

# **SOCIO-ECONOMIC STUDY**

## **BLOODHOUND PROJECT: HAKSTEEN PAN**

### **NORTHERN CAPE PROVINCE**

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# **EXECUTIVE SUMMARY**

## **INTRODUCTION AND LOCATION**

The Bloodhound Super Sonic Car (SSC) initiative aims to design and manufacture a super-sonic car capable of setting a new land speed record while also inspiring the next generation of scientists and engineers. The car is designed to reach a top speed of 1 600 km (1 000 miles) per hour, well above the speed of sound. In 2009 the Bloodhound team launched a global search to identify a site to break the world land speed record. After serious consideration Hakskeen Pan in the Mier area of the Dawid Kruiper Local Municipality (DKLM) was chosen for its size, surface composition, community cooperation, and support from the Northern Cape Provincial Government for the project. The Bloodhound initiative is therefore product of over six years of planning and development.

Haksteen Pan is located ~ 260 km north-east of Upington and is accessed via the R380. The main town in the vicinity of the pan is Rietfontein, which is located approximately 12 km west of the Hakskeen Pan.

Tony Barbour was appointed by the Northern Cape Provincial Department of Economic Development and Tourism to undertake a socio-economic impact assessment to inform the Department of the potential threats and opportunities arising for the Dawid Kruiper Local Municipality from the use of the Hakskeen Pan for events. The study will also be used as supporting document for the completion of Environmental Impact Assessment (EIA) undertaken for the Bloodhound event by EnviroAfrica.

This report contains the findings of the socio-economic assessment undertaken for the Bloodhound event.

## **DESCRIPTION OF THE PROPOSED DEVELOPMENT**

The Bloodhound SCC initiative aims to design and manufacture a super-sonic car capable of setting a new land speed record (of 1 000 miles/1 610 km per hour). In order to attempt the land speed a high speed facility has to be developed on and around Hakskeen Pan which includes:

- A dedicated track of 20km (for Bloodhound);
- A trackside Airstrip;
- Corporate Hospitality Area;
- A technical Camp;
- A domestic Camp;
- A Fuel Depot.

The Bloodhound event will take place in the third quarter of 2017 and extend over a period of 3-4 months. Based information provided in the region of 10 000 visitors are expected to visit Haksteen Pan. In order to accommodate the large number of visitors camping facilities and the associated services (water, ablution, catering etc.) will need to be established on the pan. An entertainment area is also planned.

## **APPROACH TO THE STUDY**

The approach to the SIA study is based on the Western Cape Department of Environmental Affairs and Development Planning Guidelines for Social Impact Assessment (February 2007). These guidelines have been endorsed by the national Department of Environmental Affairs (DEA), and are based on international best practice. In this regard the study involved:

- Review of demographic data from the 2011 Census Survey;
- Review of relevant planning and policy frameworks for the area;
- Site specific information collected during the site visit to the area and interviews with key stakeholders; and
- Identification of social issues associated with the proposed project.

## **SUMMARY OF KEY FINDINGS**

The key social issues identified during the study are divided into:

- The policy and planning related issues;
- Impacts associated with the pre-event planning and establishment phase for the Bloodhound project;
- Impacts associated with the event hosting phase of the Bloodhound project;
- Legacy impacts associated with the Bloodhound project.

## **POLICY AND PLANNING ISSUES**

The review of the relevant planning and policy documents was undertaken as a part of the SIA. The key documents reviewed included:

- Northern Cape Provincial Growth and Development Strategy (2004-2014);
- Northern Cape Spatial Development Framework (2012);
- ZF Mcgawu District Municipality Integrated Development Plan (2007-2012)<sup>1</sup>;
- David Kruiper Integrated Development Plan (2012-2017)<sup>2</sup>;
- //Khara Hais Local Economic Development Strategy (2010)<sup>3</sup>;
- //Khara Hais Spatial Development Framework (2012)<sup>4</sup>.

The findings of the review of the district and local municipal policy documents indicate high unemployment and poverty levels in the study area, coupled to low education and skills levels constitute the most urgent social development challenge in the study area. The proposed development has the potential to assist in addressing these challenges. The proposed development will also support tourism,

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<sup>1</sup> The ZF Mcgawu DM was previously referred to as the Siyanda DM. The name was changed in 2013.

<sup>2</sup> The // Khara Hais LM and Meir LM were amalgamated in September 2016 to form the Dawid Kruiper LM. The Dawid Kruiper SDF is therefore essentially a renamed version of the // Khara Hais LM 2012-2017 IDP. The document indicates that a number of the chapters are under revision following the amalgamation.

<sup>3</sup> The // Khara Hais LM and Meir LM were amalgamated in September 2016 to form the Dawid Kruiper LM. The LED Strategy therefore predates the amalgamation.

<sup>4</sup> The // Khara Hais LM and Meir LM were amalgamated in September 2016 to form the Dawid Kruiper LM. The SDF therefore predates the amalgamation.

private investment and create opportunities for SMMEs. Based on the findings of the review the Bloodhound event supports a number of key socio-economic objectives contained in the relevant Provincial, District and Local level policy and land use planning documents.

## **PRE-EVENT AND ESTABLISHMENT PHASE**

The key social issues associated with the pre-event planning and establishment phase include:

### **Potential positive impacts**

- Creation of employment and business opportunities and opportunity for skills development and on-site training associated with the preparation of Haksteen Pan;
- Benefit for local tourism and accommodation sector;
- Establishment of the Kalahari East Water Pipeline;
- Establishment of cell phone infrastructure in the area.

### ***Creation of employment***

As part of the pre-event planning and preparation process ~ 300 members from the local towns in the vicinity of the pan, including Rietfontein, Philandersbron, Groot Mier and Klein Mier, were employed as part of the local municipality's extended public works program to clear the pan by hand, and ensure the surface is smooth enough for the attempt. This employment extended over a period of three years and created employment, albeit temporary, in an area where employment and income generation opportunities are limited. The creation of local employment opportunities therefore represents a significant social benefit.

### ***Benefit to local tourism industry***

Between 2009 and 2016 the Bloodhound team has undertaken regular trips to the region as part of the pre-event planning and preparation process. These trips have created benefits for the local business and tourism sector in the Mier area and the town of Upington. These include expenditure on accommodation, flights, car hire, fuel, food and beverages and accommodation<sup>5</sup>.

### ***Establishment of Kalahari East Water Supply Pipeline***

The Bloodhound project provided the catalyst for the establishment of the 180 km Kalahari East Water Supply Pipeline. The establishment of the Kalahari East Water Supply Pipeline therefore represents a significant socio-economic benefit for the local communities in the Mier area and will also support and facilitate the economic development of the area, including the establishment of Haksteen Pan as an internationally recognised venue for hosting large events, such as the Bloodhound land speed record event. The establishment of the pipeline also represents a key legacy of the Bloodhound project.

### ***Establishment of cellular communication***

As part of the Bloodhound project four cell phone masts have been erected by MTN SA (Bloodhounds service provider) at Hakskeen Pan in the Northern Cape. Cellular

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<sup>5</sup> Bloodhound has been requested to provide summary of the expenditure associated with the pre-planning and preparation phase of the project. This information will be added to the report when it is provided.

communication is vital to the project's success as the masts will enable world land record attempt to be live streamed to audiences in over 220 countries. This will make it one of the biggest news stories on the planet. The masts have also provided cellular coverage for the broader area around Hakskeen Pan, including the towns of Rietfontein, Groot Mier, Klein Mier and Philandersbron. This not only benefits Bloodhound and other events on Haksteen Pan, but also represents a significant legacy benefit for the local community in the Mier area. These benefits include improved communication, access to emergency services and the opportunities to access to internet in local schools and households.

### ***Comment on status of pre-event planning activities***

In order to maximise the benefits associated with the Bloodhound event, a number of pre-planning and preparation relative activities need to be undertaken. The Bloodhound Integrated Development Strategy (BHIDS) undertaken by Urban Econ in 2013 identified and ranked 30 projects / initiatives associated with the event.

These included:

- Development of on-site camping facilities, which in terms of priorities, was identified as Very Urgent;
- Develop and support local eateries (catering facilities), which in terms of priorities, was identified as Very Urgent;
- Bloodhound souvenirs and opportunities awareness campaign, which in terms of priorities, was identified as Very Urgent;
- Upgrade tourism information centres, train local tour guides, tourism awareness campaign, tourism routes, tourism signage and travel packages;
- Update and upgrade websites to highlight the even;
- Provide shuttle services', upgrade local air strips and entertainment during the event. In terms of priorities, addressing on-site entertainment was identified as Very Urgent.

A Steering Committee has been established by the Northern Cape Provincial Government to manage the Bloodhound project. A number of the issues discussed above may have been addressed by the Steering Committee. However, based on the findings of the SIA it would appear that a number of the key recommendations contained in the BHIDS prepared by Urban Econ in 2013 have not been fully implemented. These include:

- Identifying and informing local SMMEs of the potential opportunities associated with the Bloodhound event, including securing the rights to produce Bloodhound merchandising and souvenirs, provision of key services, such as shuttles and catering, and use of local artists and performers;
- Upgrading and up-dating key tourism websites to highlight the Bloodhound event and provide potential visitors with information/linkages related to the event, available accommodation options, transportation routes and modes, and other sites/activities in the region etc.

These issues would need to be addressed in order to maximise the potential benefits for the local community and SMMEs associated with the Bloodhound event. These issues also need to be addressed in order to ensure that the visitor experience associated with the Bloodhound event is enhanced. If these issues are not effectively

addressed they not only have the potential to impact on the event itself, but also on the legacy value of the Bloodhound event.

The lack of clarity regarding the actual dates for the Bloodhound event and information on the expected number of visitors is also a concern, specifically given the relatively short period of time left before the Bloodhound event is scheduled to take place (~ 8 months).

**Potential negative impacts**

- Impacts on family and community networks associated with the presence of construction workers;
- Increased safety and security risk for local farmers and communities associated with presence of construction workers on the site;
- Potential for increase fire risk;
- Impact of vehicles activities associated with pre-event and planning.

Based on the findings of the study the significance, with mitigation, of all of the potential negative impacts associated with the construction phase was rated as Low Negative. All of the potential negative impacts can therefore be effectively mitigated if the recommended mitigation measures are implemented. In addition, given that the majority of the low and semi-skilled workers can be sourced from the local area the potential risk at a community level to local family structures and social networks is regarded as Low negative significance.

Table 1 summarises the significance of the impacts associated with the pre-event and establishment phase.

**Table 1: Summary of social impacts associated with pre-event and establishment phase**

<b>Impact</b>	<b>Significance No Mitigation</b>	<b>Significance With Enhancement /Mitigation</b>
Creation of employment and business opportunities	N/A	High (Positive)
Benefit for local tourism and accommodation sector	N/A	High (Positive)
Establishment of the Kalahari East Water Pipeline	N/A	High (Positive)
Establishment of cell phone infrastructure in the area	N/A	High (Positive)
Impacts on family and community networks associated with the presence of workers	Low (Negative)	Low (Negative)
Potential safety threat to farmers due to presence of construction workers	Medium (Negative)	Low (Negative)
Potential for increase fire risk	Medium (Negative)	Low (Negative)
Impact of vehicles activities associated with pre-event and planning	Medium (Negative)	Low (Negative)

## **HOSTING PHASE**

The key social issues associated with staging of the Bloodhound event include:

### **Potential positive impacts**

- Support of the local economy via the creation of employment and business opportunities;
- Benefit to local tourism and accommodation sector;
- Raise profile of Haksteen Pan, the Northern Cape and South Africa.

### ***Creation of employment and business opportunities***

The main on-site employment opportunities associated with hosting the event and providing for the estimated 10 000 visitors, 1 000 media personnel and 100-150 Bloodhound support staff will be visitors on Haksteen Pan will be linked to catering and serving staff (~ 600), cleaning staff (120), and security staff (120). The total number of employment opportunities during the peak visitor period associated with catering, cleaning and security staff is therefore estimated to be in the region of 800. With training and skills development the majority of these positions can be taken up by members from the local community. This would represent a significant socio-economic benefit. However, the length of the peak visitor period is unknown.

In addition to catering, cleaning and security related opportunities the Bloodhound event will also create on-site employment and business opportunities for people and business involved in:

- Selling of mechanising, souvenirs and curios;
- Laundry and ironing services;
- Providing services such as child care, massages', facials etc.;
- Entertainment, including traditional local dancers and musicians, stand-up comedians, South African musicians and bands, and overseas bands.

The off-site opportunities associated with the Bloodhound event will be linked to:

- Off-site accommodation in the area and further afield;
- Car hire and shuttle services to and from the site and Upington;
- Purchase of supplies and fuel etc. by visitors in local towns in Mier and Upington;
- Procurement of food and other supplies by service providers involved in catering at the site.

Due the uncertainty regarding the total number of visitors and the duration of their stay it is not possible to provide an accurate estimate of the total value of the event related spend. However, given the large number of visitors that are expected to descend on the area it is reasonable to assume that the Bloodhound event will create significant opportunities for the local Mier and Upington economy, with the majority of the event related spending likely to benefit businesses based in Upington. The duration of this benefit is however unclear.

Ideally services should be provided by local services providers who employ members from the local community. However, it is unlikely that service providers with the required expertise and capacity exist in the Mier area. In addition, given the short period of time, even with financial support, it may not be possible to establish local service providers in the Mier area before the event is held in the third quarter of

2017. However, there are likely to be suitably qualified and experienced service providers in either Upington and or the Northern Cape Province. Opportunities for mentoring and working with local SMMEs from Mier should be considered in order to maximise local benefits and also enhance the legacy potential of the Bloodhound event.

### ***Benefit to local hospitality and tourism sector***

Based on the information available the ~ 10 000 visitors, ~ 1 000 media representatives and ~ 100-150 Bloodhound support staff are expected. The 100-150 Bloodhound support staff members are expected to be on site for the duration of the 3-4 month period. In this regard Bloodhound has booked out the Molopo Lodge for a three month period in the third quarter of 2017. At the current rate of ~ R 500/night (including breakfast), this would translate into ~ R 5.9 million in income for the Molopo Lodge for the three month period. This excludes additional income generated from lunch packs, dinner and drinks. Excluding the Molopo Lodge there are therefore in the region of 520 beds. Based on R 500/night and 50% occupancy rate over a 3 month period, the accommodation related revenue generated for local lodges in the Mier area by the Bloodhound event would be in the region of R 11.7 million. This excludes additional income generated from provision of shuttle services, lunch packs, dinner and drinks etc. The Bloodhound event will therefore represent a significant benefit for local lodges in the Mier area.

The findings of the study also indicate that based on average stay of four nights, the total number of nights spent in the area during the final month would be ~ 32 000. Based on a conservative average of R 500/night this translates into R 16 million. This excludes revenue for the local economy generated from spending on supplies, dinner and drinks etc. The Bloodhound event will therefore create significant socio-economic benefits for the local tourism service sector. However, there is likely to be shortage of accommodation during the last month of the Bloodhound event. This issue will need to be addressed by Bloodhound and the Northern Cape Provincial Government. Options include providing camping facilities and tented accommodation at local sports fields in the area etc.

A number of visitors to the Bloodhound event are also likely to use the opportunity to visit places of interest in the area, such as the Kalahari National Park, Kalagadi Transfrontier Park and Augrabies Falls National Park etc., and undertake activities such as river rafting on the Orange River, quad biking, 4x4 trails, and wine cellar tours etc.

Local tourism operators and facilities in the area and Northern Cape will therefore also benefit from the Bloodhound event. This will also create opportunities to promote and market the Northern Cape. In addition, a number of overseas visitors are also likely to use the visit to Bloodhound event as an opportunity to visit other parts of South Africa. The Bloodhound event will therefore create opportunities to promote tourism in other parts of South Africa as well.

### ***Raise profile of Hasksteen Pan and Northern Cape***

In terms of international exposure, in the region of 1 000 representatives from the international media are expected to be on site to cover the event. The cellular coverage established by MTN SA will enable the world land speed record attempt to be live streamed to audiences in over 220 countries making it one of the biggest news stories on the planet. The event will therefore also create a unique opportunity to show case Haksteen Pan, the Mier area, the Northern Cape and South Africa to the



rest of the world. Haksteen Pan is therefore already recognised locally as an ideal venue for high speed events. The Bloodhound land speed record is a unique, global event and will create a once in a life time opportunity to place Haksteen Pan on the international map and establish it as one of the best high speed testing sites in the world.

**Potential negative impacts**

- Impacts on family and community networks associated with the presence visitors;
- Increased risk of fires;
- Noise associated with high speed testing;
- Impact of increased volume of vehicles on the R360.

Based on the findings of the SIA the significance, with mitigation, of the all of the potential negative impacts associated with the operational phase was rated as Low Negative. All of the potential negative impacts can therefore be effectively mitigated if the recommended mitigation measures are implemented.

The significance of the impacts associated with the hosting phase are summarised in Table 2.

**Table 2: Summary of social impacts during hosting phase**

<b>Impact</b>	<b>Significance No Mitigation</b>	<b>With Enhancement /Mitigation</b>
Creation of employment and business opportunities	Medium (Positive)	High (Positive)
Benefit to local hospitality and tourism sector	High (Positive)	High (Positive)
Raise profile of area and the Northern Cape	Medium (Positive)	High (Positive)
Impact on local community family and social networks	Medium (Negative)	Low (Negative)
Noise impact of high speed testing	Low (Negative)	Low (Negative)
Increased risk of grass fires	Medium (Negative)	Low (Negative)
Impact of increased volume of vehicles on the R360	Medium (Negative)	Low (Negative)

**LEGACY OPPORTUNITIES**

As indicated above, a number of the initiatives associated with the pre-event planning and establishment phase are integrally linked to creating a positive legacy. In this regard these activities will not only benefit the hosting of Bloodhound event, but will also benefit future events and activities both on Haksteen Pan and in the surrounding areas. These initiatives include:

- Establishment of on-site camping facilities at Haksteen Pan, specifically establishment of key services, such as water and power;
- Development and support for the establishment of local SMMEs that have the capacity and skills to provide catering, camping, cleaning, ablution, logistics and other services for large events held on the pan and the surrounding area;

- Upgrading of tourism information centres, implementation of tourism awareness campaign, upgrading tourism websites and signage and training of local tour guides;
- Promotion of Northern Cape Extreme Brand;
- Upgrading local airstrips;
- Development and branding of Haksteen pan as an international speed testing facility and also as a venue that can accommodate other events, such as concerts, product launches etc. However, hosting of other events should not pose a threat to ability of the pan to host speed testing events;
- Up-grading of local tourism venues and establishment of more, up-market tourism lodges in the area.

However, maximising the potential legacy opportunities for the Mier community will require training and capacity building. In addition, in order for local SMMEs to provide catering, camping, cleaning, ablution, logistics and other services for large events held on the pan and the surrounding area requires equipment. A potential key legacy of the Bloodhound event is therefore the opportunity to secure the required funding for the purchase of the required equipment, such as tents, portable toilets, mobile stoves, etc., or alternatively that the equipment be donated to a community entity once that Bloodhound event is over. These options should be considered by the Northern Cape Provincial Government. Both options would require capacity building and training for the local community to ensure future financial sustainability and success. The issue of the type of entity established to take ownership of the equipment would also need to be considered, namely a local, privately owned SMME or a Community Trust option. A well run and managed Community Trust option is likely to be more beneficial for the broader Mier areas than a privately owned SMME. The Community Trust option is more likely to create an opportunity to generate funds for community initiatives as opposed to privately owned SMME.

There are also a number of other key legacy opportunities associated with the Bloodhound initiative. These include

- Establishment of Bloodhound Museum/ Visitor Centre;
- Establishment of a Craft Production Village in the Mier area;
- Support for education through the provision of internet to the Mier area and science linked partnerships with local schools and the Sol Plaatjie University in Kimberly;

It is recommended that the Bloodhound Museum/ Visitor Centre be located on or close to Haksteen Pan. The centre should include:

- A replica model of the Bloodhound car that set the new world speed record and broke the 1 600 km (1 000 mile) speed barrier;
- Information on the history of the process, including information the development of the car and how Haksteen Pan was identified;
- Information on the community initiatives that were initiated and the role of the local Mier community in preparing the track etc;
- Video footage of the event where the world land speed record was broken. The centre should include a small theatre equipped with state of the art visual and sound equipment to provide visitors with a "first hand" experience of what it was like to be on Haksteen Pan on day that the world land speed record was broken.

It is also recommended that the Bloodhound Museum/ Visitor Centre should be built within 2 years of the land speed record being broken at Haksteen Pan. This to ensure that the interest generated event is not lost. Given the large number of people that are expected to visit the Bloodhound Museum / Visitor Centre the option of combining it with the Khomani San Museum and Craft Centre should be investigated.

In addition to the above legacy benefits, two initiatives that have already been implemented have significant legacy benefits, namely:

- The construction of the Kalahari East Water Supply Pipeline; and,
- The establishment of cell phone and internet connections in the area.

The provision of a reliable supply of potable water to a water scarce area that previously relied on borehole water represents as significant legacy benefit from the Bloodhound project. The provision of potable water will support economic and social development in the Mier area. The establishment of cell phone and internet connection also represents a significant legacy benefit that will also facilitate economic and social development in the Mier area. Both projects not only benefit individual households, but the community as a whole.

## **NO-DEVELOPMENT OPTION**

The employment and business opportunities associated with hosting the Bloodhound event, the benefits for the local and regional hospitality and tourism sector, the unique opportunity for establishing Haksteen Pan as one of the best high speed testing areas in the world and the international exposure of the Mier area and the Northern Cape Province, together with the legacy benefits would be forgone. The No-Development option would therefore represent a lost opportunity for Upington and the local economy. This would represent a negative social cost. The No-Development option would therefore represent a significant missed opportunity and is therefore not supported.

## **CONCLUSIONS AND RECOMMENDATIONS**

### ***Conclusions***

The findings of the study indicate that the activities associated with the pre-event and planning and hosting phase will create significant employment and business opportunities for local community members in the Mier area and the DKLM. The hosting of the Bloodhound event will also create significant benefits for the local hospitality, tourism and business sector. The Bloodhound land speed record event is also a unique, global event and will create a once in a life time opportunity to place Haksteen Pan on the international map and establish it as one of the best high speed testing sites in the world. The event will also create a unique opportunity to show case the Mier area, Northern Cape and South Africa to the rest of the world.

In addition, the event will create an opportunity for a number of significant legacy opportunities linked to the establishment of Haksteen Pan as an internationally recognised high speed testing and events venue. With proper planning and management these benefits will be long term. The proposed Bloodhound event is therefore supported by the findings of the socio-economic study. The enhancement

and mitigation measures listed in the report, as well as the recommendations should be implemented in order to enhance the benefits.

However, the lack of clarity regarding the actual dates for the Bloodhound event and information on the expected number of visitors is a concern, specifically given the relatively short period of time left before the Bloodhound event is scheduled to take place (~ 8 months).

### ***Recommendations***

Steps should be taken to ensure that the key recommendations contained in the BHIDS prepared by Urban Econ in 2013 are implemented, including:

- Identifying and informing local SMMEs of the potential opportunities associated with the Bloodhound event, including securing the rights to produce Bloodhound merchandising and souvenirs, provision of key services, such as shuttles and catering, and use of local artists and performers;
- Upgrading and up-dating key tourism websites to highlight the Bloodhound event and provide potential visitors with information/linkages related to the event, available accommodation options, transportation routes and modes, and other sites/activities in the region etc.

In terms of maximising employment opportunities for members from the Mier community the Northern Cape Provincial Government should implement a training and skills development programme before the end of February 2017. The programme should be aimed at providing local community members with the required skills linked to catering, cleaning and security etc.

The Northern Cape Provincial Government should also investigate option of establishing a Community Trust that is linked to the provision of key services for future events on Haksteen Pan.

It is also recommended that the Bloodhound Museum/ Visitor Centre should be built within 2 years of the land speed record being broken at Haksteen Pan. This to ensure that the interest generated event is not lost. The option of combining the centre with the Khomani San Museum and Craft Centre should be investigated.

## TABLE OF CONTENTS

---

EXECUTIVE SUMMARY .....	i
SECTION 1: INTRODUCTION.....	1
1.1 INTRODUCTION .....	1
1.2 TERMS OF REFERENCE.....	1
1.3 PROJECT DESCRIPTION .....	2
1.4 SITE DESCRIPTION AND SURROUNDING LAND USES .....	2
1.5 APPROACH TO STUDY.....	12
1.5.1 Definition of social impacts.....	13
1.5.2 Timing of social impacts.....	14
1.6 ASSUMPTIONS AND LIMITATIONS .....	14
1.6.1 Assumptions.....	14
1.6.2 Limitations .....	14
1.7 SPECIALIST DETAILS.....	15
1.8 DECLARATION OF INDEPENDENCE .....	15
1.9 REPORT STUCTURE .....	15
SECTION 2: POLICY AND PLANNING ENVIRONMENT .....	16
2.1 INTRODUCTION .....	16
2.2 NORTHERN CAPE PROVINCIAL GROWTH AND DEVELOPMENT STRATEGY.....	16
2.2.1 Northern Cape Provincial Spatial Development Framework .....	17
2.2.3 ZF Mcgawu Integrated Development Plan.....	18
2.2.4 Dawid Kruiper Local Municipality Integrated Development Plan .....	18
2.2.5 //Khara Hais Local Economic Development Strategy .....	20
2.2.6 //Khara Hais Spatial Development Framework .....	22
SECTION 3: OVERVIEW OF STUDY AREA .....	24
3.1 INTRODUCTION .....	24
3.2 ADMINISTRATIVE CONTEXT.....	24
3.3 PROVINCIAL CONTEXT.....	25
3.4 SOCIO-ECONOMIC OVERVIEW OF THE PROPOSED PROJECT AREA .....	29
3.4.1 ZF Mcgawu District Municipality .....	29
3.4.2 Dawid Kruiper Local Municipality .....	30
3.4.2.1 Demographic overview .....	30
3.4.2.2 Municipal services and facilities.....	33
3.4.2.3 Economic profile .....	34
SECTION 4: ASSESSMENT OF KEY SOCIAL ISSUES .....	36
4.1 INTRODUCTION .....	36
4.2 IDENTIFICATION OF KEY SOCIAL ISSUES .....	36
4.3 POLICY AND PLANNING ISSUES.....	36
4.4 SOCIAL IMPACTS ASSOCIATED WITH PRE-EVENT PLANNING AND ESTABLISHMENT PHASE .....	37
4.4.1 Creation of employment and business opportunities .....	37
4.4.2 Benefit to local tourism industry .....	39
4.4.3 Establishment of Kalahari East Water Supply Pipeline .....	40
4.4.4 Establishment of cellular communication.....	42
4.4.5 Comment on status of pre-event planning activities .....	43
4.4.6 Presence of workers in the area .....	51
4.4.7 Safety and security risk associated with presence of workers.....	53
4.4.8 Increased risk of fires .....	55

4.4.9	Impacts associated with establishment traffic .....	56
4.5	SOCIAL IMPACTS ASSOCIATED WITH STAGING OF BLOODHOUND EVENT ...	57
4.5.1	Support of the local economy via the creation of employment and business opportunities .....	58
4.5.2	Benefit to local hospitality and tourism sector .....	62
4.5.3	Raise profile of Hasksteen Pan and Northern Cape .....	66
4.5.4	Risks to local communities .....	69
4.5.5	Potential noise impacts associated with high speed testing .....	71
4.5.6	Increased risk of grass fires .....	71
4.5.7	Impacts associated with event related traffic .....	72
4.6	LEGACY IMPACTS ASSOCIATED WITH BLOODHOUND EVENT .....	74
4.7	ASSESSMENT OF NO-DEVELOPMENT OPTION .....	78
	SECTION 5: KEY FINDINGS AND RECOMMENDATIONS.....	79
5.1	INTRODUCTION .....	79
5.2	SUMMARY OF KEY FINDINGS .....	79
5.2.1	Policy and planning issues .....	79
5.2.2	Pre-event planning and establishment phase .....	80
5.2.3	Hosting phase of Bloodhound event.....	83
5.2.4	Assessment of legacy opportunities .....	85
5.2.5	Assessment of no-development option.....	87
5.3	CONCLUSIONS AND RECOMMENDATIONS .....	87
	ANNEXURE A .....	89
	ANNEXURE B: ASSESSMENT METHODOLOGY .....	90
	ANNEXURE B: DECLARATION OF INDEPENDENCE.....	92

## **ACRONYMS**

BHIDS	Bloodhound Integrated Development Strategy
DEA	Department of Environmental Affairs
DEA&DP	Department of Environmental Affairs and Development Planning
DM	District Municipality
DKLM	Dawid Kruiper Local Municipality
HD	Historically Disadvantaged
EIA	Environmental Impact Assessment
KHLM	//Khara Hais Local Municipality
IDP	Integrated Development Plan
LED	Local Economic Development
LM	Local Municipality
NC	Northern Cape
NCPPGDS	Northern Cape Province Provincial Growth and Development Strategy
NCSDf	Northern Cape Spatial Development Framework
PGDS	Provincial Growth and Development Strategy
SDF	Spatial Development Framework
SIA	Social Impact Assessment
ZFMDM	ZF Mcgawu District Municipality

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# SECTION 1: INTRODUCTION

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## 1.1 INTRODUCTION

The Bloodhound Super Sonic Car (SSC) initiative aims to design and manufacture a super-sonic car capable of setting a new land speed record while also inspiring the next generation of scientists and engineers. The car is designed to reach a top speed of 1 600 km (1 000 miles) per hour, well above the speed of sound. In 2009 the Bloodhound team launched a global search to identify a site to break the world land speed record. After serious consideration Hakskeen Pan in the Mier area of the Dawid Kruiper Local Municipality (DKLM) was chosen for its size, surface composition, community cooperation, and support from the Northern Cape Provincial Government for the project. The Bloodhound initiative is therefore product of over six years of planning and development.

