Hi, my name is Sauf. I am a Second Life Avatar representing the Qarbon Qampus Virtual World. Today we will be doing a real world assessment for a development. My role is that of a farmer of the Environmental and Sustainability Studies at the University of the Western Cape and I am looking to build a new game farm in order to attract local tourists for hunting of food and recreation. This food would be supplied to the surrounding communities.
A development was proposed in the Prince Albert Municipality. It comprises of a game farm spread over 196 hectares on either side of the Sand River, just off Pastorie road. The farm aims to attract local tourists into the Municipal area by involving them in hunting for food and recreation. The food that is hunted by these tourists are supplied to communities within the Municipal area. The farm will also house about 40 chalets (each comprising of 350 m²), where tourists are able to indulge and relax while enjoying the wilderness of the area.

The types of animals that are available for hunting at the game farm include: the kudu, springbuck, impala and some wildebeest. These animals can be hunted in various ways but can only be caught when and if the populations are strong enough (above carrying capacity or into reproductive stages). This way biodiversity is conserved because animals are not stressed into being hunted before reproductive ages and also if population numbers are too little. Strict rules need to be set in order to maintain a healthy hunting environment and to protect these animals from becoming threatened.
Experimental location

The map below illustrates the location of the game reserve and its proximity to surrounding towns and areas.
The most dominant vegetation type found in the proposed area for development is the Gamka Thicket. Thickets are dense, woody, semi-succulent and thorny vegetation type with low growing fine- and broad-leaved shrubs with herbs and grasses.

*Springbuck* – browse on shrubs and some succulents

*Kudu* – feed on leaves and shoots

*Impala* – browse on grasses and herbs, bushes, shrubs and shoots

*Blue Wildebeest* – feed on short grasses
Prince Albert Municipality Profile

Description
Prince Albert Municipality is a local municipality located within Prince Albert, in the Western Cape province of South Africa. Prince Albert is approximately 400 km north of Cape Town and about 170km south of Beaufort West. The area is well known for its architecture, agriculture and tourism industry. Prince Albert is blessed to have fertile soils and endless sunshine. It has crystal clear waters flowing from springs in the Swartberg Mountains – all the perfect combination for tourist attraction and recreation.

General statistics
Area: 1 891.49 km²
Total Population (2011): 12 132
Population density: 6.41/km²

Summary of Overberg Integrated Development Plan IDP
• According to the Prince Albert IDP, in the past, agriculture has always been the cornerstone of the economy
• The agricultural sector plays a cardinal role in the local economy as it links to many other sectors
• The main farming activities are deciduous fruit mainly for export market, olive vineyards, vegetable seed production, Lucerne and ostrich
• Livestock farmers with sheep, Angora goats and game farming are now well established
Prince Albert Municipality
Transformation and protection

Total area: 815 291.3ha

**Landscape Transformation**

This is the part of the municipal area where there are no longer natural habitats occurring

**Protected Areas**

Formal land-based protected areas
7 reserves, covering
65 335.7 ha
Prince Albert Municipality
Vegetation types – original extent

Main vegetation types
- Gamka Karoo (60.7%)
- Southern Karoo Riviere (3.41%)
- Gamka Thicket (4.13%)
- Prince Albert Succulent Karoo (19.09%)
- Swartberg Shale Renosterveld (2.94%)

Other vegetation types
- Grootrivier Quartzite Fynbos (0.44%)
- Willowmore Gwarrieveld (0.73%)
- North Swartberg Sandstone Fynbos (5.85%)
- South Swartberg Sandstone Fynbos (0.95%)
- Central Inland Shale Band (0.34%)
- Koedoesberge-Moordenaars Karoo (0.88%)
- Swartberg Altimontane Sandstone Fynbos (0.17%)
- Swartberg Shale Fynbos (0.36%)
Prince Albert Municipality
National threatened ecosystems

According to the most recent report on the developmental area, there are no known threatened ecosystems.
Prince Albert Municipality

Ecosystems
Prince Albert Biodiversity Assessment
Assessment location and Conservation Plan

Assessment location

The map to the right shows the assessment area where the development of 40 chalets will be built on an experimental farm just outside Prince Albert, in the Prince Albert Municipal area.

