

***DRAFT***  
**SCOPING REPORT**

**PROPOSED TOWNSHIP EXPANSION FOR  
AUGRABIES**

**PORTION OF ERF 1563, KAKAMAS SOUTH  
SETTLEMENT**



**KAI !GARIB MUNICIPALITY**

JULY 2013

MEG ref: Aug01.1/12  
DENC ref: NC/EIA/SIY/KAI/KAK2/2012

## Index

SECTION	CONTENT	PAGE
<b>SECTION A</b>		
1	ENVIRONMENTAL ASSESSMENT PRACTITIONER	4
1.1	Details of MEG Environmental Impact Studies	4
1.2	Expertise of EAP	4
<b>SECTION B</b>		
2	EXISTING ENVIRONMENT	7
2.1	Description of the activity	7
2.2	Description of the property	8
2.3	Alternatives	8
2.4	Description of photo material	9
<b>SECTION C</b>		
3	DESCRIPTION OF THE ENVIRONMENT	10
3.1	Physical environment	10
3.2	Biological environment	13
3.3	Social environment	14
3.4	Economic environment	14
3.5	Cultural environment	15
<b>SECTION D</b>		
4	LEGISLATION AND GUIDELINES	16

<b>SECTION</b>	<b>CONTENT</b>	<b>PAGE</b>
4.1	National legislation	16
4.2	Provincial legislation	17
4.3	Local authority	18
<b>SECTION E</b>		
5	IDENTIFIED ENVIRONMENTAL ISSUES	19
5.1	Historical, cultural and archaeological sites	19
5.2	Flora	20
5.3	Fauna	21
5.4	Land uses	22
5.5	Water	22
5.6	Sewage disposal	23
5.7	Solid waste disposal	24
5.8	Electricity	25
5.9	Air and noise pollution	26
5.10	Public health characteristics	27
5.11	Risks and hazards	27
<b>SECTION F</b>		
6	PUBLIC PARTICIPATION	28
6.1	Notification	28
6.2	Registered interested and affected parties	28
6.3	Issues identified	30
<b>SECTION G</b>		
7	PLAN OF STUDY FOR EIA	31
7.1	Description of the tasks	31
7.2	Indication of the stages	31
7.3	Method of assessing	31
7.4	Public participation process	32
7.5	Project Schedule	32

<b>SECTION</b>	<b>CONTENT</b>	<b>PAGE</b>
<p><b>SECTION H</b></p> <p>8</p>	<p>CONCLUSION</p>	<p>34</p>
<p><b>APPENDIX</b></p> <p>Appendix A</p> <p>Appendix B</p> <p>Appendix C</p> <p>Appendix D</p> <p>Appendix E</p>	<p>Figure 1 – Regional map</p> <p>Figure 2 – Locality map</p> <p>Figure 3 – Site Plan</p> <p>Figure 4 – Zoning map</p> <p>Photographs</p> <p>Advertisement</p> <p>On-site notice</p> <p>Proof of notification</p>	

## **SECTION A**

### **1. ENVIRONMENTAL ASSESSMENT PRACTITIONER**

#### **1.1 Details of MEG Environmental Impact Studies**

MEG Environmental Impact Studies was established in 1998 and since then undertook various Environmental Impact Assessments in the Upington-, Kuruman-, Karoo- and Kalahari-region of the Northern Cape Province. M E Geldenhuys who is personally responsible for each EIA application has a BSc-, as well as a Masters Degree in Environmental Management. With 15 years of hands-on experience since the implementation of the Environmental Conservation Act-1998 and 5 years' experience at Northern Cape Nature Conservation Department. She has been responsible for several Environmental Impact Assessments since 1998, which were completed and approved by the Provincial Department of Environment and Nature Conservation in the Northern Cape.

#### **1.2 Expertise of EAP**

The experience of MEG Environmental Impact Studies in the environmental management field includes various aspects such as:

##### **KEY QUALIFICATIONS:**

<p><b>Environmental Impact Assessment</b></p>	<p>Manage and coordinate various environmental impact assessments in the Northern Cape Province</p>
<p><b>Environmental Management</b></p>	<p>Identify issues and compile environmental management plans in the municipal areas of //Khara Hais Municipality, Z.F Mgcawu District Municipality and Emthanjeni Municipality as required by the Integrated Development Planning Process.</p>

<b>Environmental Management Plan</b>	Manage and compile environmental management plans as required for the development of borrow pits and quarries for the Department of Minerals and Energy.
<b>Environmental Management Program</b>	Manage and coordinate various environmental management programs for the implementing of environmental friendly working procedures
<b>Environmental Practitioner</b>	Develop and compile environmental management reports as required by the Eurepgap and Natures Choice standards for the table grape export farmers in the Benede-Orange River region and Namibia.
<b>Environmental Education</b>	Furnish and manage an Environmental Education Resource centre for the provincial department of Northern Cape Nature Conservation Service. Compiling and presenting Environmental Education programs for youth groups and schools.