Haksteen Pan is located ~ 260 km north-east of Upington and is accessed via the R380. The main town in the vicinity of the pan is Rietfontein, which is located approximately 12 km west of the Hakskeen Pan (Figure 1.1).

Tony Barbour was appointed by the Northern Cape Provincial Department of Economic Development and Tourism to undertake a socio-economic impact assessment to inform the Department of the potential threats and opportunities arising for the Dawid Kruiper Local Municipality from the use of the Hakskeen Pan for events. The study will also be used as supporting document for the completion of Environmental Impact Assessment (EIA) undertaken for the Bloodhound event by EnviroAfrica.

This report contains the findings of the socio-economic assessment undertaken for the Bloodhound event.

## 1.2 TERMS OF REFERENCE

The terms of reference for the SIA require:

- A description of the environment that may be affected by the activity and the manner in which the environment may be affected by the proposed facility.
- A description and assessment of the potential social issues associated with the proposed facility.
- Identification of enhancement and mitigation aimed at maximizing opportunities and avoiding and or reducing negative impacts.

The scope of work for the study includes:

- Collect baseline data on the current and future social processes in the area/communities that are likely to be affected by the event;
- Compile a baseline socio-economic profile of the affected area.
- Undertake a preliminary assessment of impacts on the social environment and indicate the possible impacts that may arise as a result of the event.
- Identify, predict, assess and recommend detailed mitigation measures which will reduce and ameliorate the negative impacts or enhance the positive impacts.



- Compile a comprehensive social specialist report complete with recommendations:

This report contains an overview of the baseline socio-economic conditions (Section 3). The report also contains an overview of key policy and planning documents that have a bearing on the project (Section 2). Section 4 contains the findings of the assessment of the potential impacts on the social environment and also lists measures to ameliorate the negative impacts or enhance the positive impacts. Section 5 summarised the key findings of the study.

### **1.3 PROJECT DESCRIPTION**

Hakskeen Pan is located within DKLM and has been identified as an ideal site for the land speed record attempt by the Bloodhound Super Sonic Car (SCC) initiative. The site is located on Farm 585, Remainder, Portion 107 of Farm 585 and Remainder of Windhoek 122, Gordonia RD, Mier Municipality. The Bloodhound SCC initiative aims to design and manufacture a super-sonic car capable of setting a new land speed record (of 1 000 miles/1 610 km per hour). In order to attempt the land speed a high speed facility has to be developed on and around Hakskeen Pan which includes:

- A dedicated track of 20km (for Bloodhound);
- A trackside Airstrip;
- Corporate Hospitality Area;
- A technical Camp;
- A domestic Camp;
- A Fuel Depot.

The Bloodhound event will take place in the third quarter of 2017 and extend over a period of 3-4 months. Based information provided in the region of 10 000 visitors are expected to visit Haksteen Pan. In order to accommodate the large number of visitors camping facilities and the associated services (water, ablution, catering etc.) will need to be established on the pan. An entertainment area is also planned.

### **1.4 SITE DESCRIPTION AND SURROUNDING LAND USES**

Haksteen Pan is located ~ 260 km north-east of the town of Upington near the border with Namibia (Photograph 1.1). The pan is located in what was previously the Mier Local Municipality (MLM). The name Mier is an Afrikaans word that originates from the word "mere" which means "lakes". When early German missionaries visited the area they found the pans in the area full of water and referred to them as "mere" (lakes). Over time the pronunciation in Afrikaans changed and area became known as "mier". The MLM was merged with the //Khara Hais LM following the municipal elections on 3 August 2016 to form the Dawid Kruiper LM (DKLM), named after Khomani San leader Dawid Kruiper.



**Photograph 1.1: View of Haksteen Pan looking south**

For the purposes of the site description the mier area refers to the area that was previously the MLM. According to the 2011 census the total population of the mier area was 7 003, making it the least populated LM in South Africa at the time. There are eight small towns in the area as well as the !Khomani San community, the last surviving indigenous San community in South Africa. The San (Bushmen) people are found in the Northern Cape in South Africa and parts of Botswana, Namibia and even southern Angola. They are one of 14 known remaining "ancestral population clusters" (to whom all known modern humans genetically relate). The community retains many of their historic cultural practices although their language has largely been replaced with Afrikaans. It is estimated that 1 500 Khomani San people live in the Northern Cape with the majority residing in the Mier LM. The mier area (previously the MLM) also includes the South African portion of the Kgalagadi Transfrontier Park, one of the world's largest conservation areas. The Kgalagadi Transfrontier Park extends into and includes parts of Botswana.

The main town in the area is Rietfontein, which is located approximately 12 km west of the northern portion of Hakskeen Pan (Photograph 1.2). The other towns in the vicinity of Haksteen Pan include Loubos (4.3km north), Groot Mier (~ 12.8 km east), Klein Mier (~ 7.5 km east) and Philandersbron (~ 6.5km west) (Photograph 1.3-1.5). Other towns in the area are Askham, Andriesvale, Welkom and Noenieput (Photograph 1.6). The Askham community developed around the school which was built in 1931, and the Dutch Reformed Church that serves the whole Kalahari. As indicated in Table 1.1, the size of the towns in terms of population is small.

**Table 1.1: Population of towns in the MLM**

Place	Area (km <sup>2</sup> )	Population
Askham	3.1	0
Kalahari Gemsbok National Park	9,597.7	354
Klein Mier	1.0	449
Loubos	1.5	641
Philandersbron	1.3	1,081
Rietfontein	1.8	2,293
Welkom	0.5	381

Access to area is via the R380, which links Upington in the south east to the Namibian border to the north-west. The nearest town in Namibia is Aroab, which is located ~ 40 km from the border with South Africa and the town of Rietfontein. The R 380 is surfaced between Upington and Rietfontein. The towns of Askham, Groot Mier, Klein Mier and Rietfontein are located adjacent to the R 380. Groot Mier and Askham are located to the north and north east of the road, while Klein Mier is locate to the south of the road. Rietfontein is the last town before the border with Namibia.



**Photograph 1.2: View of Rietfontein from R380**



**Photograph 1.3: View of Klein Mier**



**Photograph 1.4: View of Groot Mier**



**Photograph 1.5: View of Philandersbron**



**Photograph 1.6: View of Askham**

The recently completed Kalahari East Water pipeline funded by Bloodhound is located to the north of the R 380 (Photograph 1.7). The construction of the pipeline was funded by Bloodhound in order to provide water for the Bloodhound event. The pipeline was also designed and planned to provide water to the towns in the area, including Askham, Groot Mier, Klein Mier, Loubos and Rietfontein, all of which previously relied of groundwater or poor quality. The establishment of the pipeline funded by Bloodhound represents a significant socio-economic benefit for the area.

The majority of the Haksteen Pan is located to the south of the R 380, with a small area (less than 5%) located to the north of the road. The area to the west between the towns of Rietfontein and Philandersbron, is relatively flat and rocky, with a series of low hills to the south of Philandersbron. The main drainage into the pan is from the east and north east. The eastern boundary of the pan is flanked by red linear sand dunes that are characteristic of the area. A number of other smaller pans are also located in the vicinity of Haksteen Pan. A cell phone mast and associated infrastructure, including solar panels, is located on the northern part of the pan immediately to the south of the R380 (Photograph 1.8). The mast was also established as part of the Bloodhound project and has provided cell phone coverage to the area, which also represents a significant socio-economic benefit associated with the project. Other infrastructure on the pan is located along the eastern edge and includes structures and the track associated with the Kalahari Speed Week event which is held at the pan on an annual basis.



**Photograph 1.7: Kalahari East Water Pipeline**



**Photograph 1.8: Cell phone infrastructure on Hasksteen Pan**

The topography of the majority of the mier area consists of undulating parallel red dunes, hence the Red Dune Tourist Route (Photograph 1.9). This route networks a group of guest houses, farms and game reserves in the remote most northerly area of the Northern Cape.

Signage advertising the Bloodhound project is located at the intersection between the N10 and the access road to the Upington airport and along the R 380 just north of Askham and at Haksteen Pan itself (Photograph 1.10-1.11).



**Photograph 1.9: Red dunes in the study area**



**Photograph 1.10: Bloodhound signage adjacent to R380 near Askham**





**Photograph 1.11: Bloodhound signage at intersection between N10 and Upington airport road**

The largest town in the vicinity of the mier area is Upington, which is located on the Orange (Gariiep) River (Photograph 1.12). As indicated above, the MLM and the KHLM were merged in August 2016 to form the DKLM. Upington serves as the administrative seat of the DKLM. Human settlement in Upington started with the Korana Hottentots who settled at the ford in the Great River called Gariiep. The ford was referred to as Olyfenhoudtsdrif ('Olive wood drift'), due to the abundance of wild olive trees in the area. This area formed part of the northern border of the Cape Colony. The Korana had been ousted by white settlers from their ancestral lands in the south and moved north and sought refuge on the banks of what is now referred to as the Orange (Gariiep) River.



**Photograph 1.12: Orange River (Gariep River)**

A mission station was established at Olyfenhoudtsdrif by Christiaan Schröder in 1875. The mission station now houses the town museum, known as the Kalahari Orange Museum. The museum is also the home of a donkey statue, which recognises the enormous contribution that this animal made to the development of the region during the pioneering days of the 19th century (Photograph 1.13). However, the arrival of white settlers resulted in further conflicts with the Korana Hottentots. In 1879, after the second and last Korana War, Sir Thomas Upington, the Attorney-General of the Cape Colony, sent 80 policemen to Olyfenhoudtsdrif to maintain law and order along the river. The construction of the barracks for the policemen resulted in the establishment of the town of Upington in 1884 (wikipedia).



**Photograph 1.13: Kalahari Orange Museum**

## **1.5 APPROACH TO STUDY**

The approach to the SIA study is based on the Western Cape Department of Environmental Affairs and Development Planning Guidelines for Social Impact Assessment (February 2007). These guidelines are based on international best practice. The key activities in the SIA process embodied in the guidelines include:

- Describing and obtaining an understanding of the proposed intervention (type, scale, and location), the settlements, and communities likely to be affected by the proposed project;
- Collecting baseline data on the current social and economic environment;
- Identifying the key potential social issues associated with the proposed project. This requires a site visit to the area and consultation with affected individuals and communities;
- Assessing and documenting the significance of social impacts associated with the proposed intervention;
- Identifying alternatives and mitigation measures.

In this regard the study involved:

- Review of socio-economic data;
- Review of relevant planning and policy frameworks for the area;
- Site specific information collected during the site visit to the area and interviews with interested and affected parties. As part of the process the background information document prepared by EnviroAfrica was made available to key interested and affected parties. The aim of the document was to inform the

affected parties of the nature and activities associated with the construction and operation of the proposed development to enable them to better understand and comment on the potential social issues and impacts;

- Identification and assessment of the social issues associated with the proposed project.

The identification of potential social issues associated with proposed facility is based on observations during the project site visit, review of relevant documentation, experience with event type projects and the general area. Annexure A contains a list of the secondary information reviewed and interviews conducted. Annexure B summarises the assessment methodology used to assign significance ratings to the assessment process.

In terms of identify the potential socio-economic impacts associated with the Bloodhound event the assessment considered the impacts linked to:

- The pre-event planning and establishment phase;
- The event hosting phase;
- The legacy phase.

It should be noted that a Steering Committee has been established by the Northern Cape Provincial Government to manage the Bloodhound project. A number of the issues discussed in the study may have been addressed by the Steering Committee.

### **1.5.1 Definition of social impacts**

Social impacts can be defined as "The consequences to human populations of any public or private actions (these include policies, programmes, plans and/or projects) that alter the ways in which people live, work, play, relate to one another, organise to meet their needs and generally live and cope as members of society. These impacts are felt at various levels, including individual level, family or household level, community, organisation or society level. Some social impacts are felt by the body as a physical reality, while other social impacts are perceptual or emotional" (Vanclay, 2002).

When considering social impacts it is important to recognise that social change is a natural and on-going process (Burdge, 1995). However, it is also important to recognise and understand that policies, plans, programmes, and/or projects implemented by government departments and/or private institutions have the potential to influence and alter both the **rate** and **direction** of social change. Many social impacts are not in themselves "impacts" but change processes that may lead to social impacts (Vanclay, 2002). For example the influx of temporary construction workers is in itself not a social impact. However, their presence can result in a range of social impacts, such as an increase in antisocial behaviour. The approach adopted by Vanclay stresses the importance of understanding the processes that can result in social impacts. It is therefore critical for social assessment specialists to think through the complex causal mechanisms that produce social impacts. By following impact pathways, or causal chains, and specifically, by thinking about interactions that are likely to be caused, the full range of impacts can be identified (Vanclay, 2002).

An SIA should therefore enable the authorities, project proponents, individuals, communities, and organisations to understand and be in a position to identify and anticipate the potential social consequences of the implementation of a proposed

policy, programme, plan, or project. The SIA process should alert communities and individuals to the proposed project and possible social impacts, while at the same time allowing them to assess the implications and identify potential alternatives. The assessment process should also alert proponents and planners to the likelihood and nature of social impacts and enable them to anticipate and predict these impacts in advance so that the findings and recommendations of the assessment are incorporated into and inform the planning and decision-making process.

However, the issue of social impacts is complicated by the way in which different people from different cultural, ethnic, religious, gender, and educational backgrounds etc. view the world. This is referred to as the “social construct of reality.” The social construct of reality informs people’s worldview and the way in which they react to changes.

### **1.5.2 Timing of social impacts**

Social impacts vary in both time and space. In terms of timing, all projects and policies go through a series of phases, usually starting with initial planning, followed by implementation (construction), operation, and finally closure (decommissioning). The activities, and hence the type and duration of the social impacts associated with each of these phases are likely to differ.

## **1.6 ASSUMPTIONS AND LIMITATIONS**

### **1.6.1 Assumptions**

#### **Technical suitability**

It is assumed that Haksteen Pan represents a technically suitable site for the Bloodhound land speed record attempt.

#### **Fit with planning and policy requirements**

Legislation and policies reflect societal norms and values. The legislative and policy context therefore plays an important role in identifying and assessing the potential social impacts associated with a proposed development. In this regard a key component of the SIA process is to assess the proposed development in terms of its fit with key planning and policy documents. As such, if the findings of the study indicate that the proposed development in its current format does not conform to the spatial principles and guidelines contained in the relevant legislation and planning documents, and there are no significant or unique opportunities created by the development, the development cannot be supported.

However, the study recognises the spatial and technical needs associated with the Bloodhound land speed record attempt.

### **1.6.2 Limitations**

#### **Demographic data**

The socio-economic information from the 2011 Census is at a local municipal level as opposed to ward level. However, this does not have a bearing on the findings of the study.

## **1.7 SPECIALIST DETAILS**

Tony Barbour is an independent specialist with 24 years' experience in the field of environmental management. In terms of SIA experience Tony Barbour has undertaken in the region of 200 SIA's and is the author of the Guidelines for Social Impact Assessments for EIA's adopted by the Department of Environmental Affairs and Development Planning (DEA&DP) in the Western Cape in 2007.

## **1.8 DECLARATION OF INDEPENDENCE**

This confirms that Tony Barbour, the specialist consultant responsible for undertaking the study and preparing the report, is independent and does not have vested or financial interests in proposed project being either approved or rejected. Annexure C contains a copy of signed declaration of independence.

## **1.9 REPORT STRUCTURE**

The report is divided into five sections, namely:

- Section 1: Introduction
- Section 2: Summary of key policy and planning documents relating to solar energy and the area in question
- Section 3: Overview of the study area
- Section 4: Identification and assessment of key social issues
- Section 5: Summary of key findings and recommendations.

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## **SECTION 2: POLICY AND PLANNING ENVIRONMENT**

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### **2.1 INTRODUCTION**

Legislation and policy embody and reflect key societal norms, values and developmental goals. The legislative and policy context therefore plays an important role in identifying, assessing and evaluating the significance of potential social impacts associated with any given proposed development. An assessment of the “policy and planning fit<sup>6</sup>” of the proposed development therefore constitutes a key aspect of the Social Impact Assessment (SIA). In this regard, assessment of “planning fit” conforms to international best practice for conducting SIAs.

Section 2 provides an overview of the policy and planning environment affecting the proposed project. For the purposes of the meeting the objectives of the SIA the following Provincial, District and Local policy and planning documents were reviewed, namely:

- Northern Cape Provincial Growth and Development Strategy (2004-2014);
- Northern Cape Spatial Development Framework (2012);
- ZF Mcgawu District Municipality Integrated Development Plan (2007-2012)<sup>7</sup>;
- David Kruiper Integrated Development Plan (2012-2017)<sup>8</sup>;
- //Khara Hais Local Economic Development Strategy (2010)<sup>9</sup>;
- //Khara Hais Spatial Development Framework (2012)<sup>10</sup>.

### **2.2 NORTHERN CAPE PROVINCIAL GROWTH AND DEVELOPMENT STRATEGY**

The Northern Cape Provincial Growth and Development Strategy (NCPGDS) identify poverty reduction as the most significant challenge facing the government and its partners. All other societal challenges that the province faces emanate predominantly from the effects of poverty. The NCPGDS notes that the only effective way to reduce poverty is through long-term sustainable economic growth and development. The sectors where economic growth and development can be promoted include:

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<sup>6</sup> Planning fit” can simply be described as the extent to which any relevant development satisfies the core criteria of appropriateness, need, and desirability, as defined or circumscribed by the relevant applicable legislation and policy documents at a given time.

<sup>7</sup> The ZF Mcgawu DM was previously referred to as the Siyanda DM. The name was changed in 2013.

<sup>8</sup> The // Khara Hais LM and Meir LM were amalgamated in September 2016 to form the Dawid Kruiper LM. The Dawid Kruiper SDF is therefore essentially a renamed version of the // Khara Hais LM 2012-2017 IDP. The document indicates that a number of the chapters are under revision following the amalgamation.

<sup>9</sup> The // Khara Hais LM and Meir LM were amalgamated in September 2016 to form the Dawid Kruiper LM. The LED Strategy therefore predates the amalgamation.

<sup>10</sup> The // Khara Hais LM and Meir LM were amalgamated in September 2016 to form the Dawid Kruiper LM. The SDF therefore predates the amalgamation.

- Agriculture and Agro-processing;
- Fishing and Mariculture;
- Mining and mineral processing;
- Transport;
- Manufacturing;
- Tourism.

However, the NCPGDS also notes that economic development in these sectors requires:

- Creating opportunities for lifelong learning;
- Improving the skills of the labour force to increase productivity;
- Increasing accessibility to knowledge and information.

The achievement of these primary development objectives depends on the achievement of a number of related objectives that, at a macro-level, describe necessary conditions for growth and development. These are:

- Developing requisite levels of human and social capital;
- Improving the efficiency and effectiveness of governance and other development institutions;
- Enhancing infrastructure for economic growth and social development.

Of specific reference to the proposed development the NCPGDS notes the importance of enterprise development, and notes that the current level of private sector development and investment in the Northern Cape is low. In this regard the NCPGDS highlights the importance of close co-operation between the public and private sectors in order for the economic development potential of the Northern Cape to be realised.

In addition, the province also lags in the key policy priority areas of SMME Development and Black Economic Empowerment. The proposed project and associated post project related opportunities therefore have the potential to create opportunities to promote private sector investment and the development of SMMEs in the Northern Cape Province, and more specifically in the David Kruijer Local Municipality (DKLM).

### **2.2.1 Northern Cape Provincial Spatial Development Framework**

The Northern Cape Provincial Spatial Development Framework (NCSDF) (2012) lists a number of sectoral strategies and plans that are to be read and treated as key components of the NCSDF. Of these there are a number that are relevant to the proposed project. These include:

- Sectoral Strategy 1: Provincial Growth and Development Strategy of the Provincial Government;
- Sectoral Strategy 2: Comprehensive Growth and Development Programme of the Department of Agriculture, Land Reform and Rural Development;
- Sectoral Strategy 5: Local Economic Development (LED) Strategy of the Department of Economic Development and Tourism;
- Sectoral Strategy 11: SMME Development Strategy of the Department of Economic Development and Tourism;
- Sectoral Strategy 12: Tourism Strategy of the Department of Economic Development and Tourism.



### **2.2.3 ZF Mcgawu Integrated Development Plan**

The key priority issues listed in the ZFMDM IDP (2012-2017) include:

- Basic Service Deliver;
- Municipal Institutional Development and Transformation;
- Local Economic Development;
- Municipal Financial Viability and Management;
- Good Governance and Public Participation.

The vision of the ZFMDM is "To be a model, economically developed district with a high quality of life for all inhabitants".

Linked to this vision the mission statement is "To promote economic development to the advantage of the community within the boundaries of the ZFMDM. This will be done by the establishment and maintenance of an effective administration and a safe environment in order to attract tourists and investors to the region".

The development goals listed in the IDP that are relevant to the proposed project include:

- To deliver a positive contribution to the sustainable growth and development within its boundaries and the rest of the Northern Cape;
- The creation of a healthy and environmentally friendly environment within and outside of the Councils' district boundaries, must be attempted;
- The promotion of a safe and tourism friendly environment should be furthered in order to promote tourism and investor interest in the region;
- The promotion of human resources within and outside the organization through training and the implementation of new technological aids.

Linked to the developmental goals are a number of developmental objectives. The following objectives are relevant to the proposed development:

- Promotion of SMMEs in order to strengthen the Local Economic Sector;
- Promote the development of the tourism sector, with specific emphasis on community based tourism.

### **2.2.4 Dawid Kruiper Local Municipality Integrated Development Plan**

As indicated above, the // Khara Hais LM and Meir LM were amalgamated to form the Dawid Kruiper LM in August 2016. The David Kruiper IDP (2012-2017) for 2016/2017 financial year (August 2016) essentially represents the IDP for the // Khara Hais LM. The demographic overview covers both the // Khara Hais LM and Meir LM areas. However, the vision and strategic land use planning related content is essentially the same as the information contained in the // Khara Hais IDP. In this regard the IDP (August 2016) states that a number of chapters are under revision following the establishment of the Dawid Kruiper LM. However, despite this key performance areas and strategic objectives reflected in the // Khara Hais LM IDP are relevant to the newly established Dawid Kruiper LM.

The vision contained in the DKLM IDP (2012-2017) is "to provide an affordable quality service to Dawid Kruiper and its visitors and to execute the policies and programmes of the Council". The IDP notes that this revision is under review.

The mission statement, notes that "As an authority that delivers Municipal Services to Dawid Kruiper, we attempt by means of a motivated staff, to develop Dawid Kruiper increasingly as a pleasant, safe and affordable living and workplace for its residents and a hospitable relaxed visiting place for its visitors". The August 2016 version of the IDP notes that vision and mission is under review.

The IDP identifies seven key performance areas (KPAs) that are aligned with national imperatives and frameworks, namely:

- KPA 1: Spatial Development Framework;
- KPA 2: Service Delivery and Infrastructure Delivery;
- KPA 3: Local Economic Development;
- KPA 4: Financial Viability;
- KPA 5: Institutional Development and Organisational Transformation;
- KPA 6: Good Governance;
- KPA 7: Social Development.

Ten (10) Development Priorities linked to the seven (7) KPAs were identified based on the challenges faced by the municipality, and prioritized by both ward committees and the community during public participation processes. A number of the Development Priorities are supported by and, as such, are relevant to the proposed project. These include:

- Development Priority 1: Spatial Development, Town Planning and Land Use management (KPA 1: Spatial Development Framework). The relevant development objective(s) are:
  - Provide the framework and vision required for improving the quality of life of the people living in Dawid Kruiper;
  - Manage the development of sustainable land use, economic, spatial and environmental planning according to predetermined acceptable levels.
- Development Priority 2: Water Resources and Services (KPA 2: Service Delivery and Infrastructure Development). The relevant development objective(s) are:
  - Develop, manage and maintain essential bulk water infrastructure and facilities to accommodate the aspirations, needs and pressures of present and future industries, businesses and dependent communities;
  - Develop, manage and maintain necessary infrastructure and facilities required to improve the provision of water services.
- Development Priority 4: Human Settlements and Housing (KPA 2: Service Delivery and Infrastructure Development). The relevant development objectives include:
  - Provide for sustainable human settlements (housing).
- Development Priority 6: Roads, Transport and Stormwater Drainage (KPA 2: Service Delivery and Infrastructure Development). The relevant development objectives include:
  - Develop, manage and maintain necessary road, transport and storm water infrastructure and facilities required to improve transportation in, and aesthetic qualities of urban areas.
- Development Priority 8: Economic Growth and Job Creation (KPA 3: Local Economic Development). The relevant development objective(s) are:
  - Promote the development of tourist infrastructure that will enhance tourism;
  - Create an environment that promotes the development of a diversified and sustainable economy.

- Development Priority 9: Community Development and Facilities (KPA 2: Service Delivery and Infrastructure and Development and KPA 7: Social Services). The relevant development objective(s) are:
  - Pro-active prevention, mitigation, identification and management of environmental health, fire and disaster risks;
  - Provide safety to communities through law enforcement services and through legislative requirements;
  - Provide equal access to sport, park, recreational facilities and other public amenities to all residents.

