DRAFT

SCOPING REPORT

PROPOSED TOWNSHIP EXPANSION FOR LOUISVALEWEG, UPINGTON

ERF 66, ERF 757, ERF 423 LOUISVALEWEG,& PLOT 1037 OLYFENHOUTSDRIFT SETTLEMENT, UPINGTON.

Omgewingsimpakstudies

//KHARA HAIS MUNICIPALITY

JANUARY 2014

MEG ref: Lou01.1/14

DENC ref: NC/EIA/06/ZFM/KHA/LOU1/2014

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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 16 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:

Environmental Impact Assessment	Manage and coordinate various environmental impact assessments in the Northern Cape Province
Environmental Management	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.

Environmental Management Plan	Manage and compile environmental management plans as required for the development of borrow pits and quarries for the Department of Minerals and Energy.
Environmental Management Program	Manage and coordinate various environmental management programs for the implementing of environmental friendly working procedures
Environmental Practitioner	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.
Environmental Education	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	**Construction of power lines**
Storm water drainage	**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 property is situated within the //Khara Hais Municipal area in the Northern Cape Province. //Khara Hais Municipality is a Local (Category B) Municipality (NC083) and is located in the ZF Mgcawu District Municipality (DC8). The ZF Mgcawu District Municipality is the second largest district (approximately 103 871km²) in the Northern Cape. The district has a population of approximately 200 000 people and (as with most of the Northern Cape) has a very low population density. Upington is the main town of the district and within the //Khara Hais Municipal area and has, since its inception, been the hub of activities in the region. The Municipality is approximately 344 446 ha in extent and straddles the Orange River. The //Khara Hais Municipality has a population of approximately 78 393 people.

Upington has always been the most centrally located economic node in the Northern Cape Province and during the past 2 years a new driving force has emerged in the local economy, namely the establishment of renewable energy generation facilities and associated infrastructure and developments. This caused a significant influx of residents to the town and has created a huge demand for services and facilities such residential properties etc. The result is that there is an ever growing gap between the supply of residential properties and the demand therefore. This resulted in the forming of informal settlements on the urban periphery which severely impacts on the livelihoods of the economically vulnerable members of the community as well as the environmental integrity of the area.

The proposed development therefore strives to address this problem of informal settlements on the urban periphery of Louisvaleweg and to formalize the existing informal situation in order to enable the local authority to provide infrastructure and services to these properties.

The proposed development entails the preparation of the area for the initial placing of non-permanent housing structures which, at a later stage with the necessary housing subsidies, can be converted to permanent housing. //Khara Hais Municipality will also provide the necessary services such as sewage and water.

2.2 Description of the property

The proposed development entails a change in land use to provide for the development of subsidy housing and associated infrastructure. As mentioned in par. 2.1 this proposed development is planned for the expansion of the Lousivaleweg community. The proposed development is planned in an area situated directly adjacent to Louisvaleweg, which is one of the town's southernmost neighbourhoods. The site extends from Louisvaleweg's existing development eastward where it borders the N10 national road to the north and the Upington/De Aar Railway line to the east. A locality map is also attached as Figure 1(Macroplan).

The properties involved in this application are Erven 66, 757 and Erf 423 Louisvaleweg, and Plot 1037, Olyfenhoutsdrift Settlement, Upington which forms part of and is registered in the name of //Khara Hais Municipality (figure 2). Erf 66 is currently zoned as Open Space 1, Erven 757 & 423 as Unspecified and Plot 1037 Olyfenhoutsdrift as Agricultural Zone 1 (figure 3). The Unspecified zone constitutes a situation where no land use rights have been allocated to the applicable portions, whereas the Agricultural and Open Space zones aren't suitable for housing developments as well. None of the existing rights are therefore conducive to legal ownership and/or tenure, nor the placement of complementary community services and amenities.