The following range of projects had been successfully completed and approved over the years by MEG Environmental Impact Studies:

**Red meat abattoirs**

**Poultry abattoirs**

**Wine Cellar**

**Water pipelines**

**Solid waste sites**

**New Business areas**

**Town extensions  
/Residential developments  
Storm water drainage**

**Construction of power lines  
Community safety centre**

**Low water bridges**

**Water abstraction facilities**

**Sewage works**

**Leisure facilities**

**Cemeteries**

**TV Towers**

**Upgrading/  
Rehabilitation of roads**

**Agricultural Developments**

**Golf Estate Development**

**Resorts**

## **SECTION B**

### **2. EXISTING ENVIRONMENT**

#### **2.1 Description of the activity**

The applicant, Kai !Garib Municipality is part of the Z.F Mgcawu District Municipality through which the Orange river flow. The development of the agricultural sector, as stipulated through the major irrigation projects, has a positive effect on the economic development of the region. This economic growth of the region result in more people attracted to the region and a growth in the population.

The proposed site at Augrabies is directly adjacent to the eastern side of existing community of Augrabies and bordering the road (R359) to the Augrabies Falls National Park(Figure 1). The property, on which the Environmental Impact Assessment for the proposed development will take place, is situated approximately 33ha (figure 2).

This EIA will be done on the area as indicated by the councillors from Kai !Garib Municipality. On the site is a stormwater drainage line and this will be kept open and not form part of the planning area, since it is not permitted and should be conserved for the drainage of storm water. At present the project are planned for the construction of sub-economic erven with the necessary services.

The proposed development entails the preparation of the area for the initial placing of non-permanent housing structures that, on a later stage with the necessary state subsidy, can be converted to permanent housing. Kai !Garib Municipality will also provide the necessary services such as sewage (VIP standard) and a water point on each erf.

The planning also provide for the layout of approximately 410 erven with a size of 340m<sup>2</sup> each. Provision will also be made for community erven such as churches, businesses etc.

This development will take place in phases of which phase 1 will entail



the development of services during 2013. The remainder of the development will be done in follow-up phases in order to provide the need for housing. Since the proposed development activities fall within the definition of residential use, an application for rezoning of the land will therefore be necessary.

## **2.2 Description of the property**

As mentioned in par. 2.1 this proposed development is planned for the expansion of the Augrabies community. This expansion is planned to the east of Augrabies and includes a portion of erf 1563, Kakamas South Settlement.

These properties is heavily disturbed and polluted due to adjacent housing. Pollution on site includes building rubble, informal use of the veld for toilet facilities, dumping of household waste, etc.

## **2.3 Alternatives**

Alternative 1: This is the study area as described in this document. The site is on Kai !Garib Municipality property and directly adjacent to the existing Augrabies community. Services can connect to existing services system. The layout plan (figure 3) incorporate the natural water way on site and erven had been planned outside this area.

### Alternative 2:

With this alternative the natural water course will not be kept in to consideration and planning of erven within this water course will have a negative effect on the community.

### No-go alternative:

With this alternative, no planning for erven can take place and extension of the Augrabies community will not be possible. Services can also not be planned and installed as planning did not take place.

The result will be that the existing Augrabies community will be negatively impacted upon.

#### **2.4 Discussion of photo material (Appendix B)**

The photo material, taken from various directions, gives an indication of the proposed development site as it was during the time of the site inspection.

This section also includes some individual photos on site.

## **SECTION C**

### **3. DESCRIPTION OF THE ENVIRONMENT**

As mentioned previously in this report, the application area of 33ha consists of portion of plot 1563, Kakamas South Settlement, Augrabies.

#### **3.1 Physical environment**

The site is situated directly adjacent to the community of Augrabies and situated next to the R359 road to Augrabies Falls National Park. The site where the proposed development will take place will be an expansion of the existing Augrabies community. The site has a mayor natural drainage area with quartz hill and *Aloe* sp. on various parts of the site. The site is heavily disturbed and polluted by the adjacent community. Pollution includes building rubble, informal use of the veld for toilet facilities, dumping of household waste, etc.

On the northern border, adjacent to the site, are vineyards, while the entrance to Augrabies is towards the eastern border. The Augrabies community which is located on the western side of the site where the proposed development will take place, will also benefit directly from it as it will provide work to people from this community during the initial phase 1 of the proposed development.

The site visit to the proposed development area has been done on 5 November 2012 and therefore the status quo of the natural environment and its surroundings at the given time will be given in this report.

The photo material included under Par. 2.4 also gives an indication of the current status and condition of the proposed development site. During the site visit it was also found that the majority of the proposed site has been disturbed by people and that informal dumping has occurred on and around the site. Some informal roads were also observed. Most of the site was therefore found to be in its natural

state, but a lot of littering, informal dumping and informal settlements are found on the site.

The project applicant intends to develop non-permanent housing structures and that, on a later stage can be converted to permanent housing with associated infrastructure.

### **TOPOGRAPHY**

The proposed development area consists of a verifying topography with a declining gradient of 1:45 in an easterly and westerly direction. This gradient converts into a lower lying stormwater drainage area which crosses this site from a southerly to northerly direction.