The IDP also lists the key priority area based on the outputs of the community and stakeholder analysis. While these issues relate the // Khara Hais LM a number are also relevant to the Dawid Kruiper LM and the local study area. These include:

- Spatial issues. Need for a good and effective SDF to encourage a compact urban structure and effective land-use management;
- Economic priorities. The key issues listed under economic priorities include:
  - Job creation for unskilled, semi-skilled and skilled residents;
  - Promotion of human resource development and the creation of a skills register;
  - The formulation and implementation of a Local Economic Development Plan and Marketing Plan;
  - Support to national job creation programmes and community based enterprises.
- Community development and facilities. The IDP lists a number of community facilities required in the area. These include sports facilities, libraries, community halls, health care facilities etc. The proposed Bloodhound Project and associated post project activities at Haksteen Pan can, if well managed, contribute towards the establishment of some of these facilities.

The IDP also identifies a number of developmental constraints and strengths. Key constraints/problems/issues that are relevant to the proposed Bloodhound Project and the future vision for Haksteen Pan include a shortage of job opportunities and job creation in the area. With regards to the socio-economic characteristics of the local population, the employment rate for the Municipality is relatively high, with as much as 75% of people of working age who are actively seeking employment being able to secure a job. However, the majority of the employed population is found in elementary occupations, which require little or no skills. This is also reflected in the low education levels of the local population, with as much as 12% of the population aged 20 years and older having no form of education whatsoever. This may have implications in terms of employment opportunities linked to the proposed development.

### **2.2.5 //Khara Hais Local Economic Development Strategy<sup>11</sup>**

The LED Strategy was adopted by Council in November 2010 and forms the link between sustainable livelihoods and economic activities. Development objectives in the LED strategy seek to address poverty and unemployment, and economic development through e.g. an enabling environment for the advancement of LED activities; addressing youth related social-economic issues; accelerate the roll out and effective implementation of High Impact Projects and Investment; and Identification and upgrading of new tourism projects and facilities.

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<sup>11</sup> As indicated above, the //Khara Hais LED Strategy was developed prior to amalgamation of the //Khara Hais and Mier LM in August 2016 to form the Dawid Kruiper LM. However, the objectives and strategies contained in the KHLM LED are relevant to the DKLM.

The LED Strategy and Investment Plan were approved by Council in 2010. The purpose of the LED and investment plan is to investigate the options and opportunities available to broaden the local economic base of the area in order to address the creation of employment opportunities and the resultant positive spin-off effects throughout the local economy.

The LED strategy identifies four Strategic Thrusts, namely:

- Thrust 1: Agricultural beneficiation and value-chain development;
- Thrust 2: SMME and community business support;
- Thrust 3: Tourism related development;
- Thrust 4: Maximise and enhance benefits from strategic location

The proposed Bloodhound Project and associated post event opportunities at Haksteen Pan will create significant potential to support Thrust 2, 3 and 4.

The LED strategy identifies the potential constraints and opportunities facing the study area. The key constraints include:

- High unemployment levels and shortage of job opportunities and job creation in the area;
- Low education and skills levels;
- Lack of manufacturing activities.

The opportunities include:

- Well defined business centre and residential areas;
- Well-connected economic hub for region;
- Link to Namibia;
- Tourism, key stop over for Kgalagadi Transfrontier Park and Augrabies National Park;
- Agriculture and associated linkages with other sectors of the economy, creating further opportunities for job creation;
- Potential for expansion of agro-processing and other activities;
- Upington Airport. Identified as an alternative or supplement for the O.R Tambo International Airport for cargo traffic, as there is less congestion and quicker airport turnaround times;
- Solar energy and establishment of a Solar Park initiative is driven by the Department of Energy (DoE).

The LED also notes that unemployment and poverty are the key issues that need to be addressed in the KHEM (now the DKLM). In order to address these issues social development strategies aimed at improving the position of Historically Disadvantaged Individuals (HDIs) are identified. These include:

- Building the economy and creating employment opportunities and reduce poverty levels;
- Developing human resources;
- Providing basic needs.

The proposed project has the potential to support the development of the local economy and human resources.

## 2.2.6 //Khara Hais Spatial Development Framework<sup>12</sup>

The overarching objective of the SDF is to facilitate sustainable development (i.e. a balanced relationship between economic efficiency, human well-being and environmental integrity) throughout the area of jurisdiction and to ensure integration of development processes. The SDF notes that:

- KHLM (now the DKLM) comprises unique natural, cultural, social and economic attributes that justify its status as a national asset;
- The natural environment and its resources of the Municipality are sensitive and susceptible to over-exploitation or inappropriate use;
- There is a substantial need for social up-liftment and community development.

All of these points also apply the area that was formerly the Meir LM.

The SDF envisages a self-sustaining ecology with long-term benefit for all inhabitants of the KHLM (now the DKLM). In this regard the SDF identifies a number of key sectors, namely:

- Agriculture as an optimally efficient and economically viable market-directed sector representing a socio-economic 'pivot' of KHLM (now the DKLM);
- Manufacturing and industry as a viable sector which builds on the comparative economic advantages of the KHLM (now the DKLM), and operates in accordance with the highest standards for environmental management;
- Tourism as a sustainable industry, supporting or enhancing marginal industries and contributing significantly to the improvement of the quality of life of all the communities of the KHLM (now the DKLM);
- Urban development in a safe, healthy and aesthetically pleasing urban environment, with the architectural and spatial character depicting the historic and cultural background of the habitant communities;
- Rural development in an environmentally sustainable manner with the infrastructure and services that is essential for the development of the rural communities of the KHLM (now the DKLM) whilst enhancing its unique rural character;
- Social Development establishing an optimally developed and empowered society in harmony with its environment;
- Conservation of natural habitats worthy to be consolidated into continuous tracts of conservation land, protecting natural biodiversity and providing community-supporting ecosystem services;
- Natural resources as fundamental requirements for sustainable development in the KHLM (now the DKLM).

All of these points also apply the area that was formerly the Meir LM.

Of relevance to the proposed development the SDF notes that priority should be given to economic development and the expansion of the tourism sector. In terms of approach, the SDF adopts a Bioregional Planning approach based on international experience which has demonstrated that biodiversity conservation is a prerequisite for sustainable development. Bioregional planning is defined as 'planning and land

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<sup>12</sup> As indicated above, the //Khara Hais SDF was developed prior to amalgamation of the //Khara Hais and Mier LM in August 2016 to form the Dawid Kruiper LM. However, the objectives and strategies contained in the KHLM SDF are relevant to the DKLM and the study area.

management that promote sustainable development by recognising the need for a balanced relationship between environmental integrity, human well-being and economic efficiency, and to give effect and recognition thereto, within a specific geographical area, the boundaries of which were determined in accordance with environmental and social criteria' (Manual for Bioregional Planning in the Western Cape, PGWC (2003).

The bioregional planning approach involved the establishment of a set of Spatial Planning Categories (SPCs) for the KHEM (now the DKLM) that are consistent with UNESCO's MaB Program and include all land zonings that are provided for under the existing Zoning Scheme Regulations. A total of six SPCs were identified, namely:

- **Category A Designated Core Conservation Area:** These are areas of high conservation importance to be protected from development and generally only non-consumptive land-uses are allowed conditionally;
- **Category B Buffer Area:** Areas that serve as a buffer between Category A and Category C areas. Appropriate sustainable development and non-consumptive land uses may be allowed conditionally;
- **Category C:** Agricultural and rural areas where extensive and intensive agriculture is practiced;
- **Category D:** Urban areas accommodating a broad spectrum of urban-related development and associated services and infrastructure;
- **Category E:** Industrial areas that accommodate industrial activities and associated infrastructure and where high intensity human activity and consumptive land uses occur;
- **Category F:** Surface infrastructure and buildings: All surface infrastructure and buildings not catered for in the above categories, including roads, railway lines, power lines, communication structures, etc.

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## SECTION 3: OVERVIEW OF STUDY AREA

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### 3.1 INTRODUCTION

Section 3 provides a baseline description of the study area with regard to:

- The administrative context;
- Provincial context;
- Overview of district and local municipalities.

### 3.2 ADMINISTRATIVE CONTEXT

The proposed Bloodhound Project is located on Haksteen Pan, which is located ~ 260 km north-west of Upington within the DKLM, which forms part of the larger ZF Mcgawu Municipality District Municipality<sup>13</sup> (Figure 3.1). The ZF Mcgawu Municipality is the second largest district municipality (approximately 103 871 km<sup>2</sup>) in the Northern Cape. Upington is the administrative seat of the DKLM and has, since its inception, been the hub of activities in the region. The main land uses in the area are linked to grape farming and agriculture along the Gariep River (Orange River) and livestock farming away from the river. A number of solar energy projects have also been and are proposed in the area.



**Figure 3.1: Location of ZF Mcgawu Municipality within the Northern Cape Province**

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<sup>13</sup> The ZF Mcgawu DM was previously referred to as the Siyanda DM. The name was changed in 2013.

### **3.3 PROVINCIAL CONTEXT<sup>14</sup>**

The proposed development is located in the Northern Cape Province, which is the largest province in South Africa and covers an area of 361,830 km<sup>2</sup> and constitutes approximately 30% of South Africa. The province is divided into five district municipalities (DM), namely, Frances Baard, Karoo, Namakwa, ZF Mcgawu, and Kgalagadi DM, twenty-six Category B municipalities and five district management areas. The site itself is located in the KHEM, which is one of eight local municipalities that fall within the greater ZF Mcgawu Municipality District Municipality (DC8).

#### **Population**

Despite having the largest surface area, the Northern Cape has the smallest population of 1 145 861 (Census 2011) or 2.28% of the population of South Africa. The population has increased from 991 919 in 2001. Of the five districts, Frances Baard has the largest population of 382 086. The other districts and their respective populations are ZF Mcgawu (236 783), John Taola Gaetsewe (224 799), Pixley ka Seme (186 351) and Namakwa (115 842). In terms of age, 30.1% are younger than 15 years of age and 64.2% fall within the economically active age group of 15-64 years of age (Census 2011). The female proportion makes up approximately 52.7% of the total with males making up the remaining 47.3% (Census 2011).

#### **Education**

Based on the information contained in the NCSDF the average adult education attainment levels in the Northern Cape are lower than the adult education attainment levels of South Africa as a whole. Approximately 19.7% of the Northern Cape adults have no schooling in comparison to South Africa's 18.1%. The Northern Cape has the second lowest percentage of adult individuals (5.5%) that obtained a tertiary education in South Africa. The LED Strategy for the Northern Cape indicates that Pixley ka Seme has the lowest adult education attainment levels in the Northern Cape with 27.3% of the adult population having no form of schooling, whilst John Taolo Gaetsewe is second with 25.4% having no schooling. The highest number of the adult population with tertiary education (6.4%) is located in Frances Baard.

The Northern Cape also has the smallest portion (11.1%) of highly skilled formal employees in South Africa and Gauteng has the highest (14.3%). Linked to this the Northern Cape has the second largest portion of semi and unskilled formal employees in the country. A lack of skilled people often results in both the public and the private sector being unable to implement planned growth strategies and achieve the desired productivity, service delivery and service quality (NCSDF, 2012).

#### **Economic development**

Over the past 8 years there has been little to no variance in the Human Development Index (HDI) figures for the Northern Cape, indicating no increase or decrease in the overall standard of living<sup>15</sup>. This trend is unlikely to change in the foreseeable future,

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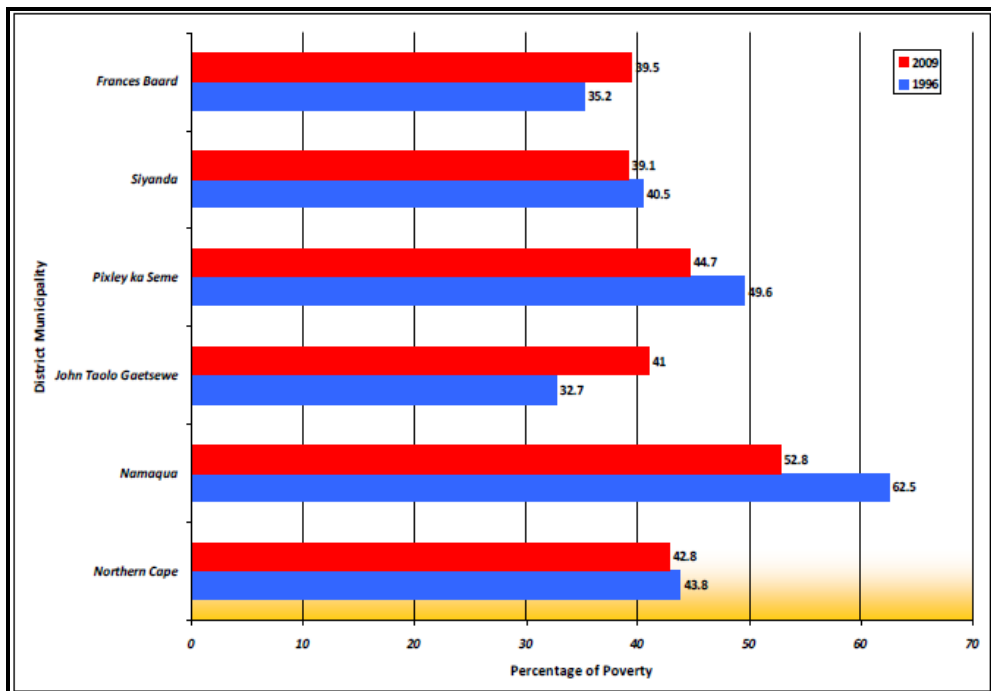
<sup>14</sup> The information in this section is based on the Northern Cape Provincial Growth and Development Strategy 2004-2014. This document does not include 2011 Census Data. Where possible data from the 2011 Census and the NCSDF 2012 has been used to update the information.

<sup>15</sup> The Human Development Index (HDI) was developed by the United Nations Development Programme (UNDP) based on the philosophy that the goal of development was to ensure that individuals live long, informed and comfortable lives. The HDI consists of three components: Longevity, which is measured by life expectancy at birth; Educational attainment, which is



mainly due to the marginal economic base of the poorer areas, and the consolidation of the economic base in the relatively better-off areas. It is important to note that the HDI for the Northern Cape (0.55) is substantially below the South African figure of 0.72. The HDI of 0.55 displays a pattern of semi-development, and there is a definite inequality between the different population groups, with the Whites having a higher development lifestyle than the African or Coloured groups.

The percentage of Northern Cape people living below the poverty line has decreased from 40% in 1995 to 27% in 2011, while the poverty gap has decreased from 11% in 1995 to 8% in 2011 (Figure 3.2). The goal set by the province is to decrease the percentage of people living below the poverty line to 20% by 2015 (NCSD, 2012). The alleviation of poverty is one of the key challenges for economic development. Higher levels of economic growth are a key challenge for poverty eradication. Investment in people is pivotal to the eradication of poverty and inequality. Investment in people is also, to a large extent, about delivering social and economic infrastructure for education, welfare, health, housing, as well as transport and bulk infrastructure.

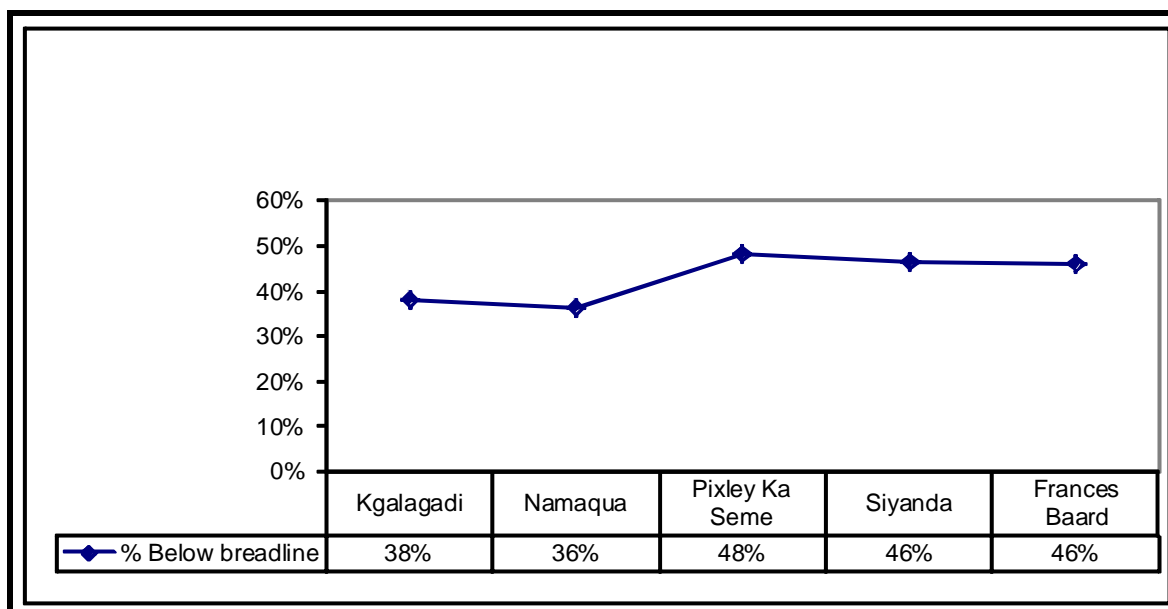


**Figure 3.2: Percentage of people living in poverty in the Northern Cape (Source: Global Insight, 2009 as cited in the PGDS, July 2011)** <sup>16</sup>

measured by two education variables, namely adult literacy and combined gross primary, secondary and tertiary enrolment ratio, and; Income, which is measured by gross domestic product (GDP) per capita. Performance in each dimension is expressed as a value between 0 and 1, and the HDI index gives an internationally accepted measure of the wellness (quality of life) of the population of the area under consideration. The closer the HDI is to 1.0, the higher the level of "living condition". For example, Sweden has an index of 0.91 defined as high, South Africa at 0.72 is defined as middle and Lesotho at 0.47 is defined as low.

<sup>16</sup> The Siyanda DM was renamed the ZF Mgcawu DM in 2013.

In terms of per capita income, the Northern Cape Province has the third highest per capita income of all nine Provinces. However, income distribution is extremely skewed, with a high percentage of the population living in extreme poverty. The measure used in the PGDS document to measure poverty is the percentage of people living below the poverty line or breadline is used<sup>17</sup>. The poverty line indicates a lack of economic resources to meet basic food needs. Figure 3.3 indicates the percentage of household income below the poverty breadline of R800 in the Northern Cape Province, the highest being Karoo at 48% and the lowest being Namakwa at 36%.



**Figure 3.3: Percentage of household income below the poverty breadline by district** (Source: Northern Cape PGDS)<sup>18</sup>

### Economic sectors

The Northern Cape economy has shown significant recovery since 2000/2001 when it had a negative economic growth rate of -1.5% (LED Strategy). The provincial economy reached a peak of 3.7% in 2003/2004 and remained the lowest of all provinces. The Northern Cape is the smallest contributing province to South Africa's economy (only 2% to South Africa GDP per region in 2007).

The mining sector is the largest contributor to the provincial GDP, contributing 28.9% to the GDP in 2002 and 27.6% in 2008. The mining sector is also important at a national level. In this regard the Northern Cape produces approximately 37% of South Africa's diamond output, 44% of its zinc, 70% of its silver, 84% of its iron-ore, 93% of its lead and 99% if its manganese.

Agriculture and agri-processing sector is also a key economic sector. Approximately 2% of the province is used for crop farming, mainly under irrigation in the Orange River Valley and Vaalharts Irrigation Scheme. Approximately 96% of the land is used

<sup>17</sup> In terms of the poverty line, a person is considered poor if his or her consumption or income level falls below some minimum level necessary to meet basic needs. The minimum level is usually called the poverty line. In South Africa the poverty income level is set at R800/month.

<sup>18</sup> The Siyanda DM was renamed the ZF Mcgawu DM in 2013.

for stock farming, including beef cattle and sheep or goats, as well as game farming. The agricultural sector contributed 5.8% to the Northern Cape GDP per region in 2007 which was approximately R1.3 billion, and it employs approximately 19.5% of the total formally employed individuals (NCSD, 2012). The sector is experiencing significant growth in value-added activities, including game-farming. Food production and processing for the local and export market is also growing significantly.

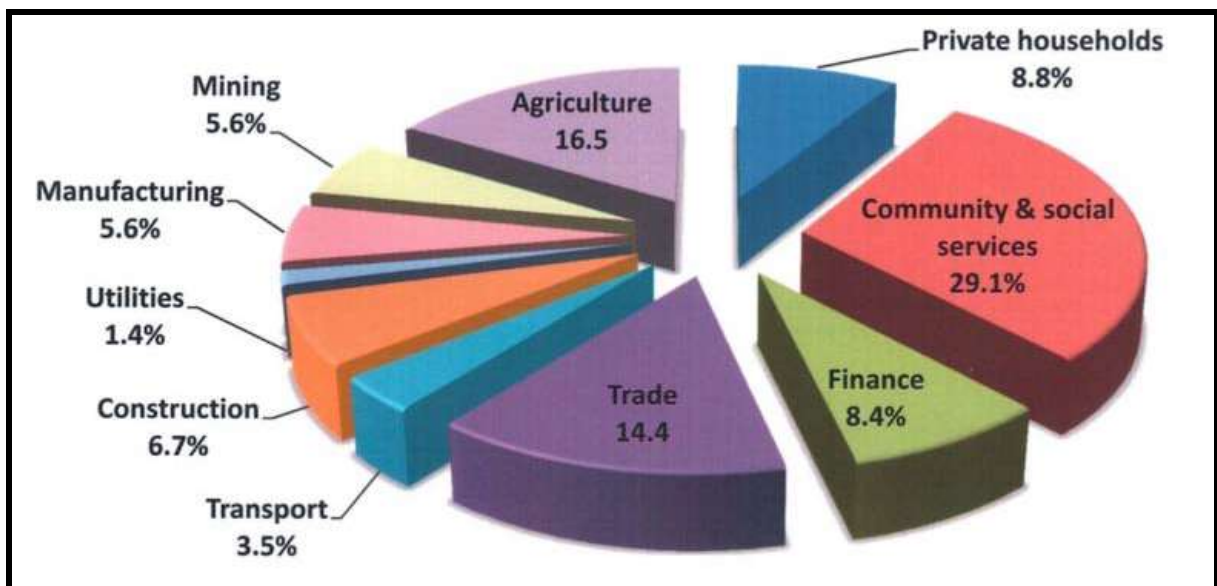
The main agricultural produce of the Northern Cape include:

- High-value horticultural products such as table grapes, sultanas and wine grapes, dates, nuts, cotton, fodder, and cereal crops are grown along the Orange River;
- Wheat, fruit, groundnuts, maize and cotton in the Vaalharts irrigation scheme in the vicinity of Hartswater and Jan Kempdorp;
- Vegetables and cereal crops at the confluence of the Vaal River and the Orange Rivers in the vicinity of Douglas;
- Wool, mohair, karakul, Karoo lamb, ostrich meat and leather, and venison throughout most of the province.

Economic development in the Northern Cape is hampered by the vastness of the area and the remoteness of its communities in rural areas. Development is also hampered by the low education and skills levels in the province. As a result unemployment in the Northern Cape presents a major challenge.

### Employment

According to Statistics South Africa Labour (2012) the community and social services sector is the largest employer in the province at 29%, followed by the agricultural sector (16%), wholesale and retail trade (14%), finance (8%) manufacturing (6%) and mining (6%), etc. (Figure 3.4).



**Figure 3.4: Employment by Economic Sector and Industry (Source: Statistics South Africa 2012).**

### 3.4 SOCIO-ECONOMIC OVERVIEW OF THE PROPOSED PROJECT AREA

#### 3.4.1 ZF Mcgawu District Municipality

The ZF Mcgawu District Municipality (ZFMDM) consists of five Local Municipalities namely, David Kruiper<sup>19</sup> Mier; Kai !Garib; //Khara Hais; Tsantsabane, !Kheis and Kgatelopele, and covers an area of more than 100 000 km<sup>2</sup> (almost 30% of the Northern Cape Province). Of this total, 65% (65 000 km<sup>2</sup>) is made up of the Kalahari Desert, Kgalagadi Transfrontier Park and the former Bushman Land. The largest town in the region is Upington, which also functions as the district municipal capital. Following the municipal elections in 2011, Riemvasmaak (Sending and Vredesvallei) were included within the KGLM. The Riemvasmaak Community is located ~ 60 km west of Kakamas. Based on Census 2011 data the total population of the ZFMDM is in the region of 236 763 people. The DKLM are home to ~ 42.4 % of the ZFMDM population (Table 3.1).

**Table 3.1: Population of Local Municipalities within the ZFMDM**

Local Municipality	Population	Percentage
Dawid Kruiper	100 497 93 494 (//Khara Hais LM) and 7 003 (Meir LM)	42.4%
Kai !Garib	65 869	27.8%
Tsantsabane	35 093	14.8%
!Kheis	16 637	7.0%
Kgatelopele	18 687	7.9%

Source: Census 2011

The Coloured population group make up the dominant group in the ZFMDM followed by Blacks and Whites (12%). In terms of language, Afrikaans, followed by Setswana and IsiXhosa are the three main languages spoken in the area.

The ZFMDM accounts for ~ 30% of the Northern Cape economy. Agriculture plays a key role in the local economy and is strongly linked to irrigation along the Gariiep River (Orange River). The Orange River is perennial with a flow which varies between 50 and 1800 cubic meter per second (cum/s) depending on the season. The flow of the river is largely controlled by the releases of the dams upstream, like the Bloemhof, Gariiep and Van der Kloof dams. Agriculture in the ZFMDM is dominated by grape production for table grapes, which is mainly exported to Europe, as well as livestock and game farming.

The Orange River area is responsible for a major part of South Africa's table grape production. More than 90% of Africa's total dried vine fruit farm production is produced through 1250 sultana grape growers in the Northern Cape who produced more than 50,000 tons in 2010. The sultanas produced comprise more than 80% of that which is exported primarily to Europe and other eastern countries (ZFMDM IDP 2012-2017). SAD Vine Fruit Pty (Ltd) is located in Upington and owns the largest dried vine fruit processing and packaging plant in South Africa, employing more than 350 persons. It has intakes at Groblershoop, Mylpaal, Louisvaleweg, Keimoes, Kakamas and

<sup>19</sup> Dawid Kruiper LM was established in August 2016 through the amalgamation of the //Khara Hais and Meir LM.

Vredendal. The Orange River Wine Cellars Co-op, also based in Upington, is the second largest winemaking cooperative in the world and has wine cellars at Groblershoop, Grootdrink, Upington, Keimoes and Kakamas. This co-op has more than 740 members who produce wine grapes and 445 farmers who produce grape juice (ZFMDM IDP 2012-2017).

Livestock farming occurs mainly on large farms where farming is extensive. The majority of the farms are privately owned. The central parts of the region consist mainly of semi-desert areas and are therefore, with a few exceptions, mainly suitable for extensive livestock farming. In terms of employment, the most important economic sectors are Agriculture, followed by Community, Social and Personal, and Private Households.

Tourism represents one of the most important economic sectors in the Northern Cape as well as within the ZFMDM. In this regard the ZFMDM IDP indicates that tourism is the fastest growing component of the economy. Key tourism assets include the world famous Kgalagadi Transfrontier Park, Augrabies National Park and Spitskop Nature Reserve near Upington.

Minerals and mining also plays an important role in the local economy of the ZFMDM. Key mining activities include copper and zinc of Areachap north of Upington. Various small concentrations of calcite, lead, fluorspar, barite, wolfram and amethyst. Salt is also being mined at two pans, namely Groot Witpan, 95 km northwest of Upington and at Witpan, 115km northwest of Upington. In terms of social well-being the ZFMDM's greatest social problems are illiteracy and poverty and low education levels.

