566 Rubenstein Drive, Moreleta Park, 0181
† www.recservices.co.za

Rowan van Tonder

From: Rowan van Tonder <rowan@recservices.co.za>
Sent: Monday, December 13, 2021 1:55 PM
To: 'mm@ngwathe.gov.za'
Cc: 'jordaanr@ngwathe.co.za'; 'magautal@ngwathe.co.za'
Subject: Birbury Agri Piggery: Background Information Document (BID)- Notification: Mun/Ward 8
Attachments: BID Birbury Agri.doc

To Whom It May Concern: (Mun / Ward 8),

REC Services (Pty) Ltd. was recently appointed by Birbury Agri to conduct an EIA process on Portions of the Farms Samaria, De Rust, Rewiesie and Mara, Free State Province. The public participation commenced 13 December 2021.

We have also attach the BID for your information.

Kind Regards/Groete,

REC SERVICES
ENVIRONMENTAL CONSULTANTS

ROWAN VAN TONDER
Environmental Assessment Practitioner
SACNASP(Pri.Sci.Nat): 119204 | B. Sc. Environmental Science | B. Sc. (Hons) Physical Geography | M.Sc. Botany

t: 0129974742 f: 0866190994 c: 0828794218
P.O. Box 40541, Moreleta Park, 0044
2nd Floor, Rubenstein Office Park,
566 Rubenstein Drive, Moreleta Park, 0181
† www.recservices.co.za

Nico Uys

19:07

Message Add to a group

1:27 19:09

TUESDAY

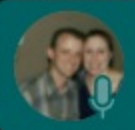
WEDNESDAY

Baie dankie Neil. Waardeer dit opreg. 09:36

THURSDAY

More Neil. Kan jy vir my jou epos adres aanstuur asseblief. Dankie 09:24

TODAY



0:22 08:30

👍👍 100% hoop jy het n reenjas en gumboots ingepak 08:32

VJA:
To Whom It May Concern: Adjacent Landowners,

REC Services (Pty) Ltd. was recently appointed by Birbury Agri to conduct an EIA process on Portions of the Farms Samaria, De Rust, Rewiesie and Mara, Free State Province. The public participation commenced 13 December 2021.

We have also attach the BID for your information. 13:43

BID Birbury Agri.doc

DOC • 3 MB 13:43

Type a message

BulkSMS Message Report : Sent Items

To: Nico Uys (27826997087);
Date: Mon 2021/12/13 14:09:39
Status: Message delivered to mobile

Message to Nico Uys (27826997087) : Delivered to mobile

Dear Nico,

The public participation commenced 13 December 2021.

We have also attach the BID for your information.

{http://readmore.im/link}

Appendix E3: Proof of newspaper advertisements

Geklassifiseerd

OM TE ADVERTEER IN DIE GEKLASIFISEERD SKAKEL PAULINA BY 073 772 3649 OF PER E POS paulina.barda@mooivaalmedia.co.za

SPERTYD VIR ADVERTENSIES IN GEKLASIFISEERD IS STRENG 10 uur MAANDAG-OGGEND!!! BESPREEK VROEGTYDIG!!!

05 Memorium

Andre and Debsie Funeral Services
Tel : 056 811 4912
"Our Condolences to our loved ones"

