

6.1

INTRODUCTION

The proposed wind farm project is located within the Northern Cape Province, the Namakwa District Municipality (DM) and the Richtersveld Local Municipality (LM). The Namakwa District Municipality is in the western part of the Northern Cape. The province consists of six local municipalities and covers a geographical area of approximately 126,747 km². It is bordered by the Siyanda and Pixley ka Seme Districts of the Northern Cape Province to the North-East and East, respectively, and by the Western Cape Province to the South (the West Coast, Boland and Central Karoo District Municipalities). The Atlantic Ocean forms the Western boundary, while the Gariep (Orange) River forms the Northern border with Namibia.

The Richtersveld LM comprises of the following towns; Port Nolloth, Lekkersing, Kuboes, Sanddrift, Eksteenfontein, Sendelingsdrift and Alexander Bay. The project site is located on communal land that was formerly the Richtersveld “Coloured Reserve” during the Apartheid era. As part of the transformation and land restitution process, the land has since been transferred back to the ‘Richtersveld community’.

For the purpose of this study, the geographic areas described in the socio-economic baseline include the Namakwa DM, Richtersveld LM, and the four rural towns that comprise the Richtersveld community (Lekkersing, Kuboes, Sanddrift and Eksteenfontein) given that they are the beneficiaries of the land on which the proposed site will be located.

Figure 4.1 shows the directly affected, neighbouring municipalities and the location of the proposed project site.

6.1.1

Local Population Overview – Relevance of Performance Standard 7: Indigenous People

The proposed wind farm project will be located on communal land that was given back to the Richtersveld community as part of the transformation process. The land is held and managed by the Community Property Association (CPA), a legal entity constituted in terms of the Communal Property Associations Act No. 28 of 1996; on behalf of the Richtersveld community ⁽¹⁾. The Richtersveld community is comprised of mixed ethnic groups, the majority of whom are the Nama people (75 percent); a group indigenous to parts of Southern Africa. G7 has negotiated use of this land with the elected CPA Committee and a contract has been signed. The project site will not be fenced and will still be available for grazing activities and as such will not disrupt those people using the land for stock farming activities. The proposed project site will not be visible from any of the towns.

(1) There is an official membership list.

International Finance Corporation (IFC) Performance Standard 7 (PS7) is applicable when projects have an impact on indigenous people belonging to a distinct social and cultural group, possessing certain characteristics as defined in *Box 1.1*. The applicability of PS 7 for the proposed project was therefore considered in terms of the potential impacts on the Richtersveld community and hence the Nama people, according to the degree of distinction from the dominant groups, their characteristics and the degree to which they will be impacted by the project. *Box 6.1* provides some relevant extracts for consideration, amongst others as outlined in the complete Performance Standard.

Box 6.1 ***Relevant Extracts from Performance Standard 7***

According to the IFC's Performance Standard 7 recognises that:

"Indigenous Peoples, as social groups with identities that are distinct from dominant groups in national societies, are often among the most marginalized and vulnerable segments of the population. Their economic, social and legal status often limits their capacity to defend their interests in, and rights to, lands and natural and cultural resources, and may restrict their ability to participate in and benefit from development. They are particularly vulnerable if their lands and resources are transformed, encroached upon by outsiders, or significantly degraded. Their languages, cultures, religions, spiritual beliefs, and institutions may also be under threat. These characteristics expose Indigenous Peoples to different types of risks and severity of impacts, including loss of identity, culture, and natural resource-based livelihoods, as well as exposure to impoverishment and disease."

And

"In the Performance Standard, the term "Indigenous Peoples" is used in a generic sense to refer to a distinct social and cultural group possessing the following characteristics in varying degrees:

- self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;
- collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories;
- customary cultural, economic, social, or political institutions that are separate from those of the dominant society or culture; and
- an indigenous language, often different from the official language of the country or region."

As per the Performance Standard, the Nama people do identify themselves as an indigenous group and are recognised as such by others. Over time since the first settlers came to the area in the late 18th century there has been a steady decline of the traditional Nama customary and social practices. Some customs remain and some people are still able to speak the Nama and !Xama languages. In recent years there has been a push to teach the language in the schools. The Nama people today are, well integrated with the rest of the Richtersveld community, as well as the towns of Alexander Bay and Port Nolloth. The Nama have adopted a more westernised lifestyle and a primary reliance on mainstream economic activities such as employment at the mines.

In order to identify the significance of the potential impacts on the Nama people, a series of consultation meetings/interviews were undertaken with the following people/groups:

- focus group meeting with members of the Richtersveld community in Eksteenfontein;
- focus group meeting with members of the Richtersveld community in Lekkersing;
- focus group meeting with members of the Richtersveld community from Kuboes and Sanddrift in Alexander Bay;
- telephone interview with the current CPA Chairman;
- telephone interview with the CPA lawyer;
- telephone interview with the Chairman of the Richtersveld Nama Group and Co-ordinator of the Richtersveld Cultural World Heritage Site;
- public meetings at Alexander Bay (including community members from Kuboes and Sanddrift), Lekkersing and Eksteenfontein; and
- informal one-to-one conversations with individual community members from the towns of Lekkersing, Kuboes, Sanddrift and Eksteenfontein ⁽¹⁾.

The proposed project site will not be visible from any of the towns and as such, the visual impact on sense of place was not deemed to be significant to the Nama people and the rest of the Richtersveld community.

PS 7 has been considered as inapplicable to the project based on consultation with interested and affected parties and a consideration of potential impacts on the Richtersveld community. This decision was based on the following reasons:

- although the Nama people are indigenous, they have already become integrated into the broader community and reliant on mainstream economic activities;
- the Richtersveld community, including the Nama people, are supportive of the project and anticipate positive impacts to arise in the form of increased income for the CPA, employment, procurement and skills development opportunities;
- traditional grazing activities can continue during the operational phase of the wind farm;
- the visual impact on sense of place will be negligible given that the site is not visible from the towns; and
- the elected CPA committee have signed a lease agreement with G7.

In addition, all the respondents/meeting participants were overwhelmingly in favour of the proposed project as it will generate income for the CPA in terms of land rental and job/procurement opportunities for the community.

It is important to note that, while PS7 is not considered applicable, the Nama people, as well as the rest of the Richtersveld community will be considered as

(1) Names not recorded given the informal nature of the conversations.

a vulnerable and marginalised group. This assessment was based on the following:

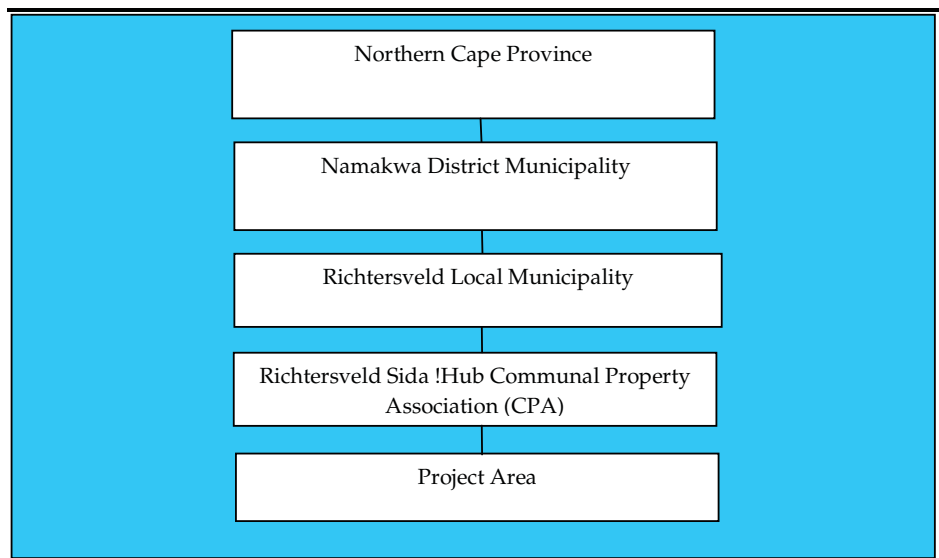
- they are a unique mixed community, whose identity is linked to the broader Richtersveld area;
- the towns (Lekkersing, Kuboes, Sanddrift and Eksteenfontein) are poorly resourced, hence development opportunities in the area are constrained and poverty is high;
- further downscaling is planned at Alexkor, as such unemployment will continue to rise; and
- the community is located in a relatively isolated area that does not offer alternate job opportunities, or adequate community infrastructure e.g. education and healthcare facilities.