### **3.4.2 Dawid Kruiper Local Municipality**

The formation of the Dawid Kruiper LM postdates the publication of the Census 2011 data for local municipalities. The demographic and municipal services data for the //Khara Hais and Mier Local Municipalities is therefore presented in Table 3.2 and 3.3 below. This also enables the study to gain a better understanding of the local conditions in the vicinity of the study area, namely Haksteen Pan.

#### **3.4.2.1 Demographic overview**

##### ***//Khara Hais***

As indicated in Table 3.2, the population of the KHLM increased from 77 919 to 93 494 over the period 2001-2011, which represents an increase of almost 20%. The increase in the population in the KHLM was linked to an increase in the 15-64 and 65 + age groups. There was a decrease in the less than 15 age group. In terms of breakdown, the majority of the population are Coloured (65%), followed by Black African (23%) and Whites (10%).

As expected, the number of households in the KHLM increased from 17 934 to 23 245. The average household size decreased from 4.1 to 3.9. The number of formal dwellings also decreased from 81.2% to 75.2%. This implies that a number of the increased households in the KHLM are informal dwellings, which is a concern in terms of service delivery. The increase in the number of informal dwellings is likely to be linked to an influx of people into the urban areas from the rural areas.

The dependency ratio in the KHLM decreased from 58.7 to 54.7. The improvement indicates that there are fewer people who are dependent on the economically active

15-64 age group. This represents a positive socio-economic improvement. However, the dependency ratio in the KHLM is higher than the ratio for the ZFMMD, which was 50.5 in 2011. The age dependency ratio is the ratio of dependents, people younger than 15 or older than 64, to the working, age population, those ages 15-64. The age dependency ratio (% of working-age population) in South Africa in 2010 was 53.29. Over the past 50 years, the value for this indicator has fluctuated between 84.43 in 1966 and 53.29 in 2010.

### **Mier**

As indicated in Table 3.2, the population of the MLM decreased from 7 207 to 7 003 the period 2001-2011, which represents an annual decrease of 0.29 % per annum. The majority of the population live in the small settlements in the area (69.2%), with the remaining 30.8% living on farms. The decrease in the population in the MLM was linked to a decrease in the 15-64 age group of ~ 7%. There were increases in the 15-64 and over 65 year age groups over the same period. The majority of the population (90.3%) were Coloured, followed by Whites (4.4%), Black Africans (4%) and Asian / Indian (0.6%). Afrikaans is the main language spoken in the area (92.8%) followed by Setswana (0.8%), and English (0.2%).

Despite the decrease in the total population, the number of households in the MLM increased marginally from 1 670 to 1 784. The average household size decreased from 4.0 to 3.7. The number of formal dwellings in the MLM also increased from 75.9% to 89.9%. This is higher than the provincial average for the Northern Cape Province of 82.4%.

The dependency ratio in the MLM decreased from 74.6 to 63.3<sup>20</sup>. The improvement indicates that there are fewer people who are dependent on the economically active 15-64 age group. This represents a positive socio-economic improvement. However, the dependency ratio in the MLM remains significantly higher than the ratio for the ZFMMD (50.5) and the Northern Cape Province (55.7). The national dependency ratio was 53.29 in 2011.

**Table 3.2: Overview of key demographic indicators for the ZFMMD, KHLM and MLM**

ASPECT	ZFMMD		KHLM		MLM	
	2001	2011	2001	2011	2001	2011
<b>Population</b>	202 160	236 763	77 919	93 494	7 207	7003
<b>% Population &lt;15 years</b>	30.8	28.4	31.7	29.8	37.3	30.8
<b>% Population 15-64</b>	64.1	66.4	63.0	64.6	60.4	63.2
<b>% Population 65+</b>	5.1	5.1	5.3	5.4	5.6	6.0
<b>Households</b>	48 100	61 097	17 934	23 245	1 670	1 784
<b>Household size (average)</b>	3.7	3.5	4.1	3.9	4.0	3.7
<b>Formal Dwellings %</b>	83.9	79.4	81.2	75.2	75.9	89.9
<b>Dependency ratio per 100</b>	56.0	50.5	58.7	54.7	74.6	63.3

<sup>20</sup> The age dependency ratio is the ratio of dependents, people younger than 15 or older than 64, to the working, age population, those ages 15-64.

<b>(15-64)</b>						
<b>Unemployment rate (official) - % of economically active population</b>	26.5	19.2	34.0	22.1	30.4	30.9
<b>Youth unemployment rate (official) - % of economically active population 15-34</b>	32.1	22.7	42.3	29.0	41.0	35.2
<b>No schooling - % of population 20+</b>	16.8	9.5	13.6	7.1	19.9	9.1
<b>Higher Education - % of population 20+</b>	4.8	6.3	5.9	7.8	4.2	5.1
<b>Matric - % of population 20+</b>	16.1	21.7	20.9	26.0	11.6	14.9

Source: Compiled from StatsSA Census 2011 Municipal Fact Sheet

### Household income

Based on the data from the 2011 Census, 10.5 % of the population of the KHLM had no formal income, 2.6 % earn between R 1 and R 4 800, 4.3 % earn between R 4 801 and R 9 600 per annum, 16.3 % between R 9 601 and 19 600 per annum and 21.2 % between R 19 600 and R 38 200 per annum (Census 2011). The figures for the MLM indicate that 9 % of the population had no formal income, 3.7 % earned between R 1 and R 4 800, 7.9 % earned between R 4 801 and R 9 600 per annum, 22.8 % between R 9 601 and 19 600 per annum and 24.5 % between R 19 600 and R 38 200 per annum (Census 2011).

The poverty gap indicator produced by the World Bank Development Research Group measures poverty using information from household per capita income/consumption. Based on this indicator figure households that earn less than R 3 200 per month are classified as being exposed to poverty. The Census 2011 data indicates that 54.9 and 67.9% of households in the KHLM and MLM respectively were vulnerable to poverty. The high level of poverty in both LMs, specifically the MLM, is a major challenge for the local authorities. The low-income levels reflect the limited formal employment opportunities in the KHLM and MLM and the reliance on the agricultural sector. Employment in this sector is often seasonal. The low income levels are a major concern given that an increasing number of individuals and households are likely to be dependent on social grants. The low income levels also result in reduced spending in the local economy and less tax and rates revenue for the district and local municipality.

### Employment

In terms of employment, the official unemployment rate in the KHLM decreased for the ten year period between 2001 and 2011, falling from 34.0 to 22.1% of the economically active population. Youth unemployment in the KHLM also dropped over the same period, from 42.3 to 29%. For the same period the unemployment rate in the MLM increased, from 30.4 to 30.9%, which is higher than the provincial average of 27.4%. Youth unemployment in the MLM decreased over the same period, from 41.0 to 35.2%, which is marginally higher than the provincial average of 34.5%. It should

also be noted that the unemployment figures do not reflect the fact that a large percentage of the low skilled employment in the MLM is likely to be seasonal and linked to the agricultural sector.

### **Education**

Education levels in the KHLM improved between 2001 and 2011 with the percentage of the population over 20 years of age with no schooling dropping from 13.6% to 7.1%. The percentage of the population over the age of 20 with matric also increased from 20.9 to 26.0%. For the MLM the percentage of the population over 20 years of age with no schooling dropped from 19.9 to 9.1%. The percentage of the population over the age of 20 with matric also increased from 11.6 to 14.9%. The matric figures for the MLM are however significantly lower than the average for the ZFMDM (21.7%) and the Northern Cape (22.7%). The low education levels relative to the provincial average are likely to be linked to poor education facilities and access to good quality teachers in the MLM. The low matric levels will have an impact on the skills levels in the MLM and the economic mobility of school leavers. The higher than average figures for the KHLM reflect the important economic role played by the town of Upington and the associated well developed education facilities in the town.

### **3.4.2.2 Municipal services and facilities**

#### **Basic services**

As indicated in Table 3.3, there has been a marginal decrease in the percentage of households with access to flush toilets in the KHLM. The decrease in number of households with flush toilets is likely to be linked to the increase in the number of informal dwellings in the KHLM between 2001 and 2011. For the other three categories (piped water inside dwelling, access to weekly municipal refuse removal and households that use electricity) there was an improvement in the access municipal services. It is also worth noting that the level of services in the KHLM is higher than the levels for the ZFMDM and the Northern Cape Province.

For the MLM there has been an increase in all basic service categories. The quality of life for the residents of the MLM has therefore improved since 2001.

**Table 3.3: Overview of access to basic services in the ZFMDM, KHLM and MLM**

	ZFMDM		KHLM		MLM	
	2001	2011	2001	2011	2001	2011
<b>% households with access to flush toilet</b>	58.1	63.9	68.6	68.3	29.2	40.6
<b>% households with weekly municipal refuse removal</b>	58.6	70.3	79.3	87.2	19.7	51.1
<b>% households with piped water inside dwelling</b>	37.2	48.5	38.7	56.0	24.1	32.6
<b>% households which uses electricity for lighting</b>	73.5	86.6	73.6	91.1	56.5	74.3

*Source: Compiled from StatsSA Census 2011 Municipal Fact Sheet*



### **3.4.2.3 Economic profile**

Upington is the main town of the DKLM and has, since its inception, been the hub of activities in the region. In terms of its economic role the town serves as:

- Agricultural hub of the Northern Cape;
- Portal to Namibia and vice versa;
- Frontier to the Kalahari and Kgalagadi Transfrontier Park;
- Portal to the Kalahari's hunting grounds.

In terms of economic indicators, the Municipality enjoys comparative advantages in all of the economic sectors, except mining, compared to the other local municipalities that make up the ZFMDM. The fastest growing sectors in the Municipality are agriculture, electricity and water, and mining sectors. The IDP notes that the current growth occurring in these sectors should be exploited to ensure the creation of new job opportunities for local people.

#### ***Agricultural sector***

The agricultural sector is largely linked to irrigation along the Orange River (Gariep), specifically table and wine grapes. In this regard the //Khara Hais region accounts for ~ 40% of South Africa's grape exports. Most of Upington's wines are produced by Orange River Wine Cellars (OWC). The company has 6 depots in the area (all of them located adjacent to the Orange River) at Upington, Kanoneiland, Grootdrink, Kakamas, Keimoes and Groblershoop. The wines from OWC are exported, inter alia, to Europe and the USA. A number of privately owned cellars also exist in the area.

In terms of the agricultural sector there are 7 smaller rural settlements and various farms. Settlements include: Lambrechtsdrift, Karos, Leerkrans, Leseding, Raaswater, Sesbrugge and Klippunt, and Kalksloot. The inhabitants of these settlements are mainly reliant upon agricultural activities for their livelihoods.

#### ***Tourism sector***

Upington is well situated as a base for exploration of the region, and has an outstanding infrastructure in the form of accommodation. Various areas are classified as nature conservation areas. Spitskop Nature Reserve lies 13 km north of Upington. This nature reserve, of approximately 6 000 hectares, supports gemsbok, zebra, springbok, ostrich, eland, blue wildebeest, as well as smaller game, and can be viewed from a circular route running through the park. Other nature areas within the jurisdiction of //Khara Hais are Gariep Lodge and Uizip. The Kalahari Oranje Museum Complex has the status of a regional- and provincial museum. There are also a number of declared national monuments, including:

- Roman Catholic Church in Le Roux Street (still in use);
- NG Mother Community in Schroder Street (still in use);
- Hortentia water mill;
- Missionary complex in Schroder Street (building is being used as a museum).

#### ***Business sector***

The central business district of Upington is located along the northern bank of the Orange River (then Gariep River). Due to certain physical limitations, such as the Orange River to the south and south-east and the railway line to the north, the business district has expanded westwards. Smaller suburban shopping centres are found in all residential areas. Both industrial areas on the northern and the south-

western sides of the town (Updustria & Laboria) have railway facilities. Due to the unique spatial manifestation of the municipality, both the first and second economy is mostly located around the CBD and farms. Upington has a well-defined business centre with numerous residential areas. Secondary activities in the study area are mainly light industrial, warehousing, and light engineering works. Main traffic routes connect Upington, the hub of activities in the region, to cities like Kimberley, Johannesburg, Cape Town and Namibia. Upington also serves as the 'Portal' to Namibia and vice versa, the 'Frontier' to the Kalahari and the Kgalagadi Transfrontier Park, the 'Oasis' in the desert', the Agricultural hub of the Northern Cape, and the 'Portal to the Kalahari's hunting ground. Furthermore, two major national parks are situated within a few hours' drive from Upington.

Although there are a large variety of industries, there is a shortage of manufacturing industries. In this regard the KHLM's economy is centred on the trade and retail sector, due to its strong tourism sector, leaving the local economy fairly vulnerable for any significant changes in this industry. The IDP therefore highlights the need for the KHLM to diversify its economy into other sectors. The development of the renewable energy sector will create opportunities to diversify the local economy. The IDP also indicates that the manufacturing sector is one of the lowest performing sectors of the local economy. As a result much in the municipality has to be sourced from outside of the municipal boundaries, resulting in money flowing out of the local economy. Despite the current poor performance of the manufacturing sector there are a number of potential opportunities linked to the agro-processing and other activities.

The IDP identifies a number of potential development constraints and challenges facing the KHLM. Of relevance to the proposed development these include a shortage of job opportunities in the area. As a result job seekers are forced to seek employment opportunities outside of the Municipality (e.g. Kimberley), etc. Despite this the employment rate for the Municipality is relatively high, with as much as 75% of people of working age who are actively seeking employment being able to secure a job. However, the majority of the employed population is found in elementary occupations, which require little or no skills. This is also reflected in the low education levels of the local population, with as much as 12% of the population aged 20 years and older having no form of education whatsoever. This, to some extent, constrains the development potential of the Municipality in the development of more advanced industries. The level of employment and type of occupations taken up by the population of the Municipality also directly affects their income levels. The low income levels also impact on buying power and the creation of business opportunities (KHLM IDP 2012-2017).

In terms of opportunities, Upington Airport has been identified as an alternative or supplement for the O.R Tambo International Airport for cargo traffic, as there is less congestion and quicker airport turnaround times, shorter-to-market timeframes which would enhance product freshness by one day, and improved supply-chain performance, therefore offering greater benefits for cargo airlines and both importers and exporters of goods. The long runway and the strategically advantageous location of the Upington Airport make it ideal to serve the African continent. Due to this, the establishment of an Industrial Development Zone (IDZ) at the airport was proposed to (KHLM IDP 2012-2017). However, the establishment of an IDZ (Industrial Development Zone) has been replaced by the proposed establishment of a SEZ's (Special Economic Zone). New IDZ's are only established at ports and bigger manufacturing hubs.

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## **SECTION 4: ASSESSMENT OF KEY SOCIAL ISSUES**

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### **4.1 INTRODUCTION**

Section 4 identifies the key social issues identified during the study. The identification of social issues was based on:

- Review of project related information, including other specialist studies;
- Interviews with key interested and affected parties;
- Experience of the author of the area and the local conditions;
- Experience with similar projects.

### **4.2 IDENTIFICATION OF KEY SOCIAL ISSUES**

The key social issues identified during the study are divided into:

- The policy and planning related issues;
- Impacts associated with the pre-event planning and establishment phase for the Bloodhound project;
- Impacts associated with the event hosting phase of the Bloodhound project;
- Legacy impacts associated with the Bloodhound project.

### **4.3 POLICY AND PLANNING ISSUES**

As indicated in Section 1.5, legislative and policy context plays an important role in identifying and assessing the potential social impacts associated with a proposed development. In this regard a key component of the SIA process is to assess the proposed development in terms of its fit with key planning and policy documents.

The review of the relevant planning and policy documents was undertaken as a part of the SIA. The key documents reviewed included:

- Northern Cape Provincial Growth and Development Strategy (2004-2014);
- Northern Cape Spatial Development Framework (2012);
- ZF MCGAWU District Municipality Integrated Development Plan (2007-2012)<sup>21</sup>;
- David Kruiper Integrated Development Plan (2012-2017)<sup>22</sup>;
- //Khara Hais Local Economic Development Strategy (2010)<sup>23</sup>;

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<sup>21</sup> The ZF MCGAWU DM was previously referred to as the Siyanda DM. The name was changed in 2013.

<sup>22</sup> The // Khara Hais LM and Meir LM were amalgamated in September 2016 to form the Dawid Kruiper LM. The Dawid Kruiper SDF is therefore essentially a renamed version of the // Khara Hais LM 2012-2017 IDP. The document indicates that a number of the chapters are under revision following the amalgamation.

- //Khara Hais Spatial Development Framework (2012)<sup>24</sup>.

The findings of the review of the district and local municipal policy documents indicate high unemployment and poverty levels in the study area, coupled to low education and skills levels constitute the most urgent social development challenge in the study area. The proposed development has the potential to assist in addressing these challenges. The proposed development will also support tourism, private investment and create opportunities for SMMEs. Based on the findings of the review the Bloodhound event supports a number of key socio-economic objectives contained in the relevant Provincial, District and Local level policy and land use planning documents.

#### **4.4 SOCIAL IMPACTS ASSOCIATED WITH PRE-EVENT PLANNING AND ESTABLISHMENT PHASE**

The key social issues associated with the pre-event planning and establishment phase include:

##### **Potential positive impacts**

- Creation of employment and business opportunities and opportunity for skills development and on-site training associated with the preparation of Haksteen Pan;
- Benefit for local tourism and accommodation sector;
- Establishment of the Kalahari East Water Pipeline;
- Establishment of cell phone infrastructure in the area.

In addition to these "direct" social benefits there are also a number of less obvious benefits associated with the pre-event planning and establishment phase. In this regard the Bloodhound Integrated Development Study (BHIDS) undertaken by Urban Econ in 2013 identified a number of initiatives associated with the event. The initiatives are listed in Section 4.4.5, Table 4.5 below. In order to maximise the opportunities associated with the event a number of these initiatives need to be implemented as part of the pre-event planning and establishment phase. Section 4.4.5 discusses these issues and comments on the extent to which the recommendations contained in the BHIDS have been implemented.

##### **Potential negative impacts**

- Impacts on family and community networks associated with the presence of construction workers;
- Increased safety and security risk for local farmers and communities associated with presence of construction workers on the site;
- Potential for increase fire risk;
- Impact of vehicles activities associated with pre-event and planning.

##### **4.4.1 Creation of employment and business opportunities**

As indicated above, the Bloodhound SSC initiative aims to design and manufacture a super-sonic car capable of setting a new land speed record while also inspiring the next generation of scientists and engineers. The car is designed to reach a top speed of 1

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<sup>23</sup> The // Khara Hais LM and Meir LM were amalgamated in September 2016 to form the Dawid Kruiper LM. The LED Strategy therefore predates the amalgamation.

<sup>24</sup> The // Khara Hais LM and Meir LM were amalgamated in September 2016 to form the Dawid Kruiper LM. The SDF therefore predates the amalgamation.

000 miles per hour (1 610 km per hour), well above the speed of sound. In 2009 the UK based Bloodhound team launched a global search to identify the ideal location for its land speed record attempt which culminated in the identification of Hakskeen Pan. In addition to the pans technical suitability (surface composition) and size, the initiative also received strong support from the local community and the Northern Cape Provincial Government.

As part of the pre-event planning and preparation process ~ 300 members from the local towns in the vicinity of the pan, including Rietfontein, Philandersbron, Groot Mier and Klein Mier, were employed as part of the local municipality's extended public works program to clear the pan by hand, and ensure the surface is smooth enough for the attempt. This involved the removal of over 6 000 tons of stone as part of the preparation of the 20 km track. Members from the local community have therefore been instrumental in preparing the pan for the Bloodhound record attempt (Photograph 4.1).



**Photograph 4.1: Community members involved in preparation of Haksteen Pan, Source: Earl Coetzee, Bloemfontein Courant<sup>25</sup>**

This employment extended over a period of three years and created employment, albeit temporary, in an area where employment and income generation opportunities are limited. As indicated in Section 3.4.2.1, the unemployment rate in the MLM increased from 30.4 in 2001 to 30.9% in 2011, which is higher than the provincial average of 27.4%. In addition, 67.9% of households in the MLM earn less than R 3 200 per month and are vulnerable to poverty. The high level of poverty and low income

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<sup>25</sup> <http://www.bloemfonteincourant.co.za/bloodhound-record-attempt-benefit-community-years-come/>

levels reflect the limited formal employment opportunities in the area. The low income levels are also major concern given that an increasing number of individuals and households are likely to be dependent on social grants. The creation of local employment opportunities therefore represents a significant social benefit.

**Table 4.1: Impact assessment of employment and business creation opportunities during the event planning and preparation phase**

<b>Nature:</b> Creation of employment and business opportunities during the event planning and preparation phase		
	<b>Without Enhancement<sup>26</sup></b>	<b>With Enhancement<sup>27</sup></b>
<b>Extent</b>	N/A	Local – Regional (4)
<b>Duration</b>	N/A	Short Term (2)
<b>Magnitude</b>	N/A	Moderate (6)
<b>Probability</b>	N/A	Definite (5)
<b>Significance</b>	N/A	High (60)
<b>Status</b>	N/A	Positive
<b>Reversibility</b>	N/A	N/A
<b>Irreplaceable loss of resources?</b>	N/A	N/A
<b>Can impact be enhanced?</b>		
<b>Enhancement :</b> N/A as the event has already taken place		
<b>Cumulative impacts:</b> Opportunity to up-grade and improve skills levels in the area.		
<b>Residual impacts:</b> Improved pool of skills and experience in the local area.		

#### 4.4.2 Benefit to local tourism industry

Between 2009 and 2016 the Bloodhound team has undertaken regular trips to the region as part of the pre-event planning and preparation process. The regular visits by representatives from Bloodhound over the seven year period have created benefits for the local business and tourism sector in the Mier area and the town of Upington. The manager of the Molopo Lodge (Mr Dirk Grobler), which is located ~ 50 km east of the pan, indicated that the lodge was used for accommodation during site visits to the area. The lodge is located 5km from the Botswana border and 60km from the Kgalagadi Transfrontier Park. Mr Grobler indicated that four trips had been undertaken already in 2016. The size of the groups varied from 4 to 25 people and the average stay was three nights.

If one assumes an average of four trips per year, with an average number of 12 people staying three nights, this equates to ~ 1 000 nights of accommodation at the Molopo Lodge over the seven year period between 2009 and 2016. At an average of ~ R 500 per night this equates to R 500 000 in accommodation revenue for the Molopo Lodge. If one takes into account food and drinks and works on average of R 250 per person

<sup>26</sup> Not Applicable as majority of pre-planning and track related preparation activities involving the creation of significant employment opportunities for local community members have already taken place

<sup>27</sup> Employment of local community members represents key enhancement measure

per day, this equates to an additional R 250 000 over the seven year period. The lodge currently employs 20 full time staff. In addition to the benefits to the Molopo Lodge, the trips to the Haksteen Pan over the seven year period would have also benefited the local economy of Upington. These benefits include expenditure on car hire, fuel, food and beverages and accommodation<sup>28</sup>. In this regard some members of the Bloodhound team would have stayed over in Upington either on arrival or prior to leaving the town. The trips to and from Upington over the seven year period also generated revenue for SA Express and Air Link, the two local airlines that fly into Upington from Johannesburg and Cape Town.

The proposed project is also strongly supported by the DKLM and the Upington Chamber of Commerce. In this regard the event supports co-operation between the public and private sectors and the development of SMMEs in the DLKM.

**Table 4.2: Impact assessment of benefit to local tourism industry**

<b>Nature:</b> Benefits to local tourism sector associated with planning and preparation phase		
	<b>Without Mitigation</b> <sup>29</sup>	<b>With Enhancement</b> <sup>30</sup>
<b>Extent</b>	N/A	Local – Regional (4)
<b>Duration</b>	N/A	Short Term (2)
<b>Magnitude</b>	N/A	Moderate (6)
<b>Probability</b>	N/A	Definite (5)
<b>Significance</b>	N/A	High (60)
<b>Status</b>	N/A	Positive
<b>Reversibility</b>	N/A	N/A
<b>Irreplaceable loss of resources?</b>	N/A	N/A
<b>Can impact be enhanced?</b>	Yes	
<b>Enhancement:</b> N/A as the event has already taken place		
<b>Cumulative impacts:</b> Opportunity to up-grade and improve tourist skills levels in the area.		
<b>Residual impacts:</b> Improved pool of tourist related skills and experience in the local area.		

#### 4.4.3 Establishment of Kalahari East Water Supply Pipeline

The Bloodhound project provided the catalyst for the establishment of the 180 km Kalahari East Water Supply Pipeline. The Bloodhound event is expected to attract in the region of 10 000 visitors and Hakskeen Pan has also been earmarked as a venue for hosting large events, such as Speed Week, concerts, product launches etc. These events will attract large numbers of visitors to the pan and the Mier area who will require the provision of adequate services, including water.

<sup>28</sup> Bloodhound has been requested to provide summary of the expenditure associated with the pre-planning and preparation phase of the project. This information will be added to the report when it is provided.

<sup>29</sup> Not Applicable as majority of preplanning visits to the area have taken place

<sup>30</sup> Use of local accommodation represents key enhancement measure

An article published in the Burger (10<sup>th</sup> June 2014) highlights the benefits associated with the establishment of the Kalahari East Water Supply Pipeline. Phase 1 of the north-western extension of the existing Kalahari-East Water Supply Scheme, extends from approximately 50 km south east of the town of Askham to Andriesvale (SAN community), Groot and Klein Mier, Riefontein to Philandersbron. This phase of the project will also supply small farms in the vicinity of the pipeline. The second phase of pipeline development (beyond 2015) will supply smaller farms to the north and commercial farms to the south of the Mier area, 3 border control posts, Kalahari Gemsbok Park and possibly small towns within Botswana.

The existing Kalahari East Water Supply Scheme was completed in 1994 and serves 278 farms covering 1 480 624 hectares of land with a pipeline length of more than 1200 kilometres. The scheme, operated by the Kalahari East Water Users Association, provides water mainly to commercial stock farms for agriculture as well as for domestic purposes (on these farms). The water source is water pumped from the Sishen mine into the Vaal Gamagara pipeline that supplies water to the Kalahari East Water Supply Scheme at a maximum rate of 103 l/s. The Kalahari East pipeline is designed to provide 23 l/s to the proposed north-western extension (i.e. to the area previously known as the Mier Local Municipal area and beyond) of the existing Kalahari-East Water Supply Scheme.

Access to reliable and sustainable water resources is a major constraint to sustainable socio-economic development within the mier area. The establishment of the pipeline will create a number of socio-economic benefits and opportunities for local residents and the economy of the area, including:

- Creation of temporary employment associated with the construction of the pipeline (this represents a temporary benefit. However, given the limited employment opportunities in the area this represents a significant benefit);
- Improved water security and basic services that will benefit local communities and improve the living conditions in the small towns throughout the Mier area.
- Create opportunities for improved agriculture output and higher stock production.
- Increase the future development potential of the area;
- Increase the tourism carrying capacity of the area, and with that create additional tourism related employment opportunities.

The establishment of the Kalahari East Water Supply Pipeline therefore represents a significant socio-economic benefit for the local communities in the Mier area and will also support and facilitate the economic development of the area, including the establishment of Haksteen Pan as an internationally recognised venue for hosting large events, such as the Bloodhound land speed record event. The establishment of the pipeline also represents a key legacy of the Bloodhound project. This is discussed in more detail in Section 4.6.



