

# **[UMNGENI MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK: 2016/ 2017 REVIEW]**

[FINAL DRAFT FOR PRESENTATION AND DISCUSSION]



[ULM SPATIAL PLANNING UNIT]

UMNGENI LOCAL MUNICIPALITY P.O. BOX 05; HOWICK

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## 1. INTRODUCTION





### 1.1 BACKGROUND

UMngeni Local Municipality Spatial Development Framework (SDF) is intended, in part, to comply with Section 26(e) of the Municipal Systems Act No. 32 of 2000), which requires a municipality to prepare and adopt an SDF as a component of its Integrated Development Plan (IDP). Most importantly, the SDF is intended to facilitate the development of a spatial structure that promotes integrated development and enables an efficient delivery of services. It will give direction to future planning and development within UMngeni Local Municipality, and provide a framework for the local municipalities SDFs.

The Constitution of the Republic of South Africa, (Act No. 108 of 1996) confers to municipalities major developmental responsibilities intended to improve quality of life people residing or working within a municipality's area of jurisdiction. An SDF therefore, forms part of the systems and procedures at the disposal of the municipality to perform on its developmental mandate and facilitate removal of spatial remnants of the apartheid past. The main purpose of the SDF is to guide the form and location of future spatial development within UMngeni Local Municipality. It is a legislative requirement and has a legal status. In summary, the SDF has the following benefits:

-  facilitates decision making with regard to the location of service delivery projects and guides public and private sector investment;
-  it strengthens democracy and spatial transformation and facilitates effective use of scarce land resources; and
-  it promotes intergovernmental coordination on spatial issues and serves as a framework for the development of detailed Land Use Management Scheme (LUMS).

Other key defining features of UMngeni Municipality includes the following:

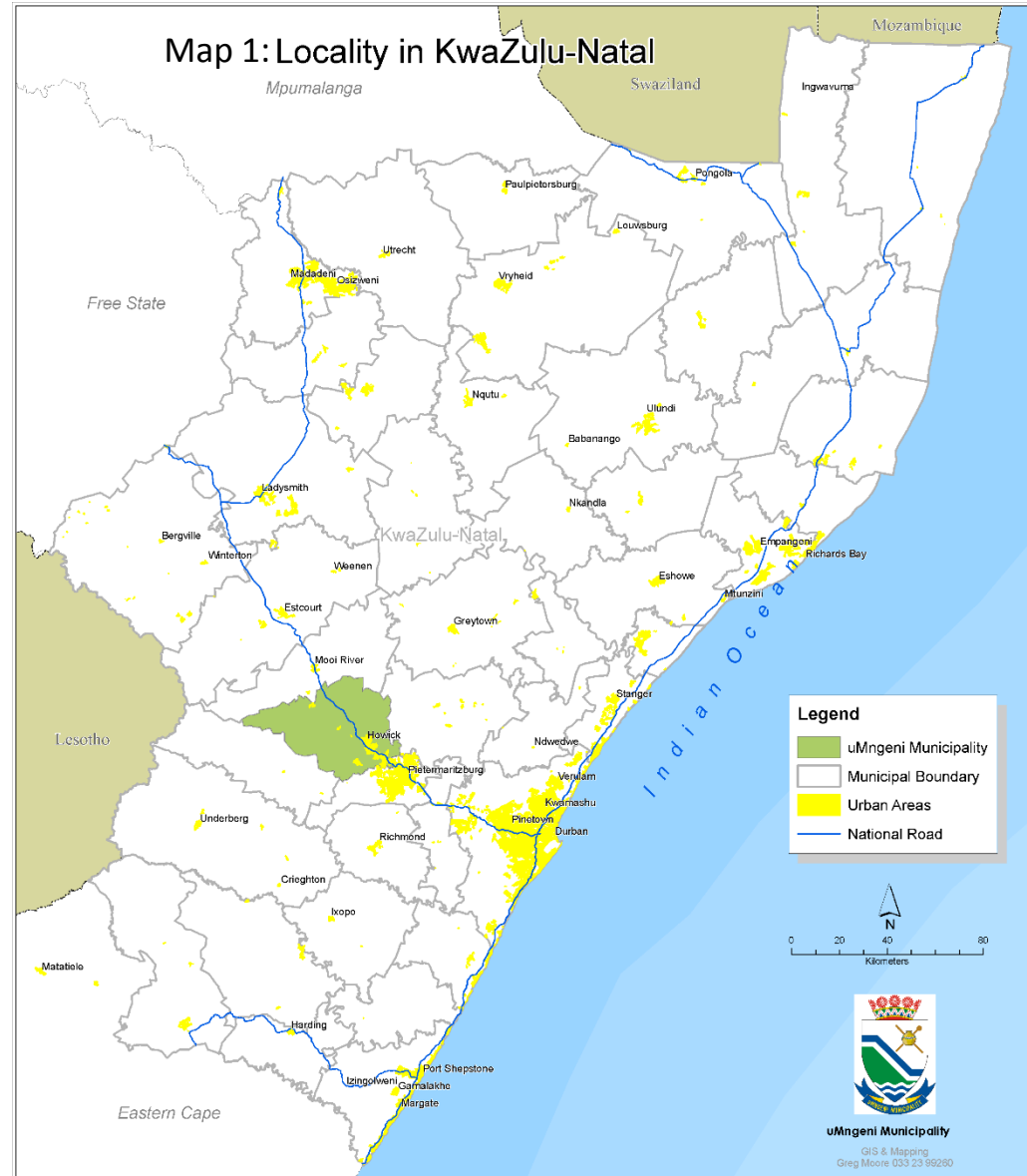
-  It is 29km away from Pietermaritzburg City (KZN Capital City);
-  It is home to a number of spectacular tourist's attractions including Midlands Meander, World's View, numerous waterfalls including Karkloof Falls and a 94m high Howick Falls;
-  It is also home to the well-known, splendid and luxurious suburbs (e.g. Hilton) within KwaZulu-Natal; and
-  UMngeni is one of the notable commercial and agricultural hubs within UMgungundlovu District Municipality.



## 1.2 UMNGENI LOCAL MUNICIPALITY

UMngeni Local Municipality is a category B municipality and falls within UMgungundlovu District Municipality. It is commonly referred to as KZN Midlands given its geographical location in relation to the Midlands Meander. The municipality has its administrative seat in Howick. UMngeni Municipality comprises of the former Transitional Local Council Areas of Howick, Hilton, Mpophomeni, Worlds View, Nottingham Road and a substantial amount of farm land. The municipal area covers 1 564 square kilometres. It is an inland municipality with a number of important rivers which transverses within it. These include UMngeni River.

UMngeni is centrally situated within UMgungundlovu District, and shares a boundary with the Impendle Local Municipality to the south west, to the north and north west is the Mpofana Local Municipality which is closely tied to the UMngeni Municipality in terms of potential tourism (Midlands Meander), and to the south east the Msunduzi Local Municipality which is the capital of the Province and the economic hub of the District. To the east of UMngeni is the UMshwathi Local Municipality. To the west are the former District Management Areas of the Drakensberg that fall under the Transfrontier Development Initiative related to the World Heritage Site.

















## 2. POLICY CONTEXT




### 2.1 NATIONAL AND PROVINCIAL SPATIAL POLICIES

A number of policies and legislations have been developed at a national and provincial level to guide spatial planning. These are fully analysed in Annexure A and can be listed as follows:

-  The National Development Plan (NDP);
-  Spatial Planning and Land Use Management Act No. 16 of 2013;
-  Comprehensive Rural Development Programme (CRDP);
-  Breaking New Ground (BNG);
-  National Environmental Management Act No. 107 of 1998;
-  State of the National Address, February 2016;
-  Local Government Back to Basics Approach;
-  State of the Province Address, February 2016;
-  Provincial Spatial Economic Development Perspective;
-  Provincial Growth and Development Plan (PGDP);
-  UMgungundlovu District SDF; and
-  Other District Sector Plans.

### 2.2 IMPLICATIONS FOR THE UMNGENI SDF

The following implications can be drawn:

-  NDP does not make any specific reference to UMngeni and there are no notable NDP projects which relates to the area;
-  In line with the CRDP, UMngeni SDF will, in the short to medium term, prioritize the revitalization of rural towns, stimulation of agricultural production with a view to contributing to food security, and aggressive implementation of land and agrarian reform policies. In the long-term, it will provide for the transformation of rural settlements into efficient, generative and sustainable settlements. This includes the protection of natural resources and identification of areas with potential for investment and job creation;
-  UMngeni Municipality is characterized by a number of intrinsic environmental qualities which needs to be enhanced and maintained as such it is important to comply with all environmental laws such as the National Environmental Management Act No. 107 of 1998 (NEMA);



- Howick/ Hilton/ Mpophomeni is identified as Level 3 Node and Nottingham Road is identified as Level 4 Node. This generally acknowledge the existing formal town with the requisite infrastructure that was developed to make the service centres or growth points within its local economy. The National Route (N3) from Durban via UMngeni to Johannesburg is acknowledged as Existing Corridor;
- Howick Town is identified as the Value Adding Area;
- Midmar Dam is a Priority Conservation Area;
- Biodiversity Priority Area 1 are found along the Impendle Municipal Boundary;
- Economic Support Areas are identified within the farmlands of the municipality;
- The nodal areas (Howick, Mpophomeni, Nottingham Road, Fort Nottingham, Lidgetton and Dargle) are identified as Priority Intervention Area 1;
- The PDGS further stated that additional important developmental issues within UMngeni are High Value Agriculture for Export, Battlefields and Cultural Heritage Tourism Routes, Agro-Processing incorporating Bio-Fuels, Small Town Regeneration, Rural Service Centers, ECD Centre Development, Cultural Villages and School Greening;

- Howick/ Hilton /Mpophomeni complex is identified as Secondary Nodes, which are urban centres with good existing levels of economic development and the potential for economic growth and development, serving the sub-regional economy and beyond;
- Lidgetton is identified as a Rural Node which is a centre which fulfil the function of a rural service centre to the surrounding area. It should however be acknowledged that this type of node has the potential to provide a wider range of services which will be determined by local conditions. Services that can be expected can include Police Services, Administration Services, Clinics, low level of Retail Services, Mobile Services, Pension Payout points and a range of social facilities including community halls; and
- Nottingham Road is identified as Tourism Node. Development in this node will primarily be of a tourism nature, and this role needs to be consolidated and expanded. Given the location of the node, the type of existing development and the additional recreation and tourist potential that will be provided by the Spring Grove Dam, the node should be seen as the northern gateway to the District's Tourist Routes, and should be planned accordingly. Environmental conservation and the maintenance of water quality should be key elements in the determination of potential development opportunities in this area.



### 3. CROSS-BORDER ALIGNMENT ISSUES

As per the National and Provincial policies and legislation (MSA-S26 (d), MSA Regs S2 (4) (h), Municipalities are required to provide a clear indication of how the SDF is aligned with the planning of neighbouring municipalities. UMngeni Local Municipality has a mandate to ensure that its IDP is in compliance with the planning legislation and policies to give effect to the development of an SDF as spatial representation of the IDP. The municipal SDF, in turn, directs and guides strategic investments that are developmental and beneficial within UMgungundlovu District Municipality and across neighbouring district municipalities as well as local municipalities.

It is further reiterated that UMngeni Local Municipality forms an integral part of a larger system of local governance and regional economy. It also influences development in the adjoining regions. Cross-border planning issues have become more prevalent and significant. The focus is on strategic or shared development issues that would benefit from a joint approach, and engaging with the relevant neighbouring authorities to explore joint operational potential. This section is thus intended to ensure that there is no disharmony between proposals that are suggested by UMngeni Local Municipality's Spatial Development Framework and its neighbouring municipalities as UMngeni Local Municipality is centrally situated within the uMgungundlovu District, and shares a boundary with Impendle Local Municipality to the south west, to the north and north west is Mpofana Local Municipality which is closely

tied to UMngeni Local Municipality in terms of potential tourism (Midlands Meander), and to the south east Msunduzi Local Municipality which is the capital of the Province and the economic hub of the District. To the east of UMngeni Local Municipality is UMshwathi Local Municipality. To the west are the former District Management Areas of the Drakensberg that fall under the Trans-Frontier Development Initiative related to the World Heritage Site. Economically UMngeni Local Municipality has formed close ties with Mpofana Local Municipality and UMTshezi Municipality that lies to the north of Mpofana.

#### 3.1 UMGUNGUNDLOVU DISTRICT SDF

UMgungundlovu District SDF subscribes to PSEDS which set out the relative importance of development nodes as a reflection of their economic development potential and in this instance it has identified Howick amongst other areas i.e. Hilton, Mphophomeni complex, and Camperdown/ Cato Ridge area as Secondary Nodes, which are urban centres with good existing levels of economic development and potential for growth, serving the sub-regional economy and beyond. Provincial Priority Corridor (PC2) has been derived from the District SDF to which UMngeni SDF is aligned is Camperdown to Msunduzi to Mooi River (N3). The main function of this corridor is a limited access, long distance movement corridor.



However, along the urban component of the corridor it will attract the full range of urban uses. This development pressure should be accommodated on a planned basis, without undermining the corridor's primary function. In this way, environmental objectives will be served and the existing and potential tourist routes can be protected. The District SDF and UMngeni Municipality respectively identifies the Howick–Mooi River (R103) as the serves as both an established tourist route and an alternative route to the N3. Primary Corridor R617 - The rationale for Primary Corridors as provided in the District SDF indicates that these corridors provide the major linkages with the adjoining Districts to the north, south and east. In some cases, these routes serve as alternative routes to the major national routes. The primary function of these corridors is long distance traffic movement, but development should be encouraged at appropriate locations along the corridors.

## 3.2 NEIGHBOURING LOCAL MUNICIPALITIES

### 3.2.1 MSUNDUZI LOCAL SDF

Msunduzi Municipality's interface with UMngeni Municipality can be considered as an urban linkage along the N3, the Old Howick Road and the Sweetwaters area. There is a proposed commercial node on Msunduzi on Sweetwaters intersection (along Dennis Shepstone Drive). This includes a proposed Shopping Centre on that node which is within the T-intersection and it is within close proximity to the

Hilton area. Alignments should be considered. The traffic from Edendale to Hilton and Howick will increase dramatically due to this proposal. A need exists to manage pressure in the near future i.e. upgrading of Dennis Shepstone Drive and R103.

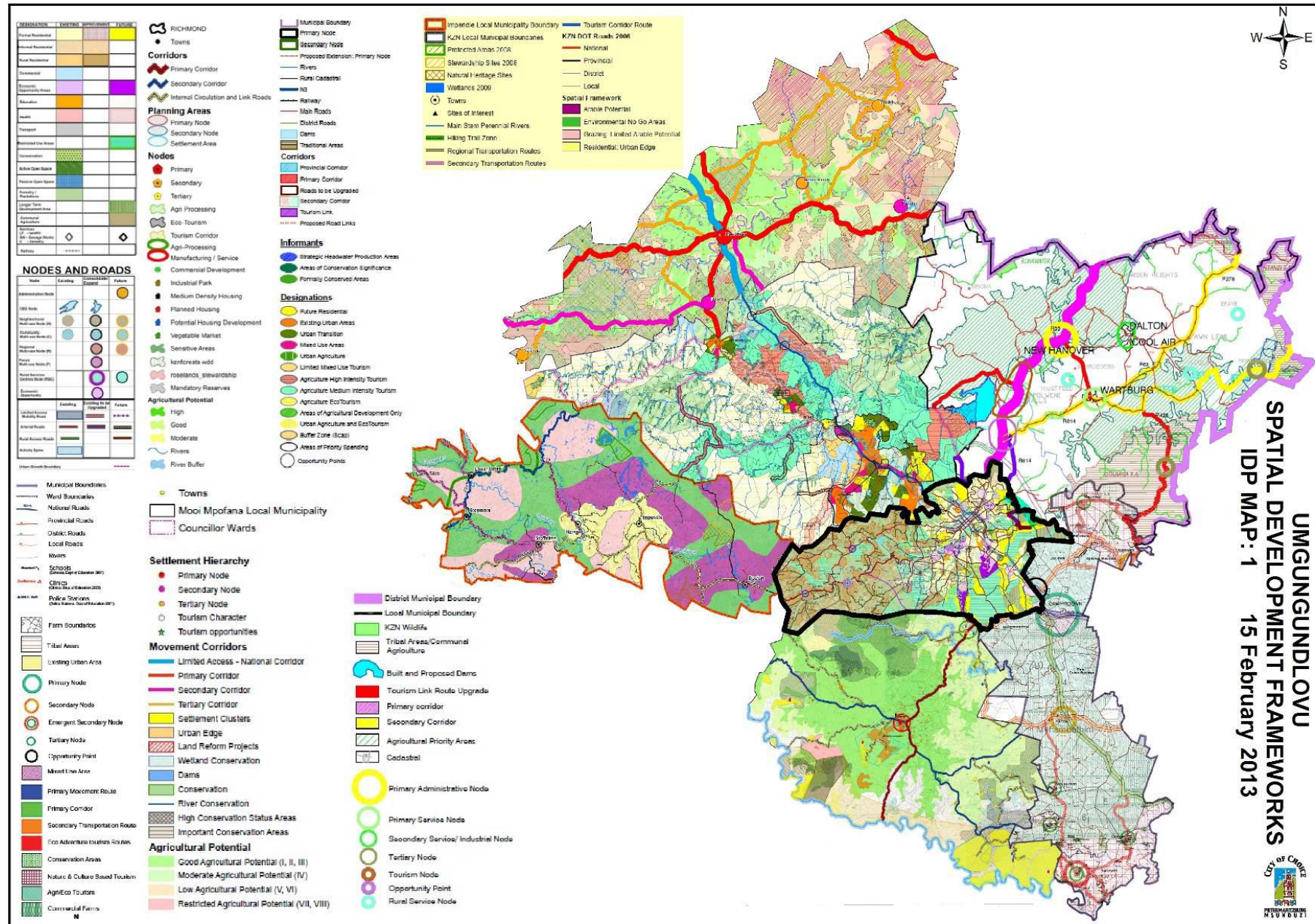
Traditional areas within the Vulindlela area of the Msunduzi Municipality lie to the South East of UMngeni Local Municipality, and have strong linkages with Mpophomeni. Rural linkages occur into the Claridge area. The evidence of urban settlement along the southern boundary of UMngeni Municipality thus reflects the possibility that rural residents residing in the northern region of Msunduzi Municipality are dependent on the services provided in the nearby urban settlements of UMngeni Municipality.