The assessment of impacts and formulation of mitigation measures will take this into account.

6.2 ADMINISTRATIVE STRUCTURE

The Provincial government is responsible for providing the strategic vision and framework for the Province. They are responsible for ensuring cooperation and collaboration between municipalities and that each municipality performs their respective functions. In turn, each District Municipality is responsible for the development of an Integrated Development Plan (IDP) and for the overall provision of services and infrastructure within the District. *Figure 6.1* shows the administrative levels of the respective government and legal structures.

Figure 6.1 Administrative Structure



The land on which the proposed project will be located is administered and managed by the Richtersveld Sida !Hub Communal Property Association

(CPA). The CPA is legally constituted in terms of the Communal Property Associations Act No. 28 of 1996 and collectively includes the above-mentioned four towns, namely; Lekkersing, Kuboes, Sanddrift and Eksteenfontein ⁽¹⁾. The CPA members (as per the CPA membership list) re-elect the CPA committee members every two years (see *Section 6.3* for further details). The past CPA committee has been contested on a number of grounds including alleged financial mismanagement followed by a vote of 'no confidence'. This matter is has been subsequently challenged in court in early 2011 and following a court order and arbitration in August 2011, the community re-elected a new committee nearly identical to the former one.

6.3

LAND RESTITUTION AND LAND OWNERSHIP

The early occupants of the Richtersveld were the Nama people, descendants of the Khoi-Khoi people indigenous to Southern Africa. The Nama people farm on a seasonal transhumant cycle ⁽²⁾, meaning that they are not nomadic but tend to use a specific area on a seasonal basis. Like many people, the Nama's land was seized when the British landed in the area in 1847. Along with the British arrived the missionaries. The first missionary station was established in 1815 at Steinkopf. The area was named after Dr E Richter who was an inspector of the Rhenish Mission Station. Towards the mid 19th century the Nama people sought the protection from the missionaries from the European farmers. The missionaries assisted and the Nama were able to obtain some form of title to the land located around the missionary stations, resulting in the creation of rural reserves ⁽³⁾. The Nama, and other occupants of the land, continued to live in the area until the discovery of diamonds in the 1920s, they were dispossessed of their land as mining licences were granted over the area. In 1957 the community were fenced off the land as high quality diamonds were discovered and the State decided to cease the land as a State commercial asset. In the early 1990s the land was vested in Alexkor Ltd, a government owned diamond-mining company.

After the change in government in 1994, the Restitution of Land Rights Act of 1994 was enacted allowing the community, that were forcefully removed from their land, to apply to the Land Claims Court for the return of their land. The Richtersveld community took Alexkor Ltd to court for the restoration of the land that was taken from them.

6.3.1

The Court Case

The case of the Richtersveld community began in 2001 and was only concluded in 2003. They first took their case to the Land Claims Court, which

(1) The CPA has a membership list that includes all beneficiaries who are recognised as having rights to this communal land.

(2) Transhumance is defined as 'seasonal moving of livestock to regions of different climate'. It is an integral part of livestock production in many parts of the world and takes several forms including moving of livestock from lowland to mountainous pastures or from dry to humid areas.

(3) January M, 2002, 'Co-management of the Richtersveld National Park: A Marriage of Conservation and Development, But Does the Marriage Work?', Unpublished Thesis, p18.

rejected the community's claim and withheld judgement along with a leave of appeal. The community proceeded by taking the case to the Supreme Court of Appeal, the Supreme Court set aside the Land Claims Court ruling and granted the community leave to appeal. The community took its case to the Constitutional Court, where the Court found that the community was entitled to their claim and the Court referred the case back to the Land Claims Court to determine the nature of restitution. The community of the Richtersveld won the case and the terms of restitution are outlined in *Box 6.2* below.

Box 6.2 ***Terms of the Settlement made by Alexkor to the Richtersveld Community***

- Alexkor had to transfer the land awarded to the community by the constitutional court;
- Government had to establish and declare Alexander Bay as a township at its own cost;
- Alexkor and the community had to enter into a Pool and Share Joint Venture (PSJV) in terms of which they would jointly conduct land and sea mining operations;
- Alexkor would convert old mining rights into new order mining rights and transfer them to the community;
- outstanding and overdue historical environmental rehabilitation would be executed by Alexkor at its own cost;
- the community would receive a reparation payment to address historical extraction of diamonds;
- the agriculture and mariculture assets of Alexkor would be transferred to the community; and
- the community would receive a lump sum development grant.

6.3.2 ***Communal Property Association***

Once the land ownership issue was finalised, the Richtersveld Sida !Hub Communal Property Association (CPA) was established. The CPA was legally constituted in terms of the Communal Property Associations Act No. 28 of 1996. The purpose of the CPA in terms of the Act is: *"to enable communities to form juristic persons, to be known as communal property associations in order, to acquire, hold and manage property on a basis agreed to by members of a community, in terms of written constitution; and to provide for matters connected therewith"*. Membership of the CPA was determined through the Act and includes individuals and families who have historical rights to the land; an official membership list identifies all beneficiaries. Through a formal Independent Electoral Commission (IEC) process, a committee is elected by the CPA members every two years.

As discussed in *Section 6.2*, there were debates about the past CPA committee and their management of community assets. This matter was challenged in court and ultimately resolved.

The CPA's financial records are audited on an annual basis and received unqualified status for the past financial year (2009). Despite this there have still accusations of financial mismanagement. CPA committee members are not paid for their work, their involvement is undertaken on a voluntary basis. There have been concerns raised as to whether this is indeed the case.

In mid-2011, new elections were held and a new committee was elected, this committee is comprised largely of the former committee members.

Population Description

The population of the Richtersveld LM was 14,613 in 2007, showing a population increase of 44.3 percent since 2001 ⁽¹⁾. It is projected that the population of the Richtersveld community are growing at a rate of 1,5 every five years. The largest of the towns is Kuboes with a population of 1,730, followed by Sanddrift (1,425), Eksteenfontein (750) and then Lekkersing (660) ⁽²⁾. The population in these rural towns has been increasing due to downscaling of the mines and this trend is expected to continue with further downscaling anticipated. There are few other established industries in the area to provide work opportunities for the Richtersveld community ⁽³⁾.

Age Distribution

The age profile for the LM illustrates a developing population dominated by children (29 percent below 14 years). There are similar numbers of youth (36 percent between 15 and 34 years) and middle aged (32 percent between 35 and 64 years) and the elderly population (above 65 years of age) comprise the remaining five percent ⁽⁴⁾. The percentage of youth is expected to decline as is so common in rural areas. The age composition of the Richtersveld community is similar to that of the LM.

Ethnic Composition and Migration

The racial composition of the LM is predominantly Coloured (77 percent), followed by Whites (12 percent), and a growing number of Black/Africans (11 percent) who migrated to the area in search of work in the 1980s. A large proportion of the white population live in McDougall's Bay, Port Nolloth or Alexander Bay.