**Table 4.3: Assessment of benefits associated with Kalahari East Water Supply Pipeline**

<b>Nature:</b> Creation of employment and business opportunities during the construction phase and socio-economic benefits and opportunities for local residents and the economy of the area associated with a reliable water supply		
	<b>Without Mitigation</b> <sup>31</sup>	<b>With Enhancement</b> <sup>32</sup>
<b>Extent</b>	N/A	Local – Regional (4)
<b>Duration</b>	N/A	Permanent (5)
<b>Magnitude</b>	N/A	High (8)
<b>Probability</b>	N/A	Definite (5)
<b>Significance</b>	N/A	High (85)
<b>Status</b>	N/A	Positive
<b>Reversibility</b>	N/A	N/A
<b>Irreplaceable loss of resources?</b>	N/A	N/A
<b>Can impact be enhanced?</b>	Yes	
<b>Enhancement :</b> N/A as the event has already taken place		
<b>Cumulative impacts:</b> Opportunity to up-grade and improve skills levels in the area.		
<b>Residual impacts:</b> Improved pool of skills and experience in the local area.		

#### 4.4.4 Establishment of cellular communication

As part of the Bloodhound project four cell phone masts have been erected by MTN SA (Bloodhounds service provider) at Hakskeen Pan in the Northern Cape. The masts were completed in October 2013. Cellular communication is vital to the project’s success as the masts will enable world land record attempt to be live streamed to audiences in over 220 countries. This will make it one of the biggest news stories on the planet. It is hoped to have at least three live video channels with live data coming off the car. Each will provide 3.5 Mbit (megabit) per second (3 500 000 bits per second) of data – enough to ensure that audiences can watch a high-definition movie on YouTube without it buffering<sup>33</sup>. The event will also create a unique opportunity to show case Haksteen Pan, the Mier area, the Northern Cape and South Africa to the rest of the world.

MTN SA has also provided 2G and 3G mobile connectivity to for the broader area around Hakskeen Pan, including the towns of Rietfontein, Groot Mier, Klein Mier and Philandersbron. This not only benefits Bloodhound and other events on Haksteen Pan, but also represents a significant legacy benefit for the local community in the Mier area. These benefits include improved communication, access to emergency services and the opportunities to access to internet in local schools and households. Cell phone service and access to the internet are also key requirements for most visitors, especially international visitors.

<sup>31</sup> Not Applicable as pipeline has been constructed

<sup>32</sup> Establishment of the pipeline represents key enhancement measure

<sup>33</sup> (<http://www.bloodhoundssc.com/news/desert-towers-built>).

**Table 4.4: Assessment of benefits associated with improved cellular network coverage**

<b>Nature:</b> Cellular coverage for visitors to Bloodhound and other events on Haksteen Pan and local community in the Mier area. These benefits include improved communication, access to emergency services and opportunities to access to the internet in local schools and households		
	<b>Without Mitigation<sup>34</sup></b>	<b>With Enhancement<sup>35</sup></b>
<b>Extent</b>	N/A	Local – Regional (4)
<b>Duration</b>	N/A	Permanent (5)
<b>Magnitude</b>	N/A	High (8)
<b>Probability</b>	N/A	Definite (5)
<b>Significance</b>	N/A	High (85)
<b>Status</b>	N/A	Positive
<b>Reversibility</b>	N/A	N/A
<b>Irreplaceable loss of resources?</b>	N/A	N/A
<b>Can impact be enhanced?</b>	Yes	
<b>Enhancement :</b> N/A as the event has already taken place		
<b>Cumulative impacts:</b> Improved communication and benefits for local schools and scholars associated with access to internet		
<b>Residual impacts:</b> See cumulative impacts		

#### 4.4.5 Comment on status of pre-event planning activities

As indicated above, in order to maximise the benefits associated with the Bloodhound event, a number of pre-planning and preparation relative activities need to be undertaken. The BHIDS undertaken by Urban Econ in 2013 identified and ranked 30 projects / initiatives associated with the event. The projects were evaluated and ranked using a prioritisation model which evaluated the projects' potential according to the following three primary indicators:

- Promotion of economic growth and development;
- Impact on local livelihoods;
- Feasibility of the project.

The projects are listed in Table 4.5.

<sup>34</sup> Not Applicable as cell phone masts have been constructed

<sup>35</sup> Provision of cell phone coverage represents key enhancement measure

**Table 4.5: Projects and initiatives identified in Urban Econ 2013 study**

<b>Project / Initiative</b>	<b>Ranking</b>	<b>Project / Initiative</b>	<b>Ranking</b>
Develop Luxury Eco-Tourism	1	Upgrade Tourism Information Centres	16
On-Site Camping Facilities	2	Training Local Tour Guides	17
Khomani San Cultural Museum	3	Bloodhound Museum	18
Craft Production Village	4	Donate Toilets to the Community	19
Travel Packages	5	Upgrade Local Air Strips	20
Develop and Support Local Eateries	6	Tourism Signage	21
Entertainment During the Event	7	Internet Access	22
Tourism Awareness Campaign	8	Upgrade Local Websites	23
Bloodhound Souvenirs	9	Branding Hakskeen Pan	24
Opportunity Awareness Campaign	10	Tourism Marketing Strategy	25
Tourism Routes	11	Promote the 'Northern Cape Extreme' Brand	26
Provide Shuttle Services	12	Establish a PPP to Manage Municipal Game Farms	27
Bloodhound School Education Programme	13	Update Websites to Highlight the Event	28
Local 4x4 Rental Company	14	Provincial Engineering Contest	29
Speed Testing Facility	15	Music Festival	30

For the purposes of the socio-economic study the projects have been considered in terms of what stage of the Bloodhound project they are likely to and or should be implemented, namely:

- The pre-event planning and establishment phase;
- The event hosting phase;
- The legacy phase.

The key projects / initiatives that will need to be implemented as part of the pre-event planning and establishment phase are listed in Table 4.6. These activities and the extent to which the recommendations contained on the Urban Econ study of 2013 have been implemented are discussed below.

It should be noted that a Steering Committee has been established by the Northern Cape Provincial Government to manage the Bloodhound project. A number of these issues discussed below may have been addressed by the Steering Committee.

**Table 4.6: Key projects / initiatives that will need to be implemented as part of the pre-event planning and establishment phase**

<b>Project / Initiative</b>
On-Site Camping Facilities
Develop and Support Local Eateries
Bloodhound Souvenirs
Craft Production Village
Upgrade Tourism Information Centres
Training Local Tour Guides
Tourism Awareness Campaign
Tourism Routes
Tourism Signage
Travel Packages
Opportunity Awareness Campaign
Provide Shuttle Services
Update Websites to Highlight the Event
Upgrade Local Websites
Upgrade Local Air Strips
Entertainment During the Event
Branding Hakskeen Pan
Speed Testing Facility

***On-site camping facilities***

Based on information provided, the Bloodhound event will extend over a period of 3 months, culminated in an attempt to break the current world speed record during the last month. In this regard the Bloodhound website notes that the team will be based at Hakskeen Pan for up to three months.

No information is available on the estimated number of visitors. However, large numbers of visitors are likely to descend on the area during the last few weeks leading up to an including the day of the world record attempt. A figure of 10 000 visitors has been mentioned<sup>36</sup>. It is unclear if this represents the total number of visitors over the proposed 3 month period, or the number of visitors likely to descend on Haksteen Pan over the final few weeks when the attempt to break the land speed record is made. There is also no information on the maximum number of daily visitors expected.

Based on information provided ~ 1 000 members from the international and local media are also expected to cover the event, specifically the final days when attempts will be made to break the world land speed record. The Bloodhound website indicates that accommodation will be limited and advanced booking will be essential. Access to the event and media facilities will also be tightly controlled. Media wishing to attend the event will therefore need to register in advance.

Some of these visitors will be day visitors that are staying in local lodges in the area and further afield as Upington, Keimoes and Kakamas etc. However, a large number of visitors are also likely to stay at the pan for a number of days, and possibly weeks. For

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<sup>36</sup> In an article in the Burger Newspaper, Richard Noble, Director of Bloodhound is quoted as saying "We expect up to 10,000 people to be there." (Burger, 10 June, 2014).

the success of the project it will be critical to provide accommodation for these visitors, namely camping facilities at Hakskeen Pan near the track site. These facilities would need to include a range of camping options catering for visitors who need to be provided with accommodation to visitors that bring their own tents, caravans etc. The accommodation provided for visitors will also need to include a range of options, from more up-market caravans/ campers to more basic tents, camp beds and sleeping bags etc. Both options will need to be provided with services including electricity, toilets, showers, drinking/cooking water, internet, cooking and washing up areas, laundry, waste collection etc.

The Kalahari Speed Week, which is a much smaller event held at Haksteen Pan provides a range of facilities, including tents and camper beds. Visitors are required to bring their bedding and pillows. This option would not be suitable for overseas visitors and or local visitors that fly into Upington. In addition, no power is provided to the tented area. As far as ablution facilities, fully serviced showers, toilets and basins with electricity and hot water are provided, with four ablution blocks, two for ladies and two for men. Water is pumped via the 16km water pipeline and stored in two 40 000l tanks on the site. A paid for laundry service is also provided.

The provision of basic services, such power, water and ablution facilities, will create legacy opportunities and can be used for other events that take place on Haksteen Pan, such as Kalahari Speed Week and concerts etc. These opportunities are discussed in more detail in Section 4.6, Legacy Benefits.

In order to plan for and provide on-site camping facilities and the associated services requires information on the number of expect visitors over the three month period, and specifically the maximum number expected per day during the last few weeks when the majority of visitors are likely to descend on the site. At this stage of the process there appears to be a lack of certainty on the numbers of visitors which is a concern. The issue is further complicated by the lack of clarity on the actual dates for the Bloodhound event.

The Bloodhound website indicates that the intention is for the Northern Cape Provincial Government (NCPG) to appoint an event management company to organise and manage the event. The facilities to be provided and managed by the event company include:

- Domestic accommodation;
- Campsite area;
- RV parking and hook-up area;
- Toilets, ablutions etc.;
- Waste management;
- Emergency services i.e fire/medical/police (the nearest general hospital is in Upington);
- Public viewing area on landside aligned with the measured mile;
- Catering;
- Local merchandising;
- transportation services between Hakskeen Pan, Upington and Rietfontein airstrip;
- Entertainments for non-run days, such as safari outings, astronomy classes, concerts;
- Utilities;
- Potable drinking water.

However, at this stage it is unclear if an event company has been appointed. It is also unclear if a local event company will be appointed. Feedback from the Upington Chamber of Commerce indicated that outside service providers are involved in the Kalahari Speed Week and that there was limited benefit to local service providers in the area.

In terms of priorities, the BHIDS (2013) identifies the development of on-site camping facilities as **Very Urgent**.

#### ***Develop and support local eateries***

The Bloodhound Integrated Development Study (BHIDS) indicates that the demand for food and beverages during the event can be addressed through the development of local eateries including 'take-aways' at the race site, improvements to the Rietfontein bakery and the establishment of cafes/restaurants in several local villages. The study also notes that these facilities may also become permanently viable as a result of increased visitor numbers and the development of Kalahari Speed Week and other events. Given that the number of events held each year is likely to be limited, combined with the relatively short duration of typical events the potential for the establishment of local cafes/restaurants in local villages in the area is questionable. The establishment of a local catering company (s) that is capable of providing food and beverages for the Bloodhound and future events as opposed to the establishment of cafes/restaurants is likely to be more sustainable.

In order for members from the local Mier community to prepare a business model and apply for funding to establish a catering company requires information on the number of visitors expected over the three month period, specifically the last few weeks, of the project. The lack of certainty regarding the number of visitors and the limited time available for local community and or SMMEs to apply for funding to establish a catering company that would benefit from the Bloodhound project and future legacy opportunities is a concern, specifically given the relatively short period of time left before the Bloodhound event is scheduled to take place (~ 8 months). The issue is further complicated by the lack of clarity on the actual dates for the Bloodhound event.

In addition, as indicated above, the Bloodhound website indicates that the Northern Cape Provincial Government (NCPG) will appoint an event management company to organise and manage the event. Based on the information contained on the website the event company will also be responsible for catering. At this stage in the process it is unclear if a local Northern Cape based event company will be contracted and or if the event company will seek to appoint local companies to provide catering services and the measures in place and or planned to empower members from the local Mier community to benefit from providing services such as catering. The appointment of a non-local event management company has the potential to reduce the legacy benefits associated with the Bloodhound event.

In terms of priorities, the BHIDS (2013) identifies the development and support for local catering entities as **Very Urgent**.

#### ***Bloodhound souvenirs and opportunities awareness campaign***

The BHIDS indicates the project team is willing to allow the local production and sale of Bloodhound branded goods as a community development project. The study also notes that the production and sale of Bloodhound branded souvenirs during and after the record attempt will generate important revenue for the community (sales) and the

region (production). Producing souvenirs, specifically souvenirs made by local communities such as the Khomani San, requires time and resources. Communities and local SMMEs may need to apply for loans to purchase material to produce souvenirs, which takes time and would require confirmation from Bloodhound that they have been awarded the right to produce branded souvenirs and merchandising.

At this stage of the process there appears to be limited information on the current status of branding rights for Bloodhound related products, such as replica cars, T-shirts, mugs etc. There is also limited information available on the type of facilities that will be provided at Haksteen Pan, such as a market area with stalls to accommodate traders. This issue was raised as concern by representatives from the Upington Chamber of Commerce. In order to maximise the potential opportunities for local communities and SMMEs information on the criteria used to issue branding licences, the costs associated, controls etc. In this regard the BHIDS produced in 2013 noted that “the rights to reproduce the Bloodhound logo should be immediately secured from the Bloodhound project team”.

Based on the findings of the SIA it would appear that a number of key recommendations contained in the BHIDS have to date not been implemented. In this regard it would appear that local SMMEs that potentially stand to benefit from the Bloodhound event are not fully informed of the project and the requirements and procedures required for granting of the rights to produce and sell Bloodhound branded souvenirs and merchandising. There is also lack of clarity on the type of facilities that will be provided for traders at Haksteen Pan and the duration of the event. The lack of clarity is a concern given the relatively short period of time left before the Bloodhound event is scheduled to take place (~ 8 months). The issue is further complicated by the lack of clarity on the actual dates for the Bloodhound event. In this regard the official website states “We have a lot more work to do building and checking out the Car before we can even contemplate moving operations out to South Africa for high speed running, so it is difficult to predict the exact dates we will be there. The current plan is that we will be rolling out the completed Car in 2017, with the intention of UK testing and being on Hakskeen Pan later in the year”.

The BHIDS also indicates that the Bloodhound event will generate numerous opportunities for local SMMEs through the demand for goods and services and recommends that local entrepreneurs and business owners be made aware of these opportunities through an opportunity awareness campaign. The campaign should provide information regarding the number of event participants, their likely demands and event dates/duration. It could also offer support to local SMMEs in the form of business advice and low interest loans. Based on the findings of the SIA it would appear that a detailed and comprehensive awareness campaign aimed at local SMMEs has not been launched.

In terms of priorities, the BHIDS (2013) identifies addressing the issues associated with Bloodhound souvenirs and developing an awareness campaign as **Very Urgent**.

***Upgrade tourism information centres, train local tour guides, tourism awareness campaign, tourism routes, tourism signage and travel packages***

The BHIDS refers to the need to upgrade two tourism information centres located in Rietfontein and Andriesvale focusing on the improving the quality of information provided at the centres including information on local accommodation, activities, events and sights, as well as the sale of locally produced crafts and other goods. The report also notes the importance preparing these centres the influx of visitors during

the Bloodhound event. With regard to signage, the report identifies the need for the local municipality to upgrade and extend tourism signage in the area, including information on local attractions, accommodation, restaurants, services and tourism routes. This should take place prior to hosting the Bloodhound event. The report also recommends that Hakskeen Pan be incorporated into one or more of the areas tourism routes (e.g.: Red Dune Route) and that a new tourism route linking the Upington wine region, Hakskeen Pan and the Kalahari National Park should be developed.

As far as visitors are concerned, travel packages should be developed that provide tourists with the opportunity to purchase their accommodation, transportation, and activities/events in one transaction. The BHIDS notes that if developed quickly and marketed effectively these packages may also encourage a greater number of visitors and increase visitor spending during the Bloodhound event by offering spectators a well-rounded holiday. Links to these packages should also be provided on the Bloodhound website. A review of the Bloodhound website indicated that information on travel packages has not been provided to-date.

Flights to and from Upington from Johannesburg and Cape Town are also amongst the most expensive in the country, and can cost up to R 6 000- R 7 000 return. There are also a limited number of daily flights to and from Upington, and the aircraft used typically only accommodate ~ 50 passengers. The high costs and limited availability of seats is likely to impact negatively on overseas and local visitors wishing to fly to Upington to attend the Bloodhound event. This may also be compounded by a shortage of hire vehicles. This issue was raised as a concern by the Upington Chamber of Commerce.

Based on the findings of the SIA it would appear that a number of key recommendations contained in the BHIDS have to date not been implemented, including the development of travel packages, training of local tour guides, specifically guides from the Mier community, and raising awareness of the Bloodhound event through the use of signage. In this regard there appear to be only two road side signs advertising the event and the dates on the road side sign at the intersection with N10 and the Upington Airport Road give the impression the event will be held in 2015 and 2016.

#### ***Update and upgrade websites to highlight the event***

The BHIDS notes that national and provincial websites including those for South Africa Tourism and Northern Cape Tourism should be immediately updated to highlight the Bloodhound event and encourage spectators. These websites should also provide information/linkages to information on the event, available accommodation, transportation routes and modes, and other sites/activities in the region. Local tourism websites including Green Kalahari Tourism should be upgraded. The report notes that these upgrades should highlight the Bloodhound event, promote the Kalahari Speed Week and provide information and contact details for local accommodation; and offer information on tourism routes and packages.

Based on the findings of the SIA it would appear that a number of key recommendations contained in the BHIDS have to date not been implemented. A review of a number of local tourist related websites (Green Kalahari) and websites for



the district (ZF MCGAU DM) and local (DKLM)<sup>37</sup> municipality found there was limited reference to the Bloodhound event, and no link to the Bloodhound website and or visa-versa. The Northern Cape tourism website does refer to the Bloodhound event and includes a recent article on the 365 day count down to the event which took place on Hakstee Pan in October 2016 and was attended by the Premier of the Northern Cape, Sylvia Lucas.

The Bloodhound project is also mentioned under B in the A-Z of tourism in the Northern Cape (<http://www.experiencenortherncape.com>). The description does not expand on the potential opportunities for tourism and local community development. The article also provide no links to other websites that would provide potential visitors with information on accommodation options, places to visit, tourist routes in the area etc.

***Provide shuttle services', upgrade local air strips and entertainment during the event***

While the provision of these services will create benefits for the local community during the actual Bloodhound event, they need to be planned in advance in order to ensure that benefits for the local community and SMMEs are maximised. The BHIDS notes that a large number of spectators will arrive at the Upington Airport and recommends that a shuttle service be established between the Upington Airport and the site and towns in the Mier area during the event (1-2 months). The report notes that these services should be owned and operated by entrepreneurs/SMMEs from the DKLM. It unclear what steps have been taken to inform local SMMEs in the DKLM of the opportunities associated with providing shuttle services for the Bloodhound event. The lack of clarity regarding the actual dates for the Bloodhound event and the number of visitors is also an issue that will need to be addressed, specifically given the relatively short period of time left before the Bloodhound event is scheduled to take place (~ 8 months).

With regard to local two local airstrips (Rietfontein and !Xaus Lodge), the report notes that the airstrips require upgrades in order to enhance their capacity, safety and appeal. The upgrades should cater for private and chartered planes, which would increase the region's viability as a luxury tourism destination. The report recommends that a feasibility study is undertaken to determine the cost of such upgrades and identify potential sources of funding with priority placed on the Rietfontein airstrip. It is unclear if this recommendation has been implemented.

The BHIDS also recommends that daily/nightly entertainment should be provided to participants and spectators during the Bloodhound event (1-2 months). This would include local singers and dancers, African drummers and musicians/bands from the Northern Cape. It unclear what steps have been taken to identify local artists and performers and inform them of the opportunities associated with performing at the Bloodhound event. The lack of clarity regarding the actual dates for the Bloodhound event and it entertainment will be provided for the duration of the event (2-3 months) or only during the last month is also an issue that will need to be addressed, specifically given the relatively short period of time left before the Bloodhound event is scheduled to take place (~ 8 months). Contracts would also need to be entered into with local artists and entertainers.

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<sup>37</sup> <http://www.greenkalahari.co.za>, <http://dkm.gov.za>, <http://zfm-dm.co.za>, <http://www.experiencenortherncape.com>.

In terms of priorities, the BHIDS (2013) identifies addressing on-site entertainment as **Very Urgent**.

### **General comment on status of pre-event planning activities**

As indicated above, a Steering Committee has been established by the Northern Cape Provincial Government to manage the Bloodhound project. A number of the issues discussed above may have been addressed by the Steering Committee. However, based on the findings of the SIA it would appear that a number of the key recommendations contained in the BHIDS prepared by Urban Econ in 2013 have not been fully implemented. These include:

- Identifying and informing local SMMEs of the potential opportunities associated with the Bloodhound event, including securing the rights to produce Bloodhound merchandising and souvenirs, provision of key services, such as shuttles and catering, and use of local artists and performers;
- Upgrading and up-dating key tourism websites to highlight the Bloodhound event and provide potential visitors with information/linkages related to the event, available accommodation options, transportation routes and modes, and other sites/activities in the region etc.

These issues would need to be addressed in order to maximise the potential benefits for the local community and SMMEs associated with the Bloodhound event. These issues also need to be addressed in order to ensure that the visitor experience associated with the Bloodhound event is enhanced. If these issues are not effectively addressed they not only have the potential to impact on the event itself, but also on the legacy value of the Bloodhound event.

The lack of clarity regarding the actual dates for the Bloodhound event and information on the expected number of visitors is also a concern, specifically given the relatively short period of time left before the Bloodhound event is scheduled to take place (~ 8 months).

#### **4.4.6 Presence of workers in the area**

The presence of workers during the pre-event planning and preparation phase may pose a potential risk to family structures and social networks in the area. While the presence of these workers does not in itself constitute a social impact, the manner in which they conduct themselves can impact on the local community. In this regard the most significant potential negative impacts are associated with the disruption of existing family structures and social networks. This risk is linked to the potential behaviour of workers, specifically male workers, including:

- An increase in alcohol and drug use;
- An increase in crime levels;
- An increase in teenage and unwanted pregnancies;
- An increase in prostitution; and
- An increase in sexually transmitted diseases (STDs).

As indicated above, to date there have been three major activities associated with the pre-planning and preparation phase, namely the removal of rocks from and preparation of the Haksteen Pan, the construction of the Kalahari East Water Supply Pipeline, and the establishment of cell phone masts. In terms of size, the preparation

of Haksteen Pan was the largest employer, employing 300 local community members. Local community members were also employed on the Kalahari East Water Supply Pipeline project. Given that these workers were from the local community and form part of the local family and social network the risk was low if not negligible.

The use of local community members to set up the facilities required to host the event, such as accommodation, catering, ablution, entertainment etc. will also minimize the potential risk posed by workers to local communities in vicinity of Haksteen Pan.

**Table 4.7: Assessment of impact of workers on local communities**

<b>Nature:</b> Potential impacts on family structures and social networks associated with the presence of workers		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local (1)	Local (1)
<b>Duration</b>	Short Term for community as a whole (3)	Short Term for community as a whole (3)
<b>Magnitude</b>	Low for the community as a whole (4)	Minor for community as a whole (2)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Low for the community as a whole (24)	Low for the community as a whole (18)
<b>Status</b>	Negative	Negative
<b>Reversibility</b>	No in case of HIV and AIDS	No in case of HIV and AIDS
<b>Irreplaceable loss of resources?</b>	Yes, if people contract HIV/AIDS. Human capital plays a critical role in communities that rely on farming for their livelihoods	
<b>Can impact be mitigated?</b>	Yes, to some degree. However, the risk cannot be eliminated	
<b>Mitigation:</b> See below		
<b>Cumulative impacts:</b> Impacts on family and community relations that may, in some cases, persist for a long period. Also in cases where unplanned / unwanted pregnancies occur or members of the community are infected by an STD, specifically HIV and or AIDS, the impacts may be permanent and have long term to permanent cumulative impacts on the affected individuals and/or their families and the community.		
<b>Residual impacts:</b> Community members affected by STDs etc. and associated impact on local community and burden services etc.		

#### **Recommended mitigation measures**

The potential risks associated with construction workers can be mitigated. The aspects that should be covered include:

- Where possible, the proponent should implement a 'locals first' policy for construction jobs, specifically semi and low-skilled job categories. This will reduce the potential impact that this category of worker could have on local family and social networks;

- The proponent should consider the establishment of a Monitoring Forum (MF) for the key components associated with the preparation of site for the Bloodhound event. The MF should be established before these activities commence and should include key stakeholders, including representatives from Bloodhound, local community, local municipality and provincial government. The role of the MF would be to monitor the establishment phase and the implementation of the recommended mitigation measures. The MF should also be briefed on the potential risks to the local community associated with construction workers;
- The proponent and the appointed contractors should, in consultation with representatives from the MF, develop a Code of Conduct for the establishment phase. The code should identify what types of behaviour and activities by workers are not permitted, specifically non-local workers. Workers that breach the code of good conduct should be dismissed. All dismissals must comply with the South African labour legislation;
- The proponent and the contractor should implement an HIV/AIDS awareness programme for all workers at the outset of the establishment phase;
- The movement of workers on and off the site should be closely managed and monitored by the contractors. In this regard the contractors should be responsible for making the necessary arrangements for transporting workers to and from site on a daily basis;
- Where possible, the contractor should make necessary arrangements to enable workers from outside the area to return home over weekends. This would reduce the risk posed by non-local workers to local family structures and social networks;
- The contractor should make the necessary arrangements for ensuring that all non-local construction workers are transported back to their place of residence once the establishment phase is completed. This would reduce the risk posed by non-local construction workers to local family structures and social networks;
- Non-local workers should be accommodated on the site.

#### **4.4.7 Safety and security risk associated with presence of workers**

The presence of workers on the site and in the area, specifically non-local workers, may pose a potential safety and security risk for the local community and farmers in the area. Experience with both small and large scale construction projects in rural, farming areas indicates that the risk of stock theft and poaching can increase due to the presence of workers in the area. The presence of non-local workers in the area over a prolonged period of time also creates an opportunity for these workers to monitor operations and stock movements in the area and pass this information onto third parties who may be involved in stock theft. The significance of the threat is however rated to be low with mitigation.

**Table 4.8: Assessment of safety and security risk posed by workers**

<b>Nature:</b> Potential safety and security risk posed by presence of workers on site		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local (2)	Local (1)
<b>Duration</b>	Short Term (2)	Short Term (2)
<b>Magnitude</b>	Moderate (6)	Low (4)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Medium (30)	Low (21)
<b>Status</b>	Negative	Negative
<b>Reversibility</b>	No, if local residents are murdered or physically harmed	No, if local residents are murdered or physically harmed
<b>Irreplaceable loss of resources?</b>	Yes, if family member is murdered	Yes, if family member is murdered
<b>Can impact be mitigated?</b>	Yes	Yes
<b>Mitigation:</b> See below		
<b>Cumulative impacts:</b> No		
<b>Residual impacts:</b> Include psychological effects associated with attacks or crime related events that may last for many years.		