COETZER
Markus Wynand
DOB:21-07-1951
DOD:21-11-2021
Service:27-11-2021

BADENHORST
Daniel
DOB:18-02-1977
DOD:19-11-2021
Service:26-11-2021

MLAKENG
Phindile Rebecca
DOB:05-12-1982
DOD:16-11-2021
Service:24-11-2021

DHLAMINI
Thembi Mavis
DOB:03-09-1976
DOD:18-11-2021
Servcice:27-11-2021

SELETE
Neria Dikeledi
DOB:16-10-1964
DOD:19-11-2021
Service:27-11-2021

RATHEBE
Maserame Rebecca
DOB:08-06-1986
DOD:16-11-2021
Service:27-11-2021

TOM
Tseleng Anna
DOB:02-01-1972
DOD:22-11-2021
Service:27-11-2021

COHN
Andries Petrus Johannes
DOB:05-09-1944
DOD:26-11-2021
Service:04-12-2021

05 Memorium

HAVENGA
Joshua
DOB:26-11-2021
DOD:26-11-2021
Service:03-12-2021

MOTLOUNG
Boetientjie Kamohelo
DOB:09-02-1951
DOD:25-11-2021
Service:03-12-2021

NEVELING
Arnoldus
DOB:23-09-1954
DOD:19-11-2021
Service:30-11-2021

LETHOBA
Teboho Jeremia
DOB:02-10-1962
DOD:24-11-2021
Service:04-12-2021

MKHWANE
Mokete Isaac
DOB:08-06-2000
DOD:23-11-2021
Service:04-12-2021

RATHEBE
Mapane Selina
DOB:06-02-1964
DOD:24-11-2021
Service:
04-12-2021

46 Salon

HAIRTALK BY CORRIE
MOEG GESUKKEL MET FYN & PLAT HARE?
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061 866 2458
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66 Motors

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KOOP VOERTUIE IN LOPENDE OF NIE LOPENDE TOESTAND
VIR KONTANT
SKAKEL JACO
079 498 3243

84 Woonstelle te huur

1 SLAAPKAMER STUDENTE WOONSTEL met eie parkering te huur in Potchefstroo Loopafstand van NWU Kampus hoofhek. Skake Christo 083 304 0542

NETJIESE 2 SLPK, 2 BADK TUINWOONSTEL. Dubbelmotorafdak, Koopkrag.R3 400 pm + Deposito Skakel 084 208 5262 k/u

87 Meenthuise te koop

2 SLAAPKAMER MEENTHUIS met Motorhuis,Ppkrag in Aftree-oord te Vredefort te koop, R450 000,of te huur R3 800 pm+ R3 800 deposito.Skakel 082 654 6006

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34 Algemene dienste

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Bajaj XCD125 (8000km)	- R 14 000	New SYM Orbit150 Scooter	- R17 995

AEON Kawasaki SYM

37 Plaagbeheer

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E-pos marketing@incredibledoor.co.za

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073 772 3649
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CLASSIFIEDS

KENNISGEWINGS • NOTICES

NOTICE FOR AN ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

PROPOSED 8000 SOW UNIT PIGGERY ON PORTIONS OF THE FARMS SAMARIA, DE RUST, REWIESIE AND MARA, FREE STATE PROVINCE.

NOTICE IS HEREBY GIVEN IN TERMS OF REGULATION 41 OF THE REGULATIONS PUBLISHED IN GOVERNMENT NOTICE 326 OF 7 APRIL 2017 - CHAPTER 6 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998), AS AMENDED, FOR AN APPLICATION SUBMITTED FOR THE FOLLOWING ACTIVITY:

PROPOSED ACTIVITY:
NEMA: GN NO. R 327 OF 7 APRIL 2017 (LISTING 1): ACTIVITY NO.: 4, 27.

A PHASE 1 HERITAGE IMPACT ASSESSMENT TO TAKE PLACE IN TERMS OF SECTION 38 OF THE NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999), FOR BIRBURY AGRI. SECTION 38(1) (C): EXCEEDING 5000M2 IN EXTENT.

THE NATIONAL WATER ACT, 1998 (ACT 36 OF 1998) WITH REGARDS TO THE APPLICATION FOR A GENERAL AUTHORISATION AND/OR REGISTRATION OF THE WATER USE ACTIVITIES ASSOCIATED WITH THE PROPOSED DEVELOPMENT, WHICH INCLUDES: (A)(B)(C)(E)(G).

PROJECT DESCRIPTION:
THE PLANNED CONFIGURATION IS AS FOLLOW:
- SITE 1: MULTIPLIER – 3000 SOWS ON THE FARM SAMARIA.
- SITE 2 – COMMERCIAL SOW UNIT – 5000 SOWS ON THE FARM DE RUST.
- SITE 3 – GROW OUT UNIT – GROWERS ON THE FARM REWIESIE.
- SITE 4- GROW OUT UNIT – GROWERS ON THE FARM MARA.
- THE EXTENSION OF THE CURRENT SMALL FEED LOT.
- NEW SLURRY DAM.
- FOOTPRINT OF PROPOSED PIGGERY: LESS THAN 20 HA.

PROJECT LOCATION:
THE NEAREST TOWN TO THE FARMS IS VREDEFORT, FREE STATE PROVINCE, ABOUT 14 KM TO THE NORTHWEST. KOPPIES IS 24KM SOUTH-EAST OF THE FARM. ACCESS TO THE FARMS IS FROM THE R720. SITE 1: LONGITUDE: -27.093682°S LATITUDE: 27.440556°E. SITE 2: LONGITUDE: -27.086437°S LATITUDE: 27.463916°E. SITE 3: LONGITUDE: -27.107736°S LATITUDE: 27.452143°E. SITE 4: LONGITUDE: -27.106046°S LATITUDE: 27.478828°E.