The Richtersveld community is predominantly Coloured with a growing number of Black/Africans, who primarily live in Sanddrift. The so-called coloured community of the Richtersveld is diverse and comprises a number of different ethnic groups. The most dominant ethnic group is the Nama-Khoi (approximately 75 percent), Bosluis Basters (approximately 20 percent), and Xhosas, Zulus and Sotho's (making up the remaining five percent) ⁽⁵⁾.

The early occupants of Richtersveld are the Nama people, descendants of the Khoi-Khoi people who are indigenous to Southern Africa. The indigenous Nama group has become interwoven with the rest of the Richtersveld community, causing them to loose touch with their traditional Nama

(1) Community Survey 2007, StatsSA

(2) Richtersveld Local Municipality: Integrated Development Plan, 2009

(3) Richtersveld Local Municipality: Integrated Development Plan, 2009

(4) Richtersveld Local Municipality: Integrated Development Plan, 2009

(5) Richtersveld Local Municipality: Integrated Development Plan, 2009 and Personal interviews, October and November 2010.

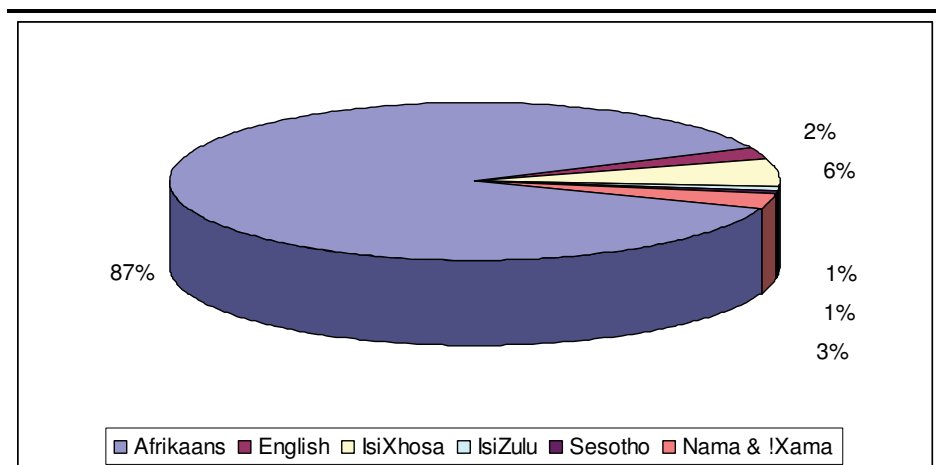
lifestyles, although there are still some traditional practices evident (e.g. nomadic stock farming) and some people do still speak Nama. The Bosluis Basters are a small group of people who originate from a farm called Bosluis in the Richtersveld; they choose to be identified as a unique group of people.

The Richtersveld LM area saw the highest in-migration figures in the diamond mining and coastal towns (Port Nolloth and Alexander Bay) ⁽¹⁾. Although the most dominant pattern of migration has been from the rural to urban centres, the on-going downscaling of the mines is causing many people to return to their rural home towns of Lekkersing, Kuboes, Sanddrift and Eksteenfontein.

Language

The most spoken language in the LM is Afrikaans (87 percent); the other languages spoken include isiXhosa (six percent), Nama and !Xama (three percent), English (two percent), SeSotho as well as isiZulu are spoken by one percent each, see *Figure 6.2* below. Afrikaans is the primary language for communication as everyone understands and speaks it.

Figure 6.2 *Languages in the Local Municipality*



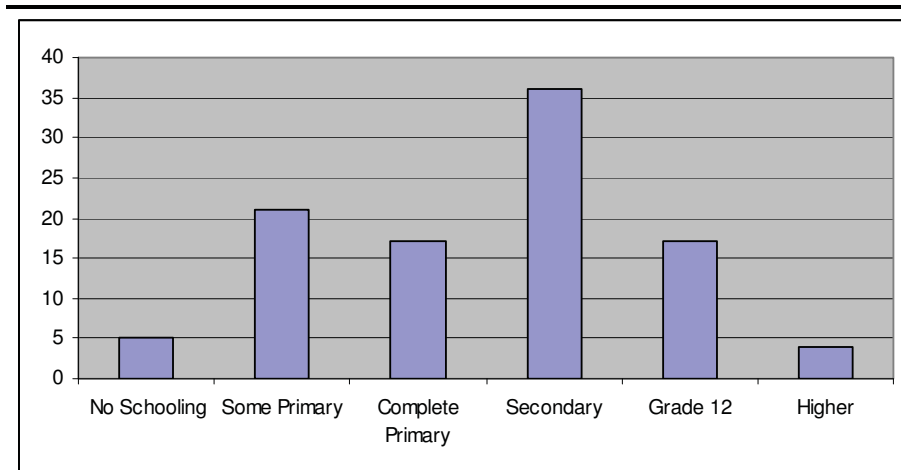
Source: Demarcation Board Website: Census Data, 2001

6.5 *EDUCATION*

The Richtersveld LM has eight schools, (primary and high schools). The majority of the population has some secondary schooling (36 percent), and an estimated five percent of the population are illiterate. Approximately 17 percent have completed Grade 12/Matric, see *Figure 6.3* below.

(1) Richtersveld Local Municipality: Integrated Development Plan, 2009

Figure 6.3 *Literacy Levels in the Local Municipality*



Source: Demarcation Board Website: Census Data, 2001

In the Richtersveld community, there are only Primary schools in the towns, all High schools are in Port Nolloth and Alexander Bay. Due to this constraint, 30 percent of the population of the Richtersveld community (Lekkersing, Kuboes, Sanddrift and Eksteenfontein) have not completed Grade 12 ⁽¹⁾. The communities highlighted the lack of schools, qualified teachers, school infrastructure and learning materials as a real limitation to development.

Comparatively, the highest education levels attained by people over the age of 20 years showed that the number of individuals without schooling decreased by 13 percent, and the number with Grade 12 increased by 30 percent. This increase in the level of qualifications has been a success story for the Northern Cape and has been better than national averages ⁽²⁾.

6.6 HEALTH

The population in the Local Municipality is sparsely populated over a large geographic area. The majority of the population, especially in the rural areas do not have access to the healthcare facilities that are located in the urban centres ⁽³⁾, namely; Port Nolloth and Alexander Bay.

The Richtersveld LM has two hospitals and two clinics; they are located in Port Nolloth and Alexander Bay ⁽⁴⁾. The hospital and clinic in Port Nolloth (approximately 120 km from the four towns) are poorly managed and ill-equipped. There is an ambulance service; however, it is very slow due to the long distance between Port Nolloth and the four towns, as well as the poor

(1) Personal Communication, October 2010

(2) Richtersveld Local Municipality: Integrated Development Plan Review, 2009

(3) Namakwa District Municipality Profile, 2008

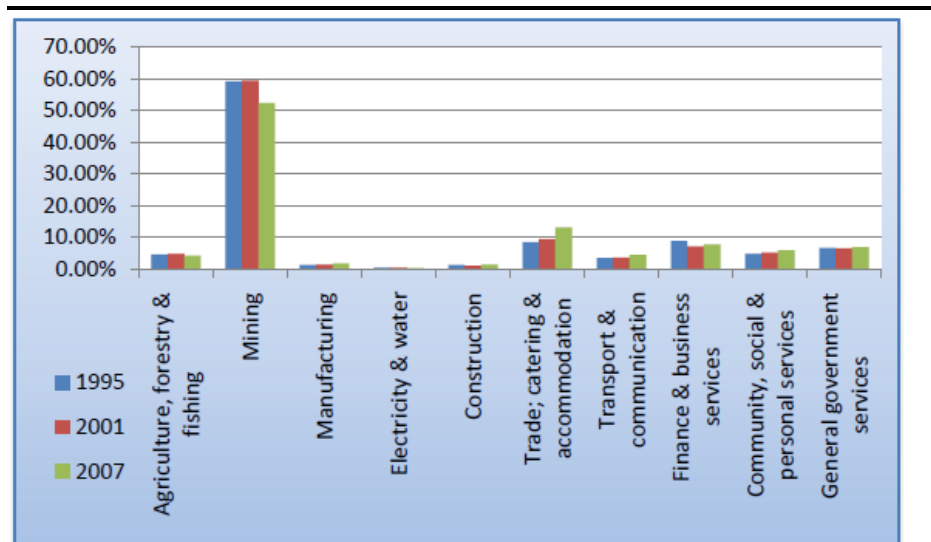
(4) Richtersveld Local Municipality: Integrated Development Plan Review, 2009

road quality. The hospital and clinic in Alexander Bay are well equipped and functional. There are also two mobile clinics that service the four settlements and visit the area every two weeks. The mines have their own medical facilities for the exclusive treatment of mine workers ⁽¹⁾. The main health issues are diabetes, high blood pressure, and cancer. The HIV/AIDS statistics are unknown.