This stormwater drainage area must be incorporated within the layout plan as public open space to prevent any flood damage to property. There is no other important topographic features that can have a negative impact on the proposed development.

### **GEOLOGY AND SOIL TYPES**

According to the geological map of the area the following geological substrates occur on the property:

The deeper lying geological formation of the area consists mainly of gneiss, granite and quartzite from the Namaqualand Mobile Belt which is disturbed by quartz and feldspar pegmatites. The surface consists of weathered gneiss with a concentration of quartzite sands in the natural drainage areas. In general, the geology and soil conditions of the study area can be described as hard, typical of the region and suitable for normal housing development. The existing development can confirm this.

### **GEOHYDROLOGY**

According to the "Preliminary assessment of the hydrogeology of the province of the Northern Cape" (Toens, 1996) the site forms part of Hydrogeological Zone 5a.

According to this report the ground water level in this zone varies from between 10m and 50m below surface. Ground water is usually intersected in fault zones and depending on the selection of the drilling site, the point of intersection can vary between 10 and 150 metres below surface. In this zone the yields are seldom in excess of 2l/s and the likelihood of intersecting ground water with yields of more than 2 l/s is less than 25% for scientifically selected boreholes. In much of the area, the ground water needs to be desalinated before it can be considered acceptable for human consumption.

The proposed development will take place in such a manner that it will make use of municipal water reticulation system.

### **CLIMATE**

A summary of the broad climate of the area is provided by Mucina & Rutherford (2006). The site is situated partly in the Kalahari Karroid Shrubland and the Orange River Alluvial Vegetation types. The Kalahari Karroid Shrubland has a mean annual precipitation ranging from 100 – 200 mm and most rain falls in late summer and early autumn. The annual precipitation coefficient of variation is 38%, indicating the unpredictable nature of the rainfall. The mean annual potential evaporation is 2878 mm, while the mean annual soil moisture stress is 86%. The mean annual temperature is 18.4°C and frost is frequent in winter.

#### Rainfall

The mean annual rainfall measured at the Upington weather station is 182 mm. The total annual rainfall may range from 65 mm to 539 mm during dry and wet years respectively, indicating a high variation in the annual rainfall and therefore a rainfall scenario that is highly unpredictable. The rainy season is predominantly from November to April when about 83% of the annual rainfall occurs. The wettest months are February and March and the driest periods are from June to September, when less than 5 mm of rain per month is recorded. The maximum rainfall measured over a 24 hour period at Upington was 67

mm in April. The highest monthly rainfall recorded was 228 mm, measured in January.

#### Temperature

The mean annual temperature for Upington is 19.1°C. The extreme maximum and minimum temperatures measured over a 25 year period were 42.0°C and -4.2°C respectively. The mean daily maximum for January is 34.3°C and for July it is 20.8°C. The mean daily minimum for January is 17.4°C and for July it is 1.7°C. Frost may occur from May to September on a mean of 19 days per year.

### **3.2 Biological environment**

The development area which consists of portion of erf 1563, Kakamas South Settlement, and which is earmarked for the proposed development of 33ha, consists of vegetation types of the Bushmanland Arid Grassland.

The Bushmanland Arid Grassland type consists of extensive to irregular plains on a slightly sloping plateau sparsely vegetated by grassland and dwarf shrubs. A third of this area is covered by alluvium and calcrete. During the site visit no bird species were seen. As this area is adjacent to an existing community with pets as dogs it is not expected to find small mammals on site. Some camelthorn trees grow in the natural drainage areas. The conservation status of this veld type is least threatened.

During the site visit held on 5 November 2012 no game or any fauna species were found at the site. Due to the proposed development area of 33ha, the development should not have a significant negative impact on the survival of fauna, it is expected that the fauna already relocated to the nearest natural veld as result of the presents of dogs in the adjacent community.

### **3.3 Social environment**

The proposed development, forms part of the Augrabies community in the Kai !Garib Municipal area. This community is characterized by intensive farming practices with larger communities such as Kakamas and smaller communities at Marchand, Alheit, Cillie and Lutzburg.

Population: Factors influencing the population growth rate in Kai !Garib Municipality are migration and generally lower national population growth rates. Employment figure for the municipal area indicate a steady decline in formal employment opportunities over the 15 year period (Kai !Garib SDF, Sept 2012).

Health: According to the SDF, Sept 2012 there are mobile clinics, satellite clinics and hospitals in the Kai !Garib region. There are increasing numbers of HIV/AIDS and TB diagnoses, teenage pregnancies, etc.

### **3.4 Economic environment**

In order to ensure that the proposed project will be sustainable and economically viable, the applicant will make use of the local community for job creation. The proposed development will take place in phases. The development will proceed as the need arises for housing. Kai !Garib Municipality will also provide the necessary services such as sewage (VIP standard) and a water point on each erf.

The expected capital outlay for the proposed 33ha development will be in the order of R17 million. The expected yearly income for the Kai !Garib Municipality will be that of the available services used by the community.