### 3.2.2 MPOFANA LOCAL SDF

Mpofana and UMngeni Municipalities share a number of Provincial Environmental Corridors and buffers which needs to be protected and conserved as part of Drakensberg World Heritage Site. There are a number of mobility and tourism corridors that connects and link these municipalities including the Midlands Meander Route. The link between Howick, and Nottingham Road linking to Mooi River is identified as a Primary Corridor. There are cross-border nodes between these two municipalities. The most visible are Rosetta and Nottingham Road. The majority of residents in Rosetta and farmers within Mpofana conducts their shopping in Nottingham Road.







### 3.2.3 IMPENDLE LOCAL SDF

UMngeni Local Municipality which is closely tied to Impendle Municipality in terms of agriculture and potential tourism (Midlands Meander) lies to the north is IMpendle Local Municipality. Impendle also borders on the Ukhahlamba Transfrontier Park which is a World Heritage Site and the Midlands Meander in UMngeni. The SDF for Impendle Municipality, amplifies the importance of Arable Land with good potential on the interface of the two Local Municipalities – Impendle and UMngeni. The identification of Arable Potential land is compatible with land use on the western boundary of UMngeni Local Municipality, which is also largely agricultural and rural in nature. Future spatial planning should observe and reinforce the existing compatibility in the land uses of both Municipalities.

### 3.2.4 UMSHWATHI LOCAL SDF






The link to the UMngeni municipality focuses primarily on the Albert Falls area and in order to strengthen this link the District SDF proposes a Tourism Link Road upgrade along the P9 route. The location of the Albert Falls Dam Node is located within the south-western section of the UMshwathi Municipality and is bordered by the UMngeni Municipality in the West and the Msunduzi Municipality in the south

It is important to note that 2 826 ha or 13.4% (including a 730ha section of AFD) of the study area south west of Albert Falls Dam is

located within the UMngeni Municipality. This area was included because it forms the immediate catchment to Alberlt Falls Dam and the dam is recognised as a strategic asset to both municipalities in terms of its value for tourism and recreation, and to the province in terms of its role as a water storage facility. Alignment of development initiatives in the interface area will be critical for the sustainable development of the area.

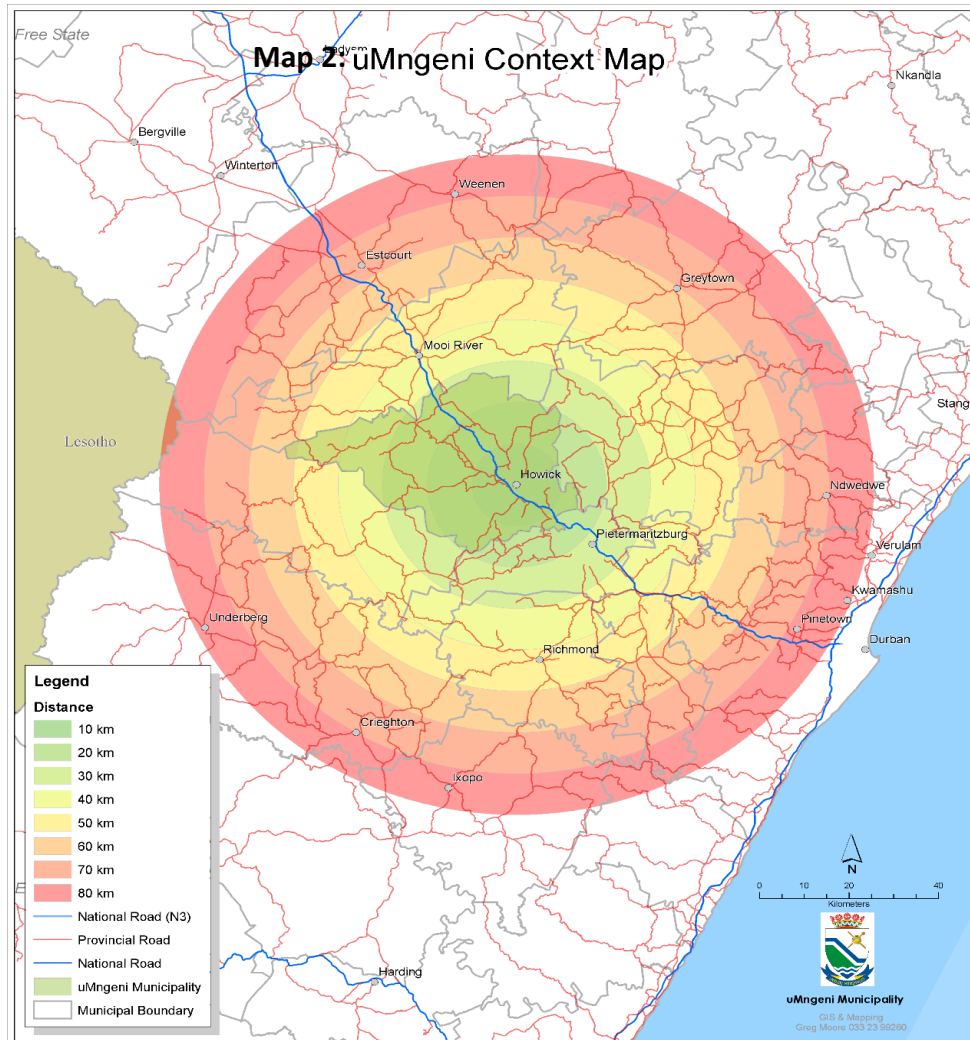
## 3.3 IMPLICATIONS FOR UMNGENI SDF

The implications can be drawn as follows:

-  Harmonization of environmental corridors identified by Mpofana SDF and UKhahlamba Drakensberg Environmental Buffers;
-  Alignment with Provincial Priority Corridors (N3) and movement linkages between Msunduzi, Mpofana and UMshwathi;
-  Tourism Link Route upgrades between the Midlands Meander and Drakensberg;
-  Alignment of initiatives with Albert Falls Dam Node; and
-  An opportunity exists to strengthen the linkages between the Traditional areas within the Vulindlela/ Sweetwaters area of the Msunduzi Municipality with Mpophomeni and Hilton area in the UMngeni Local Municipality.



#### 4. UMNGENI WITHIN THE REGIONAL CONTEXT



#### UMNGENI REGIONAL CONTEXT

UMngeni is geographically located at the centre of KwaZulu Natal province and UMgungundlovu District Municipality. The map insert indicates the following:

- It is located within 30km from Pietermaritzburg. This is the main urban centre of UMgungundlovu District and Capital City of KwaZulu-Natal Province.
- It is located within 60km of Mooi River and Richmond towns. These are the local service centre of UMgungundlovu District.
- It is 70km away from the towns of Greytown and Estcourt. These towns are located within UMzinyathi and UThukela District Municipalities.
- The remaining notable centres which are within an 80km radius from UMngeni are Weenen, Underberg, Creighton, Ixopo, Ndwendwe and Pinetown.

This location is advantageous to the trading opportunities for the area especially if the area capitalizes on being a manufacturing hub within the regional context.



## 5. SPACE ECONOMY

### 5.1 SIZE AND STRUCTURE OF THE LOCAL ECONOMY

UMngeni Gross Domestic Product is estimated at R 3 185 784 000.00 and it accounts to 9% of the GDP for UMgungundlovu District Municipality which is estimated at R 35 280 000 000.00. The key sectors that drive the local economy are Agriculture (11%), Tourism, Manufacturing (11%), Trade and Commerce (23%) as well as Community Services (19%).

### 5.2 TRADE AND COMMERCE INDUSTRY

#### 5.2.1 HOWICK AND HILTON RETAIL AND COMMERCIAL CENTRES

The existing towns of Howick and Hilton are well developed with central business districts (CBD) which are the agglomeration of retail and commercial activities that services the municipal area. These towns act as the centre for trade and commerce for UMngeni Municipality. The products that are produced within the municipality or outside of UMngeni Municipal Area are transported to these towns as these act the role of the main market place of UMngeni Municipal Area. The advantageous location of these along the N3 and R103 imply that these towns are highly accessible and are the focal point for the distribution of services.

#### 5.2.2 NOTTINGHAM ROAD AND LIONS RIVER AS LOCAL CONVENIENT SHOPPING AREAS

These settlement areas have developed within few commercial activities of their own. The commercial centre of Nottingham Road is serviced with basic commercial facilities such as grocery shop, fuel filling station and restaurants which are used by the local community as well as the passing commuters. Lions River is mainly serviced with few local convenient shops with limited products but it serves the localized function of small convenient shopping.

### 5.3 MANUFACTURING INDUSTRY

#### 5.3.1 HOWICK WEST AND TWEEDIE: N3 AND R103 INDUSTRIAL AGGLOMERATION

Howick Town has a number of industrial activities that are found within it. These are mainly located in Howick West and Tweedie. This location has been primarily influenced by the existence of trade routes which are N3 and R103. The final products that are produced are transported to various markets within the country and the main routes that are used for getting these goods to the market are both the routes. The future industrial activities within UMngeni Municipal Area are likely to uphold this locational advantage.





### 5.3.2 AGRI-INDUSTRIAL ACTIVITIES WITHIN FARMS

There are few farms that process some of their agricultural outputs within the farms. These agricultural processing industries are complementary activity to the agricultural function for each farm. There is no pre-determined spatial pattern for agricultural processing industries since these can be undertaken by any farm at the discretion of its owner.

## 5.4 TOURISM INDUSTRY

### 5.4.1 CLUSTERED TOURISM ENTERPRISES

The spatially clustered tourism enterprises are found within urban and nodal areas. These include tourist accommodation, conference facilities as well as historical, township and cultural attractions which are located in Howick, Hilton, Mpophomeni, Nottingham Road and Curry Post.

### 5.4.2 SPARSELY SPREAD TOURIST ACTIVITIES AND ATTRACTIONS

The tourism activities linked to the Midlands Meander and Agri-tourism are sparsely spread within different farms. These include attractions that are linked to nature based tourism, farm stays, hiking, biking and other related adventure tourism activities. The majority of these activities are directly linked to the agricultural sector.

## 5.5 AGRICULTURAL SECTOR

### 5.5.1 DOMINANCE OF COMMERCIAL AGRICULTURE

The majority of the land within UMngeni are privately owned commercial farms. The main enterprises include maize, soya beans, dry beans, potatoes and lupins as annual field crops, sugar cane (in the lower, warmer parts of the local municipality), timber production, vegetables irrigation (with cabbage, tomatoes and carrots as the main crops), orchard crops (notably avocado), pasture and fodder crops.

### 5.5.2 SUBSISTENCE FARMING

UMngeni Municipality has limited rural settlements that practice subsistence agriculture. Subsistence agriculture is self-sufficiency farming in which the farmers focus on growing enough food to feed themselves and their families. The output is mostly for local requirements with little or no surplus for trade. The majority of rural settlements are based on commercial farms and are part of the commercial farming community. There are few rural settlements that are located within close proximity to Mpophomeni Township. However, these are densely populated rural settlements without any noticeable subsistence farming activities within them.

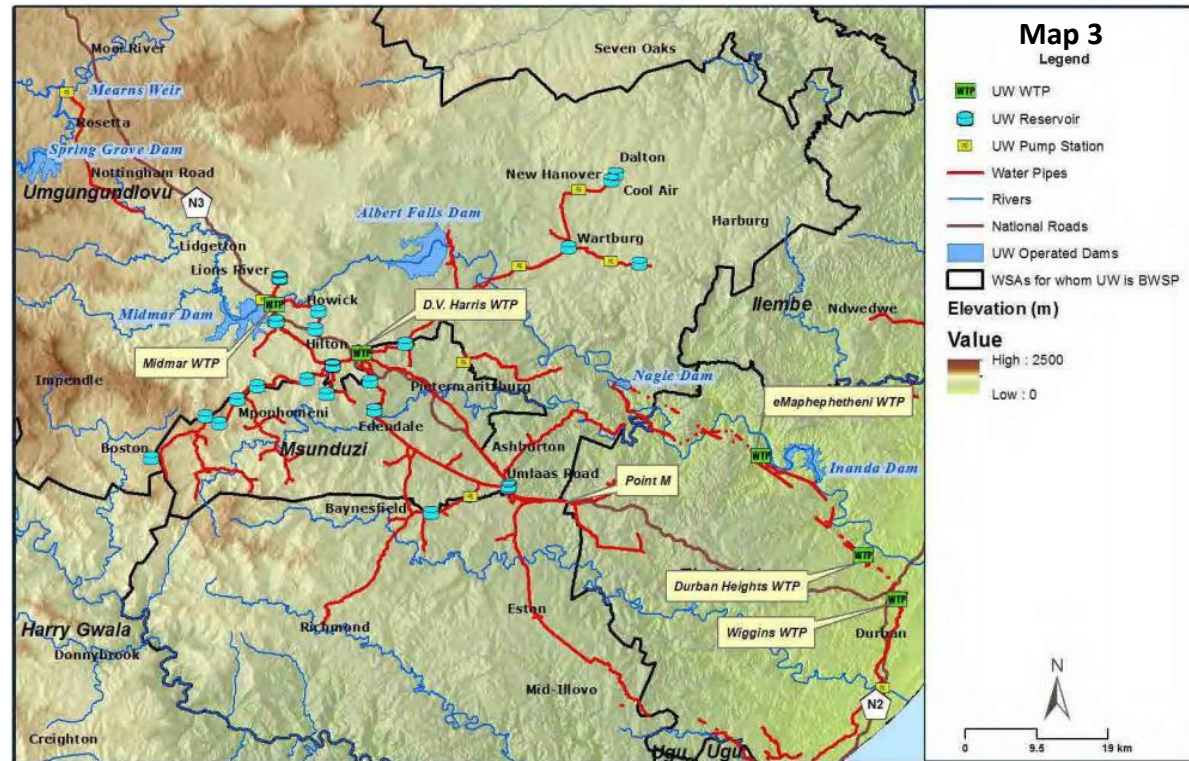


## 6. INFRASTRUCTURE ASSESSMENT

### 6.1 BULK WATER SUPPLY

#### 6.1.1 BULK WATER INFRASTRUCTURE

UMngeni has a number of surface water sources in the form of dams and river tributaries. Mngeni scheme consisted of a 3 m high weir and a pump station at Mearns on the Mooi River, a 13.3 km long, 1 400 mm diameter steel rising main to a break pressure tank situated at Nottingham Road and an 8.3km long 900mm diameter steel gravity main to an outfall structure on the Mpofana River. The emergency scheme was operated for a short period until the drought broke and was then mothballed until 1993 when Umgeni Water re-commissioned it for a short period again during a drought cycle. Since then the Mearns Emergency Transfer Scheme was operated as and when required until the commissioning of the Mooi-Mngeni Transfer Scheme (MMTS- 1) in 2003.

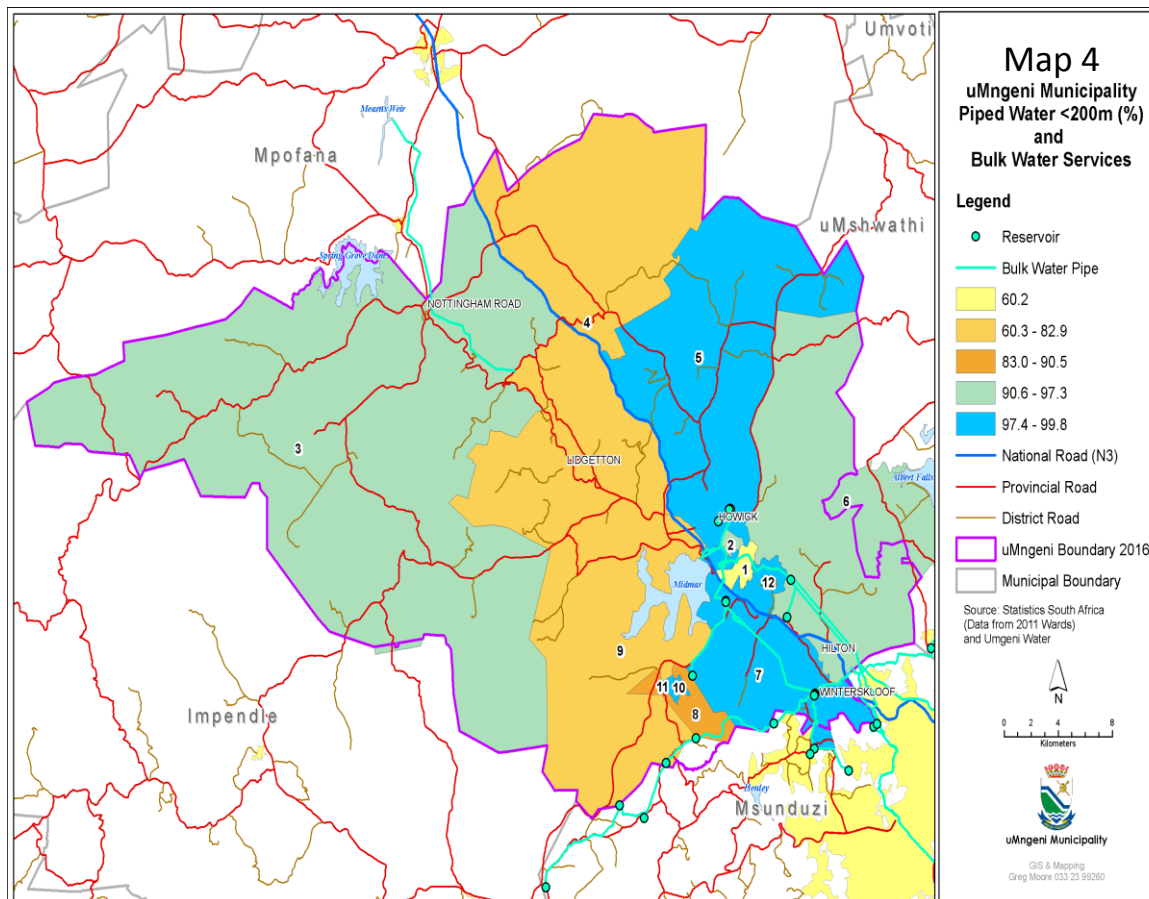


The bulk water system within UMngeni Municipality is however considered to be a challenge. Midmar WTP currently has a design capacity of 250 Mℓ/day. The WTP can operate in excess of this capacity during short peak demand periods. Capacity upgrade of 375 Mℓ/day is expected towards the end of 2017.