6.7 **ECONOMIC PROFILE**

The Namakwa DM is characterised by an undiversified economy with an over reliance on mining (52 percent) ⁽²⁾. The relative contribution of this sector is, however, declining, only recording an average annual growth of 0.3 percent between 2001 and 2007. Wholesale and retail trade; and catering and accommodation were the second largest contributors to the Gross Domestic Product (GDP) at 13 percent, followed by finance and business services (8 percent), general government services (7 percent) and community, social and personal services (6 percent) see *Figure 6.4* below.

Figure 6.4 Sector Contribution to the GDP for the District Municipality



Source: Namakwa District Municipality Profile, 2008

Mining, agriculture and fishing are the three most dominant economic and livelihood activities practiced in the LM and in the Richtersveld community. These are discussed in more detail below.

(1) Richtersveld Local Municipality: Integrated Development Plan Review, 2009

(2) Namakwa District Municipality Profile, 2008

6.7.1 *Key Economic Sectors and Land Use*

Agriculture

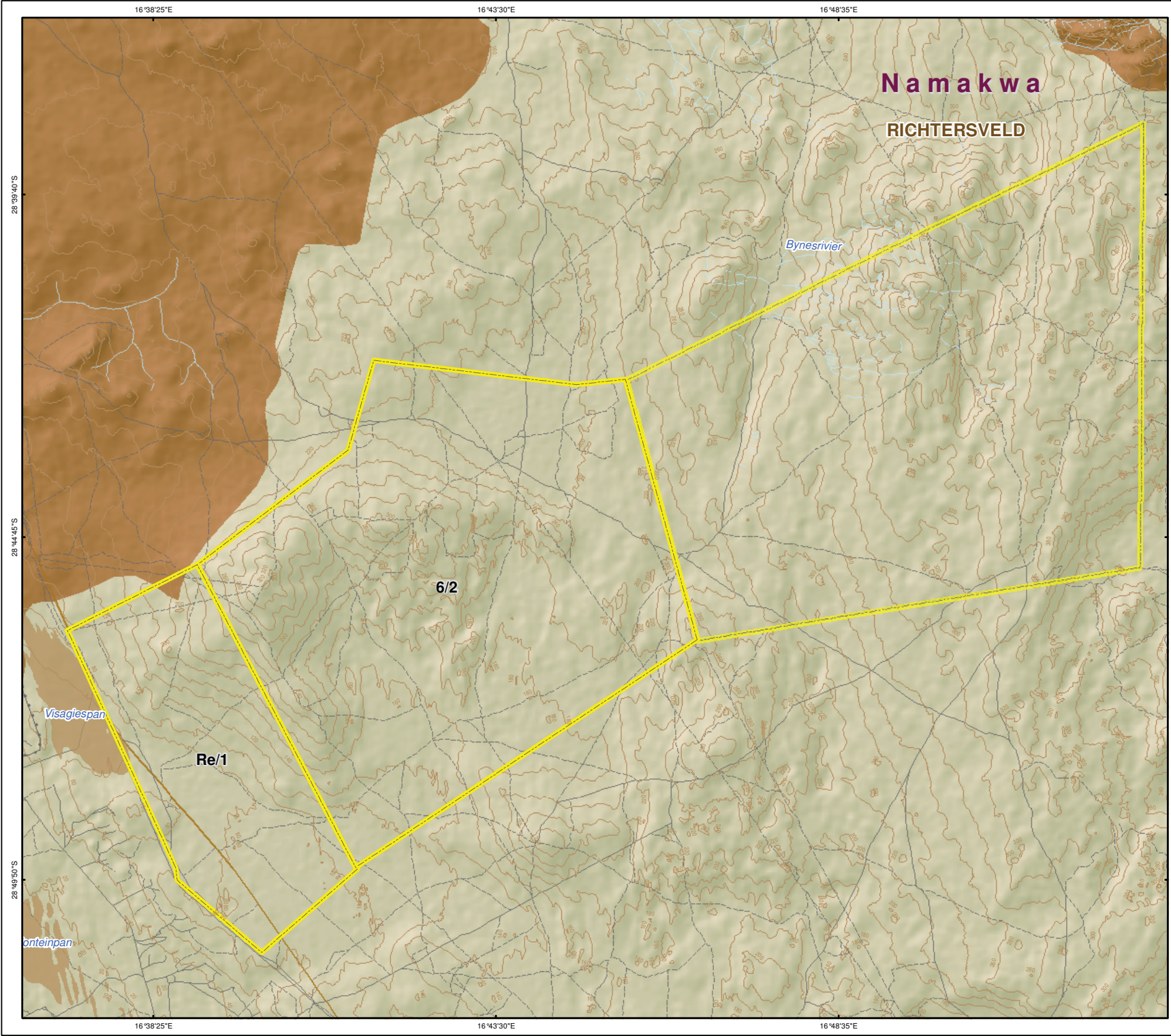
The oldest economic activity practiced in the region is livestock farming. Livestock farming has not been a lucrative business in the area for decades; however it supports a large number of people and it is an important livelihood option in the Richtersveld area, specifically amongst the indigenous Nama people ⁽¹⁾. The dry and ecologically sensitive ecosystem makes it difficult to support a large industry however, there are government plans to improve borehole infrastructure and to make farms available in the area to individual farmers who can farm for profit.

Irrigation agriculture is also practiced in the area, specifically along the banks of the Gariiep (Orange) River ⁽²⁾. The agricultural potential map is shown in *Figure 6.5 Agricultural Potential* below.

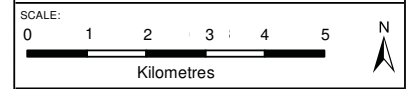
DWA has indicated that it has an existing available allocation of water for the area between Douglas and the lower Orange River (Gariiep) mouth area for irrigation of 4000 ha. That the water could be used effectively and efficiently for a product that can be marketed (eg dates and vineyards). One of the key constraints in terms of the viability of accessing irrigation water is having the necessary cost effective and on site supply of electricity for the required pumping installations.