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

The planning also provide for the development of approximately 868

erven of which 835 will be for residential purposes and the remainder will be for land uses such as churches, commercial, open spaces, places of instruction, mixed use development, sport fields and GAP housing. The average sizes of the residential erven are 370m² and this zoning will cover approximately 34.2ha of the total development area of 70ha (figure 4). The remainder of the development area will consists of open spaces, unspecified land uses, mixed used development, places of worship, commercial and places of instruction.

2.3 Alternatives

Alternative 1: This is the study area as described in this document. The proposed development site is at the same location where the existing informal settlements are at the moment and also on property belonging to //Khara Hais Municipality. It is also directly adjacent to the existing community and infrastructure of the Louisvaleweg residential area. At this location, the local authority will be able to connect to the existing services and infrastructure directly adjacent thereto. This area has also been disturbed as a result of the informal settlement which has already been established there.

Alternative 2:
The only alternative which exists is an open area which is further to the south of the existing residential area. This area is very far from the existing residential area and will not be suitable for this type of development due to the fact that is not close to existing infrastructure, it is also very far and will result in additional travelling costs for the residents and will result in urban sprawl and not densify the existing residential areas. This site is also not disturbed at the current moment and will therefore, from an environmental point of view, have a much higher negative impact than Alternative 1.

No-go alternative:
With this alternative, no planning for erven can take place and the existing informal settlement and unhygienic situations will still prevail.

The local authority will also not be able to provide the residents with services and formal housing. The result will be that the existing Louisvaleweg 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 70ha consists of Erven 66, 757 and Erf 423 Louisvaleweg, and Plot 1037, Olyfenhoutsdrift Settlement, Upington.

3.1 Physical environment

The site is situated directly adjacent to Louisvaleweg, which is situated approximately 6km southeast of the CBD of Upington town. The site is bordered in the north by the N10 national road between Upington and Kimberley and on the east by the railway line between Upington and De Aar. The site where the proposed development will take place will be an extension of the existing Louisvaleweg community. The study area may be described as typical vacant land that may be found on the urban periphery. It has no strong character in itself, but is rather defined by its surrounding uses. The site is most significantly influenced by the predominant residential character of Louisvaleweg to its west, with the proposed development setting out to achieve an urban layout which is fitting to this existing state.

This existing residential area also houses a strong educational node and the proposal will expand on this in certain sections, ensuring ample opportunity for educational infrastructure for both the existing neighbourhood as well as the new expansion. Towards the north of the site, the residential character of the surrounding area is diminished with industrial and business uses becoming more prominent. The proposed layout will be sensitive to this aspect by accommodating uses for higher density housing, business premises as well as opportunity for mixed developments, integrating business, industry and residency.

The site has some small natural drainage areas, is relatively flat and is heavily disturbed and polluted due to the existing informal housing

activities on/and around it. Pollution includes building rubble, informal use of the veld for toilet facilities, dumping of household waste, etc.

A site visit has been undertaken on 10 and 27 January 2014 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 proposed site has been disturbed by people and that informal structures and dumping has occurred on and around the site. Some informal roads were also observed. Big portion of the site was therefore found to be in a disturbed state, with a lot of littering, informal dumping and rubble on the site.

The project applicant intends to formalize the existing informal residential area in order to provide the residents with the necessary services, housing and ownership.

TOPOGRAPHY

The topography of the site may be described as being relatively flat with a general downwards slope of ±1:200 from a north-western to a south-eastern direction. This gradient description is oversimplified in the sense that natural drainage lines occur interspersed throughout a NW/SE section of the site. These low lying areas will be accommodated in areas of open space to ensure the effective movement of storm water from the site. From another perspective, the site exhibits a steeper downward gradient from a south-western to north-eastern direction, averaging at ±1:80. It is therefore found that the storm water mainly travels in a north-eastern direction. No topographical anomalies are found on site which may pose a significant impediment to the proposed development.

GEOLOGY AND SOIL TYPES

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

The geology of the area as a whole is dominated by Andesitic rocks of the Allanridge Formation (Ventersdorp Group). These hard and dark rock forms appear as loose rock and solid embankments within and around Upington. In certain areas the formation is covered with alluvial sediment and diamond-gravel (especially in stormwater 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 developments in the area can also confirm this.