### 6.1.2 AREAS THAT LACK ACCESS TO WATER

UMngeni Municipality has made positive progress in terms of connecting households with water supply. The communities that are falling short in having water supply are listed in Table below. The communities identified are either located in rural areas or tribal areas whilst others are informal settlements.



**TABLE 1: COMMUNITIES WITHOUT OR LARGELY WITHOUT A WATER SUPPLY**

WARD	AREA	NO. OF HOUSEHOLDS
1	Shiyabazali	191
5	Triandra	37
8	Mashingeni	147
9	Enguga	80
8 and 9	KwaChief	333
12	Thokoza	53
	<b>Total</b>	<b>841</b>





**COMMUNITIES WITH AN INADEQUATE WATER SUPPLY WHICH REQUIRES EXPANSION OR UPGRADE**

WARD	AREA	NO. OF HOUSEHOLDS
4	Lutchmans Farm	83
9	KwaHaza	644
	<b>Total</b>	<b>727</b>
	<b>Overall Total</b>	<b>1568</b>

## 6.2 BULK SANITATION

### 6.2.1 BULK SANITATION INFRASTRUCTURE

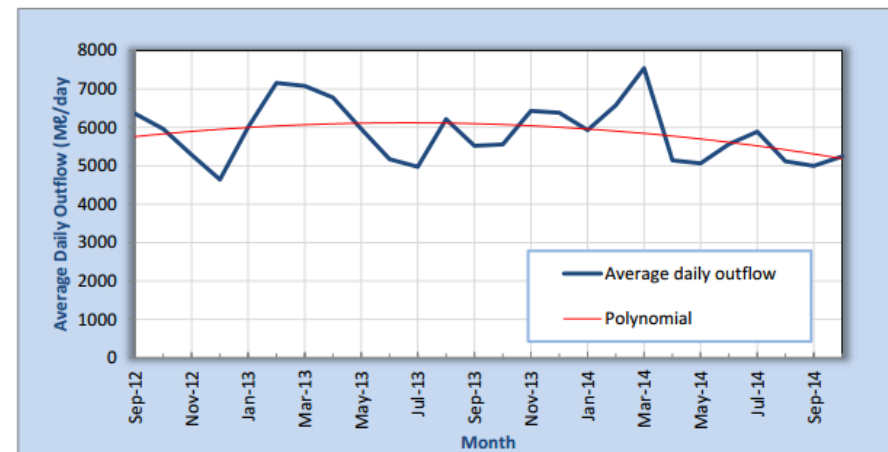
The Mpophomeni Sanitation Scheme has recently been approved by the Department of Water Affairs and includes:

-  a 6 Mℓ/day treatment works for Mpophomeni, Khayelisha and 25% spare capacity for future expansion; the site has space to at least double its treatment capacity
-  infrastructure to deliver sewage from Khayelisha
-  two new main sewers within Mpophomeni plus some other smaller sewer refurbishments that will eliminate identified sewage pollution within the township
-  effluent delivery systems, including an artificial wetland effluent polishing system at the Treatment Works and a subsidiary wetland system on the Merrivale Stream recommended and designed by independent water quality and wetland specialists.

Howick Wastewater Works and Mpophomeni Wastewater Works Umgungundlovu District Municipality provides wastewater treatment services for the UMngeni Local Municipality at the Howick WWW. A large pump station at the Mpophomeni WWW site and a set of six smaller pump stations in Howick transfer wastewater for

treatment at Howick WWW. Umgeni Water has a management contract with Umgungundlovu District Municipality to operate this WWW on their behalf. Howick WWW (Figure) has a design capacity of 6.8 Mℓ/day and is currently treating on average 5.8 Mℓ/day (Figure) (Oct 2012 – Oct 2014). Mechanical dewatering equipment installed in 2013 has alleviated operational problems to a degree but the works still has capacity problems during peak periods. If additional treatment capacity is required, the WWW will have to be upgraded.




Figure 1: Chlorine contact Tank Howick Wastewater Works



Mpophomeni WWW is currently not functioning, and is only used as a transfer station to Howick WWW. This WWW will be reinstated as a treatment facility by Umgeni Water who will recover costs through a management contract with the Umgungundlovu District Municipality. The proposed plant will be designed to treat 6 Mℓ/day



with the possibility of upgrading the works to 12 Mℓ/day. The site has space for at least 20 Mℓ/day. The Mpophomeni WWW upgrade is required to free up capacity at Howick WWW and to also cater for planned development in the area. The following developments initiatives by the municipality will be serviced by the Mpophomeni WWW in future: -

-  Refurbishment of existing sewage reticulation system in Mpophomeni Township will increase wastewater flows to the works (ADWF 3.6 Mℓ/day)
-  The development of the Khayelisha social housing development on the banks of Midmar Dam (ADWF 1.3 Mℓ/day)
-  Planned light/mixed industrial development park (3 Mℓ/day)

These major infrastructure developments and others have been taken into consideration in the planning for the upgrade of Mpophomeni WWW. Umgeni Water has been requested to manage the implementation of the upgrade to the works and to take over its operation on completion of construction. Construction is envisaged to take place towards the end of 2014.

### 6.2.2 AREAS THAT LACK ACCESS TO SANITATION

The 2010 District Water Plan provides the information on Communities without or largely without sanitation, and those with

an inadequate sanitation which requires expansion or upgrade. These have been sorted according to Wards and are tabulated hereunder. Most of the communities identified below also require water supply and it is encouraging that the district has plans in place to address these backlogs. The current backlog when one considers the total number of households is approximately 13% of the municipal area.

TABLE 2: COMMUNITIES WITHOUT OR LARGELY WITHOUT A SANITATION		
WARD	AREA	NO. OF HOUSEHOLDS
1	Shiyabazali	191
4	Lutchmans Farm	83
5	Triandra	37
8	Mashingeni	147
9	Enguga	80
8 and 9	KwaChief	333
9	KwaHaza	644
	<b>Total</b>	<b>1515</b>
COMMUNITIES WITH AN INADEQUATE SANITATION WHICH REQUIRES EXPANSION OR UPGRADE		
WARD	AREA	NO. OF HOUSEHOLDS
3	Zenzani	90
4	Lidgetton	626
7	Shayansimbi	109
9	Lions River	204
	<b>Total</b>	<b>1029</b>
	<b>Overall Total</b>	<b>2544</b>

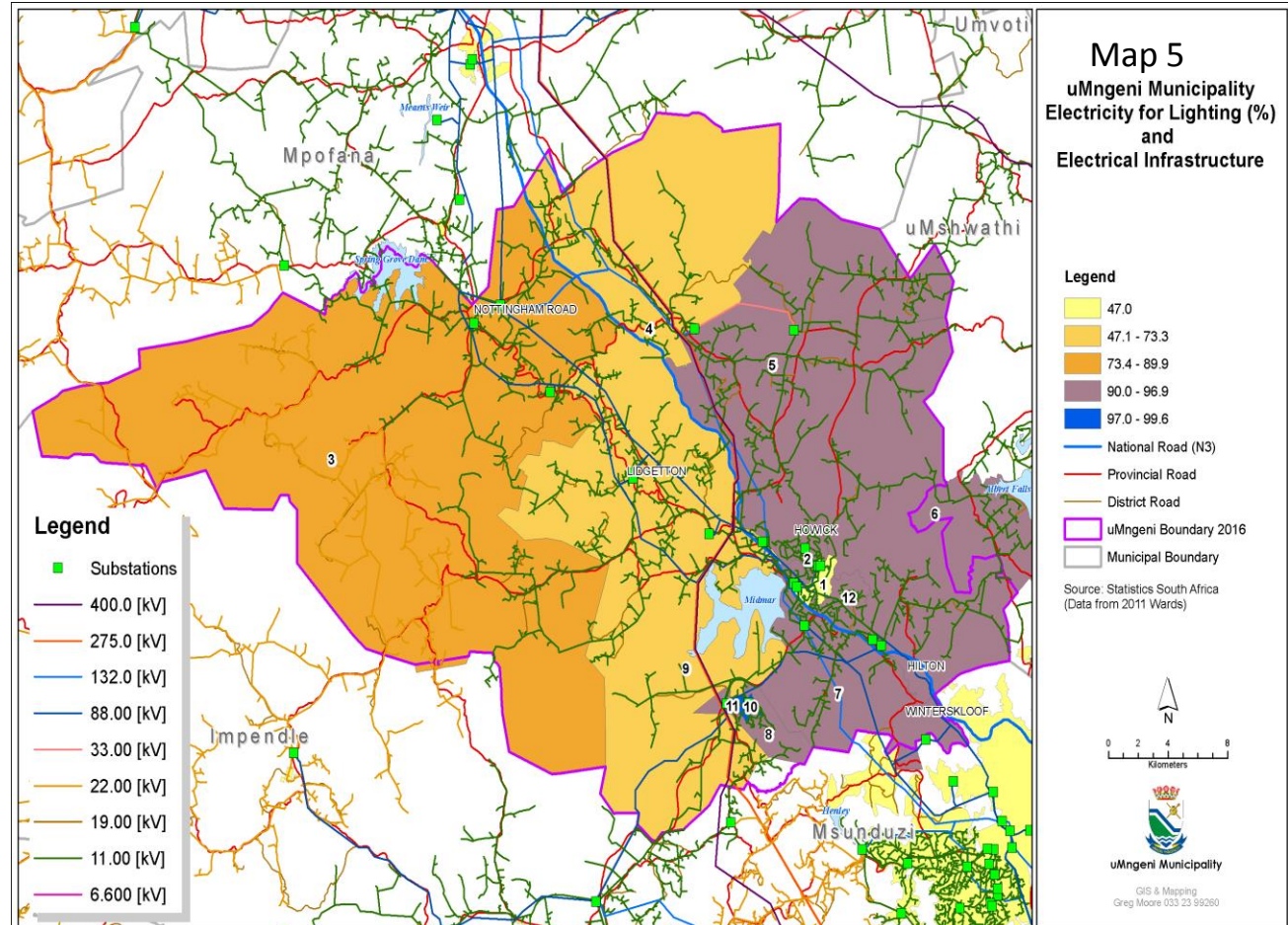




## 6.3 ELECTRICITY

### 6.3.1 BULK ELECTRICITY INFRASTRUCTURE

The current reticulation network in UMngeni Local Municipality as indicated in map shows the spatial location of the bulk electricity infrastructure in the different areas of the municipality. The majority of this bulk electricity infrastructure is owned by Eskom with the rest by the municipality. There are 19 sub stations that supply electricity to the various areas of the municipality which cover the urban and rural components. The majority of the urban areas are supplied from the sub-stations located in those areas. The rural or farm areas get supply from the 275kv and 132kv lines spread throughout the municipality. The bulk electricity infrastructure which supplies the Hilton area as mentioned earlier in the document falls within Msunduzi LM. Map reflect areas that have been prioritised for electrification and upgrades within different wards.



### 6.3.2 AREAS THAT LACK ACCESS TO ELECTRICITY

The Eskom coverage indicates that an adequate supply is available to most of the identified development nodes. Overall deficiencies in the electrification grid are in existence in the portions of the UMngeni LM traditional areas. Expansion to the electrification grid can however be expected from the existing supply to the areas adjacent thereto and needs to be pursued. Based on the latest statistical 2011 Census data, there is an estimated 15% of households that require electrification within the UMngeni Municipality. i.e. Shiyabazali Informal Settlements, Ward 3 traditional settlements ward 5, ward 9 areas like Mafakathini etc.

## 6.4 REFUSE REMOVAL AND LANDFILL SITES

Statistical data reveals that there has been a significant increase in the Municipal Solid Waste removal from 56% in 2001 to 70 % as of 2011 and this is ascribed to the increased capacity within the municipality since 2001 hence the collection rate on a weekly basis has increased by at least 50% whilst the number of households using communal dumps has remained relatively constant since 2001. The figure below depicts the backlog in terms of households without access to Municipal waste removal which is estimated at 30%.

### 6.4.1 REFUSE REMOVAL PER WARD

The urban and peri-urban areas have the highest collection rate of 75% to 99% whilst the more rural areas have a rate of 34% to 38% respectively. The areas with the highest collection rate are located in ward 10, 11, 12 and 2. These areas have the highest densities and cover areas such as Mpophomeni, Hilton and Howick whilst the rural

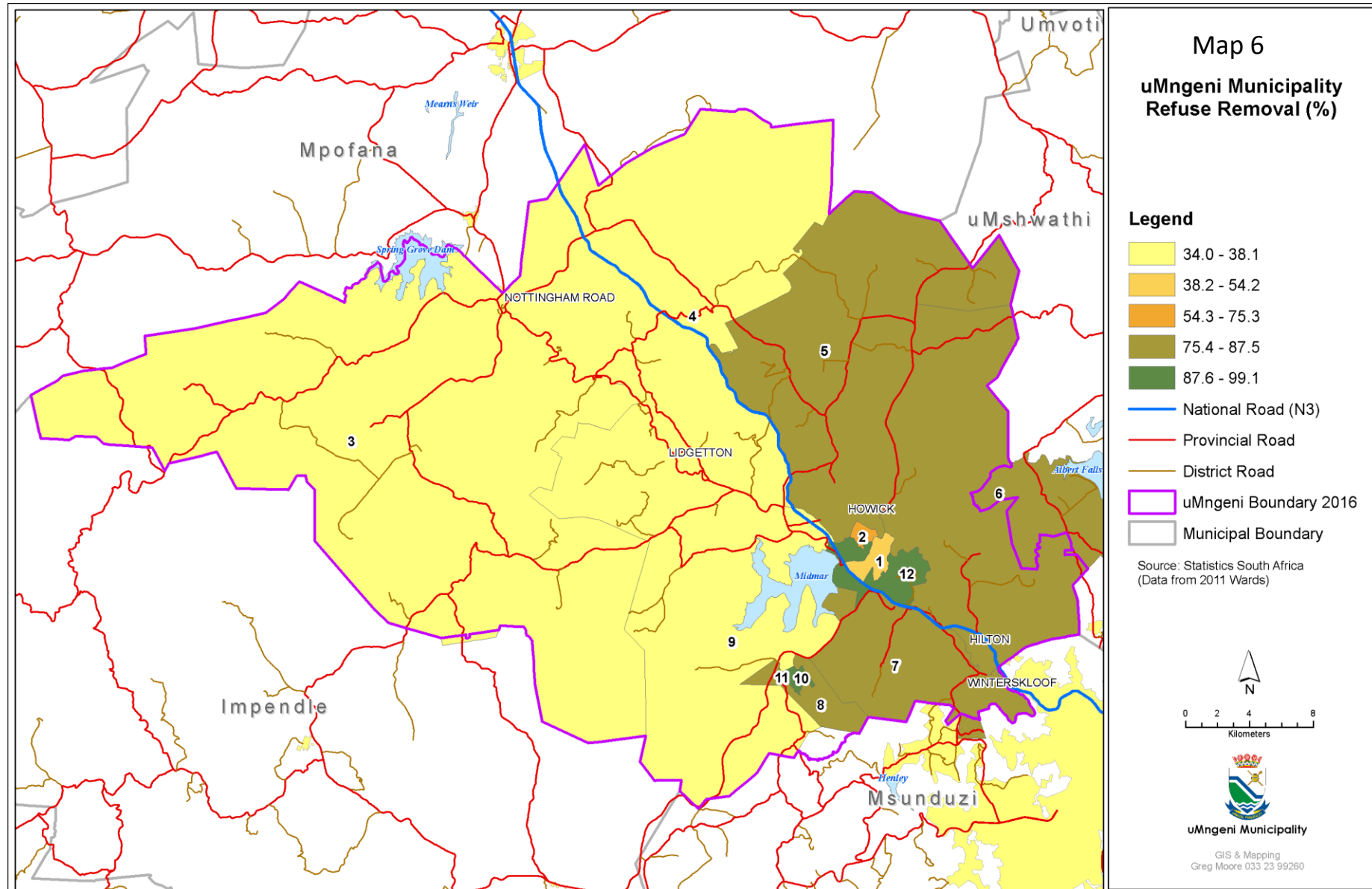
component has a lower rate due to the scattered settlement patterns. Map depicts the level of refuse removal per ward.

### 6.4.2 LANDFILL SITES

UMgungundlovu DM is responsible for landfill sites and the local municipality is responsible for the running and maintenance thereof. There are currently two licensed landfill sites within the jurisdiction of UMngeni and have been listed below. The municipality does also have a recycling centre situated in Howick and there are ongoing plans to have other centres within the municipality.