(1) Richtersveld Local Municipality: Integrated Development Plan Review, 2009

(2) Richtersveld Local Municipality: Integrated Development Plan Review, 2009



- ### Legend
- Richtersveld Land Parcel
 - Transmission Line
 - Secondary Road
 - Other Access
 - Track/Footpath
 - Contours (20m)
 - Non-Perennial River
 - Dry Pan
- Soil Potential**
- Soils not suitable for arable agriculture; suitable for forestry or grazing where climate permits
 - Soils of poor suitability for arable agriculture where climate permits



TITLE:
Figure 6.5: Agricultural Potential of the Richtersveld Site and surrounding area

CLIENT:

DATE: SEPT 2011	CHECKED: TS	PROJECT: 0117424
DRAWN: AB	APPROVED: SHC	SCALE: 1 : 125 000
DRAWING: Agricultural Pot of Richtersveld WF Rev1.mxd		REV: 1

ERM
 Building 32,
 The Woodlands,
 Woodlands Drive,
 Woodmead, 2148
 Johannesburg, South Africa
 Tel: +27 (0)11 798 4300
 Fax: +27 (0)11 804 2289

Projection: Geographic, Datum: WGS84
 Source: NGI, EnPAT, PPF, Natural Scientific Services
 Ecology Impact Assessment - Simon Todd
 Inset Map, Esri Data & Maps

SIZE:
A3

Mining

The mining sector has dominated the economy of the District for decades with diamond mining being the most dominant mineral mined. The first diamonds in the area were discovered in 1921 in Port Nolloth and in 1927 more diamonds were found in Alexander Bay. Offshore diamonds were only discovered in 1954, these were diamonds that had been washed down from the Gariiep (Orange) River. Currently the three most economically viable mineral deposits mined in the Richtersveld area are diamonds, quartzite and lime ⁽¹⁾. In 2009, diamond mining was the most dominant and it was mainly undertaken by Alexkor Ltd (state owned), Trans Hex (privately owned) and De Beers (see Box 6.3 below) ⁽²⁾. There were also a few smaller privately owned concessions exploited in the north-eastern area, near the Richtersveld National Park (RNP). Baken, one of the Trans Hex mines, still has an estimated 14 year lifespan. However, the other Trans Hex and Alexkor mines have been downscaled as the minerals are nearing exhaustion, with De Beers Group temporarily suspending its mining activities along the coast ⁽³⁾.

Box 6.3 *The Largest Mining Companies in Richtersveld*

Alexkor Ltd

- Alexkor Ltd is a state owned mine that was established in 1989 and begun operations in 1992.
- The state is the sole shareholder.
- Its core business is diamond mining on land, along rivers, on beaches and offshore along the north-west coast of South Africa.
- The mine was the largest job creator having created an estimated 2,500 direct and indirect jobs in the area. However, they are down-scaling operations because of the decreasing diamond reserves in the area.
- In 2009, Alexkor had only 691 permanent and 37 temporary workers.
- The mine has also begun using some of its retrenched employees in doing non-mining activities including mariculture, tourism and irrigation agriculture.

Trans Hex Group

- Trans Hex was first founded in 1963, in South Africa.
- It was appointed as a contractor to the Small Business Development Corporation to prospect for diamonds in the Namaqualand region of the country.
- Trans Hex is the strongest mining company currently operating in Richtersveld with their mine in Baken having a lifespan of 14 years.
- The Group has extensive land mining rights including properties adjacent to the Gariiep (Orange) River (within Richtersveld) and they also hold numerous sea concessions (some with joint venture partners) off the South Africa (Namaqualand) and Namibian coasts, totalling more than 11,300 km².
- In 2008, Trans Hex decided to discontinue its sea operations in the Namaqualand area.

De Beers

- The Namaqualand mines form part of De Beers six diamond mines found in South Africa.
- The diamonds in the area are found as deep as 100 metres below the surface, and to date De Beers has only explored down to 40 metres.
- A decision was made late 2009 by the company to suspend its Namaqualand operations as

(1) Richtersveld Local Municipality: Integrated Development Plan Review, 2009

(2) Richtersveld Local Municipality: Integrated Development Plan Review, 2009

(3) Richtersveld Local Municipality: Integrated Development Plan Review, 2009

- they plan on how best to mine the remaining reserves profitably.
- The company plans to resume its operations once they have developed and introduced an ore extraction and processing methodology best suited for the operation.

Fishing and Mariculture

Fishing is another well established economic activity in the Richtersveld LM area, primarily operating from Port Nolloth's shallow water harbour ⁽¹⁾. A well functioning fish processing plant is also found in Port Nolloth; however this plant has been operating under capacity for several years due to the low fishing quotas in the Province. One of the major problems is that hake quotas are mainly allocated to trawlers that cannot operate out of Port Nolloth harbour. The Fishing and Mariculture Development Association (FAMDA) was established and a Sector Plan developed in an attempt to ensure better management of the industry in the region, however, implementation of the sector plan has been slow ⁽²⁾. According to the Richtersveld LM authorities, with better management of the fishing industry, fishing activities can be expanded to harvesting marine resources such as hake, snoek and crayfish.

There are numerous mariculture projects in Alexander Bay and Port Nolloth, predominantly oyster farms. This sector, however, is also hindered by a lack of access to the coast because of mining activity. The government has proposed the establishment of a mariculture park, which they hope will bring in a significant amount of investment into the area and sector ⁽³⁾.

6.7.2 *Planned Land Use*

The Sida !Hub CPA, drafted the "*Concept Land Use Plan*" in 2005. This document was developed to conceptualise the potential uses of the land awarded to the community by the Land Claims Court. The document gave an analysis of each of the concepts (see below), looking at the current and potential situation. The CPA investigated the possibility of each of the following as potential land uses for the area:

- **Tourism:** the tourism potential is currently underdeveloped in the area primarily because of the lack of physical access. Access to large parts of the area is restricted because of diamond mining along the coast; the area is also geographically isolated due to long travelling distances and a lack of airports.
- **Mariculture:** the area lies along a coastline rich in marine resources because of the cold Benguela current. The coastline, however, is underutilised with only two mariculture operations in the Local Municipality; one in Rietfontein (oysters) and the other in Port Nolloth

(1) Richtersveld Local Municipality: Integrated Development Plan Review, 2009

(2) Richtersveld Local Municipality: Integrated Development Plan Review, 2009

(3) Richtersveld Local Municipality: Integrated Development Plan Review, 2009

(abalone). EIA's for other potential mariculture farms have been completed; however there have been no further developments.

- **Agriculture:** the area does not have a high agricultural potential because of the scarcity of water in the area. There are several farms operating along the Gariep (Orange) River producing fodder, dairy, fruit and ostriches, however, these farms are highly reliant on the water from the river for irrigation.
- **Grazing:** there is a potential for livestock grazing in the area along the Gariep (Orange) River, however the carrying capacity of the area is low.
- **Real estate:** the undeveloped coastal area has potential for high end residential real estate development because of the wilderness character of the coast. This however would require certain mined out sections of the coast to be opened up for public access.
- **Mining:** the adoption of new mining technologies could allow for further mining exploration, enabling the recovery of deeper diamond deposits or the less valuable remaining deposits.

Since the drafting of the *Concept Land Use Plan*, no further development has been undertaken in the area.

6.7.3 *Employment, Unemployment and Skills*

Approximately 45 percent of the population in the Richtersveld LM are employed with an estimated 18 percent of the population being unemployed ⁽¹⁾. The remaining 37 percent of the population are economically inactive ⁽²⁾.

The majority of the LM's population have an elementary level of skill (51 percent) and 12 percent are skilled as agricultural workers. People who work as clerks, plant operators and other professionals form between four percent and five percent of the skilled labours.

6.7.4 *Annual Household Income*

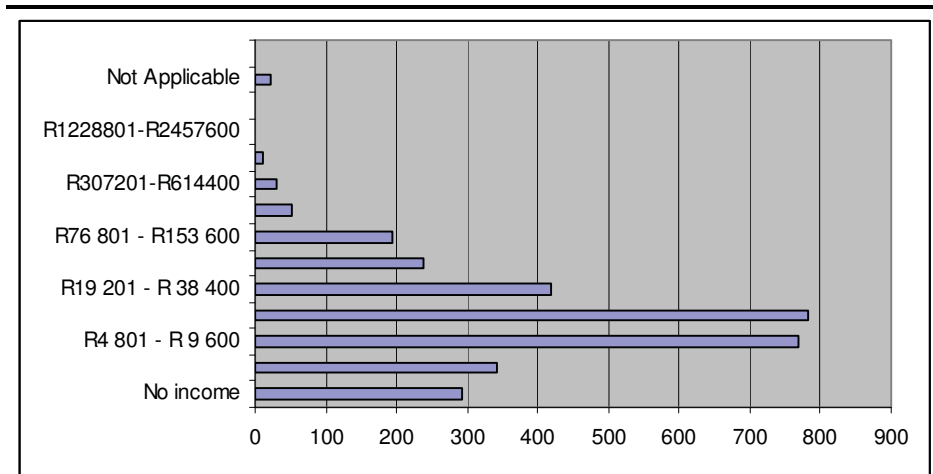
In the Richtersveld LM, approximately nine percent of households had no income, with 35 percent living on an income of between R1 and R9,600 annually ⁽³⁾. *Figure 6.6* below shows the annual household income received in the LM. Even though most people have some stock, the primary source of income for the majority is wage labour from the mining industry followed by welfare payments from the state.