A detailed Geotechnical survey has however been undertaken and will be included in the EIA document.

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 of Erven 66, 757 and Erf 423 Louisvaleweg, and Plot 1037, Olyfenhoutsdrift Settlement, Upington, and which is earmarked for the proposed development, consists of vegetation types of the Bushmanland Arid Grassland Type. The Bushmanland Arid Grassland occurs in the most arid parts of South Africa where the topography is generally flat and most of the region lies at about 900m. Soils are quaternary sand and Karoo Sequence shales which give rise to weak and structure less clay and sandy soils. Structurally Bushmanland Arid Grassland is dominated by annuals and non-succulent shrubs. In the more sandy parts of this region the vegetation is dominated by Cauliflower Ganna and after good summer rains by Small Bushman Grass and Tall Bushman Grass. In the more rocky areas, Thorny Kapokbush, Thom Vygie and especially Three Thorn are important species. Annuals, such as *Pentzia annua* and Brakspekbos are common and together with geophytes comprise nearly 50% of the total number of species in the region. This type is very poorly conserved, with no major conservation areas occurring. Riverine areas are invaded by Mesquite and Three Thorn mainly where heavy grazing occurs. This vegetation conservation status is 'least threatened' and very little of this area has been transformed. The applicant has to apply for a permit to remove the protected *Aloe sp*. on site prior to the development and a license from Department of Agriculture, Forestry and Fisheries if any protected tree species such as camel thorn tree will be disturbed during this development.

During the site visit no bird species were seen. As this area is under pressure by informal housing structures and also adjacent to an existing community with pets such as dogs and cats, it is not expected to find small mammals on site. The conservation status of this veld type is least threatened.

During the site visit held on 10 and 27 January 2014 no game or any fauna species were found at the site. The proposed development should not have a significant negative impact on the survival of fauna, and it is

expected that the fauna already relocated to the nearest natural veld as result of the presence of dogs in the adjacent community.

3.3 Social environment

The population in the //Khara Hais municipal area is mainly distributed in and around Upington, including Louisvaleweg with approximately 81% of the population residing in the urban area. A third of the population in //Khara Hais is under the age of 15 years (32%). This holds significant implications for future development planning as this section of the population will become economically active within the next 5 to 10 years. A consistent economic growth rate and the creation of sufficient job opportunities are therefore of importance. Approximately 5% of the population are older than 65 years. It is envisaged that this percentage will increase to approximately 11% over the next 10-15 years. Most members of this group of people are not economically active.

The Human Development Index (HDI) provides an alternative method to measure the relative socio-economic development of an area and is seen as a measure of people's ability to live a long and healthy life, to communicate, to participate in the community and have sufficient means to be able to afford a decent living. At the ZF Mcgawu District the HDI for the district was indicated as 0.54, which is significantly lower than the Northern Cape Province HDI. Areas with a HDI of between 0.5 and 0.8 are considered to have a medium level of human development. The HDI of this district in which the application area is situated, is cause for concern although it is above 0.5 and should therefore be addressed through education and upgrading projects such as these.

3.4 Economic environment

It is recognized that poverty remains the core obstacle to a stable and

prosperous future in South Africa. This also applies to //Khara Hais municipality as well. Despite commendable efforts of government and state supported efforts, poverty continues to be a chronic problem for much of South Africa's population. These problems are also evident in this area.

The labour market constitutes 63% of the total population of //Khara Hais. Only 24% of the labour market is employed with the unemployment rate at 13%. The *not economically* active people constitute 26% of the labour market. The unemployment rate of 13% could therefore be somewhat misleading due to the fact that people not seeking work, which can be classified as unemployment, are not included. Of the labour force almost 19% earn less than R 400 per month, whilst 55% earn between R 401 – R 1600 per month. Some 74% of the employed labour force thus earns less than R 1600 per month and therefore live in poverty.