TABLE 3: LANDFILL SITES		
WARD	NAME	STATUS
4	Curry's Post Landfill site	Registered but requires new licence
6	Hilton Landfill	Closed
6	The Knoll Garden Refuse Site	Awaiting RoD



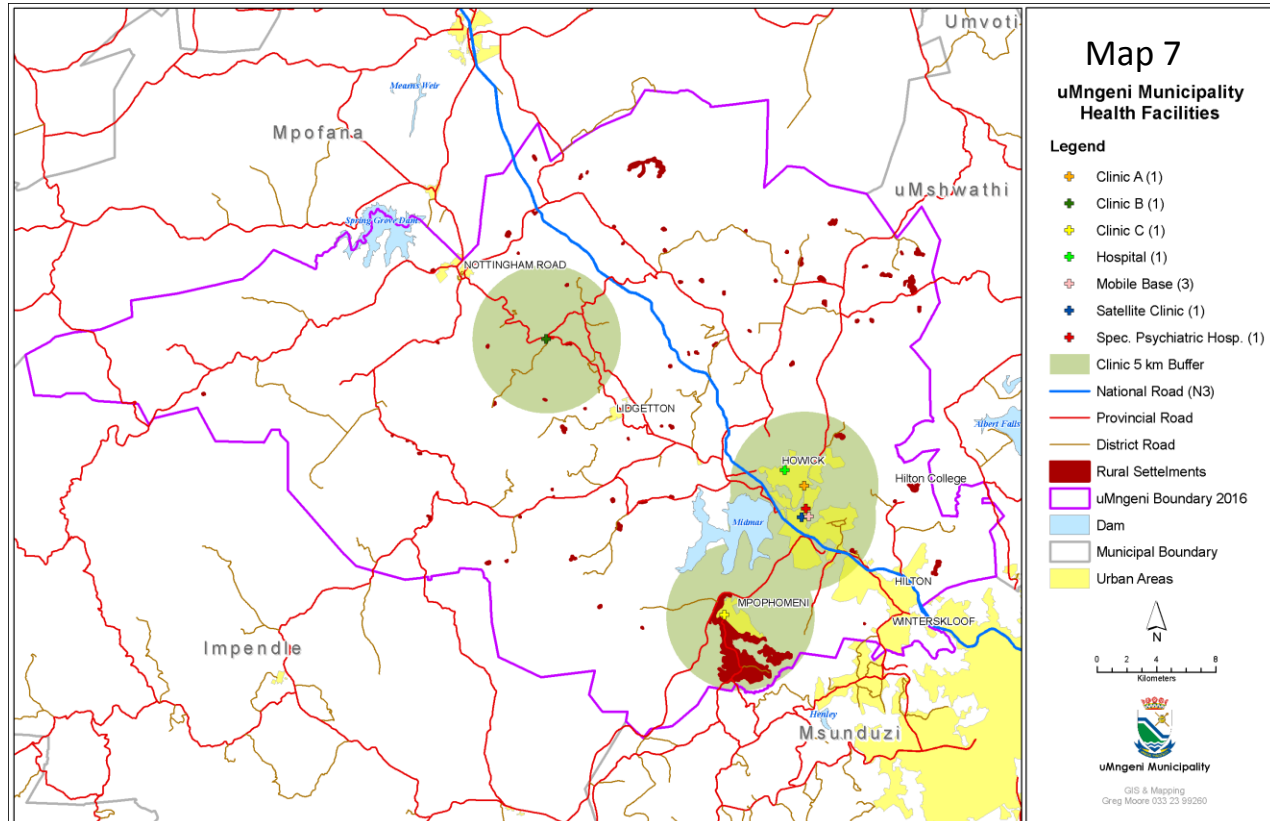




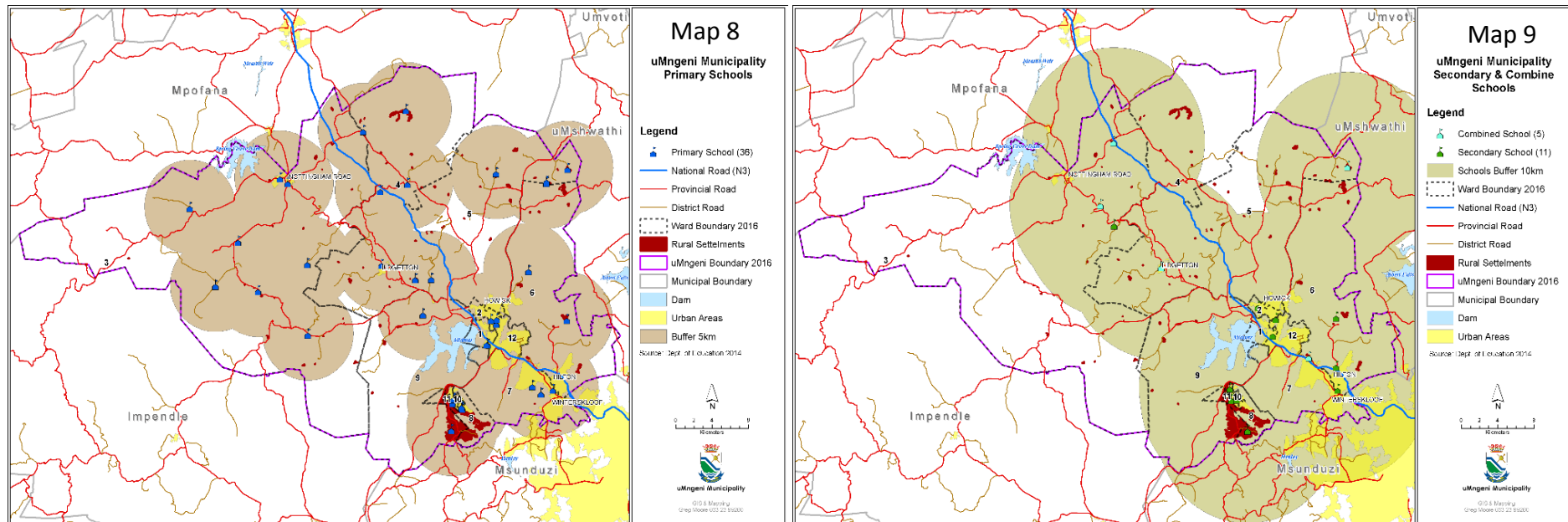
## 7. PUBLIC FACILITIES

### 7.1 HEALTH

The running of Primary Health Care Clinics was transferred to the Provincial Department of Health from 1 July 2012. Environmental Health Services has been transferred to the District as from 1 July 2012. There are 4 clinics that exist within the Municipality and 1 psychiatric hospital. Based on the planning standards for health services, 1 clinic should be provided for a population of 10 000 people and 1 hospital should be provided for a population of 50 000 people. In essence the municipality must at least have 1 hospital for Primary Health Care given the current population figure of 92710. Map depicts the proximity of health facilities within a 5Km radius of settlements in the municipal area. The urban areas of the municipality have good access to health services whilst the rural areas have poor access.



## 7.2 SCHOOLS



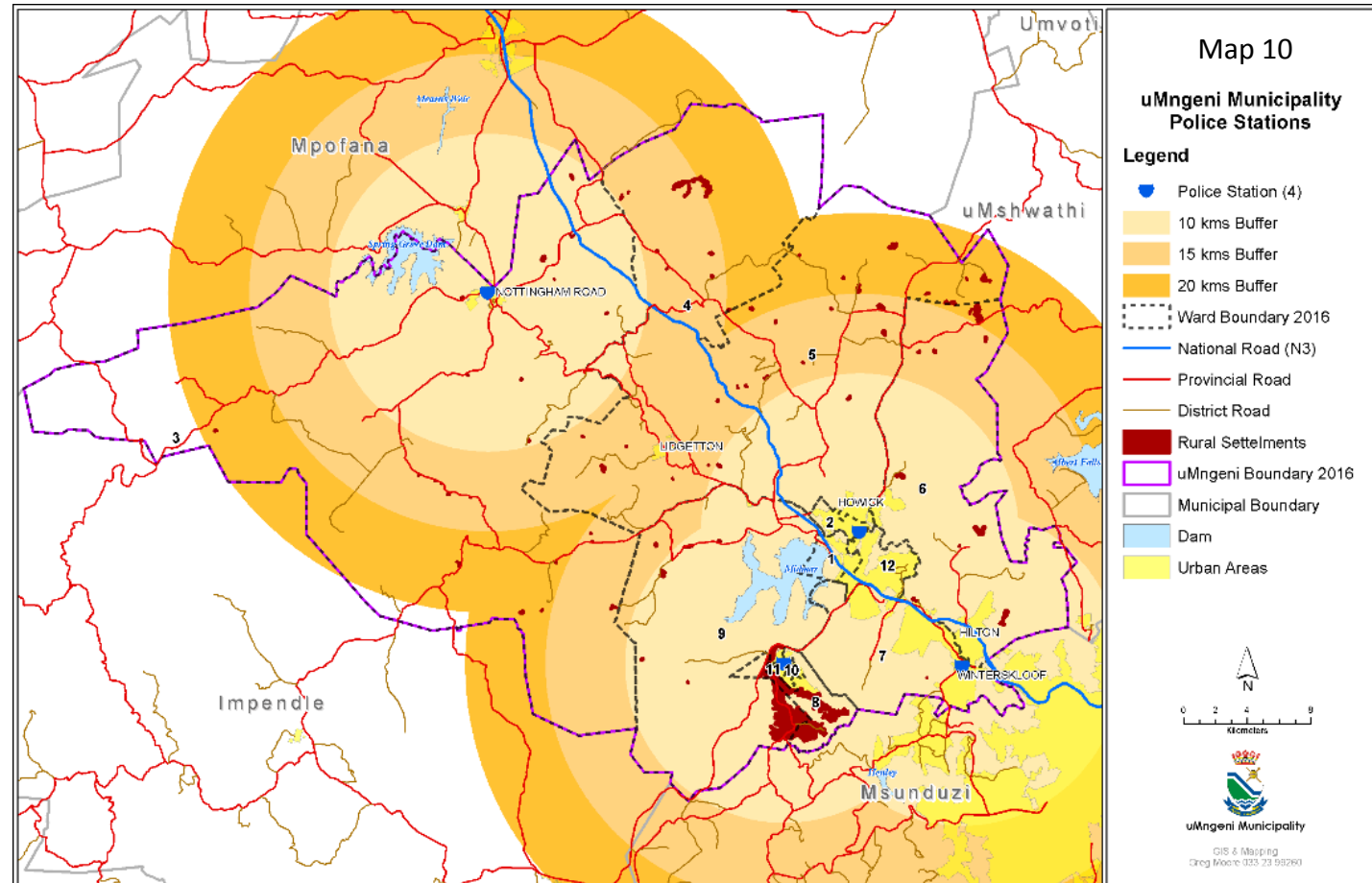
There are 49 schools within UMngeni LM; these include the primary, secondary, combined schools, special needs and independent schools; which are spread among different settlements within the municipality. All of the wards have access to educational facilities with access to either a primary or secondary school. There are currently 5 libraries that are found within the municipality albeit one being a private library in the Nottingham area. The public does however have full access to the private library even though it is not run by the municipality. Input from public consultation has highlighted the high pupil to teacher ratio for schools in Ward 12. It is hoped that with the construction of the Khayelisha Housing Project, the opportunity will arise for the construction of a further Primary School which could ease the burden on existing schools in Ward 12 which serve a much wider area than the ward itself. Table 34 below reflects the Department of Education 2011 information on schools within UMngeni Municipality.



### 7.3 SAFETY AND SECURITY

#### 7.3.1 POLICE STATION FACILITIES

Based on the planning standards 1 police station should be provided for every 4500 households. However, it is also important to indicate that the other issues that should inform the development of new police stations should be the crime statistics for an area. There are 4 Police Stations in UMngeni LM. UMngeni Municipality, together with the South African Police Service (SAPS) and the Community Policing Forum (CPF) and other stakeholders, has put crime prevention strategies in place. These include awareness campaigns at schools on drugs abuse and domestic abuse etc.



### 7.3.2 TRAFFIC MANAGEMENT

The Municipality's Protection Services cover vehicle licensing, learners licensing, prosecution for road traffic offences, issuing of warrants of arrest, incident and accident attendance, attendance to complaints received and resolution of other safety and security issues related to the municipality.

### 7.3.3 FIRE PROTECTION

Fire services is a district function and the municipality is well equipped to attend to issues of emergencies especially during the summer season.

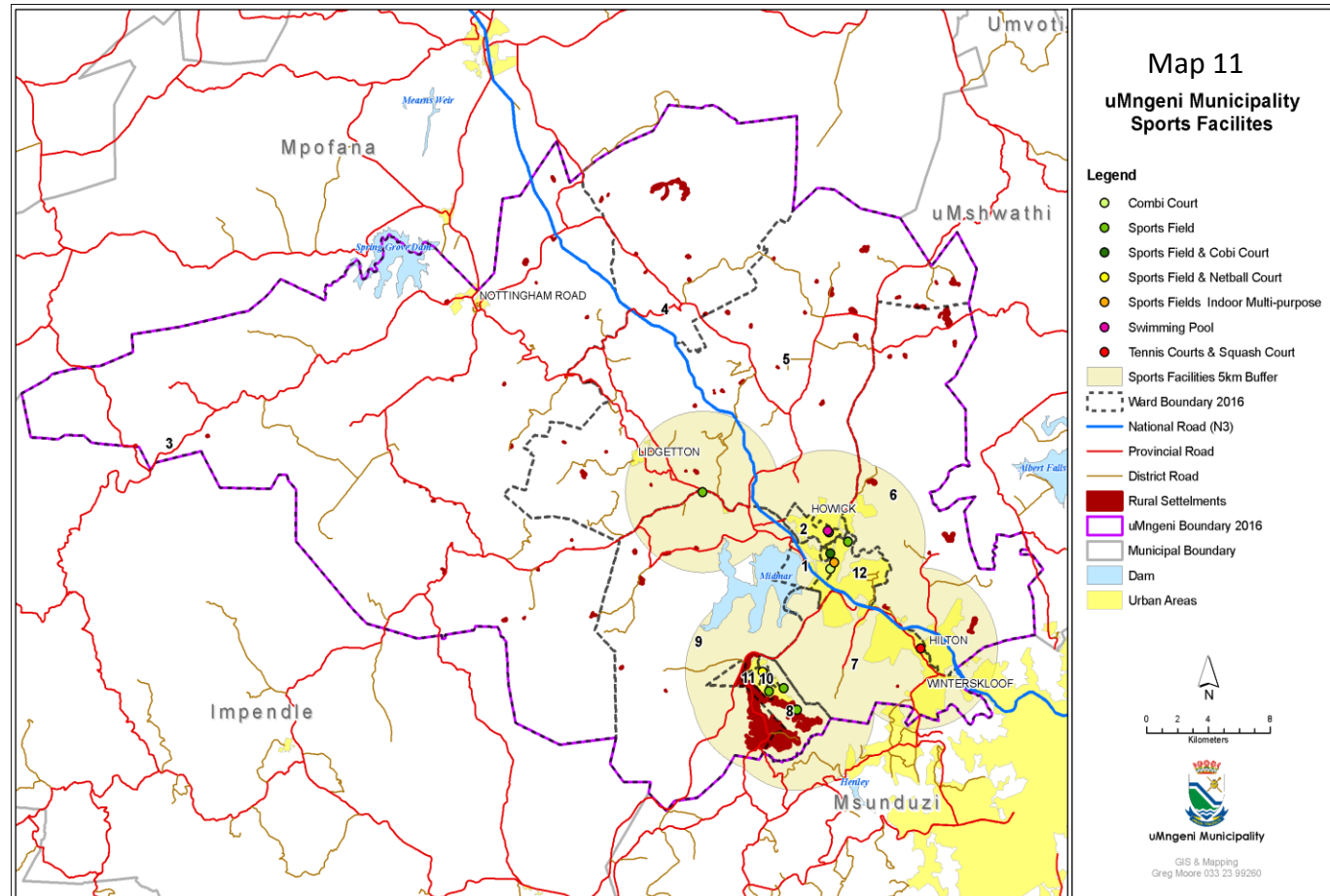
## 7.4 SPORTS AND RECREATION FACILITIES

In terms of the UMgungundlovu District policy, only one regional sports facility will be provided, and this has already been provided at Pietermaritzburg. Secondary sports facilities need also be provided at the identified nodes such as Howick, Hilton, Mpophomeni etc. Tertiary sports facilities, which will mainly comprise a lower order facility in the form of soccer fields, can be established at secondary and tertiary nodes, so as to be distributed evenly throughout the municipal area. Aforementioned does not however detract from the provision of sporting facilities within every Traditional Authority, which is regarded as a fourth order facility

- **Howick Falls:** is a national heritage site with a fall of approximately 110 meters and is placed in comparison with Victoria Falls in Zimbabwe. A master plan exists for the falls due to its growing importance in the tourism economic sector.
- **Midmar Dam and Albert Falls Dam** provide open-air recreational facilities that make the area popular for water sports such as boating, fishing, skiing, sailing, canoeing and swimming. A master plan also exists for Midmar Dam as it is also an important feature in the tourism sector
- **Cultural Heritage sites and experiences** (e.g. Mpophomeni, Howick Museum and Mandela Arrest site) that present the pioneering, Zulu and contemporary histories of the area.
- A selection of tourist routes (e.g. Midlands Meander and Hilton Meander) that encapsulate the broad tourism sentiment for the area.
- A large selection of interest enterprises (e.g. arts, craft, country produce) that are supported by hospitality and essential service providers
- Nature based and ecotourism properties (e.g. Umgeni Valley, Karkloof and Midmar Dam) and associated experiences.
- A number of sports related attractions (e.g. Midmar Dam, Sakabula, Boschhoek and Howick Golf Clubs).
- Agri-tourism experiences (e.g. farm stays and industry tours) and forest trails (e.g. Karkloof).
- Aeronautical pastimes at the airfield at Merrivale.



- A number of well-known sporting events are held within the Municipality such as the Midmar Mile.
- The Karkloof Falls is a favourite picnic spot for locals and visitors. The indigenous forests of Yellowwood, Cape Chestnuts and White Stinkwoods in the vicinity are impressive according to KZN Top Business. The Karkloof forest is a pristine environment home to several mammals, most common of which is the Samango monkey, abundant bird life with the opportunity of spotting Knysna Loeries, the elusive Narina Trogon or endangered Cape Parrot as indicated by KZN Top Business.
- Cedara Agricultural College.









It evident that Midlands Meander, which offers a variety of leisure activities, arts and craft and accommodation facilities, together with the recreational activities offered by Midmar Dam, Albert Falls and Howick Falls are vital attractions that contribute to UMngeni's tourism sector.



## 7.5 THUSONG CENTRES AND COMMUNITY HALLS

There are seven (7) community halls within the Local Municipality located in wards 1, 3, 4, 7, 9 and 10. The Zenzeleni Community Centre is the focus of most of Mpophomeni's community projects. It is a place for people to meet and share ideas. The centre houses the following initiatives:

-  Counsellors from Hospice, Childline and Lifeline who offer therapy and support. These are local counsellors who make use of the rooms at the centre;
-  A legal advice centre that caters to the needs of community members;
-  A meeting hall for community meetings, church groups, workshops and discussions;
-  A computer centre with sponsored computers, which are used to teach both school children and the local teachers alike;
-  A workshop for physically disabled people who make window frames; and
-  A community vegetable garden for pensioners who grow the vegetables for either themselves or for sale.





Tourists can visit the centre by prior arrangement through the Zulu Mpophomeni Tourism Experience office.

TABLE 4: FACILITIES

WARDS	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
HALLS	1	0	1	1	0	0	2	0	1	1	0	0	7

## 7.6 CEMETERIES

In 2004, the Provincial Planning and Development Commission undertook a study titled Provincial Wide Assessment of Cemeteries and Crematoria in KwaZulu-Natal which identified four (4) municipal owned cemeteries within UMngeni Municipality as:

-  Prospect Road Cemetery (Along R103 next to Midmar);
-  Lions River Cemetery;
-  Miller Street Cemetery; and
-  Mpophomeni Cemetery.

However, the capacity of these cemetery sites to accommodate future burial needs within UMngeni was considered to be a challenge such that these were anticipated to be nearing closure before 2007.