(1) Namakwa District Municipality Profile, 2008

(2) Economically inactive includes students, sick, elderly and disabled persons

(3) Demarcation Board, Census 2001

Figure 6.6 Annual Household Income in Richtersveld Local Municipality



Source: Demarcation Board Website: Census Data, 2001

6.8 TOURISM

The Northern Cape captures only three percent of total foreign tourists to the country, and has been ranked as the least visited province in South Africa. Leisure tourism comprises approximately two thirds (67 percent) of the foreign tourism market in the Northern Cape Province and it includes ecotourism, adventure tourism, hunting and heritage site-seeing, but also includes other activities such as sport (golf), water sport, and flower viewing during the flower season. Business tourism accounts for 10.7 percent of foreign tourists in the Province while almost all African tourists visit for business purposes. The busiest months for tourism in the province are between March and October when the temperatures are lower.

The Province's tourism is predominantly as a result of people stopping in the area as they travel between Johannesburg, Cape Town, Namibia or Botswana. The DM has been experiencing growth as a result of increasing numbers of people travelling through the Cape tourism route and those travelling to Namibia ⁽¹⁾.

One of the strategic objectives identified in the 2009 IDP review was to support tourism development and growth within the municipal area as part of local economic development. Tourism is seen as a means to diversify the economic potential of the LM ⁽²⁾. There are new initiatives under way that promote responsible tourism. They include a number of community-based projects funded by poverty alleviation funds from DEA&T that will be providing opportunities for responsible tourism linked to community run and initiated facilities.

(1) Namakwa District Municipality, IDP 2006-2011

(2) Richtersveld Local Municipality: Integrated Development Plan Review, 2009

Nature conservation and heritage preservation is a key land use activity in the Richtersveld, the Richtersveld is full of natural and historical resources. The richness in heritage stems from the Khoi stone paintings and petroglyphs that are found in the area along with some old colonial buildings and ancient mines dating back to the early 1920s. Numerous sites have been proclaimed as major tourism attractions and as protected areas, see *Box 6.4* below ⁽¹⁾.

Box 6.4 *Heritage and Nature Conservation Areas*

- The *Richtersveld National Park* forms part of the recently declared Richtersveld/Ais-Ais Transfrontier Park. The national park features impressive rock formations; an abundance of succulents, the 'Halfmense', and profound silence in the largest proclaimed mountain desert park in southern Africa.
- The *Richtersveld Route* was conceived as the best way to see as much as possible in a limited amount of time. This is a circular route that runs in a westerly direction from the N7 to Port Nolloth, northwards along the coast, inward along the Great !Gariiep and back to the N7 through the towns of Kuboes and Eksteenfontein.
- *The Richtersveld World Heritage Site* (previously known as the Richtersveld Community Conservancy) sits in the heart of what is called the Succulent Karoo Biodiversity Hotspot – an ecosystem with an astounding 4,849 succulent plants, 40 percent of which are only found in the area.
- *Richtersveld Ramsar Site* is a wetland located at the mouth of the Gariiep (Orange) River that forms an important stop over for a variety of migratory birds.

Unique tourism experiences include:

- the **living Museums of the Richtersveld** that provide the history, stories of old legends, information on unusual plants and animals found in the area; and
- **Die Groot Slang, "Heiji Aibib" and a fear of geckos** is the recitation of ancient campfire tales, told by the elderly at night.

Other tourism activities include ⁽²⁾:

- hiking/ walking trails;
- the Gariiep (Orange) river – swimming, canoeing, rafting and fishing;
- nature - learn about the unique plants of the succulent Karoo;
- excursions to local Nama villages, stock posts, and “matjieshuis”, the traditional Nama huts;
- camping – in beautiful private remote campsites far from any other people;
- petroglyphs – the ancient san rock engravings; and
- 4x4 driving along the famous Namakwa 4x4 route.

Nature-based tourism is a growing industry in the LM. Most of the tourism market is dominated by 4x4 visitors to the RNP. Although large numbers of cars pass through the area very few benefits directly reach the people living in the area. More people visit the RNP than the number of people living in the

(1) www.south-north.co.za

(2) www.south-north.co.za

Richtersveld communal area. Informal calculations predict up to a five-fold increase in tourism numbers in the Richtersveld over the next five years ⁽¹⁾.

6.9 *ARCHAEOLOGY, PALAEOLOGY AND CULTURAL HERITAGE*

6.9.1 *Palaontology*

The proposed Richtersveld wind farm will be located on Rooibank (Farm 7/2), Witbank (6/2) and the remaining portion of Farm1 (Re/1) near Alexander Bay. The only rocky outcrops occur on Farm 6/2. The palaeontological sensitivity of the study area is low.

There is an outcrop of granitic rocks, presumably of the Kuboos-Bremen Suite, near the north east corner. In the north central part of the farm there is an outcrop of schistose rocks, probably of the Holgat Formation of the Gariep Supergroup. In the centre an outcrop of calcrete or surface limestone supports the existing wind monitoring mast. The granite, being igneous, contains no fossils. No fossils have been reported from the metamorphosed sandy and muddy sediments of the Neoproterozoic (latest pre-Cambrian) Holgat Formation (Frimmel *et al.* 1998; Gresse *et al.* 2006), and none are expected.

The Namaqualand coast records various high stands of the sea, with palaeo strand lines at elevations of 110 m, 65 m, 35 m, 20 m, and 5 m above present mean sea level (Roberts *et al.* 2006). These fossiliferous beach deposits of Miocene to Pleistocene age are covered with 15-50 m of wind-blown sand (Pether 1994; Roberts *et al.* 2006), and are unlikely to be intercepted in excavations for the proposed wind farm. The fossiliferous sediments consist typically of basal gravels, overlain by red or green sandy deposits. These contain mollusc fossils, as well as fossils of terrestrial vertebrates (Roberts *et al.* 2006).

The calcrete outcrop may represent a cemented dune (aeolianite), related to one of the former high sea levels. Similar dunes on the Namaqualand coast contain fossil eggshells of a Pliocene giant ostrich and fossils of primitive elephants (Pether 1994; Roberts *et al.* 2006; Macrae 1999). The wind-blown sand cover may contain palaeosols with calcified roots and dune snails, as further south immediately north of the Olifants River, where these palaeosols also contain Early and Middle Stone Age artefacts (Roberts *et al.* 2006).