APPLICANT:
BIRBURY AGRI

ENVIRONMENTAL CONSULTANT:
REC SERVICES (PTY) LTD.
PO BOX 40541, MORELETA PARK, 0044
TEL: (012) 997 4742
FAX: (012) 997 0415
EMAIL: rowan@recservices.co.za
CONTACT PERSON (S): ROWAN VAN TONDER / PIETER VAN DER MERWE

IN ORDER TO REGISTER AS AN INTERESTED AND/OR AFFECTED PARTY, OR TO OBTAIN MORE INFORMATION ON THE PROPOSED DEVELOPMENT, PLEASE SUBMIT YOUR NAME, CONTACT DETAILS AND INTEREST IN THE MATTER WITHIN 30 DAYS OF THE DATE OF THIS NOTICE. THE LATEST 31 OF JANUARY 2022.

PLACEMENT OF THE SITE NOTICE: 13 DEC. 2021
HANDING OUT OF BACKGROUND INFORMATION DOCUMENTS: 13 DEC. 2021

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KENNISGEWINGS • NOTICES

KENNISGEWINGS • NOTICES

NOTICE OF APPLICATION FOR BASIC ASSESSMENT AND WATER USE AUTHORISATION

BASIC ASSESSMENT
NOTICE IS HEREBY GIVEN IN TERMS OF CHAPTER 6 OF THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS, 2014, AS AMENDED, THAT AN APPLICATION FOR A BASIC ASSESSMENT (BA) PROCESS WILL BE LODGED WITH THE GAUTENG DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT (GDARD), AS PER THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NEMA), 1998 (ACT NO. 107 OF 1998), AS AMENDED.

WATER USE AUTHORISATION A WATER USE AUTHORISATION (WUA) IN TERMS OF THE NATIONAL WATER ACT (NWA), 1998 (ACT NO. 36 OF 1998, AS AMENDED) AND ITS ASSOCIATED REGULATIONS WILL BE SUBMITTED TO THE DEPARTMENT OF WATER AND SANITATION (DWS). **PROJECT NAME: PROPOSED DEVELOPMENT AND EXPANSION OF LIVESTOCK FEEDLOTS**
NEMA: LISTING NOTICE 1 (NO. 327, 07 APRIL 2017)

R327	27	THE CLEARANCE OF AN AREA OF 1 HECTARE OR MORE, BUT LESS THAN 20 HECTARES OF INDIGENOUS VEGETATION, EXCEPT WHERE SUCH CLEARANCE OF INDIGENOUS VEGETATION.
R327	39 (II) (A)	THE EXPANSION AND RELATED OPERATION OF FACILITIES FOR THE CONCENTRATION OF ANIMALS IN DENSITIES THAT WILL EXCEED (I) 20 SQUARE METRES PER LARGE STOCK UNIT, WHERE THE EXPANSION WILL CONSTITUTE MORE THAN 500 ADDITIONAL UNITS; (II) 8 SQUARE METERS PER SMALL STOCK UNIT, WHERE THE EXPANSION WILL CONSTITUTE MORE THAN; (A) 1 000 ADDITIONAL UNITS PER FACILITY OR MORE EXCLUDING PIGS

NWA: SECTION 21 (ACT NO. 36 OF 1998) AS AMENDED

(A) TAKING WATER FROM A WATER RESOURCE;

LOCATION: PARYS, SITUATED ON THE FARM LILYFONTEIN 156 REMAINING EXTENT, WITHIN THE JURISDICTION OF NGWATHE LOCAL MUNICIPALITY, FREE STATE PROVINCE
PROPONENT: SWEET HOME FARMS (PTY) LTD
CONSULTANT: ENVIRONMENTAL MANAGEMENT GROUP
PO BOX 37473
LANGENHOVEN PARK, 9330
TEL: 051 412 6350 CELL: 083 678 3032 / 083 279 5143
EMAIL: SVR@ENVMGP.COM
RNEL@ENVMGP.COM
WEBSITE: ENVMGP.COM
DATE: 10 DECEMBER 2021