All of these work opportunities, as well as the creation of buying power, will contribute positively to the economic environment of the area.

### **3.5 Cultural environment**

Although no signs of any cultural- and heritage were identified on site, a “Phase 1 Heritage Impact Assessment Report” will be done as part of the environmental impact assessment.



## SECTION D

### 4. LEGISLATION AND GUIDELINES

South-Africa is one of a few countries worldwide, where the conservation of the environment has been included in the constitution. On National-, Provincial- and Local Municipal level various other legislation exists, which sole purpose is to ensure that development takes place in a harmonious way, taking into account the natural environment.

#### 4.1 National

Currently South-Africa has some of the best, national environmental management legislation, worldwide.

<b>Title of legislation, policy or guideline:</b>	<b>Administering authority:</b>	<b>Date:</b>
National Environment Management Act, Act 107	DEA	1998
National Environment Management: Biodiversity Act, Act 10	DEA	2004
National Environmental Management: Protection Areas Act, Act 57	DEA	2003
National Forests Act, Act 84	DAFF	2003
National Veld and Forest Fires Act, Act 101	DAFF	1998
National Water Act, Act 36	DWA	1998
Conservation of Agricultural Resources Act, Act 43	DAFF	1983

DEA – National Department of Environmental Affairs

DWA – National Department of Water Affairs

DAFF –Department of Agricultural, Forestry and Fisheries

#### 4.2 Provincial

Certain national environmental legislation or parts thereof makes provision for the implementation of legislation and/or measures on provincial- and local level. Although all provincial legislation should comply with the national legislation, the provincial legislation may be more prescriptive and strict if necessary.

<b>Title of legislation, policy or guideline:</b>	<b>Administering authority:</b>	<b>Date:</b>
National Environment Management Act, Act 107	DENC	1998
National Environment Management: Biodiversity Act, Act 10	DEA	2004
National Environmental Management: Protection Act, Act 57	DEA	2003
National Forests Act, Act 84	DAFF	1998
National Veld and Forest Fires Act, Act 101	DAFF	1998
National Water Act, Act 36	DWA	1998
Conservation of Agricultural Resources Act, Act 43	DAFF	1983
National Heritage Resources Act, Act 25	SAHRA	1999

DENC – Department of Environment and Nature Conservation

DEA – National Department of Environmental Affairs

DWA – Department of Water Affairs (Upington)

DAFF – Department of Agricultural, Forestry and Fisheries (Upington )

SAHRA – South African Heritage Resources Agency

### 4.3 Local authority

Certain national and provincial environmental legislation or parts thereof, makes provision for the implementation of legislation and/or measures on local authority level. Although all local authority legislation should comply with the provincial legislation, the local authority legislation may be more prescriptive and strict if necessary.

<b>Title of legislation, policy or guideline:</b>	<b>Administering authority:</b>	<b>Date:</b>
National Environment Management Act, Act 107	DEA	1998
National Environment Management: Biodiversity Act, Act 10	DEA	2004
National Environmental Management: Protection Act, Act 57	DEA	2003
National Forests Act, Act 84	DAFF	1998
National Veld and Forest Fires Act, Act 101	DAFF	1998
National Water Act, Act 36	DWA	1998
Conservation of Agricultural Resources Act, Act 43	DAFF	1983

## **SECTION E**

### **5. IDENTIFIED ENVIRONMENTAL ISSUES**

This section of the report addresses the possible impacts, as identified during the initial environmental impact assessment. The possible environmental impacts and suggested mitigation measures/recommendations as identified are as follows:

#### **5.1 Historical, cultural and archaeological sites**

During the site visit, held on 5 November 2012, no sites of historical, cultural and archaeological value were found at the development area. A Phase 1 Heritage Impact Assessment will be done as part of the Environmental Impact Study.

The necessary mitigations are however also in place should any such sites be found during the implementation of the project.

##### **Mitigation**

Should any areas or objects of significant heritage potential be found during the proposed development, the following requirements, according to the National Heritage Resources Act, Act no 25 of 1999 will still apply: (“No person may, without a permit issued by the responsible heritage resources authority destroy, damage, excavate, alter, deface or otherwise disturb any archaeological site”).

Should any conservation worthy archaeological or cultural historical finds be made during the proposed development, the necessary expertise of the McGregor Museum should be called upon to investigate any such findings.

## 5.2 Flora

During the site visits, held on 5 November 2012 it was found that the proposed development site is situated in a “least threatened” Bushmanland Arid Grassland, area. The site consists of natural veld which is heavily disturbed and polluted by people. Building rubble, informal use of the veld for toilet facilities, dumping of household waste, etc. Vegetation such as *Aloe claviflora*, *Aloe hereroensis*, *Avonia papyracea*, *Nymania capensis* and black thorn shrubs were also found on this proposed site.

As mentioned, water drainage areas are found on site. It is important that the proposed development will take this into account and development will take place on the suitable areas outside the drainage area and not within the drainage area itself.