6.9.2 *Archaeology*

Pre-colonial

Heritage impact assessments along the Namaqualand coast over recent years has demonstrated its rich pre-colonial archaeology. The coastal archaeology of Namaqualand is long and complex, covering the entire time span between up to a million years ago to the present day. The archaeology of the last 5000

(1) Richtersveld Local Municipality: Integrated Development Plan Review, 2009

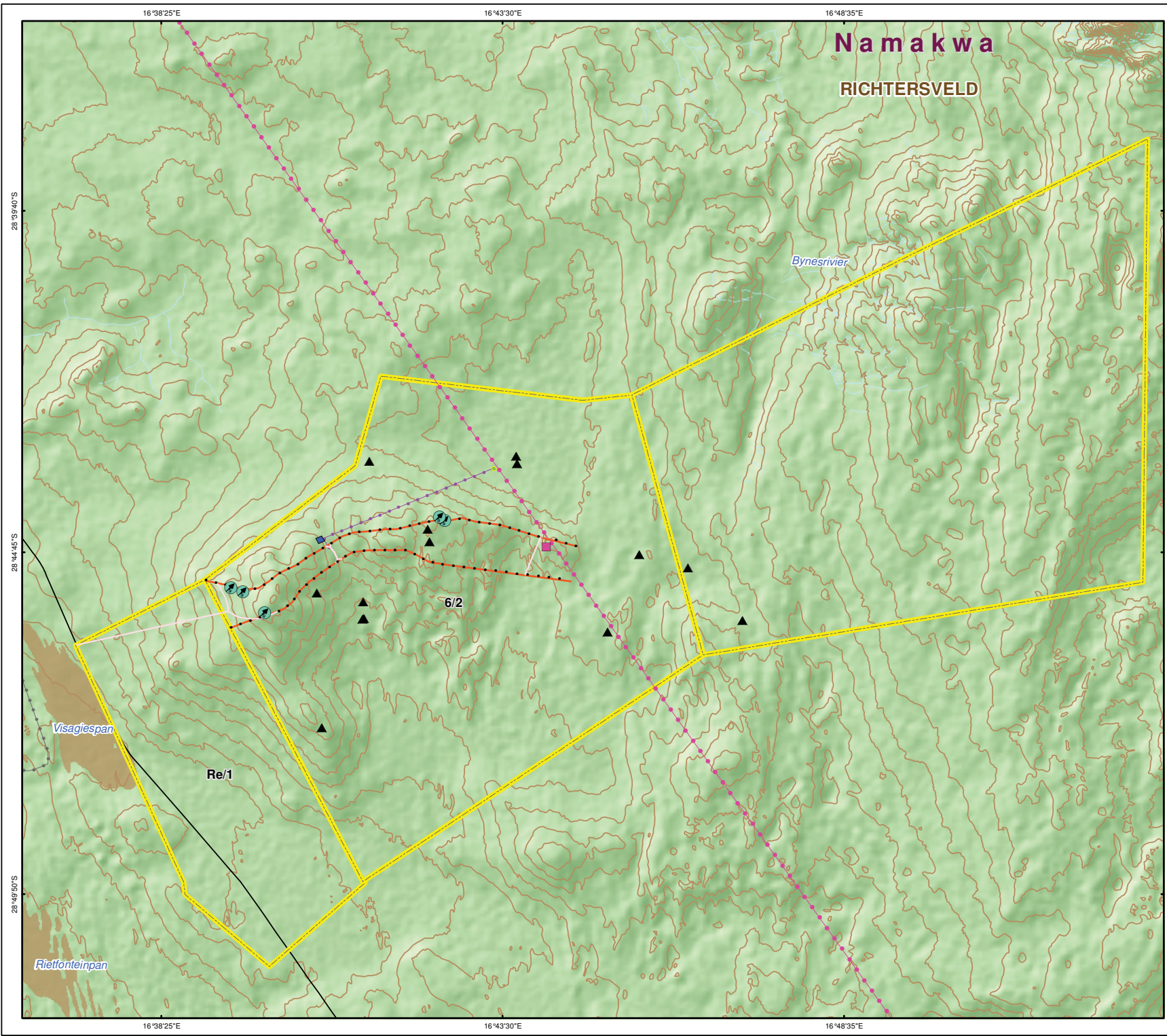
years is particularly interesting with human occupation of these arid areas pulsing with variations in climate. Namaqualand boasts possibly the longest unbroken record of human settlement in that Nama speaking herders who practise traditional lifestyles in the area are descendents of Khoekhoen populations who first came into southern Africa more than 2000 years ago.

Human burials occur widely along the coast and are completely unmarked. These graves were in most instances discovered during diamond mining.

The pre-colonial archaeology of the Study Area is limited, and relatively sparsely distributed over the landscape (*Figure 6.7*). All the archaeological observations were either limited to Late Stone Age sites, or sites with material that is a-diagnostic. In total 6 observations were made.

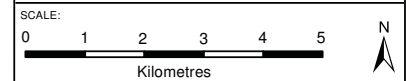
At site 3 various limpets and a large amount of Cape Coastal Pottery, as well as informal looking quartz artefacts were observed. The presence of pottery indicates that the site is likely to be less than 2000 years old (*Figure 6.7*).

Site 6 (the largest archaeological site), a Late Stone Age site predating the ceramic period which means that it is more than 2000 years old was found associated with the only significant granite outcrop in the Study Area (*Figure 6.7*). One of the larger granite boulders contained a natural water catchment hollow (*water bakkie*) which is why this locality was favoured as an encampment. The artefacts contained among them *microliths* (very small stone tools) and a strong retouched element suggesting that some of occupation took place during the formal phases of the Late Stone Age more than 3000 years ago. Although the site is some 14 km from the coast, the presence of small fragments of marine shell is an indicator that the shoreline was within the resource gathering range of the occupants of the site.



Legend

- Richtersveld Land Parcel
- Northern Cape
- Transmission Line
- Secondary Road
- Contours (20m)
- Non-Perennial River
- Dry Pan
- Linking Station
- Substation Alternative 2
- 220kV Substation
- Existing Transmission Lines (Gromis/Oranjemund 1)
- Substation alternative
- Access Roads
- Wind Turbine Generator
- Internal Roads
- Archaeological Site
- Stock-Posts



TITLE:
Figure 6.7: Archaeological, palaeontological finds on the Richtersveld site

CLIENT:

DATE: SEPT 2011	CHECKED: TS	PROJECT: 0134745
DRAWN: AB	APPROVED: SHC	SCALE: 1 : 100 000
DRAWING: Heritage Alt1.mxd	REV: 0	

ERM
 Building 32,
 The Woodlands,
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 Fax: +27 (0)11 804 2289



Projection: Geographic, Datum: WGS84
 Source: NGI, EnPAT, PPF, Heritage/Cultural-ACO Associates
 Inset Map, Esri Data & Maps

SIZE:
A3

6.9.3 *Cultural Heritage*

Colonial Heritage

The first travellers to the Orange River included elephant hunters such as Jacobus Coetzee in 1660. The earliest European penetration of the Richtersveld via the coastal route was by William Paterson and Colonel Gordon in 1779. Dr E Richter, an inspector of the Rhenish Mission Society, visited the area in 1830. The area was subsequently named after him. A mission station was established at Kuboes in the mid 19th century.

Captain James Edward Alexander (geographer and explorer) visited the Sendelingsdrift area in 1837 and prospected for copper at Kodas. He explored the south bank of the Orange from the mountains of the Richtersveld to the sea, and proposed transporting copper down the Orange River by barge to the mouth, and then by ship to Europe. There is an inscription to this effect at the Baaken mine.

A few years later, on 21 March 1846, the South African Mining Company was formed. They sent Thomas Fannin to the Orange River to survey the area and begin mining the copper deposits. He started an open cast mine that is now thought to be the oldest commercial mine in South Africa.

In 1847 the British extended their control to the Orange River and the Richtersveld was included in the Namaqualand district. By the 1890s, the inhabitants of the Richtersveld demanded clarity regarding their ownership of the land. Eventually in 1934 a formal “ticket of occupation” was issued by the government giving the indigenous groups communal rights to the land which was technically still held in trust by the state. The Richtersveld then became a “coloured reserve” under a management board.

It is interesting that although copper was mined in the mid-19th century by the colonists and long before that by the prehistoric inhabitants of the area (Goodwin 1956), diamonds were only discovered by Europeans in the early 20th century. In 1908 Dr Bernhard Dernburg discovered diamonds in southern Namibia (Davis 2008) and the area became known as the ‘Sperrgebiet’.