**Recommended mitigation measures**

The mitigation measures that can be considered to address the potential impact include:

- Bloodhound should investigate the option of establishing a MF (see above) that includes local farmers and develop a Code of Conduct for workers. Should such a MF be required it should be established prior to commencement of the establishment phase. The Code of Conduct should be signed by Bloodhound, local farmers, the community and contractors before the establishment phase commences and the contractors move onto site;
- The Code of Conduct should identify what types of behaviour and activities by workers are not permitted. The contractors appointed by Bloodhound should also ensure that all workers are informed at the outset of the establishment phase of the conditions contained on the Code of Conduct, specifically consequences of stock theft and trespassing on adjacent farms;
- Workers who breach the code of good conduct should be dismissed. All dismissals must comply with the South African labour legislation;
- Bloodhound should enter into an agreement with the affected landowners whereby Bloodhound will compensate for damages to farm property and disruptions to farming activities. This includes losses associated with stock theft and damage to property etc. This agreement should be finalised before the commencement of the establishment phase;
- The movement of workers on and off the site should be closely managed and monitored by contractors appointed by Bloodhound. In this regard the contractors should be responsible for ensuring that workers respect the rights of local farmers and do not pose safety and security threat to them and their families;

- The Environmental Management Plan (EMP) for the construction phase must outline procedures for managing and storing waste on site, specifically plastic waste that poses a threat to livestock if ingested;
- Non-local workers should be accommodated on the site.

#### 4.4.8 Increased risk of fires

The presence of workers during the pre-event planning and preparation phase poses an increased risk of grass fires that in turn pose a threat to the livestock, wildlife, and farmsteads in the area. In the process, farm infrastructure may also be damaged or destroyed and human lives threatened. While the potential risk of grass fires is low any loss of grazing due to a fire would impact negatively on the affected farmer's livelihoods. The potential risk of grass fires are heightened by windy conditions in the area, specifically during the dry, windy winter months. The risk of fire related damage is exacerbated by the limited access to fire-fighting vehicles in the area.

**Table 4.9: Assessment of impact of increased risk of fires**

<b>Nature:</b> Potential loss of livestock, crops and houses, damage to farm infrastructure and threat to human life associated with increased incidence of grass fires		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local (4)	Local (2)
<b>Duration</b>	Short Term (2)	Short Term (2)
<b>Magnitude</b>	Moderate due to reliance on livestock for maintaining livelihoods (6)	Low (4)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Medium (36)	Low (24)
<b>Status</b>	Negative	Negative  Positive (Associated with provision of fire-fighting equipment and trained personnel)
<b>Reversibility</b>	Yes, compensation paid for stock and losses and damage etc.	
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impact be mitigated?</b>	Yes	
<b>Mitigation:</b> See below		
<b>Cumulative impacts:</b> No, provided losses are compensated for.		
<b>Residual impacts:</b> Potential loss of income and impact on livelihoods and economic viability of affected farms.		

#### Recommended mitigation measures

As indicated above, the proponent should enter into an agreement with the affected landowners whereby the company will compensate for damages. This includes losses

associated with grass fires. In addition, the potential increased risk of grass fires can be effectively mitigated. Mitigation measures include:

- Bloodhound should ensure that open fires on the site for cooking or heating are not permitted except in designated areas. Open fires should not be established in the vicinity of the grassed dunes to the east of the pan;
- No smoking should be permitted on the site, except in designated areas;
- Bloodhound should ensure that construction related activities that pose a potential fire risk are properly managed and are confined to areas where the risk of fires has been reduced. Measures to reduce the risk of fires include clearing working areas and avoiding working in high wind conditions when the risk of fires is greater. In this regard special care should be taken during the high risk dry, windy winter months;
- Bloodhound should provide adequate fire fighting equipment on-site;
- Bloodhound should provide fire-fighting training to selected construction staff;
- As per the conditions of the Code of Conduct, in the advent of a fire being caused by construction workers and or construction activities, the appointed contractors should compensate farmers for any damage caused to their farms. The contractor should also compensate the fire fighting costs borne by farmers and local authorities.

#### **4.4.9 Impacts associated with establishment traffic**

The potential impacts associated with establishment related activities are largely linked to the transport of materials, equipment and workers to and from the site and the establishment of the facilities associated with the Bloodhound event.

The main access route to Haksteen Pan from Upington is the R360. The Bloodhound vehicle and the associated support systems and equipment will be flown to Upington Airport and then transported to the site via the R360. The equipment and components associated with providing facilities to accommodate visitors to Haksteen Pan will also be transported via the R360 to the site. This will include tents, portable toilets and showers, scaffolding, catering equipment etc. This is likely to result in an increase in traffic along the R 360 during the months leading up to the Bloodhound event. The movement of traffic, specifically heavy vehicles along the R360 can pose a potential risk to other road users. Although the volume of traffic along the R360 is low, the road is the main access route to the Kalahari Gemsbok National Park and the Kgalagadi Transfrontier National Park. The cooler, winter months tend to be the more popular times, specifically the school holiday period of late June-July. This period is also likely to coincide with the start of the establishment of facilities for the Bloodhound event, which is scheduled for the third quarter of 2017. Steps will therefore need to be taken to ensure that the movement of heavy vehicles do not impact on other road users, specifically tourists. Based on the findings of the SIA the potential impacts can however be effectively mitigated.

In addition, the R360 is also used for high speed testing of new vehicles. The increased volume of traffic along the R 360 leading up to and during the Bloodhound event will increase the risk of accidents. It is therefore recommended that high speed testing be put on hold during for a four to five month period leading up to and during the hosting of the Bloodhound event.

**Table 4.10: Assessment of the impacts associated with movement of vehicles along the R360**

<b>Nature:</b> Potential disruption and safety impacts associated with movement of vehicles along the R360		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local (3)	Local-Regional (1)
<b>Duration</b>	Short Term (2)	Short Term (2)
<b>Magnitude</b>	Moderate (6)	Low (4)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Medium (33)	Low (24)
<b>Status</b>	Negative	Negative
<b>Reversibility</b>	Yes	
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impact be mitigated?</b>	Yes	
<b>Mitigation:</b> See below		
<b>Cumulative impacts:</b> Increased safety risk for other road users over the 4-5 month period associated with the preparation for and hosting of the Bloodhound event		
<b>Residual impacts:</b> There will be no residual impacts		

#### **Recommended mitigation measures**

The potential risks associated with the movement of vehicles can be effectively mitigated. The aspects that should be covered include:

- High speed testing on the R360 should be put on hold during for a four to five month period leading up to and during the hosting of the Bloodhound event;
- The movement of heavy vehicles should be confined to daylight hours;
- The movement of heavy vehicles should take between Monday and Friday so as to avoid weekends when tourists and members of the community are more likely to be using the R 360.
- All vehicles must be road-worthy and drivers must be qualified, made aware of the potential road safety issues, and need for strict speed limits.

#### **4.5 SOCIAL IMPACTS ASSOCIATED WITH STAGING OF BLOODHOUND EVENT**

The key social issues associated with staging of the Bloodhound event include:

##### **Potential positive impacts**

- Support of the local economy via the creation of employment and business opportunities;
- Benefit to local tourism and accommodation sector;
- Raise profile of Haksteen Pan, the Northern Cape and South Africa.



### **Potential negative impacts**

- Impacts on family and community networks associated with the presence visitors;
- Increased risk of fires;
- Impact of increased volume of vehicles on the R360.

#### **4.5.1 Support of the local economy via the creation of employment and business opportunities**

The staging of the Bloodhound event is expected to take place in the third quarter of 2017 and extend over a 3-4 month period. Based on available information up to 10 000 visitors are expected to visit Haksteen Pan. However, as indicated above, it is not clear if this total represents the total number of visitors over the 3-4 month period, or the maximum number of visitors expected on site each day during the final stages of the event when an attempt will be made to break the world land speed record. This will have implications for the facilities that need to be provided on the site and the number of people employed both on and off site. Due to the lack of clarity it is not possible to provide accurate figures. Estimates have therefore been provided based on a number of assumptions which are listed below. The section is divided into on-site and off-site opportunities:

The key on-site employment opportunities on Haksteen Pan will be linked to:

##### ***Catering staff***

Preparing and serving food and refreshments for the visitors, Bloodhound support staff, media and VIP guests, dignitaries etc. As indicated above, in the region of 10 000 visitors are expected, the Bloodhound support staff is expected to be in the region of 100-150, while 1 000 representatives from the media are expected to be present, especially during the last few weeks. The type of catering required, level of service and ratio of catering staff to customers will vary depending on who the customers are. For example the ratio of serving staff to customers for VIP guests will be higher than the ratio for ordinary day and overnight visitors. Likewise the catering facilities and number of staff employed in the preparation of the food will also differ.

Based on internet search a typical serving staff to customer ratio for average day / overnight visitor would be 1:30, while for media, Bloodhound staff and VIPs the ratio would be 1:20 or lower. Typical ratio for bartenders is 1:75. Based on the assumption that during the peak period there will be 10 000 visitors, 1 000 media representatives, 1 000 VIPs and 150 Bloodhound support staff on the site, the number of employment opportunities created for serving staff (waiter and waitresses) would be in the region of 540. With training and skills development the majority of these positions can be taken up by members from the local community. In addition to these opportunities, employment will also be created for kitchen staff, including chefs and food preparers.

##### ***Cleaning staff***

The majority of opportunities for cleaning staff will be linked to the accommodation facilities and catering facilities. Additional opportunities will also be created for general maintenance and cleaning. Based on a ratio of one cleaner per 100 people the total number of employment opportunities would be in the region of 120. With training and skills development the majority of these positions can be taken up by members from the local community.

Additional employment opportunities for the local community can be created by providing a car wash service in the proposed parking area located to the north of the R360.

### **Security staff**

Security staff will need to be provided. Given the large number of spectators and the need to ensure that spectators do not enter the track area a relatively large number of security staff will be required. In addition, security will need to be provided for the parking area and tented accommodation areas. Based a ratio of one security guard per 100 people the total number of employment opportunities would be in the region of 120. This figure may be higher. With training and skills development the majority of these positions can be taken up by members from the local community.

The total number of employment opportunities during the peak visitor period associated with catering, cleaning and security staff is therefore estimated to be in the region of 780. In addition, as indicated above, with training and skills development the majority of these positions can be taken up by members from the local community. This would represent a significant socio-economic benefit. However, the length of the peak visitor period is unknown.

In addition to catering, cleaning and security related opportunities the Bloodhound event will also create on-site employment and business opportunities for people and business involved in:

- Selling of mechanising, souvenirs and curios;
- Laundry and ironing services;
- Providing services such as child care, massages', facials etc.;
- Entertainment, including traditional local dancers and musicians, stand-up comedians, South African musicians and bands, and overseas bands.

Due to limited information on the size and number of stalls and nature of the entertainment that will be provided it is not possible to provide an estimate of the number of employment opportunities that will be created by these activities. However, when combined with the estimated 780 employment opportunities associated with catering, cleaning and security, the total number of temporary on-site employment opportunities during the peak visitor period is likely to exceed 1 000. However, as indicated above, the length of the peak visitor period is unknown.

The off-site opportunities associated with the Bloodhound event will be linked to:

- Off-site accommodation in the area and further afield (this is discussed in more detail under benefit to tourism);
- Car hire and shuttle services to and from the site and Upington;
- Purchase of supplies and fuel etc. by visitors in local towns in Mier and Upington;
- Procurement of food and other supplies by service providers involved in catering at the site.

Due to the lack of accurate information on the number of visitors and the duration of their stay it is not possible to accurately quantify the above benefits associated with the off-site opportunities. The benefit to the local Upington and Mier economy will however be significant when one considers that the majority of South African's visitors that travel to area by car will need to fill up a least once either in Upington and or at one of the local towns in the Mier area and buy supplies from local shops. Overseas

visitors that rent cars are also likely to fill up a least once and buy supplies from local shops.

Service providers that provide a shuttle service from the airport to the pan and local lodges in the area will also need to refuel on a daily basis, while catering companies will need to purchase supplies from local suppliers in Upington and the surrounding area. Due the uncertainty regarding the total number of visitors and the duration of their stay it is not possible to provide an accurate estimate of the total value of the event related spend. However, given the large number of visitors that are expected to descend on the area it is reasonable to assume that the Bloodhound event will create significant opportunities for the local Mier and Upington economy, with the majority of the event related spending likely to benefit businesses based in Upington. The duration of this benefit is however unclear.

The on and off-site business related opportunities will be linked to providing accommodation, catering, cleaning and security services. Ideally these services should be provided by local services providers who employ members from the local community. However, it is unlikely that service providers with the required expertise and capacity exist in the Mier area. In addition, given the short period of time, even with financial support, it may not be possible to establish local service providers in the Mier area before the event is held in the third quarter of 2017. However, there are likely to be suitably qualified and experienced service providers in either Upington and or the Northern Cape Province. Opportunities for mentoring and working with local SMMEs from Mier should be considered in order to maximise local benefits and also enhance the legacy potential of the Bloodhound event.

**Table 4.11: Assessment of on and off-site employment and business opportunities**

<b>Nature:</b> Creation of on and off-site employment and business opportunities associated with the hosting of the Bloodhound event		
	<b>Without Enhancement<sup>38</sup></b>	<b>With Enhancement</b>
<b>Extent</b>	Local and Regional (3)	Local and Regional (4)
<b>Duration</b>	Short term (2)	Short term (2)
<b>Magnitude</b>	High (6)	Very High (8)
<b>Probability</b>	Definite (5)	Definite (5)
<b>Significance</b>	Medium (55)	High (70)
<b>Status</b>	Positive	Positive
<b>Reversibility</b>	N/A	
<b>Irreplaceable loss of resources?</b>	No	
<b>Can impact be enhanced?</b>	Yes	
<b>Enhancement:</b> See below		

<sup>38</sup> This assumes that outside service providers are employed and the number of local community members employed is limited.

<b>Cumulative impacts:</b> Creation of additional employment, business and economic opportunities in the area
---

<b>Residual impacts:</b> Overall benefit for the local economy
--

### **Recommended enhancement measures**

In order to enhance local employment and business opportunities associated with the activities associated with the hosting of the Bloodhound event the following measures should be implemented:

#### **Employment**

- Implement a training and skills development programmes for locals at least 3 months prior to the event in order to maximise employment opportunities for local community members from Mier;
- Where reasonable and practical the local service providers that meet required Broad Based Black Economic Empowerment (BBBEE) criteria should be appointed;
- Where and reasonably practical a 'locals first' policy, especially for semi and low-skilled job categories should be implemented. However, due to the low skills levels in the area, the majority of skilled positions are likely to be filled by people from outside the area;
- Representatives from Bloodhound and the Northern Cape Government should meet with representatives from the DKLM and key organisations in the area, such as the Upington Chamber of Commerce, to identify local service providers and establish database for the project;
- The recruitment selection process should seek to promote gender equality and the employment of women wherever possible.

Also, as indicated above, a car wash service should be provided by the local community in the proposed parking area located to the north of the R360.

#### **Business**

- The Northern Cape Provincial Government should develop a database of local companies, specifically Broad Based Black Economic Empowerment (BBBEE) companies, which qualify as potential service providers (e.g. catering companies, waste collection companies, security companies, transport companies etc.) before the end of February 2017. These companies should be notified of the services required and be invited to bid for Bloodhound related work;
- The Northern Cape Provincial Government, in consultation with the DKLM, representatives from the Mier community and key organisations in the area, such as the Upington Chamber of Commerce, should identify strategies aimed at maximising the potential benefits for local companies associated with the project. This includes providing information on potential opportunities, such as catering, shuttle services, security etc.
- The Northern Cape Provincial Government should provide local SMMEs and or members of the Mier community with training and financial assistance to enable them to benefit from the provision of services, such as catering, cleaning etc. The financial assistance may include funding to purchase catering and cleaning equipment etc.;
- The Northern Cape Provincial Government should explore opportunities for mentoring and joint ventures with local SMMEs from Mier in order to maximise local benefits and enhance the legacy potential of the Bloodhound event.

Note that while preference to local companies is recommended, it is recognised that a competitive tender process may not guarantee the appointment of local service providers.

#### **4.5.2 Benefit to local hospitality and tourism sector**

Based on the information available the ~ 10 000 visitors, ~ 1 000 media representatives and ~ 100-150 Bloodhound support staff are expected. The 100-150 Bloodhound support staff members are expected to be on site for the duration of the 3-4 month period. In this regard Bloodhound has booked out the Molopo Lodge for a three month period in the third quarter of 2017. The lodge currently accommodates 82 people. However, this will be increased to ~ 130 people in order to accommodate Bloodhound (Grobler, pers. comm.). At the current rate of ~ R 500/night (including breakfast), this would translate into ~ R 5.9 million in income for the Molopo Lodge for the three month period. This is based on 130 people staying at the lodge for 90 nights (3 months). This excludes additional income generated from lunch packs, dinner and drinks.

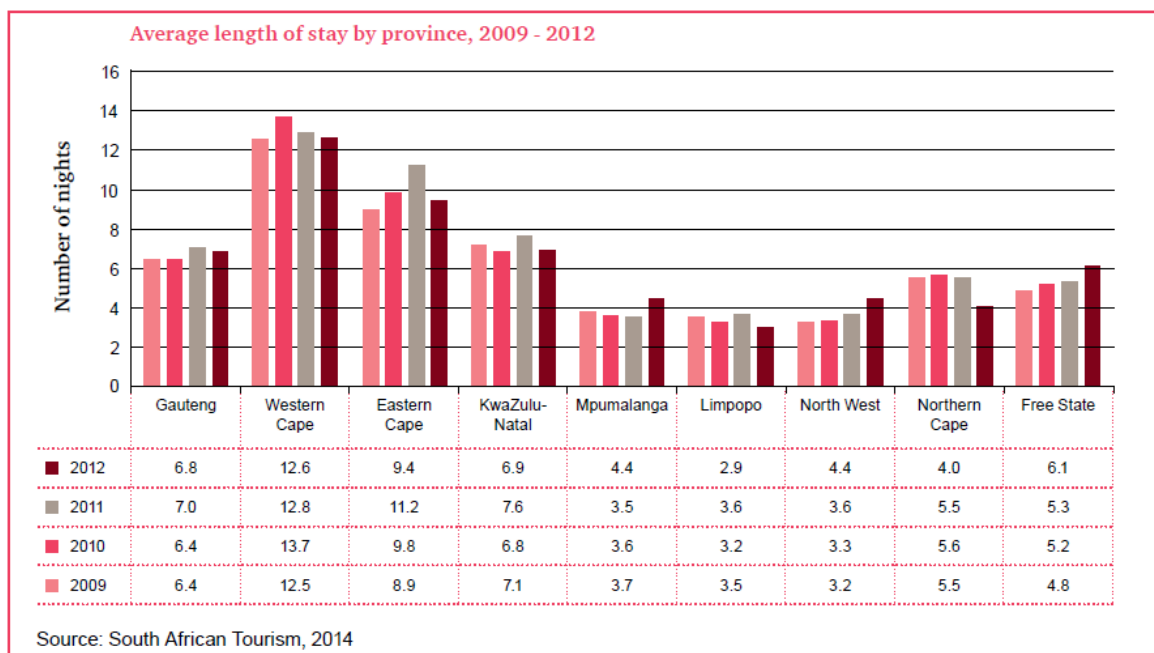
The Manager of the Molopo Lodge indicated that there are in the region of 600 beds available in the Mier area, including the Molopo Lodge. Excluding the Molopo Lodge there are therefore in the region of 520 beds. Based on R 500/night and 50% occupancy rate over a 3 month period, the accommodation related revenue generated for local lodges in the Mier area by the Bloodhound event would be in the region of R 11.7 million. This excludes additional income generated from provision of shuttle services, lunch packs, dinner and drinks etc. The Bloodhound event will therefore represent a significant benefit for local lodges in the Mier area.

Accommodation facilities outside of the Mier area will also benefit significantly from the Bloodhound event. It is not clear how many people will be accommodated on the pan itself. However, given the limited accommodation in the Mier area a large number of visitors are likely to stay in Upington and towns such as Keimoes and Kakamas. The majority of these visitors are likely to visit the area during the last month of the record attempt, specifically the last two weeks. During this period the accommodation in the local lodges in the Mier area is likely to have been fully booked by overseas media groups and overseas visitors. Local South African visitors will therefore either have to stay at the facilities provided on Haksteen Pan or find accommodation in the nearby towns.

For the purposes of undertaking the assessment it is assumed that 80% (8 000) of the reported 10 000 visitors will visit the area during the last month of the event. The remaining 20% (2 000) will visit the area during the first two months. For the purposes of the assessment it is also assumed that accommodation facilities and associated services on Haksteen Pan will only be provided during the last month of the event when the majority of visitors are expected to arrive. Visitors during the first two months will therefore have to find accommodation in the Mier and surrounding area. This would however need to be confirmed.

Based on information from South African Tourism the average number of nights spent by visitors to the Northern Cape Province in 2012 was 4 (Figure 4.1). The total number of nights spent by in the area during the first two months will therefore be ~ 8 000. Based on a conservative average of R 500/night this translates into ~ R 4 million rand generated for the local accommodation sector in the Mier and surrounding area during

the first two months. This excludes revenue for the local economy generated from spending on supplies, dinner and drinks etc.



**Figure 4.1: Average length of visitor stay per province in South Africa**

Source: WESGROW and PWC (2014), A room with a view, Cape Town Hotels and Tourism.

Based on average stay of four nights, the total number of nights spent in the area during the final month would be ~ 32 000. Based on a conservative average of R 500/night this translates into R 16 million. This excludes revenue for the local economy generated from spending on supplies, dinner and drinks etc. The Bloodhound event will therefore create significant socio-economic benefits for the local tourism service sector.

However, if one assumes that ~ 2 000 people will be accommodated on Haksteen Pan, this would mean that ~ 8 000 people would need to find accommodation in the local area during the last month of the Bloodhound event<sup>39</sup>. The City of Cape Town, which is South Africa’s major tourist city, has ~ 10 000 hotel rooms<sup>40</sup>. There is therefore likely to be shortage of accommodation during the last month of the Bloodhound event. This issue will need to be addressed by Bloodhound and the Northern Cape Provincial Government. Options include providing camping facilities and tented accommodation at local sports fields in the area etc.

A number of visitors to the Bloodhound event are also likely to use the opportunity to visit places of interest in the area, such as the Kalahari National Park, Kalagadi Transfrontier Park and Augrabies Falls National Park etc., and undertake activities such as river rafting on the Orange River, quad biking, 4x4 trails, and wine cellar tours etc. In this regard there are a number of tourism routes in the area including the River Wine Route, which includes five wineries located along the Orange River, the Red Dune

<sup>39</sup> The majority of the accommodation at lodges in the Mier area is likely to be booked out by sponsors and the international media etc.

<sup>40</sup> WESGROW and PWC (2014), A room with a view, Cape Town Hotels and Tourism.

Route, which includes Haksteen Pan, and the Roaring Kalahari Route, which is located to the east of the Mier area but also includes Askham.

Local tourism operators and facilities in the area and Northern Cape will therefore also benefit from the Bloodhound event. As indicated, below, this will also create opportunities to promote and market the Northern Cape. These benefits can be enhanced by implementing the recommendations contained in the BHIDS prepared by Urban Econ in 2013, including, upgrading tourism information centres, training local tour guides, launching a tourism awareness campaign, promoting tourism routes, providing tourism signage and travel packages and up-dating key websites (See Section 4.4.5).

In addition, a number of overseas visitors are also likely to use the visit to Bloodhound event as an opportunity to visit other parts of South Africa. The 2012 Annual Tourism Report (South African Tourism Strategic Research Unit, June 2013) notes that the average daily spend by tourists in 2012 was R 1 130 and that overseas tourists spent on average 13.4 nights in South Africa. The Bloodhound event will therefore create opportunities to promote tourism in other parts of South Africa as well.

**Table 4.12: Assessment of benefits for the local hospitality and tourism sector**

<b>Nature:</b> Creation of opportunities for the hospitality and tourism sector associated with hosting the Bloodhound event over a three month period		
	<b>Without Enhancement</b>	<b>With Enhancement</b>
<b>Extent</b>	Local and Regional (3)	Local and Regional (4)
<b>Duration</b>	Short term (2)	Short term (2)
<b>Magnitude</b>	High (8)	Very High (10)
<b>Probability</b>	Definite (5)	Definite (5)
<b>Significance</b>	High (65)	High (80)
<b>Status</b>	Positive	Positive
<b>Reversibility</b>	N/A	
<b>Irreplaceable loss of resources?</b>	No	
<b>Can impact be enhanced?</b>	Yes	
<b>Enhancement:</b> See below		
<b>Cumulative impacts:</b> Promotion of social and economic development and improvement in the overall well-being of the community		
<b>Residual impacts:</b> Investment in local economic development in the area that would benefit the community post the event phase		

**Recommended enhancement measures**

The key recommendations contained in the Bloodhound Integrated Development Strategy (BHIDS) prepared by Urban Econ in 2013 should be implemented. These should be implemented by the end of February 2017. Representatives from Bloodhound, the Steering Committee should liaise with representatives from the DKLM, the local tourism sector and business organisations, such as the Upington Chamber of

Commerce to identify the measures that need to be implemented to address the potential challenges associated with providing accommodation and services for the large number of visitors that are expected to descend on the area, specifically during the last month of the event.

In addition, the following issues need to be addressed in order to enhance the visitor experience to the area:

- Provide additional and more cost effective flights to Upington from Johannesburg and Cape Town;
- Increase the number of rental cars at Upington Airport;
- Establish a Bloodhound Information Desk at Upington Airport to provide visitors with information on the event, including, times, distances, transport options, location of petrol stations and shops, tourist related activities, accommodation, eating out options, etc.;
- Brief local accommodation sector on standard quality and service requirements, specifically for overseas visitors, such as free wi-fi etc.

The Upington Chamber of Commerce also indicated that local accommodation providers should be encouraged not to overly inflate their rates to take advantage of the influx of visitors to the area as this would impact negatively on visitor experiences, which in turn would reflect poorly on the tourism sector as a whole.

The facilities and services at the site that would enhance visitor experience include:

- Clean, safe, secure and well serviced accommodation;
- Clean, well equipped ablution and shower facilities;
- Media / Computer Centre where visitors can check e-mails, down load and print document etc.;
- Free wi-fi and cell phone charging facilities;
- Food market with a wide range of food options, including catering for vegetarians. The opportunity should be used to highlight local, traditional foods from the area and the Northern Cape;
- Small convenience shop where basic necessities can be purchased;
- Child care facility;
- Mobile electronic banking facilities;
- Well established craft market area;
- Opportunity to hire mountain bikes so that people can ride around the area and Haksteen Pan;
- Safe, controlled parking area;
- Shuttle services from the parking and accommodation area to the track and the hospitality areas.

Live entertainment (music, stand-up comedy, dancing etc) has also been identified as key visitor service. It is recommended that the entertainment area should be modelled on the Fan Park Concept that was used during the 2010 World Soccer Cup on South Africa. This would include equipping the area with large TV screens and high quality sound equipment which would enable visitors to watch the Bloodhound tests live. The opportunity should be used to highlight local, traditional music and dances.



### **4.5.3 Raise profile of Hakskeen Pan and Northern Cape**

The BHIDS (Urban Econ 2013) notes that the establishment of a high-speed vehicle testing facility on Hakskeen Pan was identified as a priority project by the DKLM. The facility will enable private car owners and motor clubs to visit Hakskeen Pan and have their vehicles timed both accurately and officially, thus boosting tourism and promoting the brand of 'Hakskeen Pan – World Land Speed Capital'. The study recommends that the Bloodhound event should be used to leverage private and public sector funding for the facility to be established at Hakskeen Pan. Hakskeen Pan is already the venue for the South African Speed Week. The hosting of the Bloodhound world land speed record event will provide the opportunity to showcase the site for international audiences.

The BHIDS (2013) also included a review of international case studies. The criteria used to identify case studies were;

- The area must be located in a desert region with small, remote communities;
- Tourism must be a key source of economic activity and employment;
- Tourism must be based, at least in part, on the desert environment;
- The area must satisfy at least one of the following criteria, namely, venue for auto racing/speed events, home to indigenous communities/populations and innovative tourism and economic activities.