Protected plantspecies such as *Aloe sp.* and protected tree such as camel thorn was present on site, therefore an Biophysical survey (flora and fauna survey) will be done as part of the Environmental Impact Study Report.

### **Mitigation**

The following basic recommendations must be taken into account during the planning, construction and operation phases of this proposed development. They are as follow:

- Protected plant and tree species should not be disturbed without the necessary permits.
- The root feeding zone of these trees should not be disturbed and/or compacted at all, as trees absorb moisture as well as oxygen through the fine hair roots occurring in this area. No filling, cutting or addition of topsoil should thus be done within this area
- All invader species such as *Prosopis sp.* - suidwesdoring, should be removed.
- Roads should be restricted especially in areas where no planting

has been done. This will prevent unnecessary destroying of the natural vegetation and also prevent erosion. After rains, roads should be repaired and no new tracks made next to eroded roads.

General measures to be taken:

No disturbance of any protected flora may take place without the required permit from the Department of Environment and Nature Conservation and no disturbance of any protected trees may take place without the required permit from the Department of Agricultural, Forestry and Fisheries.

Any possible impacts will be addressed by careful planning, the planting of endemic plants and minimal water abstraction.

### **5.3 Fauna**

During the initial site investigation, no Red Data species were identified at the site and no remains of livestock were present at the site. As the proposed site is surrounded by an existing community no small fauna such as hares and bird species were present.

Habitat destruction and the possible genetic contamination of species are however all factors that can negatively impact on vertebrate species, but can be minimized through applying the following mitigation measures:

#### **Mitigation**

- No hunting of small game with dogs may be allowed.
- In order to ensure that all fauna will be able to relocate to the adjacent veld, openings should be made in the fences surrounding the proposed development area, before any construction work may begin.

An Environmental Management Plan will be compiled and included in the EIA report and this EMP will also address important issues such as

the prohibition of the hunting of small game etc.

#### **5.4 Land uses**

The planned development is situated within a community area with agricultural property forming the northerly and easterly boundary of this planned development and the R359 (Kakamas/Blouputs)N10 forming the southerly boundary of the development. Of the total development area of 33ha will be used for the development of infrastructure such as housing, roads, services, etc. The adjacent land is of an agricultural and normal community nature. The nature of the proposed development will therefore have minimal negative impact on any surrounding land uses in the area and will contribute in a positive manner as it will provide work opportunities and housing in the area.

#### **5.5 Water**

The proposed development will be incorporated into Augrabies community existing water supply system. Due to the fact that the water is a scarce resource, proper planning needs to be done in order to ensure the sustainable utilization thereof.

Water will be used for normal construction purposes and human consumption and no abnormalities in this regard are foreseen. Kai !Garib Municipality will be responsible to provide main infrastructure for water extension to this proposed development.

The applicant is referred to section 19 of the National water act, 1998 (Act 36 of 1998) with regard to the prevention of and remedies for the effects of pollution. In terms of this section of the Act, the person who owns controls, occupies or uses the land in question is responsible for taking measures to prevent pollution of water resources and property.

**Mitigation**

1. No facilities must be erected within a radius of 100m from a water source or within the 1:100 year floodline of a natural watercourse. No boreholes or other water source however exists on the site.
2. No watercourses will be disturbed and if development is closer than 32 m from a water course a delineation must be done.
3. Measures should be implemented to reduce water use within the proposed development where possible.
4. Environmental education programs for workers will ensure that they will be sensitive to the environment and report incidents such as leaking taps, soil contamination, hunting of small game etc.
5. Stormwater runoff must be taken into account. Stormwater must be diverted from the construction works and roads and stormwater control works must be constructed and maintained in a suitable manner throughout the project, including the management of increased runoff due to the clearing of vegetation.
6. No contaminated stormwater may leave the site.
7. No material with pollution generating potential will be used in any construction activities.
8. No servicing of vehicles and machines within the 1:100 year floodline or within 100m of a watercourse. Oils etc. should be disposed of at a licensed site.
9. All hazardous substances must be handled according to the relevant legislation relating to transport, storage and use.

**5.6 Sewage disposal**

The proposed development will be incorporated into Augrabies existing sewerage system which consists of a waterborne sewerage system. The Municipality will therefore provide this service to the proposed development, together with the necessary infrastructure.



During the construction phase, the contractor must also provide sufficient sanitation facilities for the use of his employees. He will be solely responsible for the proper use and maintenance thereof in conditions, which are to the satisfaction of the engineer and the Municipality. All these facilities must be positioned in such a way that it will be within walking distance from the construction site.

These facilities should also be sited, in terms of the National Water Act, 1998 (Act 36 of 1996), in such a way that they do not cause water or other pollution.

### **Mitigation**

Other specifications to be adhered to are, amongst others, the following;

- All facilities provided at the site must comply with the requirements of the Local Municipality.
- No facility may be erected within a radius of 100m from a water source.
- The applicant/contractor must be held responsible for the cleaning of the sanitary facilities to prevent health hazards for the duration of the contract.
- Sanitary facilities must be provided at a ratio of one (1) facility for every ten (10) persons.