In 1925 the first Namaqualand diamond was discovered at a site 10.5 km south of Port Nolloth and was found by Jack Carstens who employed very rudimentary techniques (J. Carstens 1962; P. Carstens 2001). In November 1926, Dr Ernst Reuning, a geologist found the first diamonds at Alexander Bay (P. Carstens 2001). It was near the ruins of an old stone house used. This spot was at the northern end of the so-called “Oyster line” which was a very rich source of diamonds.

On 22 February 1927 the government banned prospecting on Crown land and began planning the establishment of the state mining (Rudd & Watson 1956 in P. Carstens 2001). Government took over all mining operations in the area in

1928 (Keyser 1972). This was later to become the Alexcor or State Diamond mines. After almost a century of mining, the Richtersveld community, comprising mainly people of Nama origin, once again obtained their rights to the land.

Living heritage: The Nama

Historical accounts up until 1913 suggest that Nama-speakers were living very much like their ancestors of several centuries before. The Nama-speaking inhabitants of the region follow a seasonal transhumant cycle (i.e they are not nomadic but tend to use a specific area on a seasonal basis). There is no clear indication of specific boundaries, and early traveller's record meeting with Nama groups as far south as Steinkopf. While pastoralism did allow for larger herder settlements, historic accounts suggest that the dry Northern Cape could not support the group sizes of several hundred observed further to the southwest. Since population density was low, there was little competition for land. Villages or kraals were centered on certain important water holes and the presence or absence of water was the first consideration when planning a move to a new area. Certain families, through time, came to be associated with a certain area.

Each herder settlement consisted of male members of the same patriline, with their wives and children. All the settlements (or kraals) in a given area were often part of the same tribal structure, owing allegiance to the most senior member or captain. These chiefs decided, together with senior members of the village on when and where to move, and they gave permission to outsiders who wished to enter their area to use their resources. However, ultimately, economic survival depends on flexibility and reciprocity.

Water was associated with the concept of !nau (danger or vulnerability) which occurred during these periods of transition. Water was therefore used in many ceremonies, including that of rain making, initiation, birth, etc. Men and women had different tasks in ceremonies and in society. There are many indications that women exerted considerable authority within the household but they could also own and inherit stock and on rare occasions become regents or temporary chiefs.

While resources were often shared, there was also the understanding that certain groups or individuals had rights to particular resources (such as a honey nest) and that permission had to be obtained to use them. At least 45 different plants are used as medicines; some are common knowledge while others are only used by herbalists and healers. At least 22 different plants are used for utilitarian purposes including the construction of the traditional *matjiesbuis*, in leatherwork, in making soap and in making household items.

The original inhabitants of the area (the San and the Nama) spoke related but different languages. San is no longer spoken although some 6000 Nama speakers are still found in the Northern Cape. The South African San Institute (SASI) was founded in 1997 to research and protect the rights of indigenous

minorities like the Khoe and San. During land claims investigations, SASI discovered 11 fluent southern San speakers in the Northern Cape, meaning that this language is effectively extinct. Crawhall, a sociolinguist who works for SASI has identified 6000 Nama speakers and has been concerned with the continued survival of this language.

Today there is dissent among the members of the Richtersveld community as the recent awarding of land to the indigenous inhabitants has created a plethora of management and leadership problems in a community whose survival has depended on very old traditional values for hundreds of years.

Within the Study Area today is evidence of some 10 active or recently active stock-posts. Although the '*matjieshuisies*' are no longer built of traditional materials, they are rendered in modern materials and the style and size of the encampments follow traditional form. The stock posts are actively used indicating the people are practising traditional herding activities in the area today.

6.9.4 *Cultural Landscape*

The cultural landscape of the site relates to aspects of the living heritage of the area (see Section 6.9.3). Although in recent years Nama settlement patterns have changed and have been subject to increasing urbanisation, many traditional practises were followed until recently (last 30 years). As mentioned above the Nama people followed a seasonal transhumant cycle hence their traditional *matjieshuisies* (domed houses made from finely woven reed mats over a framework of bent poles) could be easily disassembled and transported, traditionally on the backs of cattle, and re-erected with relative ease wherever required. Once the area was grazed (normally after a month or two) the families would move on to the next stock-post and re-establish their home.

During the study some 5 stock-posts were noted, each of them corresponding to the traditional settlements (Figure 6.8). There was also evidence in the form of a number of abandoned kraals, tracks and stock-posts, that the landscape had been used for traditional pastoralism for some time. Although reed mats are not used for making huts the "modern" stock posts contain similar elements, i.e domed huts are covered with cloth or plastic and the kraals are built from wire.

Figure 6.8 A typical stock post (Veepos) with hut, cooking area and kraal



The cultural landscape of the area contains the living heritage of Nama herders who still use the area. The construction of wind turbines should not affect the herder's way of life or decrease the natural resources available to them. Aesthetically however the turbines represent a very modern industrial and technological layer over a landscape characterised by an ancient lifestyle. The social impacts of turbines on the community and the benefits and implications of the increased revenue for the communities involved imply a deeper indirect impact for the people of the Richtersveld.

6.9.5 Built Environment

The built environment on the site and surrounding area is limited to radio transmitters and equipment situated on Visagiefonteinkop. All of this is less than 60 years of age and not protected under the National heritage Resources Act.

6.10 INFRASTRUCTURE AND SERVICES

6.10.1 Water

Approximately 98 percent of the population within the Richtersveld LM have access to piped water; the remaining households access water from other sources such as boreholes ⁽¹⁾.

(1) Community Survey, 2007

Water is limited and is not adequate to meet the demands of large-scale economic developments that require large quantities of water. Water shortages have an impact on local economic activities such as livestock farming. The water shortage and the long distance from natural water sources also limit the addition of new economic sectors such as crop farming.

6.10.2 Sanitation

One of the strategic objectives that have been identified is the provision of sustainable, equitable and affordable sanitation to the community of the Richtersveld LM ⁽¹⁾. Approximately 80 percent of the population in the Richtersveld LM area have flush toilets, with approximately 18 percent of the population using dry, chemical and pit latrines. The remaining households still use the bucket system or have no toilet facilities ⁽²⁾. It is however reported that some gains have been made in eradicating the bucket system ⁽³⁾.

6.10.3 Housing

Seventy nine percent of households within the Richtersveld LM live in formal housing. A total of 10 percent of households reside in informal housing, with approximately 9 percent residing in worker hostels and two percent living in other forms of housing such as tents and caravans ⁽⁴⁾.

6.10.4 Energy

Approximately 96 percent of the population of the Richtersveld LM have access to electricity, and the other four percent use other sources of energy. Electricity is the most important source of energy for lighting and heating at 95.5 percent and 88.5 percent, respectively. Only 66.4 percent of households use electricity for cooking. Other important sources of fuel are paraffin and wood, each 15 percent; gas, candles, solar and animal dung are also used to a limited extent.

6.10.5 Roads

The surface quality of the roads is worsening and renders many of the roads unusable, including the road from Lekkersing to Alexander Bay. As a result, the Richtersveld community has been further isolated as they have to travel backwards via Port Nolloth to Alexander Bay. This makes travel even more time consuming and expensive; as well as making access to schools and health care facilities more difficult. Approximately 1,072km of the major network in the district are without any gravel and thus cannot withstand the extreme weather conditions. The average condition of the gravel road network can be rated as fair with 22 percent of the roads in a poor to very poor category.

(1) Richtersveld Local Municipality: Integrated Development Plan, 2009

(2) Community survey, 2007

(3) Richtersveld Annual Report, 2007

(4) Community Survey, 2007

Regular upgrading or maintenance of these roads is required in order to keep them in a good condition; unfortunately this does not happen.