Based on the review of the BHIDS the most appropriate case study is Great Salt Lake Desert located in Utah, United States of America. (USA). The Great Salt Lake Desert occupies 6 475 square kilometres in north-western Utah (USA) and is surrounded by vast salt pans including the Bonneville Salt Flats. The Bonneville Salt Flats hosted several land speed attempts in the 1930s. In the following decades the salt flats became the standard course for record attempts.

The Bonneville Salt Flats hosts various land speed events including Speed Week, BUB Motorcycle Speed Trials, World of Speed and the World Finals. The largest event, Bonneville Speed Week, is held each year in August and attracts over 3 500 competitors, crew and spectators. The majority of these attendees are accommodated at hotels in nearby towns, while over 200 campers, trailers and tents are set up in a designated area next to the Salt Flats. The Bonneville speed events have a significant impact on the local towns in the area, such as Wendover and Tooele. During these events local accommodation is fully booked with many hotels substantially increasing their rates while local shops experience a boost in sales on food, drinks, souvenirs and car parts. The events also generate increased traffic at the Wendover Airport which welcomes domestic and international visitors.

Although the economic impact associated with the Bonneville Salt Flats is largely confined to speed events, local communities also receive many year round tourists interested in visiting the salt pans, although activities are limited. In addition, the Bonneville Salt Flats is renowned as a unique backdrop for filming motion pictures, fashion layouts and automobile commercials.

The findings of the Great Salt Lake Desert case study indicated that:

- Speed events attract a wide spectrum of tourists and boost local businesses;
- Sustained tourism appeal requires the development of year-round activities;
- Successful branding and marketing is important for visitor/business attraction;

- Desert locations and pans are increasingly desired by film, photo and media crews;
- Preservation of the landscape requires careful planning and stakeholder collaboration;
- Reasonable user fees provide an important source of conservation funding

The current land speed record was set by members of the Bloodhound team in 1997 at the Black Rock Desert in Nevada. The Desert is also host to the annual Burning Man Festival which attracts over 50 000 attendees. However, the area is no longer a suitable race track due to the impact of Burning Man on the desert surface and a decade of limited rainfall. Due to the near total absence of towns and communities in the vicinity of the site the Bloodhound event had limited economic benefit to the local area. However, 1 000's of speed enthusiasts visit the site every year simply to see where the current world land speed record was set. The same is likely to occur with Haksteen Pan. The potential to attract visitors to the area will be enhanced by the establishment of a visitor centre / museum that commemorates the event. This aspect is discussed in more detail in Section 4.6, Legacy Benefits of the Bloodhound event.

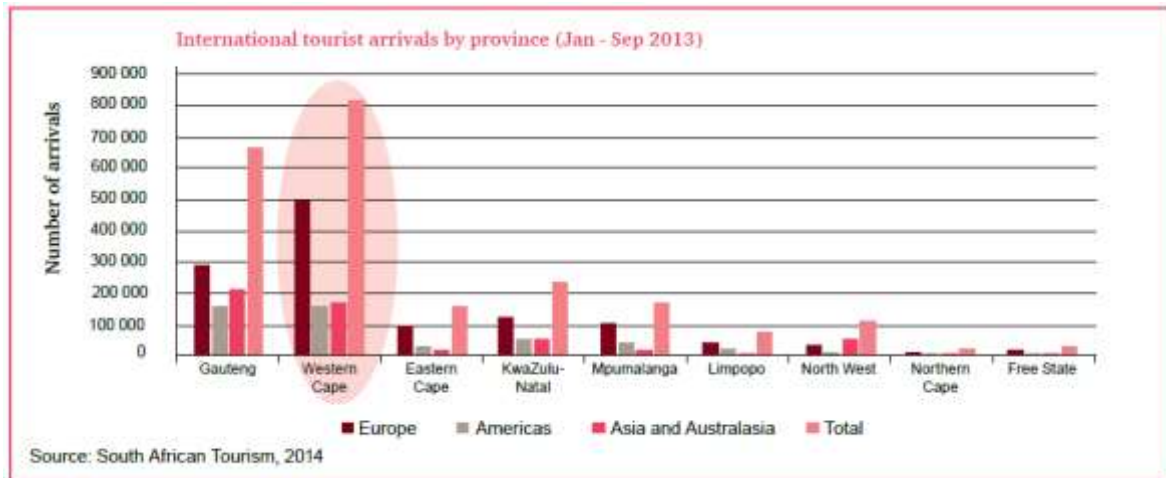
Haksteen Pan is already the venue for Kalahari Speed Week which offers local motor and speed enthusiasts an opportunity to test their vehicles top-speed under ideal racing conditions. The annual Kalahari Speed Week was launched in 2012 and modelled after the highly successful Bonneville Flats Speed Week held every year in Utah (USA). Event organisers offer a 7km specially prepared clay track on Haksteen Pan, camping and caravan space, tent rentals, ablution facilities, communication services, and a well-equipped main tent offering meals and drinks. In 2013 Speed Week organisers added two new events, the Eco-Speed Week and the Upington All-Tar Speed Week. The Eco-Speed Week focuses on zero-emission vehicles including those powered by hydrogen, bio-fuel, gas and electricity and was expected to attract teams from all over the world showcasing some of the latest green technology. The Upington All Tar Speed Week takes place at the Upington International Airport which has one of the world's longest runways (5.5.km) making an ideal location for top-speed attempts. The first annual All-Tar event took place in April 2013 attracting approximately 50 participants.

Haksteen Pan is therefore already recognised locally as an ideal venue for high speed events. The Bloodhound land speed record is a unique, global event and will create a once in a life time opportunity to place Haksteen Pan on the international map and establish it as one of the best high speed testing sites in the world.

In terms of international exposure, in the region of 1 000 representatives from the international media are expected to be on site to cover the event. The cellular coverage established by MTN SA will enable the world land speed record attempt to be live streamed to audiences in over 220 countries making it one of the biggest news stories on the planet. The event will therefore also create a unique opportunity to showcase Haksteen Pan, the Mier area, the Northern Cape and South Africa to the rest of the world.

The exposure of the area to local and international visitors will also create an opportunity to raise the profile of the Northern Cape as a holiday destination. Based on information from South African Tourism the Northern Cape Province was one of the least visited provinces in terms of international visitors in 2012 (Figure 4.2). The Bloodhound event will therefore create an opportunity to expose the Northern Cape to

international visitors. The benefits of this exposure can be enhanced by ensuring that their visit to the area is a memorable one.



**Figure 4.2: International tourist arrivals by province**

Source: WESGROW and PWC (2014), A room with a view, Cape Town Hotels and Tourism.

**Table 4.13: Raise profile of Haksteen Pan, the Northern Cape and South Africa**

<b>Nature:</b> Establish Haksteen Pan as an international high speed venue and raise profile of Northern Cape and South Africa		
	<b>Without Enhancement</b>	<b>With Enhancement</b>
<b>Extent</b>	Local, Regional and National (3)	Local, Regional and National (4)
<b>Duration</b>	Long term (4)	Long term (4)
<b>Magnitude</b>	Moderate (6)	Very High (10)
<b>Probability</b>	Highly Probable (4)	Definite (5)
<b>Significance</b>	Medium (52)	High (90)
<b>Status</b>	Negative	Positive
<b>Reversibility</b>	N/A	
<b>Irreplaceable loss of resources?</b>	No	
<b>Can impact be enhanced?</b>	Yes	
<b>Enhancement:</b> See below		
<b>Cumulative impacts:</b> Raise profile of Upington and attract visitors and business to the area		
<b>Residual impacts:</b> See cumulative impacts		

**Recommended mitigation measures**

Hosting of the Bloodhound event represents an enhancement measure in itself. However, in order to maximise the benefits of the event the recommendations contained in the BHIDS report by Urban Econ (2013) are implemented, specifically with regard to enhancing tourist related opportunities. This includes:

- Implementing awareness raising campaign;
- Up-dating tourism websites.

#### 4.5.4 Risks to local communities

As in the case with the pre-event planning stage, the presence of visitors and workers during the hosting of the Bloodhound event may pose a potential risk to family structures and social networks in the area. In potential risks are associated with the disruption of existing family structures and social networks. The risks are linked to:

- An increase in alcohol and drug use;
- An increase in crime levels;
- An increase in teenage and unwanted pregnancies;
- An increase in prostitution; and
- An increase in sexually transmitted diseases (STDs).

In terms of workers, as indicted above, the majority of employment opportunities associated with hosting the Bloodhound event will, with proper planning, benefit members from the local communities in the Mier area. Given that these workers are from the local community and form part of the local family and social network the risk is likely to be low if not negligible.

In terms of visitors, the majority of visitors are likely to spend a relatively short time at Haksteen Pan. The potential risk posed by visitors is therefore also likely to be low. However, while the risk to local communities as a whole is likely to be low, the impact on individuals and individual families affected by an unplanned pregnancy or contracting HIV/AIDs would be high. It is not possible to avoid such risks entirely.

**Table 4.14: Assessment of risk to local communities**

<b>Nature:</b> Potential impacts on family structures and social networks associated with the presence of workers and visitors		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local (1)	Local (1)
<b>Duration</b>	Short Term for community as a whole (3)	Short Term for community as a whole (3)
<b>Magnitude</b>	Low for the community as a whole (4)	Minor for community as a whole (2)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Low for the community as a whole (24)	Low for the community as a whole (18)
<b>Status</b>	Negative	Negative
<b>Reversibility</b>	No in case of HIV and AIDS	No in case of HIV and AIDS
<b>Irreplaceable loss of resources?</b>	Yes, if people contract HIV/AIDS. Human capital plays a critical role in communities that rely on farming for their livelihoods	
<b>Can impact be</b>	Yes, to some degree. However,	

<b>mitigated?</b>	the risk cannot be eliminated	
<b>Mitigation:</b> See below		
<b>Cumulative impacts:</b> Impacts on family and community relations that may, in some cases, persist for a long period. Also in cases where unplanned / unwanted pregnancies occur or members of the community are infected by an STD, specifically HIV and or AIDS, the impacts may be permanent and have long term to permanent cumulative impacts on the affected individuals and/or their families and the community.		
<b>Residual impacts:</b> Community members affected by STDs etc. and associated impact on local community and burden services etc.		

### **Recommended mitigation measures**

The potential risks associated with construction workers can be mitigated. The aspects that should be covered include:

- Implement a training and skills development programmes for locals at least 3 months prior to the event in order to maximise employment opportunities for local community members from Mier;
- Where possible, the Bloodhound and the Northern Cape Government should implement a 'locals first' policy for work opportunities, specifically semi and low-skilled job categories. This will reduce the potential impact that this category of worker could have on local family and social networks;
- Bloodhound and the Northern Cape Government proponent should consider the establishment of a Monitoring Forum (MF) for the key components associated with the hosting of the Bloodhound event. The MF should be established before these activities commence and should include key stakeholders, including representatives from Bloodhound, local community, local municipality and provincial government. The role of the MF would be to monitor the establishment phase and the implementation of the recommended mitigation measures. The MF should also be briefed on the potential risks to the local community associated with workers and visitors;
- Bloodhound and the Northern Cape Government and the appointed service providers should, in consultation with representatives from the MF, develop a Code of Conduct for the event hosting phase. The code should identify what types of behaviour and activities by workers are not permitted, specifically non-local workers. Workers that breach the code of good conduct should be dismissed. All dismissals must comply with the South African labour legislation;
- Bloodhound and the Northern Cape Government should implement an HIV/AIDS awareness programme for members from the local community and all workers involved in hosting the event;
- The movement of workers on and off the site should be closely managed and monitored by the service providers. In this regard the service providers should be responsible for making the necessary arrangements for transporting all non-local workers to and from site on a daily basis;
- The contractor should make the necessary arrangements for ensuring that all non-local workers are transported back to their place of residence once the event is over. This would reduce the risk posed by non-local construction workers to local family structures and social networks;
- Non-local workers should be accommodated on the site where possible.

#### 4.5.5 Potential noise impacts associated with high speed testing

The settlements in the vicinity of Haksteen Pan and the test track are Rietfontein (located approximately 12 km west of the northern portion of Hakskeen Pan), Loubos (4.3km north), Groot Mier (~ 12.8 km east), Klein Mier (~ 7.5 km east) and Philandersbron (~ 6.5km west). The closest towns to the site are therefore located between 4 and 6.5 km from the site. Given these distances, the significance of the noise impacts generated during testing are likely to be low. In addition, testing will not be carried out at night when the potential for noise impacts on the nearest towns is greater.

The Haksteen Pan is screened from the Klein Mier and Groot Mier by low, red dune ridges that flank the eastern part of the pan. These ridges will assist to reduce potential noise impacts to the east generated by high speed testing.

**Table 4.11: Noise impacts associated with high speed testing**

<b>Nature:</b> Potential noise related impacts associated with high speed testing		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local (2)	Local (1)
<b>Duration</b>	Short Term (2)	Short Term (2)
<b>Magnitude</b>	Low (4)	Low (4)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Medium (24)	Low (21)
<b>Status</b>	Negative	Negative
<b>Reversibility</b>	Yes	
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impact be mitigated?</b>	Yes	
<b>Mitigation:</b> See below		
<b>Cumulative impacts:</b> N/A		
<b>Residual impacts:</b> None		

#### **Recommended mitigation measures**

Recommended that no testing take place at night when the potential for noise impacts is greater.

#### 4.5.6 Increased risk of grass fires

The presence of large numbers of visitors on Haksteen Pan and in the surrounding area will increase the potential risk of fires. As in the case during the pre-planning and preparation phase, fires would pose a threat to the livestock, wildlife, and farmsteads in the area. Any loss of grazing due to a fire would also impact negatively on the affected farmer's livelihoods. However, with effective mitigation the risk of fires is likely to be low.

**Table 4.12: Assessment of impact of increased risk of grass fires**

<b>Nature:</b> Potential loss of livestock, crops and houses, damage to farm infrastructure and threat to human life associated with increased risk of grass fires		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local (4)	Local (2)
<b>Duration</b>	Short Term (2)	Short Term (2)
<b>Magnitude</b>	Moderate (6)	Low (4)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Medium (36)	Low (24)
<b>Status</b>	Negative	Negative
<b>Reversibility</b>	Yes, compensation paid for stock and losses and damage etc.	
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impact be mitigated?</b>	Yes	
<b>Mitigation:</b> See below		
<b>Cumulative impacts:</b> No, provided losses are compensated for.		
<b>Residual impacts:</b> Potential loss of income and impact on livelihoods and economic viability of affected farms.		

#### **Assessment of No-Go option**

There is no impact as it maintains the current status quo.

#### **Recommended mitigation measures**

- Visitors should be informed of potential fire risks;
- No open fires and or smoking should be permitted, except in designated areas;
- Bloodhound should provide adequate fire fighting equipment on-site. This equipment should be made available to fight fires on adjacent farms if and when required;
- Bloodhound should provide fire-fighting training to selected staff. These staff should be made available to assist farmers to fight fires on adjacent farms if and when required;
- In the advent of a fire being caused by event related activities on the site, Bloodhound should compensate farmers for any damage caused to their farms. Bloodhound should also compensate the fire fighting costs borne by farmers and local authorities.

#### **4.5.7 Impacts associated with event related traffic**

The hosting of the event on Haksteen Pan will generate significant volumes of traffic along the R360. As indicated above in the region of 10 000 visitors, 1 000 media representatives and 100-150 Bloodhound support staff are expected. In addition to the visitors travelling to and from the site on a daily basis, additional traffic will also be generated by service vehicles servicing the site on a daily basis. These will include vehicles delivering food and beverages etc.

The Bloodhound event will therefore generate significant volumes of traffic to and from the site on a daily basis over the 3-4 month event period. The highest volumes are likely to be during the last month and specifically the last two weeks of the event. The movement of high volumes of traffic along the R360 will pose a risk to other road users. Although the current volume of traffic along the R360 is low, the road is the main access route to the Kalahari Gemsbok National Park and the Kgalagadi Transfrontier National Park. Steps will therefore need to be taken to reduce the risk to other road users. If testing takes place in the early morning or late afternoon this would also mean that visitors not staying on the site may travel in the dark.

In addition, the R360 is also used for high speed testing of new vehicles. The increased volume of traffic along the R 360 leading up to and during the Bloodhound event will increase the risk of accidents. It is therefore recommended that high speed testing be put on hold during for a four to five month period leading up to and during the hosting of the Bloodhound event.

**Table 4.13: Assessment of the impacts associated with movement of vehicles along the R360**

<b>Nature:</b> Potential disruption and safety impacts associated with movement of event vehicles along the R360		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local (3)	Local-Regional (1)
<b>Duration</b>	Short Term (2)	Short Term (2)
<b>Magnitude</b>	Moderate (6)	Low (4)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Medium (33)	Low (24)
<b>Status</b>	Negative	Negative
<b>Reversibility</b>	Yes	
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impact be mitigated?</b>	Yes	
<b>Mitigation:</b> See below		
<b>Cumulative impacts:</b> Increased safety risk for other road users over the 4-5 month period associated with the preparation for and hosting of the Bloodhound event		
<b>Residual impacts:</b> There will be no residual impacts		

#### **Recommended mitigation measures**

The potential risks associated with the movement of vehicles can be risks can be reduced. The aspects that should be covered include:

- Bloodhound and the Provincial Traffic Authorities should develop and implement a traffic management programme for the 3-4 month event period. This should include implementing a high visibility programme and speed control measures along the R360;
- High speed testing on the R360 should be put on hold during for a four to five month period leading up to and during the hosting of the Bloodhound event;



- The movement of heavy service vehicles should be confined to daylight hours.

#### **4.6 LEGACY IMPACTS ASSOCIATED WITH BLOODHOUND EVENT**

As indicated above, Section 7, Integrated Strategic Plan, of the BHIDS (Urban Econ, 2013), outlines the strategy for leveraging the Bloodhound SSC initiative into sustained socio-economic development for the Mier area and the wider region. The plan consists of three development pillars, namely exploiting event related activities, leveraging activities outside of the event, and thirdly, establishing a lasting legacy.

The BHIDS defines legacy as the lasting, long-term benefits that will occur at a local, regional and provincial level as a result of the Bloodhound record attempt and the leveraging of related opportunities. The potential legacy benefits identified in the report include:

- Investment in tourism products and facilities;
- Advancing the region and Province's tourism brands and marketing;
- Promotion of related events and other adventure sports;
- Small business and entrepreneur development;
- Permanent employment creation and skills development;
- Lasting improvements to infrastructure and service delivery;
- Fostering key international relationships;
- Increasing the capacity of the Province and Local Authorities to facilitate development.

The report also makes reference to the Organisation for Economic Cooperation and Development (OECD) guidelines aimed at enhancing the legacy benefits associated with event, namely the *'Local development benefits from staging global events'*. The OECD guidelines and recommendations note:

- Legacy planning must be vision led and should span a series of events, activities and opportunities rather than just the event itself;
- A working group should be established to ensure that all activities relating to the event and legacy are coordinated under a single strategy;
- The working group should work to identify and maximise both the direct and indirect benefits of the event;
- A key focus of the legacy programme should be the local population, local businesses base and other local stakeholders;
- The community and local business owners must be engaged with the legacy programme;
- The legacy programme should include both short-term and long-term initiatives;
- Legacy projects and programmes need to be well defined, carefully planned and effectively managed;
- Opportunities for greater institutional development, especially at the local level, and coordination between different levels of government should be exploited;
- Improvements to the local and regional environment and infrastructure should be implemented in ways which support local quality of life as well as long term goals.

As indicated in Section 4.4, the BHIDS undertaken by Urban Econ in 2013 identified 30 projects / initiatives associated with the Bloodhound project. Table 4.5 list the 30 projects. The key projects / initiatives that will need to be implemented as part of the pre-event planning and establishment phase are listed in Table 4.6. A number of the

initiatives associated with the pre-event planning and establishment phase are integrally linked to creating a legacy. In this regard these activities will not only benefit the hosting of Bloodhound event, but will also benefit future events and activities both on Haksteen Pan and in the surrounding areas. These initiatives include:

- Establishment of on-site camping facilities at Haksteen Pan, specifically establishment of key services, such as water and power;
- Development and support for the establishment of local SMMEs that have the capacity and skills to provide catering, camping, cleaning, ablution, logistics and other services for large events held on the pan and the surrounding area;
- Upgrading of tourism information centres, implementation of tourism awareness campaign, upgrading tourism websites and signage and training of local tour guides;
- Promotion of Northern Cape Extreme Brand;
- Upgrading local airstrips;
- Development and branding of Haksteen pan as an international speed testing facility and also as a venue that can accommodate other events, such as concerts, product launches etc. However, hosting of other events should not pose a threat to ability of the pan to host speed testing events;
- Up-grading of local tourism venues and establishment of more, up-market tourism lodges in the area.

As indicated in Section 4.4.1, maximising the potential legacy opportunities for the Mier community requires training and capacity building. In addition, in order for local SMMEs to provide catering, camping, cleaning, ablution, logistics and other services for large events held on the pan and the surrounding area requires equipment. A potential key legacy of the Bloodhound event is therefore the opportunity to secure the required funding for the purchase of the required equipment, such as tents, portable toilets, mobile stoves, etc., or alternatively that the equipment be donated to a community entity once that Bloodhound event it over. These options should be considered by the Northern Cape Provincial Government. Both options would require capacity building and training for the local community to ensure future financial sustainability and success. The issue of the type of entity established to take ownership of the equipment would also need to be consider, namely a local, privately owned SMME or a Community Trust option. A well run and managed Community Trust option is likely to be more beneficial for the broader Mier areas than a privately owned SMME. The Community Trust option is more likely to create an opportunity to generate funds for community initiatives as opposed to privately owned SMME.

There are also a number of other key legacy opportunities associated with the Bloodhound initiative. These include

- Establishment of Bloodhound Museum/ Visitor Centre;
- Establishment of a Craft Production Village in the Mier area;
- Support for education through the provision of internet to the Mier area and science linked partnerships with local schools and the Sol Plaatjie University in Kimberly;

Based on information provided by Bloodhound in the region of 100 000 visitors travel to Black Rock in the Nevada Desert each year to visit the site where the current world land speed record was set by Bloodhound. With Haksteen Pan set to become the venue for setting a new world speed record and breaking the 1 600 km (1 000 mile) speed mark, the pan will also attract speed enthusiasts from around the world to the area.

The visit to Haskteen Pan would be enhanced by the establishment of a state of the art Bloodhound Museum/ Visitor Centre, located on or close to Haskteen Pan. The centre should include:

- A replica model of the Bloodhound car that set the new world speed record and broke the 1 600 km (1 000 mile) speed barrier;
- Information on the history of the process, including information the development of the car and how Haskteen Pan was identified;
- Information on the community initiatives that were initiated and the role of the local Mier community in preparing the track etc;
- Video footage of the event where the world land speed record was broken. The centre should include a small theatre equipped with state of the art visual and sound equipment to provide visitors with a "first hand" experience of what it was like to be on Haskteen Pan on day that the world land speed record was broken.

Given the large number of people that are expected to visit the Bloodhound Museum / Visitor Centre the option of combining it with the Khomani San Museum and Craft Centre should be investigated.

The visitors to the Bloodhound Museum / Visitor Centre would also get an opportunity to be exposed to the history and traditions of the Khomani San and see local artisans involving in making of traditional crafts. The Khomani San and local artisans would in turn benefit from the large number of people that would be attracted to the Bloodhound Museum / Visitor Centre.

The support for science linked partnerships with local schools and the Sol Plaatjie University in Kimberly also represents a key legacy, specifically given the low level of science teaching in the majority of South African schools. In order to enhance the potential legacy opportunities school tours for local schools in the DKLM should be organised during the first 2 months of the Bloodhound event when there are expected to be less visitors on the site.

While the above initiatives / activities are legacy benefits that will result from the Bloodhound event there are two initiatives that have already been implemented have significant legacy benefits, namely:

- The construction of the Kalahari East Water Supply Pipeline; and,
- The establishment of cell phone and internet connections in the area.

The provision of a reliable supply of potable water to a water scarce area that previously relied on borehole water represents as significant legacy benefit from the Bloodhound project. The provision of potable water not only creates an opportunity for economic and social development in the Mier area, but also reduces the health risks associated with poor quality water, especially for children. The establishment of cell phone and internet connection also represents a significant legacy benefit that will also facilitate economic and social development in the Mier area. Cell phone and internet access not only benefits local business and schools, but also enables local households to access emergency services and family members. Therefore, both projects not only benefit individual households, but the community as a whole.

The legacy opportunities associated with the Bloodhound event therefore meet and support the OECD guidelines for staging large events, specifically:

- Lasting improvements to infrastructure and service delivery.
- Investment in tourism products and facilities and advancing regions tourism brands and marketing;
- Support for small business and entrepreneur development and the creation of permanent employment creation and skills development.

**Table 4.14: Assessment of legacy benefits**

<b>Nature:</b> Legacy benefits for the Mier area and Northern Cape associated with the Bloodhound project and establishment of Hasksteen Pan as an international high speed venue		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local, Regional and National (3)	Local, Regional and National (4)
<b>Duration</b>	Permanent - Long term (4)	Permanent - Long term (4)
<b>Magnitude</b>	High (8)	Very High (10)
<b>Probability</b>	Highly Probable (4)	Definite (5)
<b>Significance</b>	High (60)	High (90)
<b>Status</b>	Negative	Positive
<b>Reversibility</b>	N/A	
<b>Irreplaceable loss of resources?</b>	No	
<b>Can impact be enhanced?</b>	Yes	
<b>Enhancement:</b> See below		
<b>Cumulative impacts:</b> Promotion of social and economic development and improvement in the overall well-being of the community		
<b>Residual impacts:</b> Investment in local economic development in the area that would benefit the community post the event phase		

#### **Recommended mitigation measures**

The recommendations contained in the BHIDS (2013) study should be implemented. In addition, the option of combining the Bloodhound Museum / Visitor Centre with the Khomani San Museum and Craft Centre should be investigated.

School tours for local schools in the DKLM should also be organised during the first 2 months of the Bloodhound event when there are expected to be less visitors on the site.

With regard to establishing a local Mier based service provider that can provide catering, camping, cleaning, ablution, logistics and other services for large events held on the pan and the surrounding area, the option of a local, privately owned SMME or a Community Trust type option should be explored and discussed with representatives from the Northern Cape Provincial Government, DKLM and the Mier community. As indicated above, a well-run and managed Community Trust option is more likely to create an opportunity to generate funds for community initiatives as opposed to privately owned SMME.

#### 4.7 ASSESSMENT OF NO-DEVELOPMENT OPTION

The employment and business opportunities associated with hosting the Bloodhound event, the benefits for the local and regional hospitality and tourism sector, the unique opportunity for establishing Haksteen Pan as one of the best high speed testing areas in the world and the international exposure of the Mier area and the Northern Cape Province, together with the legacy benefits would be forgone. The No-Development option would therefore represent a lost opportunity for Upington and the local economy. This would represent a negative social cost. The No-Development option would therefore represent a significant missed opportunity and is therefore not supported.