All sanitation facilities must be sited, in terms of the specifications of the *National Water Act no. 36 of 1998*, in such a way that they do not cause water- or other pollution.

## **5.7 Solid waste disposal**

As mentioned in this report the disposal of solid waste will be done at the existing solid waste disposal site at Augrabies. All facilities in use during the construction phase must be utilized and maintained in a manner that prevents pollution of any groundwater resources.

### During the construction period

The solid waste will be restricted to household waste of workers during

the construction phase. Uncontrolled dumping of waste is illegal and will not be permitted. Waste containers must be provided, emptied at regular intervals and dumped at an approved solid waste disposal site.

Should the contractor not plan to dispose of this household waste at an approved solid waste disposal site, it will be necessary to apply for a temporary waste disposal permit according to the specifications of the *National Environmental Management: Waste Act 2008 (No.59 of 2008)* under the jurisdiction of the Department of Environment and Nature Conservation. The use of temporary solid waste disposal sites is however not recommended.

#### During the operational phase

The proposed development will be integrated with Augrabies's existing refuse removal systems. The Municipality will collect the waste directly from each residence and business within the development. All refuse removal will then be disposed off at the formal, solid waste disposal site of the municipality.

The prospect of establishing a recycling plant for solid waste management should also be investigated by the local authority as the development of Augrabies provides the perfect opportunity for putting the concepts of environmentally friendly development into practice.

## **5.8 Electricity**

The area where the proposed development will take place is adjacent to Augrabies and will form part of the existing electrical reticulation system of Kai !Garib Municipality. The proposed development will also be incorporated into this existing system.

The current national situation with regard to the provision of electricity however requires a new way of thinking and the exploring of other ways and means of generating electricity. In this regard, the possibility of making use of electricity saving devices such as solar water heaters etc.

should also be considered during the design of the building.

## **5.9 Air and noise pollution**

### **Air Pollution**

During the construction phase, and due to the nature of the project, an amount of smoke (from machines) and dust will be generated. Dust pollution may have an impact on the operational workers.

### **Mitigation**

In order to minimize the effect of dust pollution, the construction area can be kept wet as far as possible and the workers must wear the necessary safety clothing.

The applicant is referred to section 19 of *the National Water Act no. 36 of 1998* with regard to the prevention of, and remedies for, the effects of pollution. In terms of this section of the Act, the person who owns controls, occupies or uses the land in question is responsible for taking measures to prevent pollution of water resources and property.

### **Noise Pollution**

During the construction phase there may be minimal and sporadic incidents of air and noise pollution due to the construction activities such as dust and noise as a result of earthworks. Due to the fact that the area is situated nearby a residential environment, the working hours should be strictly enforced by the contractor and the developer.

### **Mitigation**

The contractor should make adequate provision to prevent or minimize the possible effects of noise pollution. Should the noise from the construction work be found to cause problems, work hours in these areas may be restricted between 07:00 and 19:00, or as otherwise agreed between the parties involved. Strict measures should therefore be enforced, especially in terms of the contract specifications, to prevent any negative impacts in this regard.

### **5.10 Public health characteristics**

Due to the nature of the development, there will be minimal, if any, dangers of the health of workers being jeopardized. The proposed development will occur according to the specific need of the site and the contractor will have to make use of trained staff. Where local communities are employed, it will be the responsibility of the contractor to see to their safety and to provide the relevant training for the execution of their tasks.

### **5.11 Risks and hazards**

The applicant and the contractor should meet the following general conditions and requirements with regard to the proposed development:

- The contractor will have to ensure that all the necessary precautions in terms of the necessary legislation and contract specifications are taken to guarantee the safety of the workers and the public.
- Oil and fuel must at all times be properly stored in containers such as drums and tanks that are properly sealed.
- Drip pans must always be attached to stationary machines such as compressors, generators, etc. These drip pans should be regularly monitored and cleaned when necessary. In case of oil, diesel or petrol spills, immediate action should be taken to prevent the spill from contaminating ground- or surface water.

## SECTION F

### 6 PUBLIC PARTICIPATION

A detailed public participation process had been followed to identify all possible interested and affected parties (I & AP's) as well as any issues of significance to the project.

#### 6.1 Notification

Steps taken to notify potentially interested and affected parties of the application are as follow:

The public participation process had been done by means of a newspaper advertisement in "Gemsbok" (26 July 2013 – Appendix C), an on-site notice (appendix D), notices at various public places(Appendix E), consultation with various stakeholders, as well as organizations, government departments etc.

##### *Proof of notification*

Notice boards, advertisements and notices notifying potentially interested and affected parties of the application has been displayed, placed or given.