IN ORDER TO ENSURE THAT YOU ARE IDENTIFIED AS AN INTERESTED AND/OR AFFECTED PARTY AND THAT YOU RECEIVE ALL OF THE UPDATED INFORMATION PERTAINING TO THIS PROJECT THROUGHOUT THE PROCESS, PLEASE SUBMIT YOUR NAME, CONTACT INFORMATION AND INTEREST IN THE MATTER TO THE CONSULTANT GIVEN ABOVE WITHIN 30 DAYS OF PUBLICATION OF THIS NOTICE
THIRTY DAYS ARE ALLOWED FOR YOUR COMMENTS TO REACH US AS PER NEMA (ACT 107, 1998, AMENDED 7 APRIL 2017), GNR 326. ALL REGISTERED I&APS WILL BE ALLOWED 30 DAYS TO COMMENT ON THE BA REPORT AND 60 DAYS TO COMMENT ON THE WULA. SITE NOTICE & BACKGROUND INFORMATION DOCUMENT (BID) WILL BE AVAILABLE ON OUR WEBSITE ENVMGP.COM AT PUBLIC PARTICIPATION, AND WILL ALSO BE MADE AVAILABLE ON REQUEST. P269

KENNISGEWINGS • NOTICES

AppendixE4: Comments received from I&APs including stakeholders

Appendix E4-1: Communication with I&Aps

REGISTRATION AND COMMENT SHEET:

PROPOSED 8000 SOW UNIT PIGGERY ON PORTIONS OF THE FARMS SAMARIA, DE RUST, REWIESIE AND MARA, FREE STATE PROVINCE.

Please complete and return as soon as possible, but no later than 31 January 2021

to:

Mr. Rowan van Tonder, PO Box 40541, Moreleta Park, 0044

Tel: (012) 997 4742|Fax: (012) 997 0415|e-mail: rowan@recservices.co.za

---

Title MR Initials A H Surname HARTMAN

Organisation/Firm/Position/Nature of Involvement in the project e.g. property owner:

OWNER OF NEIGHBOURING FARM

Street / Physical Address:

FARM WELGERUST, UREDEFORT, 9595

Postal address:

Postal Code: 9595

Telephone Work: _____ Telephone Home: _____

Cell phone: 0784602849 Fax: _____

E-mail: hendrikh@parys.co.za

COMMENTS:

It would be useful if you could answer the questions below but please feel free to provide any comments you would like to raise. Please continue on additional paper if required.

1. What are the primary concerns faced by you/your community or our organization with regards to the development?

THE PIGGERY WILL BE LOCATED CLOSE TO MY HOUSE AND UPWIND THEREOF. SMELLS AND ODOURS WILL NEGATIVELY AFFECT THE QUALITY OF LIFE OF ME, MY FAMILY AND WORKERS. SECONDLY, THE INFLUX OF WORKERS TO THE

PIGGERY MAY LEAD TO AN INCREASE IN CRIME IN THE AREA.

~~POL I AM DEP~~

FURTHER, I AM DEPENDANT ON GROUNDWATER FOR HOUSEHOLD CONSUMPTION FOR MYSELF, EMPLOYEES AND LIVESTOCK. POLLUTION OF GROUNDWATER BY SUCH AN INTENSIVE FARMING OPERATION WOULD LEAD TO IRREPARABLE HARM.

Thank you for your participation.

Appendix E4-2: Comments from stakeholders

None received yet. Expected in response on the BAR for public view.

REGISTRATION AND COMMENT SHEET:

PROPOSED 8000 SOW UNIT PIGGERY ON PORTIONS OF THE FARMS SAMARIA, DE RUST, REWIESIE AND MARA, FREE STATE PROVINCE.

Please complete and return as soon as possible, but no later than 31 January 2021 to:

Mr. Rowan van Tonder, PO Box 40541, Moreleta Park, 0044

Tel: (012) 997 4742|Fax: (012) 997 0415|e-mail: rowan@recservices.co.za

Title___**MS**_____Initials_**MD**_____Surname_____**MASHINYE**

Organisation/Firm/Position/Nature of Involvement in the project e.g. property owner: Department of Water and Sanitation and environmental officer under compliance monitoring and Enforcement

Street / Physical Address:

Department of Water and Sanitation
Free State Provincial Operations
Bloem Plaza Building, 2nd Floor
Corner Eastburger and Charlotte Maxeke Streets
BLOEMFONTEIN

_

Postal address:
The Director Regulations, Compliance and Enforcement
Department of Water and Sanitation
PO Box 528
BLOEMFONTEIN
Postal Code: _9300_____

Telephone Work: 0514059000 Telephone Home:_____

Cell phone: __0664519109 Fax: _____

E-mail: Mashinyem@dws.gov.za

COMMENTS:

It would be useful if you could answer the questions below but please feel free to provide any comments you would like to raise. Please continue on additional paper if required.