As included in the SDF for //Khara Hais municipality, it is therefore recognized that:

1. Eradication of poverty is an imperative for sustainable development.
2. Eradication of poverty requires environmentally sustainable solutions
3. Sustainable development requires a balance between economic growth, social development and environmental sustainability, but with the emphasis on economic growth until such time as wide-spread poverty has been successfully eradicated.
4. Rolling back poverty must go hand in hand with rolling back inequality.

In the light of the above, //Khara Hais Municipality has a policy whereby all developments should as far as possible be labour intensive and make use of local labour and suppliers. The proposed development will take place in phases. The development will proceed as the need arises for housing. //Khara Hais Municipality will also provide the necessary services such as sewage, refuse removal and water.

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.

	Title of legislation, policy or guideline:	**Administering authority:**	**Date:**
	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	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

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.

	Title of legislation, policy or guideline:	**Administering authority:**	**Date:**
	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
	Northern Cape Nature Conservation Act, Act 9	DENC	2009
	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.

	Title of legislation, policy or guideline:	**Administering authority:**	**Date:**
	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 10 and 27 January 2014, 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 10 and 27 January 2014 it was found that the proposed development site is situated in a "least threatened" Bushmanland Arid Grassland Type, 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.

As mentioned, some natural water drainage areas are found on site. The proposed layout plan provided by the professional town planners, however take these aspects into account.

Although the site has been heavily disturbed due to human activities and very few plant species are left, a 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. 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 study area used to be, what typically be considered urban dead space, a vacant tract of land between industrial and residential areas. It should be noted that in this particular case, the urban dead space was not mere unintentional circumstances of desirability conflict between residential and industrial uses (although this is also quite common). This dead space was the product of segregation planning of pre-democratic South-Africa, but over time, these vacant tracts of land has become under increased pressure for transformation as they have become occupied by the urban poor – a situation not all unique to Upington, nor South-Africa. Consequently, the study area as described by Macroplan as an informal residential area in Louisvaleweg in urgent need of formalisation.

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 the existing water network of Louisvaleweg. 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. //Khara Hais 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 the existing sewerage system of Louisvaleweg which consists of a waterborne

sewerage system. While the necessary funds for these upgrading projects are obtained, the municipality will provide the existing informal structures with a bucket system which will be serviced on a regular basis. 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 Upington. 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 the existing refuse removal system of //Khara Hais. The Municipality will collect the waste directly from each residence and business within the development. All refuse removal will then be disposed of 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 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 the existing residential area of Louisvaleweg and will form part of the existing electrical reticulation system of //Khara Hais 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" (31 January 2014 – 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:

NAME	ADDRESS	NOTIFIED BY:
DENC Department of Environment and Nature Conservation	Private Bag X6102, KIMBERLEY, 8300	*Draft* SCOPING REPORT

NAME	ADDRESS	NOTIFIED BY:
COGHSTA Department of Co-Operative Governance and Human Settlements and Traditional Affairs	Private Bag X5005. KIMBERLEY, 8300	*Draft* SCOPING REPORT
DENC Department of Environment and Nature Conservation	PO Box 231, UPINGTON, 8801 (per hand)	*Draft* SCOPING REPORT
//Khara Hais Municipality	Private Bag X 6003, UPINGTON, 8800	*Draft* SCOPING REPORT
DWA Department of Water Affairs	Private Bag X5912, UPINGTON, 8800	*Draft* SCOPING REPORT
DAFF Department Agriculture, **Forestry** and Fisheries	PO Box 2782, UPINGTON, 8801	*Draft* SCOPING REPORT
SAHRA South African Heritage Resources Agency	PO Box 4637 CAPE TOWN, 8000	*Draft* SCOPING REPORT
Z.F Mgcawu District Municipality	Private Bag X6039 UPINGTON 8800	REGISTERED LETTER
ADJACENT LAND OWNERS AND INTERESTED PARTIES:		
R George	Private Bag X 6003, UPINGTON, 8870	REGISTERED LETTER

Registered letters was send or delivered to owners/occupants 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 site
- 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 ARCHAELOGICAL						
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 commence 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 draft scoping report has been submitted to various government departments for review. All comments on this public participation process and draft 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:

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

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

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