## 8. SPATIAL ANALYSIS

### 8.1 SETTLEMENT TYPOLOGIES

UMngeni Local Municipality has a diversity of settlement typologies given its urban, rural and farmlands composition. The historical evolution of these settlements was also driven by the chronology of the administrative structures that have existed before such that the former TLCs were established for Howick and Hilton which resulted on these settlements becoming the urban centres with their own commercial activities. These settlements can be listed as follows:

#### 8.1.1 FORMAL URBAN

There are four types of formal urban settlements which are found within six formal urban settlement areas (Howick, Mpophomeni, Hilton, Lions River, Lidgetton, Nottingham Road/ Zenzani). These can be listed as follows:

##### 8.1.1.1 URBAN INNER TOWN LIVING AND SUBURBAN LIFESTYLE

The towns of Howick and Hilton provide urban inner town living to the urban residents of UMngeni. Some of these residents dwell within the flats town while others are located in the suburbs of these towns. Howick town three suburbs and these are Merrivale, Howick West and Greendale Park. Hilton has eight suburbs and these are






Hilton Gardens, Leonard, Mountain Homes, Berry Hill, Mount Michael, Winterskloof, Worlds View and Cedara. The other smaller urban centres include Nottingham Road with its self-contained settlement.

##### 8.1.1.2 URBAN FORMAL TOWNSHIP



Mpophomeni Township is one of the well-known formal township within UMngeni. It is largely a formal settlement area for the majority of UMngeni population. However, it has a striving township tourism character and opportunities to resuscitate the commercial sector.

##### 8.1.1.3 PRIVATE/ EXCLUSIVE SETTLEMENTS 'GATED ESTATES'

UMngeni Municipality comprises of seven gated estates. Most of these are located within Howick. These can be listed as follows:




-  Eagle Ridge Estate: located on the North-West of Howick CBD;
-  Amber Valley: located on the North-East of Howick CBD;
-  Erin Park: located in close proximity to Merrivale;
-  Sakabula Golf and Country Estate: close proximity to Merrivale;
-  Garlington Estate: located on the north east of Hilton Centre;



-  Gowrie Farm Golf Estate which is located within Nottingham; and
-  Bosch Hoek Golf Estate which is located within Curry Post.

#### 8.1.1.4 SMALLER FORMAL SETTLEMENTS

There are few smaller townships which exists within UMngeni. These are:

-  Lions River: located along R103 and 8km away from Howick;
-  Zenzani: located along R103 (7km away from Nottingham Road);
-  Lidgetton: located along R103 and 16km away from Howick.

#### 8.1.2 INFORMAL SETTLEMENTS

There are two urban informal settlements that have mushroomed within Howick town. These are located on the south east of the Central Business District (CBD), it is bounded by UMngeni River and the Main Road. The second settlement is located along N3 and in close proximity to Sappi Shaw Research Centre.

#### 8.1.3 TRANSITIONAL URBAN SETTLEMENTS

There are mushrooming rural settlements just outside of Mpophomeni it extends along the main roads to join Cedarge and Emashingeni Settlements. These settlements will need serious attention over the long term from a planning and infrastructural

point of view. The main focus will be to avoid these from degrading into Peri-Urban Slums.

#### 8.1.4 RURAL SETTLEMENTS

There are a number of few isolated farm settlements that are located within different parts of the municipal area. These exists purely as ancillary use to agricultural land use. However, security of tenure is very important for the dwellers.

#### 8.1.5 SMALL HOLDINGS

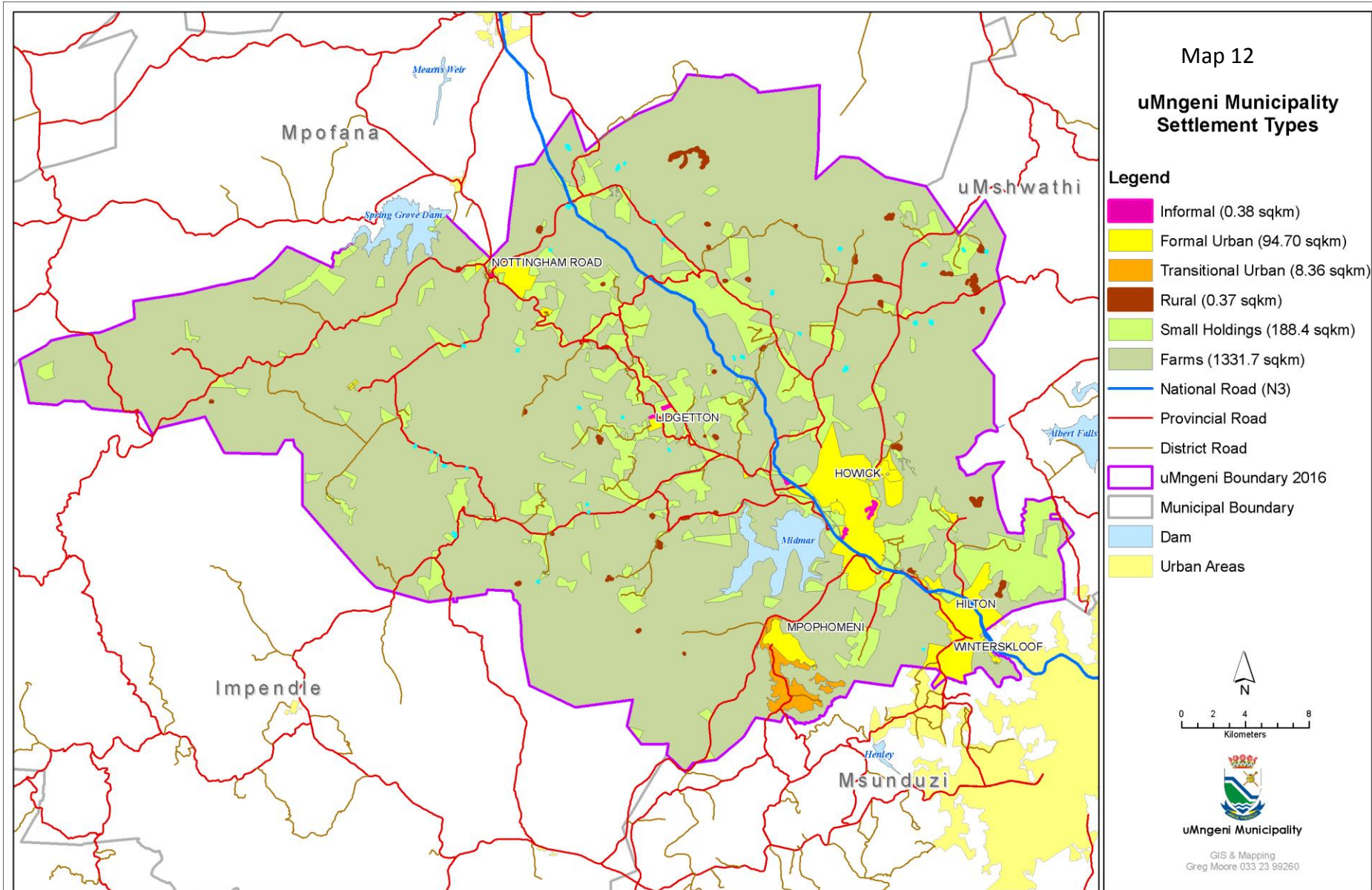
There are a number of farms that have been subdivided into smaller plots and have transformed into small holdings. The majority of these are located along the tourism routes and the major arterial roads. A sizeable amount of these farms are also found within close proximity to urban areas of Howick and Hilton.

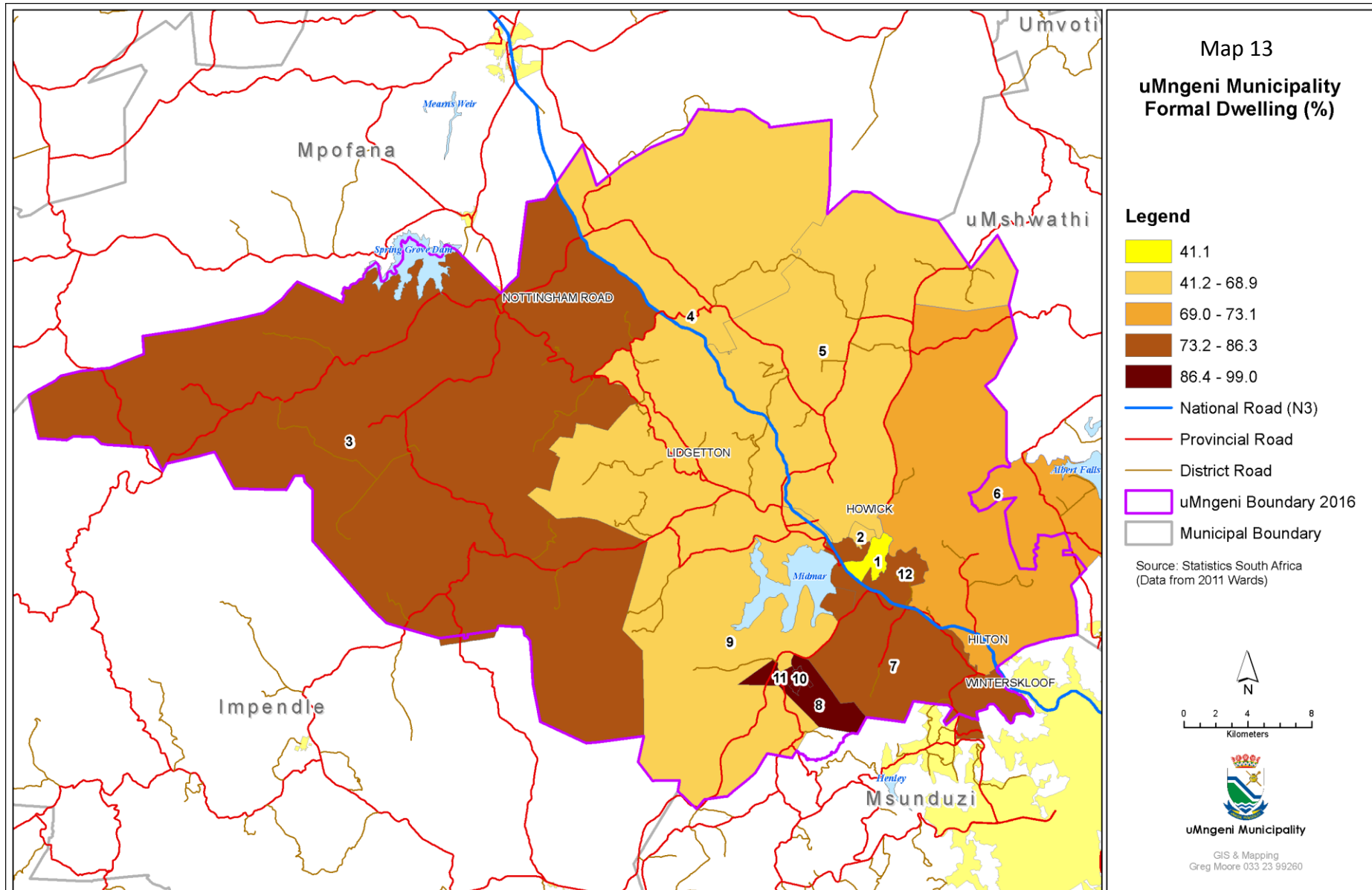
#### 8.1.6 FARMS

The majority of the municipal area is occupied by privately owned commercial farms. These farms are primarily used for food production and breeding of livestock. There are also settlement areas for the farming community including a farmer homestead and smaller homesteads for the farm labours. Some of these farms have rural settlements which has been discussed on the previous sub-section.









### 8.1.7 SETTLEMENT DENSITY

#### 8.1.7.1 HIGH DENSITY URBAN SETTLEMENTS

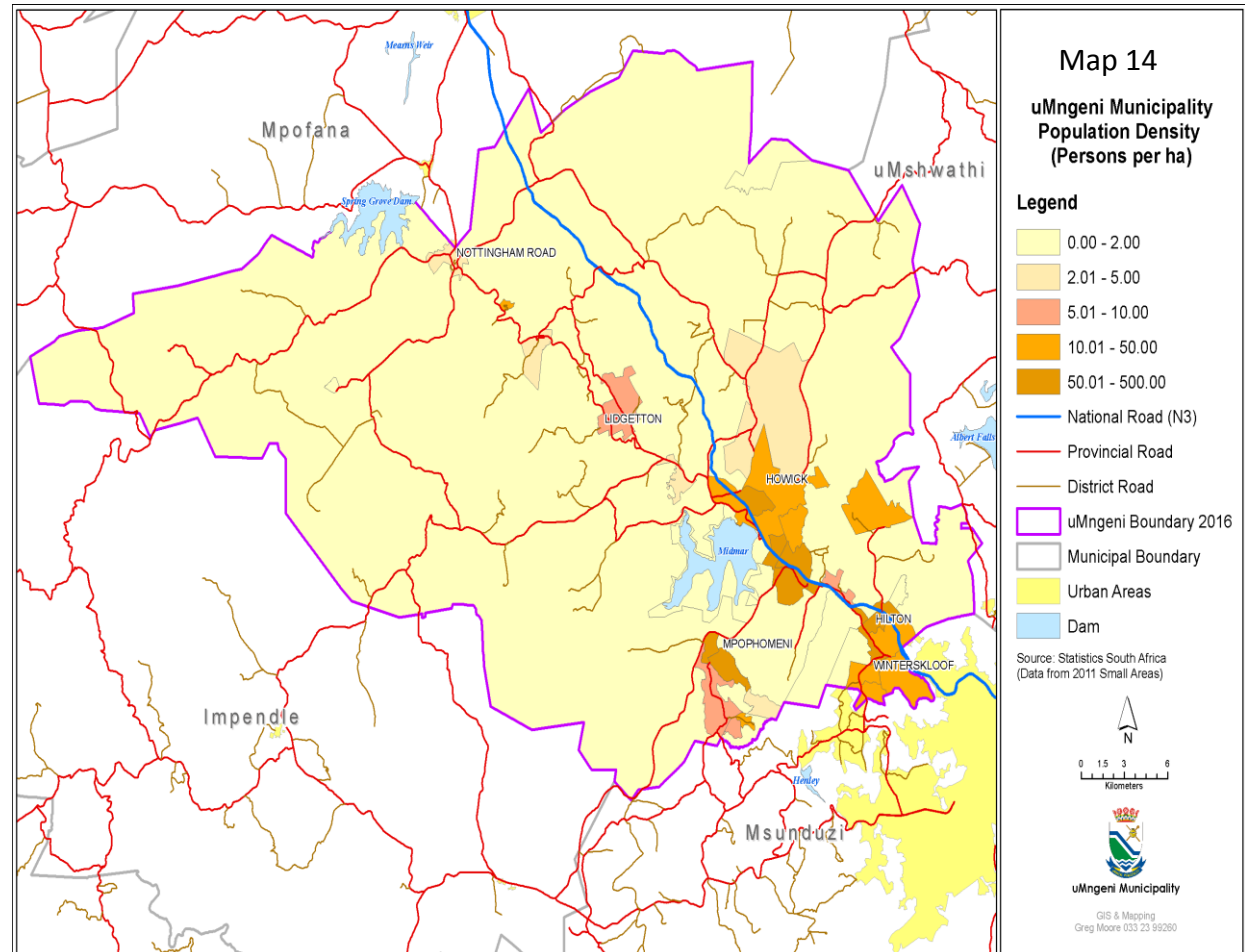
The urban settlements have the highest density. The areas that are leading include the main notable towns such as Howick, Mpophomeni and Hilton. This is due to the existence of flats and other high rise buildings. Each household occupy less than 1 ha within these areas.

#### 8.1.7.2 DENSELY POPULATED RURAL SETTLEMENTS

The densely populated rural settlements are found on the outside of Mpophomeni and along its main routes. These include settlements such as Ebaleni, KwaDulela, Cedarge and Emashingeni.

#### 8.1.7.3 LOW DENSITY RURAL SETTLEMENTS

The low density settlements are mainly the outlying peripheral settlements that are found within the farms. Each homestead occupies between 5 – 10 ha within these settlements.



## 8.2 BROAD LAND USE PATTERN

### 8.2.1 URBAN TOWNS AND SURROUNDING SUBURBS

The main urban centres within UMngeni are Howick, Hilton, Mpophomeni and Nottingham Road. These serve as the main towns for the municipal area with the highest agglomeration of commercial activities. These towns are surrounded by the associated formal suburbs.

### 8.2.2 TOURISM ACTIVITIES

UMngeni boasts with a number of rare tourist's attractions within UMgungundlovu which includes Howick Falls, Midmar Dam, the Karkloof, Worlds View, The Zulu Mpophomeni Tourism Experience, Mpophomeni Tourism Gateway Complex and the Nelson Mandela Capture Site.

### 8.2.3 TOURISM FARMS

UMngeni has a number of tourism routes which includes the Mindlands Meander and aesthetical appealing features. A number of farms that are located along these routes have diversified from traditional agricultural land uses to agri-tourism uses over the years. The municipality has a great variety of natural tourism assets and accommodation establishments (such as hotels, bed & breakfasts

and guest-houses). The district also has a missionary tourism, agro-tourism, cultural tourism and eco-tourism, and adventure tourism.

### 8.2.4 COMMERCIAL AGRICULTURE

UMngeni Municipality has an abundance of agricultural land which is geographically located outside of the urban areas. The agricultural pattern within the area is primarily due to the gentle topography and good weather pattern. The predominance is due to the rich natural resources and climatic conditions, which allow for the farming of produces such as maize, soya beans, dry beans, potatoes and lupins as annual field crops, sugar cane (in the lower, warmer parts of the local municipality), timber production, vegetables irrigation (with cabbage, tomatoes and carrots as the main crops), orchard crops (notably avocado), pasture and fodder crops. In addition, the municipality boasts intensive livestock enterprises such as poultry, pigs and dairy. Significantly agribusinesses in the UMngeni Local Municipality, particularly in terms of livestock, are characterised by a high level of capital intensive operations.