#### 6.2 Registered interested and affected parties

During the public participation process the following interested and affected parties were identified and had been consulted:

<b>NAME</b>	<b>ADDRESS</b>	<b>NOTIFIED BY:</b>
DENC Department of Environment and Nature Conservation	Private Bag X6102, KIMBERLEY, 8300	<i>Draft</i> SCOPING REPORT

<b>NAME</b>	<b>ADDRESS</b>	<b>NOTIFIED BY:</b>
COGHSTA Department of Co-Operative Governance and Human Settlements and Traditional Affairs	Private Bag X5005. KIMBERLEY, 8300	<i>Draft</i> SCOPING REPORT
DENC Department of Environment and Nature Conservation	PO Box 231, UPINGTON, 8801 (per hand)	<i>Draft</i> SCOPING REPORT
Kai !Garib Municipality	PO Box 174, KAKAMAS, 8870	<i>Draft</i> SCOPING REPORT
Kai !Garib Library Municipality	PO Box 174, KAKAMAS, 8870	<i>Draft</i> SCOPING REPORT
DWA Department of Water Affairs	Private Bag X5912, UPINGTON, 8800	<i>Draft</i> SCOPING REPORT
DAFF Department Agriculture, <b>Forestry</b> and Fisheries	PO Box 2782, UPINGTON, 8801	<i>Draft</i> SCOPING REPORT
<b>ADJACENT LAND OWNERS AND INTERESTED PARTIES:</b>		
Councillor Snyers	PO Box 174, KAKAMAS, 8870	REGISTERED LETTER
Burger du Plessis Family Trust	PO Box 45 AUGRABIES 8850	REGISTERED LETTER
TransHex Operation Pty Ltd	P O Box 723, PAROW, 7499	REGISTERED LETTER
<b>Flying Falcon Prop 12 cc</b>		REGISTERED LETTER
<b>Burger du Plessis Familie Trust</b>	<b>PO Box , AUGRABIES,</b>	REGISTERED LETTER

<b>NAME</b>	<b>ADDRESS</b>	<b>NOTIFIED BY:</b>
	8850	
Superlane 124 Pty Ltd	PO Box , AUGRABIES, 8850	REGISTERED LETTER
Melkbosrand Boerdery Trust	PO Box , AUGRABIES, 8850	REGISTERED LETTER
LJ Smit	PO Box AUGRABIES 8850	REGISTERED LETTER
Frikkie Spangenberg Boerdery	PO Box AUGRABIES 8850	REGISTERED LETTER

Registered letters was send to owners of adjacent property during the public participation process (see list attached in appendix E).

### **6.3 Issues identified**

A summary of the issues raised during the public participation process, as well as inputs from I & A parties on this draft scoping report, will be discussed with DENC and will form part of the EIA report.

## **SECTION G**

### **7. PLAN OF STUDY FOR EIA**

#### **7.1 Description of the tasks**

The EIA Report will consist of the following:

- i) details of the EAP and his/her experience;
- ii) detailed description of the proposed activity;
- iii) description of the property on which the activity is to be undertaken;
- iv) description of the environment that will be affected;
- v) details of the public participation process;
- vi) a description of the tasks that will be undertaken as part of the EIA process, including any specialist reports or specialised processes, and the manner in which such tasks will be undertaken.

#### **7.2 An indication of the stages** at which the competent authority will be consulted

The competent authority will be consulted:

- with the submission of the application form and Draft Scoping report;
- during the Draft Scoping Report stage for a site visit to application area;
- comments from the public participation process will be submitted to the competent authority;
- during the EIA report stage a site visit will be arranged to portion of erf 1563, KAKAMAS SOUTH SETTLEMENT
- were the need arise from the competent authority for a meeting.

#### **7.3** A description of the proposed **method of assessing** the environmental issues and alternatives, including the option of not proceeding with the activity.



During the execution of this environmental evaluation, the following general principles will apply:

- i. gathering of information and data on variables relevant to the determining of possible impacts;
- ii. interpretation and analysis of the data gathered;
- iii. identification of significant environmental impacts; and
- iv. representation (communication) of the findings during the analysis.

The following table gives an indication of the criteria which will be used, during the EIA process, to identify potential environmental impacts, (both natural- and built environment) and the way it will be quantified.

POTENTIAL IMPACTS	EXTENT –	INTENSITY	DURATION	MITIGATORY POTENTIAL –	ACCEPTABILITY	DEGREE OF CERTAINTY –
5.1 ARCHAEOLOGICAL						
5.2 FLORA						
5.3 LAND USES						
5.4 WATER AVAILI						
5.5SEWAGE DISPOSAL						
5.6 SOLID WASTE						
5.7 POLLUTION: AIR/NOISE						
5.8 PUBLIC HEALTH						
5.9RISKS + HAZARDS						

**7.4** Particulars of the **public participation process** that will be conducted during the EIA process:

A detailed public participation process will be followed with the identified interested and affected parties (I & AP's) to reflect any issues of significance to the project.