**Table 4.15: Assessment of no-development option**

<b>Nature:</b> The no-development option would result in a lost opportunity for the Mier area and the Upington and the local economy		
	<b>Without Mitigation</b>	<b>With Enhancement<sup>41</sup></b>
<b>Extent</b>	Local (4)	Local (4)
<b>Duration</b>	Long term (4)	Long term (4)
<b>Magnitude</b>	Moderate (6)	Moderate (6)
<b>Probability</b>	Definite (5)	Definite (5)
<b>Significance</b>	High (70)	High (70)
<b>Status</b>	Negative	Positive
<b>Reversibility</b>	Yes	
<b>Irreplaceable loss of resources?</b>	No	
<b>Can impact be mitigated?</b>	Yes	
<b>Enhancement:</b> See below		
<b>Cumulative impacts:</b> Opportunities for the local tourism sector and economy		
<b>Residual impacts:</b> Not applicable		

#### **Recommended enhancement measures**

The Bloodhound event represents an enhancement measure.

<sup>41</sup> Assumes establishment of HSPG

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## SECTION 5: KEY FINDINGS AND RECOMMENDATIONS

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### 5.1 INTRODUCTION

Section 5 lists the key findings of the study and recommendations. These findings are based on:

- A review of key planning and policy documents pertaining to the area;
- Semi-structured interviews with interested and affected parties;
- A review of social and economic issues associated with similar developments;
- A review of relevant literature on social and economic impacts;
- The experience of the author with the study area based on assessments undertaken for other projects in the area.

### 5.2 SUMMARY OF KEY FINDINGS

The key social issues identified during the study are divided into:

- The policy and planning related issues;
- Impacts associated with the pre-event planning and establishment phase for the Bloodhound project;
- Impacts associated with the event hosting phase of the Bloodhound project;
- Legacy impacts associated with the Bloodhound project.

#### 5.2.1 Policy and planning issues

The review of the relevant planning and policy documents was undertaken as a part of the SIA. The key documents reviewed included:

- Northern Cape Provincial Growth and Development Strategy (2004-2014);
- Northern Cape Spatial Development Framework (2012);
- ZF Mcgawu District Municipality Integrated Development Plan (2007-2012)<sup>42</sup>;
- David Kruiper Integrated Development Plan (2012-2017)<sup>43</sup>;
- //Khara Hais Local Economic Development Strategy (2010)<sup>44</sup>;
- //Khara Hais Spatial Development Framework (2012)<sup>45</sup>.

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<sup>42</sup> The ZF Mcgawu DM was previously referred to as the Siyanda DM. The name was changed in 2013.

<sup>43</sup> The // Khara Hais LM and Meir LM were amalgamated in September 2016 to form the Dawid Kruiper LM. The Dawid Kruiper SDF is therefore essentially a renamed version of the // Khara Hais LM 2012-2017 IDP. The document indicates that a number of the chapters are under revision following the amalgamation.

<sup>44</sup> The // Khara Hais LM and Meir LM were amalgamated in September 2016 to form the Dawid Kruiper LM. The LED Strategy therefore predates the amalgamation.

<sup>45</sup> The // Khara Hais LM and Meir LM were amalgamated in September 2016 to form the Dawid Kruiper LM. The SDF therefore predates the amalgamation.

The findings of the review of the district and local municipal policy documents indicate high unemployment and poverty levels in the study area, coupled to low education and skills levels constitute the most urgent social development challenge in the study area. The proposed development has the potential to assist in addressing these challenges. The proposed development will also support tourism, private investment and create opportunities for SMMEs. Based on the findings of the review the Bloodhound event supports a number of key socio-economic objectives contained in the relevant Provincial, District and Local level policy and land use planning documents.

### **5.2.2 Pre-event planning and establishment phase**

The key social issues associated with the pre-event planning and establishment phase include:

#### **Potential positive impacts**

- Creation of employment and business opportunities and opportunity for skills development and on-site training associated with the preparation of Haksteen Pan;
- Benefit for local tourism and accommodation sector;
- Establishment of the Kalahari East Water Pipeline;
- Establishment of cell phone infrastructure in the area.

#### ***Creation of employment***

As part of the pre-event planning and preparation process ~ 300 members from the local towns in the vicinity of the pan, including Rietfontein, Philandersbron, Groot Mier and Klein Mier, were employed as part of the local municipality's extended public works program to clear the pan by hand, and ensure the surface is smooth enough for the attempt. This employment extended over a period of three years and created employment, albeit temporary, in an area where employment and income generation opportunities are limited. The creation of local employment opportunities therefore represents a significant social benefit.

#### ***Benefit to local tourism industry***

Between 2009 and 2016 the Bloodhound team has undertaken regular trips to the region as part of the pre-event planning and preparation process. These trips have created benefits for the local business and tourism sector in the Mier area and the town of Upington. These include expenditure on accommodation, flights, car hire, fuel, food and beverages and accommodation<sup>46</sup>.

#### ***Establishment of Kalahari East Water Supply Pipeline***

The Bloodhound project provided the catalyst for the establishment of the 180 km Kalahari East Water Supply Pipeline. The establishment of the Kalahari East Water Supply Pipeline therefore represents a significant socio-economic benefit for the local communities in the Mier area and will also support and facilitate the economic development of the area, including the establishment of Haksteen Pan as an internationally recognised venue for hosting large events, such as the Bloodhound land speed record event. The establishment of the pipeline also represents a key legacy of the Bloodhound project.

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<sup>46</sup> Bloodhound has been requested to provide summary of the expenditure associated with the pre-planning and preparation phase of the project. This information will be added to the report when it is provided.

### ***Establishment of cellular communication***

As part of the Bloodhound project four cell phone masts have been erected by MTN SA (Bloodhounds service provider) at Hakskeen Pan in the Northern Cape. Cellular communication is vital to the project's success as the masts will enable world land record attempt to be live streamed to audiences in over 220 countries. This will make it one of the biggest news stories on the planet. The masts have also provided cellular coverage for the broader area around Hakskeen Pan, including the towns of Rietfontein, Groot Mier, Klein Mier and Philandersbron. This not only benefits Bloodhound and other events on Hakskeen Pan, but also represents a significant legacy benefit for the local community in the Mier area. These benefits include improved communication, access to emergency services and the opportunities to access to internet in local schools and households.

### ***Comment on status of pre-event planning activities***

In order to maximise the benefits associated with the Bloodhound event, a number of pre-planning and preparation relative activities need to be undertaken. The Bloodhound Integrated Development Strategy (BHIDS) undertaken by Urban Econ in 2013 identified and ranked 30 projects / initiatives associated with the event.

These included:

- Development of on-site camping facilities, which in terms of priorities, was identified as Very Urgent;
- Develop and support local eateries (catering facilities), which in terms of priorities, was identified as Very Urgent;
- Bloodhound souvenirs and opportunities awareness campaign, which in terms of priorities, was identified as Very Urgent;
- Upgrade tourism information centres, train local tour guides, tourism awareness campaign, tourism routes, tourism signage and travel packages;
- Update and upgrade websites to highlight the event;
- Provide shuttle services, upgrade local air strips and entertainment during the event. In terms of priorities, addressing on-site entertainment was identified as Very Urgent.

A Steering Committee has been established by the Northern Cape Provincial Government to manage the Bloodhound project. A number of the issues discussed above may have been addressed by the Steering Committee. However, based on the findings of the SIA it would appear that a number of the key recommendations contained in the BHIDS prepared by Urban Econ in 2013 have not been fully implemented. These include:

- Identifying and informing local SMMEs of the potential opportunities associated with the Bloodhound event, including securing the rights to produce Bloodhound merchandising and souvenirs, provision of key services, such as shuttles and catering, and use of local artists and performers;
- Upgrading and up-dating key tourism websites to highlight the Bloodhound event and provide potential visitors with information/linkages related to the event, available accommodation options, transportation routes and modes, and other sites/activities in the region etc.

These issues would need to be addressed in order to maximise the potential benefits for the local community and SMMEs associated with the Bloodhound event. These issues also need to be addressed in order to ensure that the visitor experience



associated with the Bloodhound event is enhanced. If these issues are not effectively addressed they not only have the potential to impact on the event itself, but also on the legacy value of the Bloodhound event.

The lack of clarity regarding the actual dates for the Bloodhound event and information on the expected number of visitors is also a concern, specifically given the relatively short period of time left before the Bloodhound event is scheduled to take place (~ 8 months).

**Potential negative impacts**

- Impacts on family and community networks associated with the presence of construction workers;
- Increased safety and security risk for local farmers and communities associated with presence of construction workers on the site;
- Potential for increase fire risk;
- Impact of vehicles activities associated with pre-event and planning.

Based on the findings of the study the significance, with mitigation, of all of the potential negative impacts associated with the construction phase was rated as Low Negative. All of the potential negative impacts can therefore be effectively mitigated if the recommended mitigation measures are implemented. In addition, given that the majority of the low and semi-skilled workers can be sourced from the local area the potential risk at a community level to local family structures and social networks is regarded as Low negative significance.

Table 5.1 summarises the significance of the impacts associated with the pre-event and planning phase.

**Table 5.1: Summary of social impacts associated with pre-event and planning phase**

<b>Impact</b>	<b>Significance No Mitigation</b>	<b>Significance With Enhancement /Mitigation</b>
Creation of employment and business opportunities	N/A	High (Positive)
Benefit for local tourism and accommodation sector	N/A	High (Positive)
Establishment of the Kalahari East Water Pipeline	N/A	High (Positive)
Establishment of cell phone infrastructure in the area	N/A	High (Positive)
Impacts on family and community networks associated with the presence of workers	Low (Negative)	Low (Negative)
Potential safety threat to farmers due to presence of construction workers	Medium (Negative)	Low (Negative)
Potential for increase fire risk	Medium (Negative)	Low (Negative)
Impact of vehicles activities associated with pre-event and planning	Medium (Negative)	Low (Negative)

### 5.2.3 Hosting phase of Bloodhound event

The key social issues associated with staging of the Bloodhound event include:

#### **Potential positive impacts**

- Support of the local economy via the creation of employment and business opportunities;
- Benefit to local tourism and accommodation sector;
- Raise profile of Haksteen Pan, the Northern Cape and South Africa.

#### ***Creation of employment and business opportunities***

The main on-site employment opportunities associated with hosting the event and providing for the estimated 10 000 visitors, 1 000 media personnel and 100-150 Bloodhound support staff will be visitors on Haksteen Pan will be linked to catering and serving staff (~ 600), cleaning staff (120), and security staff (120). The total number of employment opportunities during the peak visitor period associated with catering, cleaning and security staff is therefore estimated to be in the region of 800. With training and skills development the majority of these positions can be taken up by members from the local community. This would represent a significant socio-economic benefit. However, the length of the peak visitor period is unknown.

In addition to catering, cleaning and security related opportunities the Bloodhound event will also create on-site employment and business opportunities for people and business involved in:

- Selling of mechanising, souvenirs and curios;
- Laundry and ironing services;
- Providing services such as child care, massages', facials etc.;
- Entertainment, including traditional local dancers and musicians, stand-up comedians, South African musicians and bands, and overseas bands.

The off-site opportunities associated with the Bloodhound event will be linked to:

- Off-site accommodation in the area and further afield;
- Car hire and shuttle services to and from the site and Upington;
- Purchase of supplies and fuel etc. by visitors in local towns in Mier and Upington;
- Procurement of food and other supplies by service providers involved in catering at the site.

Due the uncertainty regarding the total number of visitors and the duration of their stay it is not possible to provide an accurate estimate of the total value of the event related spend. However, given the large number of visitors that are expected to descend on the area it is reasonable to assume that the Bloodhound event will create significant opportunities for the local Mier and Upington economy, with the majority of the event related spending likely to benefit businesses based in Upington. The duration of this benefit is however unclear.

Ideally services should be provided by local services providers who employ members from the local community. However, it is unlikely that service providers with the required expertise and capacity exist in the Mier area. In addition, given the short period of time, even with financial support, it may not be possible to establish local service providers in the Mier area before the event is held in the third quarter of 2017. However, there are likely to be suitably qualified and experienced service providers in

either Upington and or the Northern Cape Province. Opportunities for mentoring and working with local SMMEs from Mier should be considered in order to maximise local benefits and also enhance the legacy potential of the Bloodhound event.

### ***Benefit to local hospitality and tourism sector***

Based on the information available the ~ 10 000 visitors, ~ 1 000 media representatives and ~ 100-150 Bloodhound support staff are expected. The 100-150 Bloodhound support staff members are expected to be on site for the duration of the 3-4 month period. In this regard Bloodhound has booked out the Molopo Lodge for a three month period in the third quarter of 2017. At the current rate of ~ R 500/night (including breakfast), this would translate into ~ R 5.9 million in income for the Molopo Lodge for the three month period. This excludes additional income generated from lunch packs, dinner and drinks. Excluding the Molopo Lodge there are therefore in the region of 520 beds. Based on R 500/night and 50% occupancy rate over a 3 month period, the accommodation related revenue generated for local lodges in the Mier area by the Bloodhound event would be in the region of R 11.7 million. This excludes additional income generated from provision of shuttle services, lunch packs, dinner and drinks etc. The Bloodhound event will therefore represent a significant benefit for local lodges in the Mier area.

The findings of the study also indicate that based on average stay of four nights, the total number of nights spent in the area during the final month would be ~ 32 000. Based on a conservative average of R 500/night this translates into R 16 million. This excludes revenue for the local economy generated from spending on supplies, dinner and drinks etc. The Bloodhound event will therefore create significant socio-economic benefits for the local tourism service sector. However, there is likely to be shortage of accommodation during the last month of the Bloodhound event. This issue will need to be addressed by Bloodhound and the Northern Cape Provincial Government. Options include providing camping facilities and tented accommodation at local sports fields in the area etc.

A number of visitors to the Bloodhound event are also likely to use the opportunity to visit places of interest in the area, such as the Kalahari National Park, Kalagadi Transfrontier Park and Augrabies Falls National Park etc., and undertake activities such as river rafting on the Orange River, quad biking, 4x4 trails, and wine cellar tours etc. Local tourism operators and facilities in the area and Northern Cape will therefore also benefit from the Bloodhound event. This will also create opportunities to promote and market the Northern Cape. In addition, a number of overseas visitors are also likely to use the visit to Bloodhound event as an opportunity to visit other parts of South Africa. The Bloodhound event will therefore create opportunities to promote tourism in other parts of South Africa as well.

### ***Raise profile of Hasksteen Pan and Northern Cape***

In terms of international exposure, in the region of 1 000 representatives from the international media are expected to be on site to cover the event. The cellular coverage established by MTN SA will enable the world land speed record attempt to be live streamed to audiences in over 220 countries making it one of the biggest news stories on the planet. The event will therefore also create a unique opportunity to show case Hasksteen Pan, the Mier area, the Northern Cape and South Africa to the rest of the world. Hasksteen Pan is therefore already recognised locally as an ideal venue for high speed events. The Bloodhound land speed record is a unique, global event and will create a once in a life time opportunity to place Hasksteen Pan on the international map and establish it as one of the best high speed testing sites in the world.

### Potential negative impacts

- Impacts on family and community networks associated with the presence visitors;
- Increased risk of fires;
- Noise associated with high speed testing;
- Impact of increased volume of vehicles on the R360.

Based on the findings of the SIA the significance, with mitigation, of the all of the potential negative impacts associated with the operational phase was rated as Low Negative. All of the potential negative impacts can therefore be effectively mitigated if the recommended mitigation measures are implemented.

The significance of the impacts associated with the hosting phase are summarised in Table 5.2.

**Table 5.2: Summary of social impacts during hosting phase**

<b>Impact</b>	<b>Significance No Mitigation</b>	<b>With Enhancement /Mitigation</b>
Creation of employment and business opportunities	Medium (Positive)	High (Positive)
Benefit to local hospitality and tourism sector	High (Positive)	High (Positive)
Raise profile of area and the Northern Cape	Medium (Positive)	High (Positive)
Impact on local community family and social networks	Medium (Negative)	Low (Negative)
Noise impact of high speed testing	Low (Negative)	Low (Negative)
Increased risk of grass fires	Medium (Negative)	Low (Negative)
Impact of increased volume of vehicles on the R360	Medium (Negative)	Low (Negative)

#### 5.2.4 Assessment of legacy opportunities

As indicated above, a number of the initiatives associated with the pre-event planning and establishment phase are integrally linked to creating a positive legacy. In this regard these activities will not only benefit the hosting of Bloodhound event, but will also benefit future events and activities both on Haksteen Pan and in the surrounding areas. These initiatives include:

- Establishment of on-site camping facilities at Haksteen Pan, specifically establishment of key services, such as water and power;
- Development and support for the establishment of local SMMEs that have the capacity and skills to provide catering, camping, cleaning, ablution, logistics and other services for large events held on the pan and the surrounding area;
- Upgrading of tourism information centres, implementation of tourism awareness campaign, upgrading tourism websites and signage and training of local tour guides;
- Promotion of Northern Cape Extreme Brand;
- Upgrading local airstrips;
- Development and branding of Haksteen pan as an international speed testing facility and also as a venue that can accommodate other events, such as concerts,

product launches etc. However, hosting of other events should not pose a threat to ability of the pan to host speed testing events;

- Up-grading of local tourism venues and establishment of more, up-market tourism lodges in the area.

However, maximising the potential legacy opportunities for the Mier community will require training and capacity building. In addition, in order for local SMMEs to provide catering, camping, cleaning, ablution, logistics and other services for large events held on the pan and the surrounding area requires equipment. A potential key legacy of the Bloodhound event is therefore the opportunity to secure the required funding for the purchase of the required equipment, such as tents, portable toilets, mobile stoves, etc., or alternatively that the equipment be donated to a community entity once that Bloodhound event is over. These options should be considered by the Northern Cape Provincial Government. Both options would require capacity building and training for the local community to ensure future financial sustainability and success. The issue of the type of entity established to take ownership of the equipment would also need to be considered, namely a local, privately owned SMME or a Community Trust option. A well run and managed Community Trust option is likely to be more beneficial for the broader Mier areas than a privately owned SMME. The Community Trust option is more likely to create an opportunity to generate funds for community initiatives as opposed to privately owned SMME.

There are also a number of other key legacy opportunities associated with the Bloodhound initiative. These include

- Establishment of Bloodhound Museum/ Visitor Centre;
- Establishment of a Craft Production Village in the Mier area;
- Support for education through the provision of internet to the Mier area and science linked partnerships with local schools and the Sol Plaatjie University in Kimberly;

It is recommended that the Bloodhound Museum/ Visitor Centre be located on or close to Hasksteen Pan. The centre should include:

- A replica model of the Bloodhound car that set the new world speed record and broke the 1 600 km (1 000 mile) speed barrier;
- Information on the history of the process, including information the development of the car and how Hasksteen Pan was identified;
- Information on the community initiatives that were initiated and the role of the local Mier community in preparing the track etc;
- Video footage of the event where the world land speed record was broken. The centre should include a small theatre equipped with state of the art visual and sound equipment to provide visitors with a "first hand" experience of what it was like to be on Haksteen Pan on day that the world land speed record was broken.

It is also recommended that the Bloodhound Museum/ Visitor Centre should be built within 2 years of the land speed record being broken at Haksteen Pan. This to ensure that the interest generated event is not lost. Given the large number of people that are expected to visit the Bloodhound Museum / Visitor Centre the option of combining it with the Khomani San Museum and Craft Centre should be investigated.

In addition to the above legacy benefits, two initiatives that have already been implemented have significant legacy benefits, namely:

- The construction of the Kalahari East Water Supply Pipeline; and,
- The establishment of cell phone and internet connections in the area.

The provision of a reliable supply of potable water to a water scarce area that previously relied on borehole water represents as significant legacy benefit from the Bloodhound project. The provision of potable water will support economic and social development in the Mier area. The establishment of cell phone and internet connection also represents a significant legacy benefit that will also facilitate economic and social development in the Mier area. Both projects not only benefit individual households, but the community as a whole.

### **5.2.5 Assessment of no-development option**

The employment and business opportunities associated with hosting the Bloodhound event, the benefits for the local and regional hospitality and tourism sector, the unique opportunity for establishing Haksteen Pan as one of the best high speed testing areas in the world and the international exposure of the Mier area and the Northern Cape Province, together with the legacy benefits would be forgone. The No-Development option would therefore represent a lost opportunity for Upington and the local economy. This would represent a negative social cost. The No-Development option would therefore represent a significant missed opportunity and is therefore not supported.

## **5.3 CONCLUSIONS AND RECOMMENDATIONS**

### ***Conclusions***

The findings of the study indicate that the activities associated with the pre-event and planning and hosting phase will create significant employment and business opportunities for local community members in the Mier area and the DKLM. The hosting of the Bloodhound event will also create significant benefits for the local hospitality, tourism and business sector. The Bloodhound land speed record event is also a unique, global event and will create a once in a life time opportunity to place Haksteen Pan on the international map and establish it as one of the best high speed testing sites in the world. The event will also create a unique opportunity to show case the Mier area, Northern Cape and South Africa to the rest of the world.

In addition, the event will create an opportunity for a number of significant legacy opportunities linked to the establishment of Haksteen Pan as an internationally recognised high speed testing and events venue. With proper planning and management these benefits will be long term. The proposed Bloodhound event is therefore supported by the findings of the socio-economic study. The enhancement and mitigation measures listed in the report, as well as the recommendations should be implemented in order to enhance the benefits.

However, the lack of clarity regarding the actual dates for the Bloodhound event and information on the expected number of visitors is a concern, specifically given the relatively short period of time left before the Bloodhound event is scheduled to take place (~ 8 months).

### ***Recommendations***

Steps should be taken to ensure that the key recommendations contained in the BHIDS prepared by Urban Econ in 2013 are implemented, including:

- Identifying and informing local SMMEs of the potential opportunities associated with the Bloodhound event, including securing the rights to produce Bloodhound merchandising and souvenirs, provision of key services, such as shuttles and catering, and use of local artists and performers;
- Upgrading and up-dating key tourism websites to highlight the Bloodhound event and provide potential visitors with information/linkages related to the event, available accommodation options, transportation routes and modes, and other sites/activities in the region etc.

In terms of maximising employment opportunities for members from the Mier community the Northern Cape Provincial Government should implement a training and skills development programme before the end of February 2017. The programme should be aimed at providing local community members with the required skills linked to catering, cleaning and security etc.

The Northern Cape Provincial Government should also investigate option of establishing a Community Trust that is linked to the provision of key services for future events on Haksteen Pan.

It is also recommended that the Bloodhound Museum/ Visitor Centre should be built within 2 years of the land speed record being broken at Haksteen Pan. This to ensure that the interest generated event is not lost. The option of combining the centre with the Khomani San Museum and Craft Centre should be investigated.

## **ANNEXURE A**

### **INTERVIEWS**

- Mr Rudi Riek, Bloodhound, 9/11/2016;
- Mr Dirk Grobler, Manager, Molopo Lodge, 21/11/2016;
- Ms Aliyiya McMinn; Upington Chamber of Commerce, 22/11/2016;
- Len Fourie, MacroPlan, 22/11/2016;
- Ms Ansonnette Bouwer, Upington Chamber of Commerce, 22/11/2016;
- Mr Pieter de Villiers, Manager Planning, DKLM, 22/11/2016'
- Ms Vanessa van Wyk, IDP Manager, DKLM, 22/11/2016;
- Mr Roscoe Miller, Northern Cape Tourism Association, 23/11/2016;
- Ms Nadia Miller, Department of Economic Development and Tourism, Northern Cape, 23/11/2016;
- Mr Johan van Schalkwyk, Department of Economic Development and Tourism, Northern Cape, 23/11/2016;
- Mr Peter McKuchane, Northern Cape Tourism Association, 23/11/2016.

### **REFERENCES**

- Northern Cape Provincial Growth and Development Strategy (2004-2014);
- Northern Cape Spatial Development Framework (2012);
- ZF Mcgawu District Municipality Integrated Development Plan (2007-2012);
- //Khara Hais Integrated Development Plan (2012-2017);
- //Khara Hais Local Economic Development Strategy (2010);
- //Khara Hais Spatial Development Framework (2012).

### **Internet sources**

- [www.demarcation.org.za](http://www.demarcation.org.za) (Municipal and Ward demarcations)
- Google Earth 2012.



## ANNEXURE B: ASSESSMENT METHODOLOGY

### METHODOLOGY FOR THE ASSESSMENT OF POTENTIAL IMPACTS

Direct, indirect and cumulative impacts of the above issues, as well as all other issues identified will be assessed in terms of the following criteria:

- The **nature**, which shall include a description of what causes the effect, what will be affected and how it will be affected.
- The **extent**, where it will be indicated whether the impact will be local (limited to the immediate area or site of development), regional, national or international. A score between 1 and 5 will be assigned as appropriate (with a score of 1 being low and a score of 5 being high).
- The **duration**, where it will be indicated whether:
  - \* the lifetime of the impact will be of a very short duration (0–1 years) – assigned a score of 1;
  - \* the lifetime of the impact will be of a short duration (2-5 years) - assigned a score of 2;
  - \* medium-term (5–15 years) – assigned a score of 3;
  - \* long term (> 15 years) - assigned a score of 4; or
  - \* permanent - assigned a score of 5.
- The **magnitude**, quantified on a scale from 0-10, where a score is assigned:
  - \* 0 is small and will have no effect on the environment;
  - \* 2 is minor and will not result in an impact on processes;
  - \* 4 is low and will cause a slight impact on processes;
  - \* 6 is moderate and will result in processes continuing but in a modified way;
  - \* 8 is high (processes are altered to the extent that they temporarily cease); and
  - \* 10 is very high and results in complete destruction of patterns and permanent cessation of processes.
- The **probability of occurrence**, which shall describe the likelihood of the impact actually occurring. Probability will be estimated on a scale, and a score assigned:
  - \* Assigned a score of 1–5, where 1 is very improbable (probably will not happen);
  - \* Assigned a score of 2 is improbable (some possibility, but low likelihood);
  - \* Assigned a score of 3 is probable (distinct possibility);
  - \* Assigned a score of 4 is highly probable (most likely); and
  - \* Assigned a score of 5 is definite (impact will occur regardless of any prevention measures).
- The **significance**, which shall be determined through a synthesis of the characteristics described above (refer formula below) and can be assessed as low, medium or high.
- The **status**, which will be described as either positive, negative or neutral.
- The *degree* to which the impact can be *reversed*.
- The *degree* to which the impact may cause *irreplaceable loss of resources*.
- The *degree* to which the impact can be *mitigated*.

The **significance** is determined by combining the criteria in the following formula:

$S=(E+D+M)P$ ; where

S = Significance weighting  
E = Extent  
D = Duration  
M = Magnitude  
P = Probability

The **significance weightings** for each potential impact are as follows:

- < 30 points: Low (i.e. where this impact would not have a direct influence on the decision to develop in the area),
- 30-60 points: Medium (i.e. where the impact could influence the decision to develop in the area unless it is effectively mitigated),
- > 60 points: High (i.e. where the impact must have an influence on the decision process to develop in the area).

## ANNEXURE B: DECLARATION OF INDEPENDENCE

The specialist appointed in terms of the Regulations

I, Tony Barbour \_\_\_\_\_, declare that --

General declaration:

I act as the independent specialist in this application;

I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;

I declare that there are no circumstances that may compromise my objectivity in performing such work;

I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;

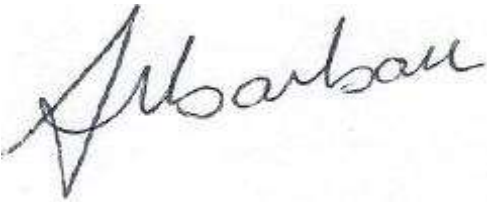
I will comply with the Act, Regulations and all other applicable legislation;

I have no, and will not engage in, conflicting interests in the undertaking of the activity;

I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;

all the particulars furnished by me in this form are true and correct;  
and

I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.



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Signature of the specialist:

Tony Barbour Environmental Consulting and Research

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Name of company (if applicable):

10 December 2016

Date:

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