### 8.2.5 CONSERVATION AND ENVIRONMENTALLY SENSITIVE AREAS

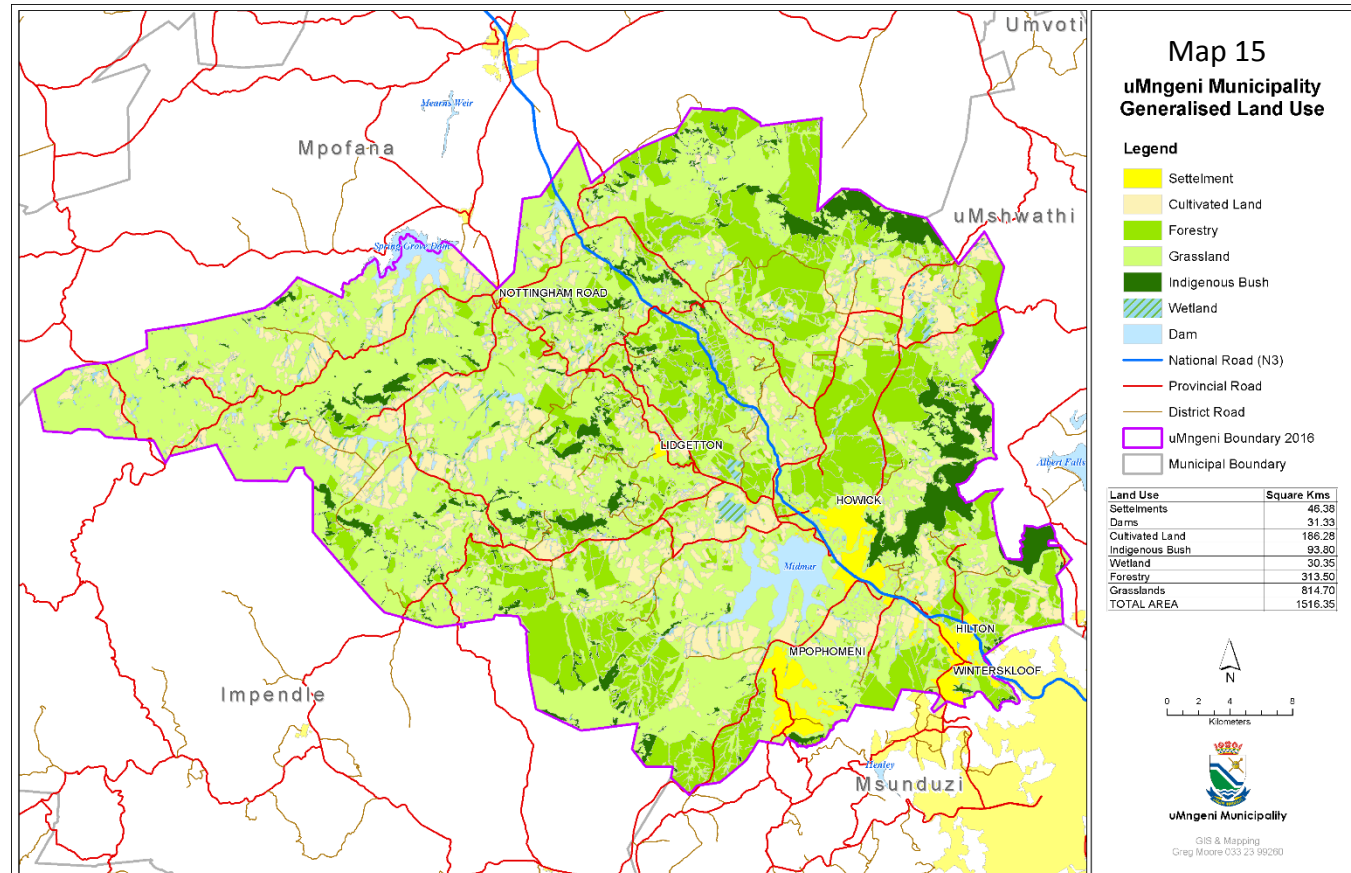
UMngeni has three (3) formally conserved areas which are Midmar Dam, Karkloof Nature Reserve and a Portion of the Hilton College estate. Further than those a Private Nature reserve has been





proposed in the Midlands, within the Howick Urban area, there are areas set aside for Conservation purposes that include Howick Falls, portions of the Umgeni River Valley and Beacon Hill Ingongoni Mistbelt Reserve. The other areas of recent environmental planning include the Provincial Environmental Corridors and the buffer proposed to be established to protect the Okhahlamba Drakensberg World Heritage Site. The provincial policies also identified “Priority Conservation Areas” to occur to the north along the Mooi and Karkloof Rivers, and the uMgeni River Valley is indicated as a “Biodiversity Priority Area”.



### 8.3 LAND USE MANAGEMENT



UMngeni Local Municipality has the Town Planning Schemes for the Urban Areas which includes Howick, Mpophomeni and Hilton. In terms of the KwaZulu-Natal Planning and Development Act, Act No. 6 of 2008, UMngeni LM is required to introduce a wall-to-wall Land Use Management Scheme (LUMS) for its area of jurisdiction with uniform land use controls and procedures. This wall-to wall scheme will consolidate all existing schemes within the UMngeni LM and will provide uniform land use controls. The PDA empowers the municipality to introduce systems and procedures for land use management, and take decisions on land use processes. The purpose of this SDF is to inform the development of the Land Use Management Scheme. It provides context perfect scenarios for the use of land.



The LUMS functions as a development control planning tool and regulates land use. The current scheme covers all the urban areas. It is unclear when will the municipality commence with the process of a wall-to-wall scheme. The introduction of the scheme within the entire municipal area should:

-  Involve the participation of local communities in UMngeni, particularly traditional councils and other structure that are responsible for spatial planning;
-  Include the development of maps, systems and procedures for effective decision making to guide traditional councils in the execution of this function.

Under current land use management dispensation provision is made in the KZN PDA for the regulation of land use outside the scheme areas.

## 8.4 LAND LEGAL ISSUES

### 8.4.1 LAND OWNERSHIP

Land Ownership within UMngeni Municipal Area is diverse but dominant holder of land is private. This implies that the majority of the properties are owned by individuals and private companies. Government land ownership would cover the primary dams in UMngeni i.e. Midmar, Albert Falls (and Spring Grove which is

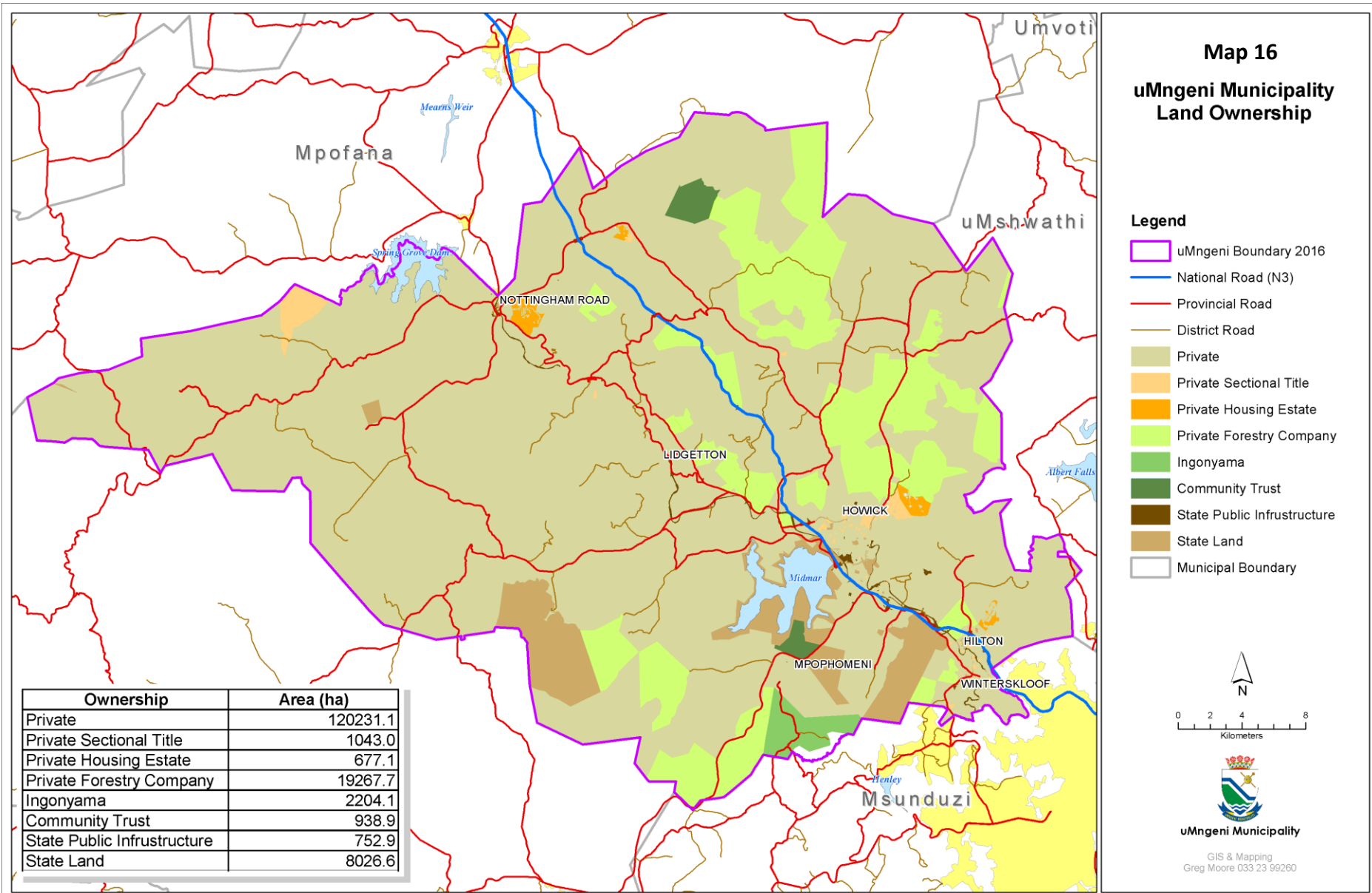
presently under construction), Government Schools, Government Facilities and Cedara College. Adjacent to Mpophomeni are areas owned by Ingonyama Trust. Forestry companies such as Mondi own substantial areas of farmland. Some of the Mondi land holdings adjacent to the N3 in Hilton have been earmarked for urban development, and an application for development has recently been approved.

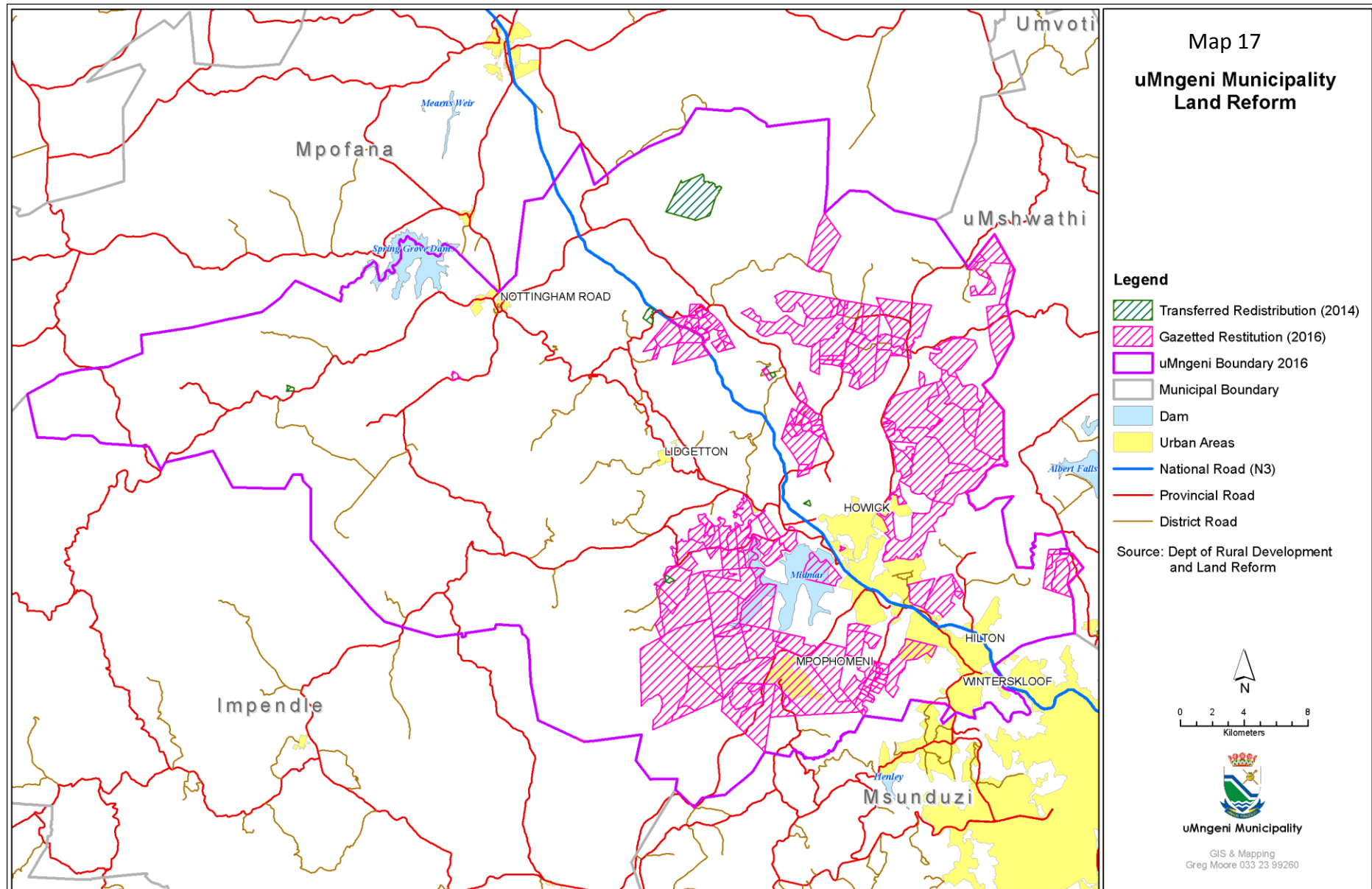
### 8.4.2 LAND REFORM

There are a number of land claims that were lodged within UMngeni. However, few of these claims were transferred into projects. There are also a number of gazetted restitution claims within the area. A roll out programme known as Recapitalization and Development Programme assists communities with farming skills once land has been purchased. The impact of this programme is currently unknown.









## 8.5 TRANSPORT NETWORK


An extensive road network exists within UMngeni, providing a large number of households with access to road transport. While the national and provincial roads are in a generally good condition, the quality of district and local roads tends to be poor. This is mainly because these roads are gravel they require regular maintenance and upgrading. During the rainy season, these roads are particularly bad and hamper access to settlements.





### 8.5.1 REGIONAL ROAD NETWORK

The National (N3) Route is a primary north to south link of the municipal area with the surrounding towns. The road networks within UMngeni Municipality reflect a link of the district and provincial (R103) roads with the National road (N3) which links the municipality with other local municipalities in the UMgungundlovu DM. The role of R103 is also fundamentally important within the regional sphere of influence.

### 8.5.2 PRIMARY ROAD NETWORK IN UMNGENI

The other important routes provincial routes can be listed as follows:

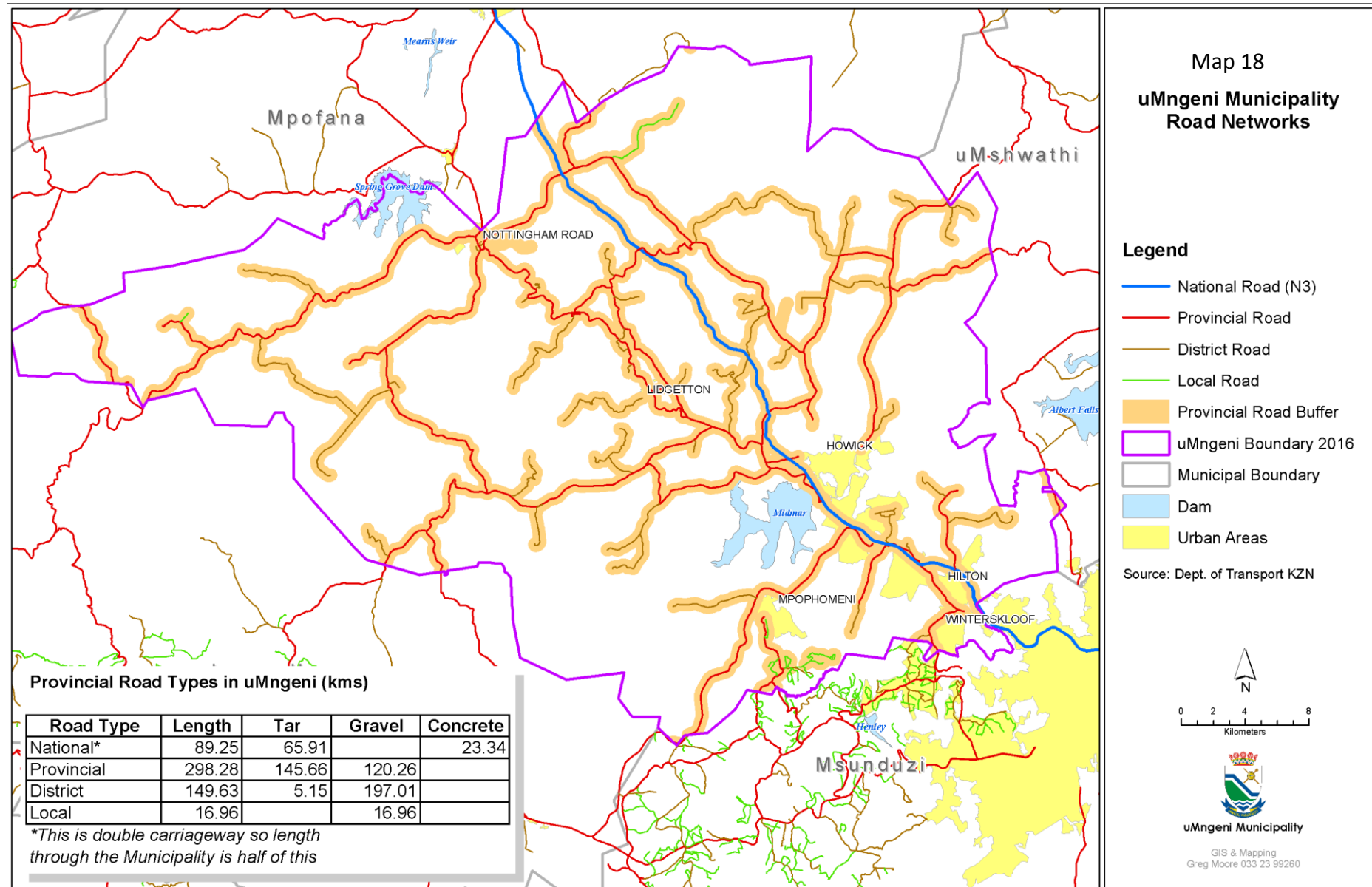
-  R617 which links Howick with Mpophomeni and UMngeni with IMpendle;

-  P147 to P27-3 which links Nottingham Road with N3 and North of Impendle;
-  P130 – P134 which links a number of farms within UMngeni including Dargle and it proceed to Impendle;
-  P141, P145, P162 and P165 which links UMngeni with UMshwathi; and
-  P165 which is an alternative route to Mooi-Mpofana Municipality.