Assessment results

The assessment report is a compilation of data of various spatial biodiversity data sets and planning production. These are:

1. National terrestrial or aquatic spatial data sets and protected area boundaries and

2. The most relevant Biodiversity Conservation Plan for the municipality in which the assessment is located.
Prince Albert Biodiversity Assessment
Ecosystems, forests and soils

Threatened Ecosystems
Section 1.1.1 of the report lists no national threatened ecosystems which occur with the assessment area. There are, however, 3 national vegetation types found in the assessment area. These vegetation types include:

1. Gamka Thicket (AT 2)
2. Prince Albert Succulent Karoo (SKv 13)
3. Southern Karoo Riviere (Azi 6)

Note the results for the National vegetation types section 1.1.2 confirms that the only vegetation types (ecosystems) which may occur in ecosystems that are not exactly threatened.

Soils
The soil classes encountered (section 1.1.4) are probably associated with the 3 vegetation types found in the assessment area. Further investigation revealed that:

1. Association of Classes 13 and 16: Undifferentiated shallow soils and land classes.
2. Freely drained, structureless soils.
3. Non soil land classes has limit value for agriculture.

Indigenous Forest Patches
There were no indigenous forest patches found in the assessment area (section 1.1.3).
Prince Albert Biodiversity Assessment
Rivers, wetlands and protected areas

National Fresh Water Priority Areas (NFEPA)

Wetlands
One wetland occurs in the analysis area (section 1.2.1), this Rainshadow Valley Karoo wetland type is artificial with the condition Z3 where the percentage natural land cover <25%. No FEPA status.

Rivers Units Sub-quaternary catchments
The analysis area intersected 3 units of the Sand River (section 1.2.2) with a condition of C moderately modified. The analysis area was only located in this river units sub-quaternary catchment of which both have a FEPA status of Upstream. River type ecoregion number 19, the flow is not permanent or flashy and the geomorphological zone is upper foothills.

Protected Areas (NBA 2011)
The analysis area did not intersect any formal Protected Areas (section 1.3).
In the Prince Albert Biodiversity Assessment a lookup layer is provided which divides the area of the plan into units each of which gives biodiversity feature information responsible for the classification of the unit’s CBA map category CBA, ESA or PA. The analysis area intersected 51 such units (section 2). In the report each unit is listed separately rather than in a table due to the amount and complexity of information it contains.

Critically Endangered ecosystems (CBAs)

Most of the analysis area intersected with lookup layer units which were classified as Critical Biodiversity Areas; 47 units in total of which all are natural. The biodiversity features responsible for this classification indicated potential occurrence of both endangered species and national threatened ecosystems. These units corresponds with the vegetation which were listed above.

Ecological Support Areas (ESAs)

The analysis area intersected 4 CBA map lookup layer units which were classed as ESA or important for maintaining aquatic processes and may be transformed from natural.

Protected Areas (PAs)

The analysis area intersected no CBA map lookup layer units which were classed as Protected Area.
The proposed assessment area seems more than ready to accommodate the 40 chalets as well as being capable of holding various animals for hunting of food for local tourists. This could be a recreational facility where tourists can relax and unwind.

Animals could be hunted under very careful moderation to ensure nothing becomes threatened. Simple rules like only permitting one family to hunt a certain number of individuals (depending on the number of family members).

This project can also push up job creation as locals could work as guides and be involved in the clean up of the farm.

The game farm could help transform this municipality by getting more and more tourists into the facility daily. The local community who will receive most of the meat would also save as meat does not need imported from elsewhere (saving on traveling costs).