1. What are the primary concerns faced by you/your community or our organization with regards to the development?

The project triggers section 21 of the National water act as per below water use activities:

- Section 21(a): taking water from a water resource;
- Section 21(b): storing water;
- Section 21(c): impeding or diverting the flow of water in a watercourse (Due to closeness to a drainage way closer than 500m);
- Section 21(e): engaging in a controlled activity (treatment of the pig wastewater);
- Section 21(g): disposing of waste in a manner which may detrimentally impact on a water resource; (irrigation of pig waste effluent on fields);

Hence there is a need for comments on the BAR with regards to compliance purpose

Appendix E5: Comments and response sheet

PROPOSED 3600 SOW UNIT PIGGERY ON PORTIONS OF THE FARMS SAMARIA, DE RUST, REWIESIE AND MARA, FREE STATE PROVINCE

COMMENTS & RESPONSE SHEET

COMMENTS RECEIVED ON THE BID

Name & Surname	Designation / Organisation	Contact Details	Comments	Response
Mr AH Hartman	Property Owner	Farm Welgerust Vredefort 9595 Cell: 078 460 2849 Email: hendrikh@parys.co.za	1. The piggery will be located close to my house and upwind thereof. Smells and odours will negatively affect the quality of life of me, my family and workers. 2. The influx of workers to the piggery may lead an increase in crime in the area. 3. I am dependant on groundwater for household consumption for myself, employees and livestock. Pollution of groundwater by such an intensive farming operation would lead to irreparable harm.	1. Noted. This will be a commercial piggery with has to comply with current industry standards like Pork 360. There will be measures in place to combat and minimise any odours from the piggery. All the slurry generated from this piggery will be enclosed as far as possible. 2. Only vetted and trained workers will be employed for this piggery. No dailies will be expected. 3. A Hydrological study of the farm and its surrounding land were conducted and only the available water on the farm will be used in correlation to the possible size of the piggery. No groundwater will be polluted due to standards that must be followed on such a commercial enterprise. Monitoring of groundwater will be in place, up and down stream of the farm, to detect and prevent and anomalies occurring. The same goes for when treated effluent from the slurry dams are irrigated onto cropland or natural veld. A scientific formula for the area is followed to determine the amount of irrigation needed per hectare. Remember that every piece of infrastructure that handles pig manure/slurry is either enclosed/sealed or lined to prevent anything from

Name & Surname	Designation / Organisation	Contact Details	Comments	Response
				reaching the groundwater aquifer.
Ms. MD Mashinye	Department of Water and Sanitation and environmental officer under compliance monitoring and Enforcement	Department of Water and Sanitation Free State Provincial Operations Bloem Plaza Building 2nd Floor Corner Eastburger and Charlotte Maxeke Streets BLOEMFONTEIN Postal address: The Director Regulations, Compliance and Enforcement Department of Water and Sanitation PO Box 528 BLOEMFONTEIN 9300 Tel: 051 405 9000 Cell: 066 451 9109 Email: Mashinyem@dws.gov.za	The project triggers section 21 of the National water act as per below water use activities: ▫ Section 21(a): taking water from a water resource; ▫ Section 21(b): storing water; ▫ Section 21(c): impeding or diverting the flow of water in a watercourse (Due to closeness to a drainage way closer than 500m); ▫ Section 21(e): engaging in a controlled activity (treatment of the pig wastewater); ▫ Section 21(g): disposing of waste in a manner which may detrimentally impact on a water resource; (irrigation of pig waste effluent on fields); Hence there is a need for comments on the BAR with regards to compliance purpose.	Noted. The BAR will follow shortly.

COMMENTS RECEIVED ON THE Draft EIR – None yet

Name & Surname	Designation / Organisation	Contact Details	Comments	Response

Appendix E6: Comments from I&APs on Basic Assessment (BA) Report

Not yet.

Appendix E7: Comments from I&APs on amendments to the BA Report

N/A

Appendix E8: Register of I&APs