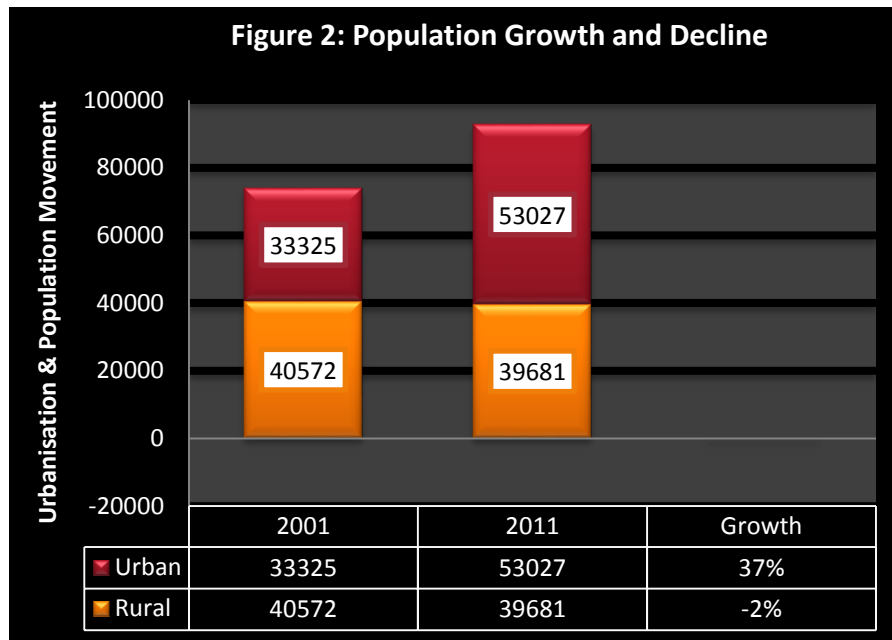
### 8.5.3 RAILWAY TRANSPORTATION IN UMNGENI

There is one railway line that traverses the municipal area and has a number of stations which are in the order of 17 in all. These stations still have buildings but are currently not being utilised. These were previously used as station points for the delivery of goods within the municipality. The railway line provides an opportunity as an important economic route as the economy of the municipality expands. With the possibilities of the UDM envisaged to obtain a metro status, the railway line could in future be utilised as a commodity or commuter transport route linking the district to other important economic nodes in the region. It is further important to note that a strategic railway route between Johannesburg and Durban traverses through this municipality. This railway route forms part of the 18 strategic projects identified by President Jacob Zuma. (UMngeni 2014/ 15 IDP, 2015, p46)





## 8.6 URBANISATION AND POPULATION OUT-MIGRATION



Source: Census 2001 and 2011

The urbanization process and the rural population out-migration seems to be taking place within UMngeni Local Municipality. Urbanization is the increasing number of people that migrate from rural to urban areas and mainly results in the physical growth of the urban areas. The urban population is increasing much faster while the rural population has shown a slight decline. Although this perception may be challengeable from the fact that they may be individuals who may

have re-located from other urban centres within the province to UMngeni Urban Centres, it is most likely that this trend is minimal. A comprehensive analyses of population statistics at ward level by place from 2001 – 2011 suggest the following:

- The urban population increased by an overall 37%;
- The rural population decreased by an overall -2%; and

The following can be noted with regards to rural population:

- Lidgetton West, Curry Posts and Farms (11%) and Farmlands adjacent to Midmar Dam and Mpophomeni (52%) are the only areas that experienced positive population growth;
- The population of Farmlands adjacent to Albert Falls declined by -24%;
- Fort Nottingham and Farmlands declined by -20%; and
- Karkloof and Surrounding Farms declined by -14%.

All the major urban areas grew rapidly in terms of population as follows:

- Howick grew by an alarming 186%;
- Hilton by 146%; and
- Mpophomeni by 11%



**TABLE 5: Rural Population Movement within a 10-year period.**

RURAL SETTLEMENTS	CENSUS 2011		CENSUS 2001		% CHANGE
	WARDS	POPULATION	WARDS	POPULATION	
Fort Nottingham and Farmlands	3	6 411	3	8045	-20%
Lidgetton West, Curry Posts and Farms	4	9 302	4	8352	11%
Karkloof and Surrounding Farms	5	7 051	5	8178	-14%
Farmlands adjacent to Albert Falls	6	7 345	6	9683	-24%
Farmlands adjacent to Midmar Dam and Mpophomeni	9	9 572	9	6314	52%
<b>TOTAL</b>		<b>39681</b>		<b>40572</b>	

**TABLE 6: Urban Population Movement within a 10-year period.**





URBAN SETTLEMENTS	CENSUS 2011		CENSUS 2001		% CHANGE
	WARDS	POPULATION	WARDS	POPULATION	
Howick	1, 2 & 12	19229	1&2	6713	186%
Hilton	7	7 664	7	3160	143%
Mpophomeni	8, 10 & 11	26134	8, 10 & 11	23452	11%
<b>TOTAL</b>		<b>53027</b>		<b>33325</b>	

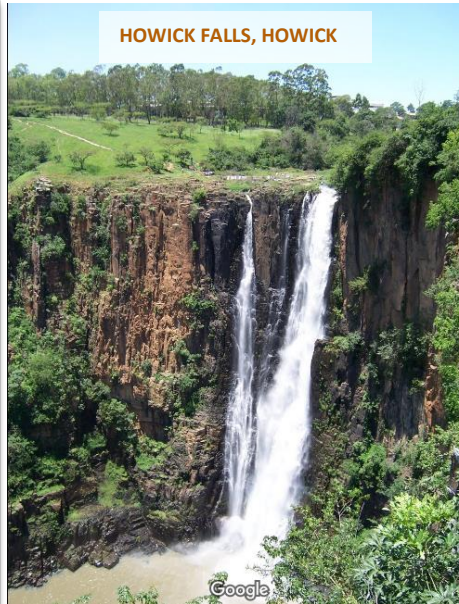




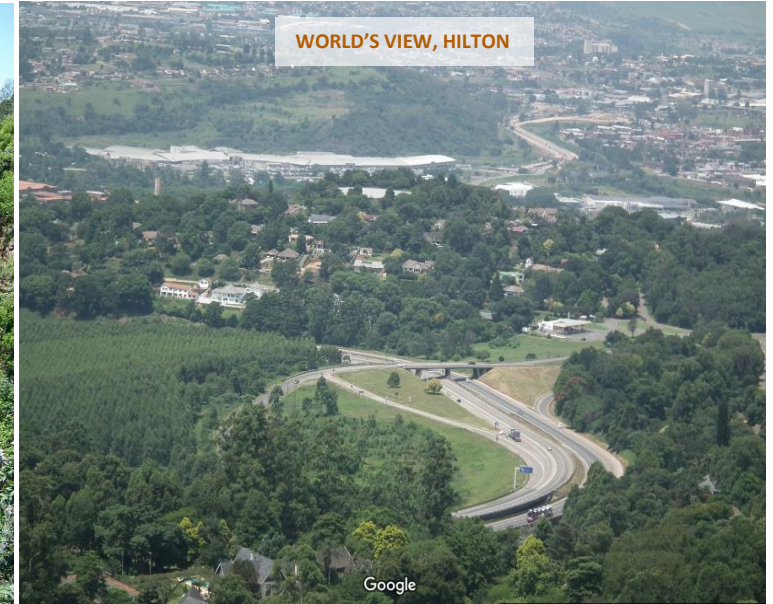
## 8.7 LANDSCAPE CHARACTER AND BUILT FORM

One of the most striking features with UMngeni Municipality's landscape character and built form are natural and picturesque views that exists within and around the prominent urban centres of the municipality. This places the municipality at a challenge to maintain, enhance and protect these assets from non-conforming built form. The key landscape features (insert) are well known and appreciated, however the following weaknesses and threats confront these:

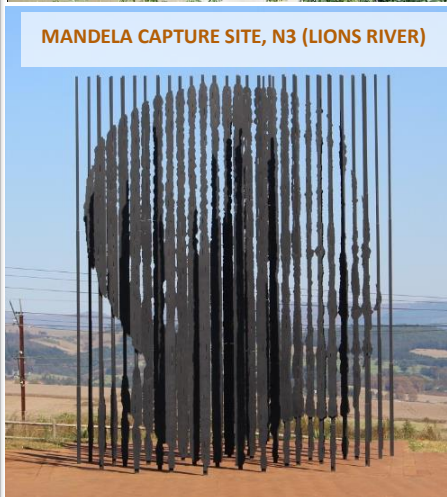
-  **Howick Falls:** This 110m falls is a national heritage but there are informal settlements that encroaches the vicinity of this site.
-  **World View:** The scenic sights to Pietermaritzburg are not facing any notable threats at this stage.
-  **Midmar Dam:** The charming dam is not facing any threat at this stage.
-  **Mandela Capture Site:** The newly built monument is not facing any threat at this stage.



HOWICK FALLS, HOWICK



WORLD'S VIEW, HILTON



MANDELA CAPTURE SITE, N3 (LIONS RIVER)



MIDMAR DAM, HOWICK





## 8.8 DISASTER MANAGEMENT AREAS

### 8.8.1 BACKGROUND



UMngeni Municipality has a dedicated disaster management unit which is responsible for the management of disasters within the area. This unit is staffed with a Disaster Management Officer and five Controllers. There is a Local Disaster Management Plan but is outdated and requires review. UMngeni Disaster Management Plan will be prepared in order to minimize, reduce and eradicate any risk that the area may face due to disasters.







### 8.8.2 NATURAL HAZARDS

The list of high profile risks that were identified include the following:

-  Flooding;
-  House Fires;
-  Veld Fires; and
-  Severe Storms.

The list of medium impact risks are as follows:

-  Transport accident;
-  Environmental pollution;

-  Hazmat;
-  Animal and plant disease;
-  Epidemic human disease;
-  Lighting and thunderstorm;
-  Tornados; and
-  Snow.



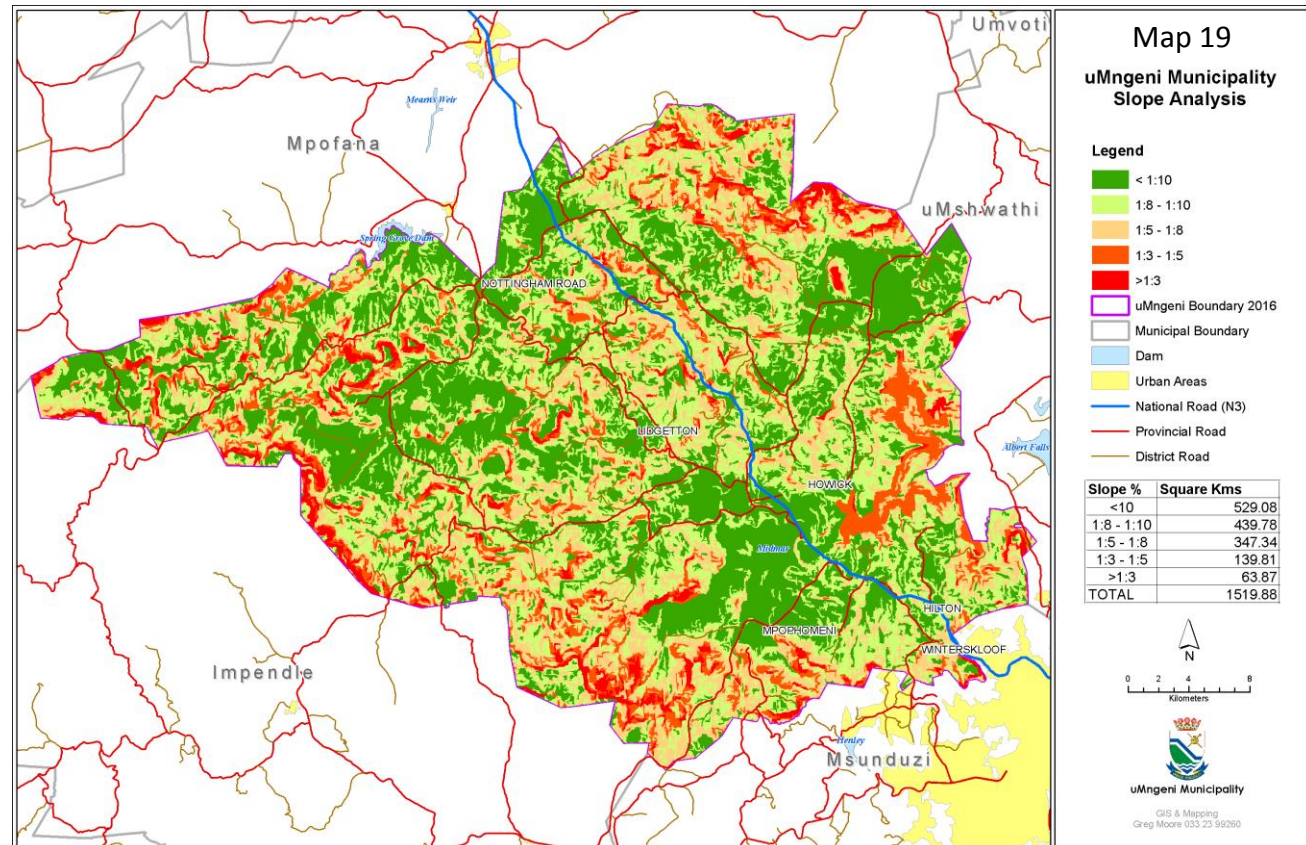
## 9. STATE OF THE ENVIRONMENT

### 9.1 TOPOGRAPHY

The Pietermaritzburg Metropolitan Region is characterized by a diversity of landscapes. The region transects four of Natal's 49 classified physiographic regions. These are the "Natal Midlands" and the "Howick Benchland", which forms part of the "Uplands" regional grouping, and have an altitude of between 1000 – 1400m above sea level, the "Greytown – Pietermaritzburg – Richmond Benchland" and the "Valley of a Thousand Hills" which form part of the "Intermediate" and "low lying" regional groupings respectively and have an altitude of between 400 – 1000m above sea level.

The most prominent topographical feature is an escarpment which forms an abrupt 400 – 600 metre vertical transition

between the "Intermediate" and "Uplands" regions. The escarpment, which forms the watershed between Msunduzi and Umgeni River catchments, extends in a crescent shape from Elandskop, situated in the south western portion of the region, to the upper reaches of the Rietspruit valley, situated in the north eastern portion of the region. The main effects of relief will tend to be on soil depth and











drainage. On steep slopes the natural rate of erosion is rapid so that deep soils are usually confined to the gentler slopes, while depressions and concave slopes tend to become seepage zones where a water table may develop. In much of the study area with its many areas of rugged topography it must be expected that rock outcrops and shallow soil depths will occur in such areas. On the other hand, in very flat areas beside the larger streams where flooding occurs periodically, resulting in the deposition of alluvium, substantial areas of good alluvial soils may occur – as is indeed the case beside Msunduzi River and several of its tributaries in the vicinity of Pietermaritzburg.

The slope varies across the municipality and depicts slope ranges from  $<1:10$  up to  $>1:3$  incline. The north and south-western parts of the municipality have higher slope inclines, indicating mountainous areas. The central part of the municipality is relatively flat, with slope ranges of  $<1:10$ . The greater the gradient  $>1:3$  the more difficult and more expensive construction becomes and this should be considered during infrastructure intervention planning. The terrain therefore plays an integral part in determining settlement patterns or the line of roads which needs to be built cost-effectively. Apart from infrastructure provision and housing, the slope of the land will be a determining factor in potential economic activity especially agricultural product potential. As noted from the topography analysis, the slope map shows that the more even plains are situated in the central part of the municipality.

## 9.2 GEOLOGY

There are a range of geological formations that are found within the Municipality. The majority of the development growth points comprises of the Dolerite soil formation. These include the following:

-  Dolirite Uplands;
-  Dolirite on steep slopes;
-  Volkrust Formation;
-  Volkrust Formation on steep slopes;
-  Estcourt Formation Undulating; and
-  Vyrheid Formation on steep slopes.