**7.5** Proposed **project schedule** that will be followed during the EIA process.

PHASE	ITEM	TIME FRAMES
1	PRE-CONSULTATION MEETING - Consultation with client - Visit the site - Gather the needed information to complete the Application for Authorisation form	ACCEPTANCE OF TENDER
2	DOCUMENT RELEVANT INFORMATION - Complete Application for and send to applicant for signature and commissioner of oath	1 week
3	COMPILE DRAFT SCOPING REPORT - Get relevant information - Do networking for public participation process - Preparing of documentation for public participation - Request specialist studies, when relevant	1 month
4	PUBLIC PARTICIPATION - Comments requested from interested and affected parties. - Advertising of proposed project - Courier Draft SR to department/local authorities - Take specialists on site visit (when requested) - Register all interested and affected parties.	40 days
5	REVIEW COMMENTS - Review comments received during PP process - Compile comment and response report	20 Days
6	COMPILE FINAL SR - Submit Final SR to DENC	30 days
7	COMPILE EIA REPORT + EMP - Acceptance of Final SR by DENC - Review all specialist inputs - Address comments received in report - Gather outstanding information - Submit EIA Report	30 days
8	PUBLIC PARTICIPATION - Submit EIA Report to DENC - Submit EIA Report to department for comments if any - Inform interested and affected parties of EIA report reviewing and opportunity for comments, if any - Request that all comments be submitted at DENC	40 days
9	DENC ACKNOWLEDGEMENT - DENC accept/reject EIA	60 days
10	DENC AUTHORIZE	45 days

**SECTION H****8. CONCLUSION**

This scoping report has been submitted to various government departments for review. All comments on this public participation process and scoping report will be forwarded to DENC. During the EIA process all of these comments received as well as any responses by the EAP to these inputs, will also be included in the EIA-report and forwarded to DENC.

Following the above mentioned actions DENC must, within 30 days of receipt of a scoping report, consider the report, and in writing inform the EAP of the decision taken in this regard.

Determining identified impact significance:

<b>POTENTIAL IMPACTS</b>	<b>EXTENT</b> – site specific, local, regional, national of international	<b>INTENSITY</b> – L within site boundary, M beyond site boundary, H widespread  Negative - <sup>-</sup> Positive - <sup>+</sup>	<b>DURATION</b> – L short term (0 – 5 years), M (5 – 15 years), H (15 + years)	<b>MITIGATORY POTENTIAL</b> – L no mitigation for negative impact, M potential to mitigate neg. imp, H mitigate neg.imp. to insignificant effects.	<b>ACCEPTABILITY</b> – L acceptable, M manageable, H unacceptable	<b>DEGREE OF CERTAINTY</b> – L(unsure) less than 40%the likelihood of an impact occurring, M(probable) over 40 % ....., H(unacceptable) more than 90% sure of the ....
<b>5.1 ARCHAEOLOGICAL</b>	Site specific	L	L	L	L	L
<b>5.2 FLORA</b>	Site specific	L	L	M	M	M
<b>5.3 LAND USES</b>	Site Specific	L	H	M	L	M
<b>5.4 WATER AVAILABILITY</b>	Local	L	M	M	L	L

<b>POTENTIAL IMPACTS</b>	<b>EXTENT</b> – site specific, local, regional, national of international	<b>INTENSITY</b> – L within site boundary, M beyond site boundary, H widespread  Negative - <sup>-</sup> Positive - <sup>+</sup>	<b>DURATION</b> – L short term (0 – 5 years), M (5 – 15 years), H (15 + years)	<b>MITIGATORY POTENTIAL</b> – L no mitigation for negative impact, M potential to mitigate neg. imp, H mitigate neg.imp. to insignificant effects.	<b>ACCEPTABILITY</b> – L acceptable, M manageable, H unacceptable	<b>DEGREE OF CERTAINTY</b> – L(unsure) less than 40%the likelihood of an impact occurring, M(probable) over 40 % ....., H(unacceptable) more than 90% sure of the ....
<b>5.5 SEWAGE DISPOSAL</b>	Site Specific	L	M	M	L	L
<b>5.6 SOLID WASTE</b>	Site Specific	L	M	M	L	L
<b>5.7 POLLUTION: AIR NOISE</b>	Site Specific Site Specific	L L	M M	M M	L L	L L

<b>POTENTIAL IMPACTS</b>	<b>EXTENT</b> – site specific, local, regional, national of international	<b>INTENSITY</b> – L within site boundary, M beyond site boundary, H widespread  Negative - <sup>-</sup> Positive - <sup>+</sup>	<b>DURATION</b> – L short term (0 – 5 years), M (5 – 15 years), H (15 + years)	<b>MITIGATORY POTENTIAL</b> – L no mitigation for negative impact, M potential to mitigate neg. imp, H mitigate neg.imp. to insignificant effects.	<b>ACCEPTABILITY</b> – L acceptable, M manageable, H unacceptable	<b>DEGREE OF CERTAINTY</b> – L(unsure) less than 40%the likelihood of an impact occurring, M(probable) over 40 % ....., H(unacceptable) more than 90% sure of the ....
<b>5.8 PUBLIC HEALTH</b>	Site Specific	L	M	M	L	L
<b>5.9 RISKS + HAZARDS</b>	Site Specific	L	M	M	L	L