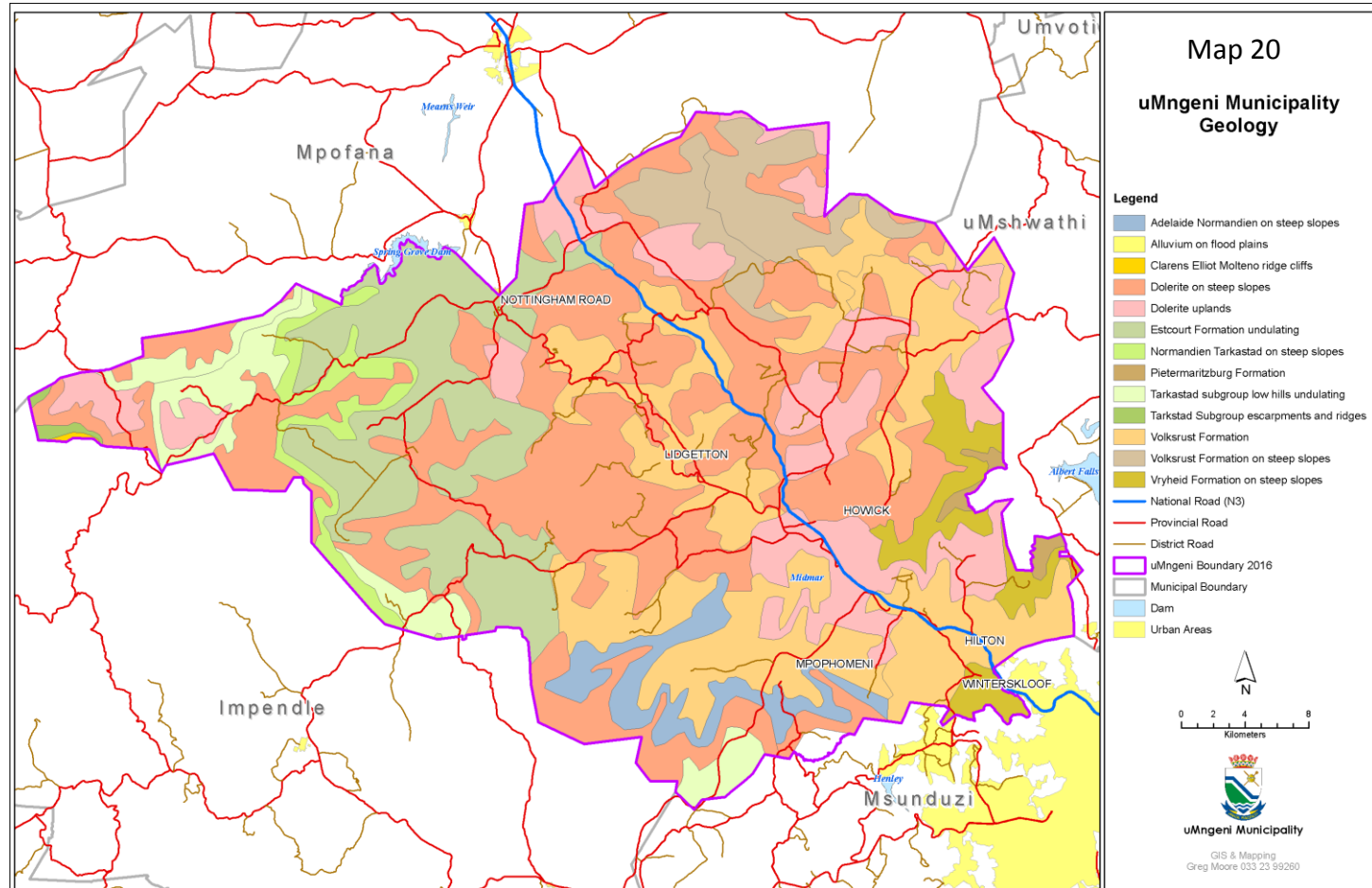
Dolerite is associated with the break-up of Gondwana which took place some 187 to 155 million years ago. These dolerites are either tholeiitic or olivine dolerites. Plagioclase and pyroxene represent their two major mineral components. Arenites is a sedimentary geological formations found in Karoo Basin region of Southern Africa. It is carbon-rich sedimentary deposit; owing to the high vegetation content of the original sediment i.e. in some instances this type of geological formation contains mineral occurrences for coal mining. In terms of construction mudstone is characterized with few serious geotechnical problems compared with other soil formations but it is significant to the construction industry because it is frequently encountered in civil engineering activities involving foundations,

excavations and earthworks. Its nature is such that its properties may vary between a soil and a rock depending on its detailed lithology and its state of weathering. As a result of this, in some cases, weaker material may be found below stronger rather than the more normal weathering progression where the weakest material occurs at the surface and becomes fresher and stronger with depth.

### 9.3 SOIL POTENTIAL

There are 8 Classifications. There is no land in UMngeni classified as Class I, but substantial areas classified as Class II which means that there are some limitations to farming but these can be addressed by correct agricultural practices.

Limited areas of Classes VII and VIII where cultivation should not take place occur on the extreme northern and western edges of the UMngeni Municipality related to the Karkloof Nature Reserve and areas within the UKhahlamba Drakensberg Park buffer zone.



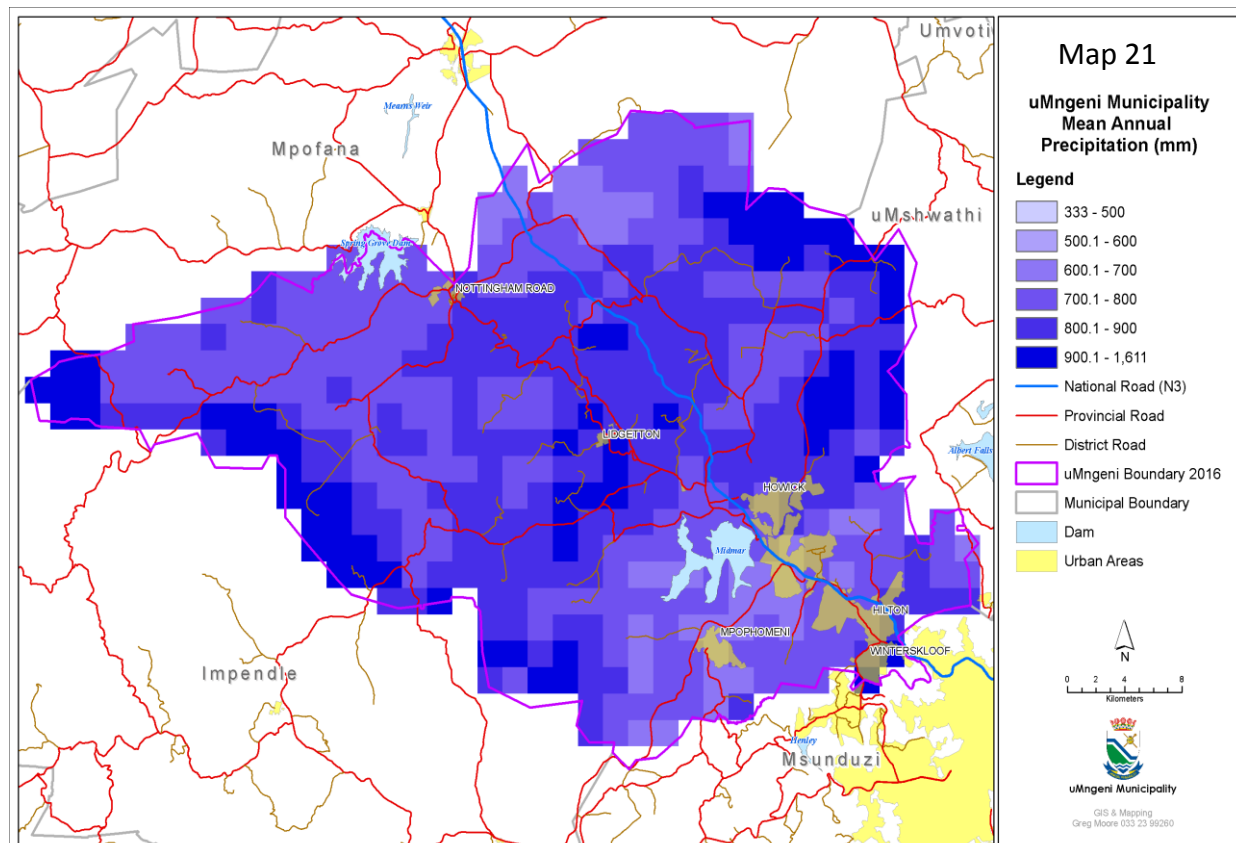
## 9.4 CLIMATE

There are 10 official meteorological stations in the municipality recording a range of climatic data (rainfall, temperatures, wind, humidity, evaporation etc.) and several others which record only rainfall. The comprehensive climatic stations are at Cedara and Claridge and on farms in the Dargle, Howick, Loteni, Nottingham Road, Fort Nottingham, Lidgetton and Karkloof areas so that the Municipality is well covered. From an agricultural point of view rainfall is the most important element. The amount tends to be closely related to altitude as shown below by average annual rainfall for a number of stations in or close to the study area:

TABLE 7: Rainfall Station	Altitude (m)	Mean Annual Precipitation mm
Ukulinga (Pmb)	775	733
Bishopstowe (Pmb)	838	889
Cedara	1 067	869
Lidgetton	1 204	1 086
Karkloof	1 219	1 337
Loteni	1 600	1 366

In addition to altitude aspect has a major bearing on rainfall. This is because moist air enters the area from the south-east so that south-easterly slopes tend to be wetter than north westerly ones. The records for Karkloof (on a wet southerly slope) and Ukulinga on a dry westerly one illustrate this point.

The records indicate that except for a few rain-shadow localities near Pietermaritzburg, the municipality as a whole has a mean annual





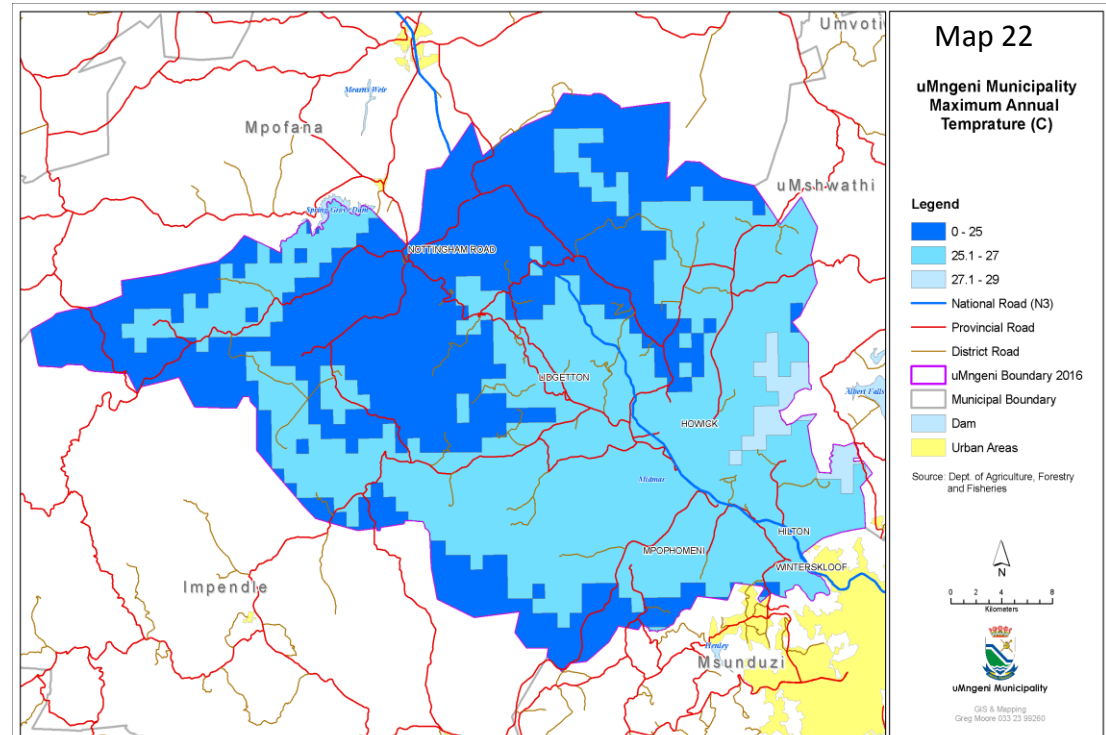
rainfall of over 800mm with the higher parts receiving over 1 000mm. This is an agriculturally important attribute as experience throughout the province has shown that it is only in areas receiving an average rainfall of at least 800mm per annum that intensive dryland cropping is economically viable. With the exception of a few rain shadow localities near Albert Falls dam the whole Municipality thus meets the most important requirements for a good agricultural climate. Other agriculturally important elements of climate with the study area are temperatures and the occurrence of frost, hail, snow and mist. Temperatures are closely related to altitude as illustrated below for 3 stations in or near the area:

TABLE 8: Recording Station	Altitude (m)	Mean max. temp (deg C)	Mean min. temp (deg C)
Bishopstowe	838	23,9	11,2
Cedara	1 067	22,5	9,9
Nottingham Road	1 438	21,3	6,1

It can be seen from these figures that minimum temperatures vary more than maxima (almost twice as much). This trend is also reflected in the occurrence of frost where the following data apply:

TABLE 9: Recording Station	Average date of first frost	Average date of last frost	Average number of frost days
Pietermaritzburg	8/7	17/7	9
Cedara	23/6	25/7	32
Nottingham Rd	2/5	14/9	72

At the higher altitudes the frost is also more severe than at the lower altitudes. Snow is also much more common at the higher altitudes above about 1 200m and especially at the very high altitudes of over 1 500m near the Drakensberg, while the risk of hail also increases with proximity to the mountains. The whole area is also characterised by much mist (as implied by the name Mistbelt). This is an important source of moisture during dry times which has a particularly beneficial effect on pastures. Considering the area as a whole it may be said that it has a very good agricultural climate but with the proviso that the higher lying parts are cold and frosty in winter and prone to hailstorms in summer.



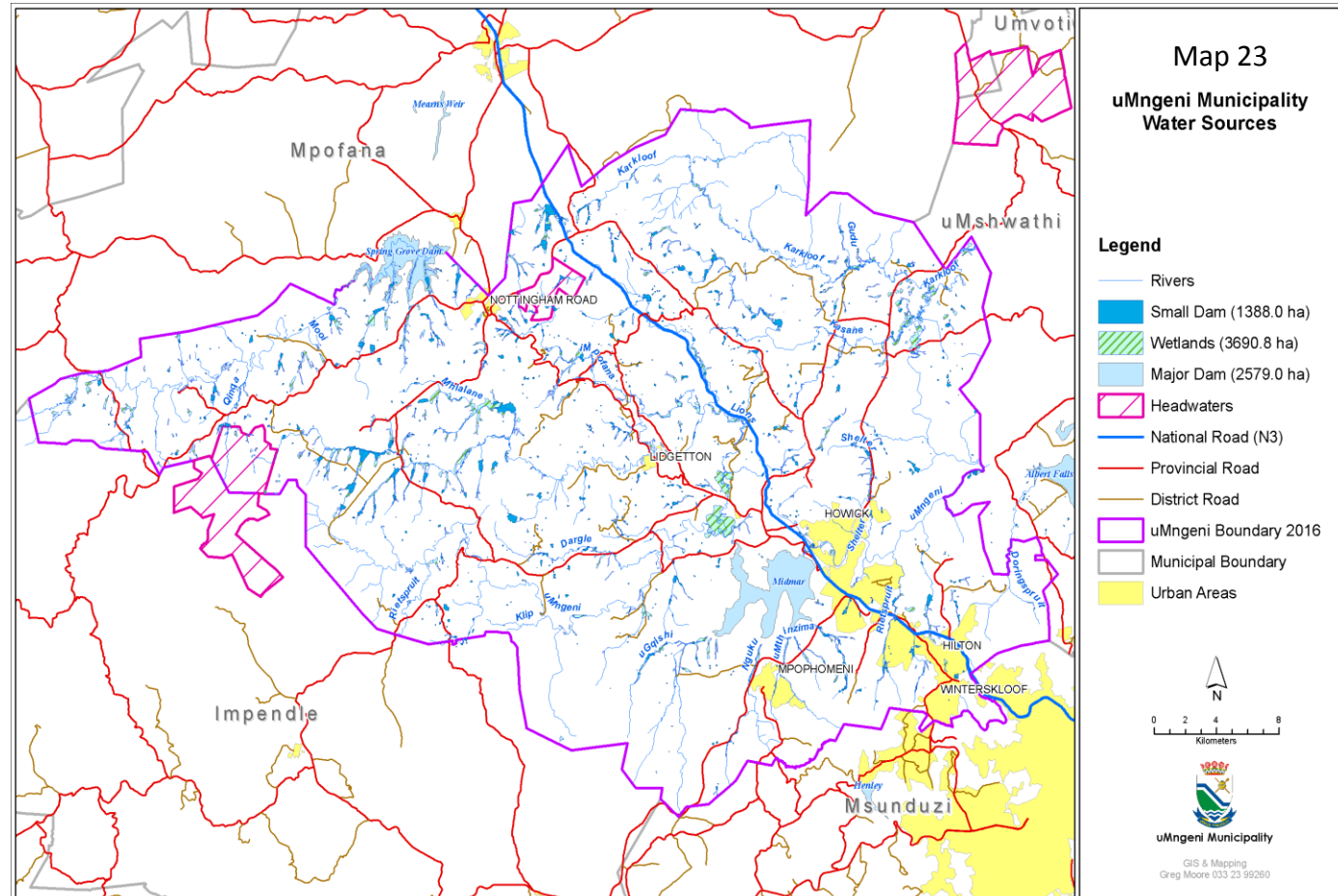
## 9.5 WATER RESOURCES


The Umgeni Municipality is very well watered with many perennial rivers and streams and a large number of farm dams as well as the two major impoundments: Midmar and Albert Falls dams. There are also a large number of perennial springs and a number of important wetland. The main rivers are:

- 📍 the Mooi River which drains the north-western part of the Municipality.
- 📍 the UMngeni river with its major tributaries
- 📍 the Lions and Karkloof Rivers and a number of smaller ones.

It is important to note that most of the municipality drains into the UMngeni River and thus falls under the UMngeni Integrated Catchment Management Plan. According to Puttick (1997) this plan seeks to devise strategies for making best use of available water within the UMngeni Catchment Area. To this end it seeks to:

- 📍 Limit further afforestation and sugar cane production.













 Limit the further development of farm dams and irrigation.





From an agricultural, and especially irrigation, point of view the surface water resources are therefore finite, rather limited and likely to become more limited and more expensive in the future. The major wetlands within the area are important as water storage sponges and for water purification. In addition to the surface water resources discussed above there are also the sub-surface or ground water resources which supply a considerable number of boreholes in the area. This resource which has not been quantified is likely to become more important for agriculture as ground water resources become less available.

## 9.6 RIVERS AND WATER FEATURES

Rivers occurring within UMngeni Local Municipality include the major river for the Durban-Pietermaritzburg region via the uMgeni River as well as the Lions, Mpofana, Karkloof, Dargle, Gudu, uMthinzima, KwaGqishi, Nguku, Kusane, Gwens Spruit and Elands with the Mooi River forming a portion of boundary between the UMngeni Local Municipality Local Municipality and Mpofana Municipalities. The headwaters of the uMgeni River straddle the boundary between the UMngeni Local Municipality and Impendle Municipalities. The major storage dam for the regional economy viz. Midmar Dam is located in UMngeni Local Municipality as well as a portion of the Albert Falls Dam, which also plays an important role in the assurance of bulk water supply for the region.


Midmar Dam is a critical storage dam with good water quality that needs to be retained to avoid a drastic increase in water treatment costs. Therefore, the majority of UMngeni Local Municipality occurs within the strategic quaternary catchment for water supply for the Durban-Pietermaritzburg economy. The Spring Grove Dam, on the Mooi River which is required to augment the existing water supply for the region, was recently opened by the President of the Republic and is steadily filling up. Rivers within Msunduzi are the source of a number of goods and services and these include:

-  Water supply for industry, domestic use, agriculture and livestock watering;
-  Dilution and removal of pollutants from agricultural, domestic and industrial sources;
-  Reducing sediment inputs to coastal zone;
-  Decomposing organic matter;
-  Storing and regenerating essential elements;
-  Provision of building materials in the form of clay bricks;
-  Grazing fodder during dry seasons;
-  Recreational and subsistence fishing;
-  Providing aesthetic pleasures;
-  Storm water management and control
-  Sites for recreational swimming;



-  Recreational sport, such as canoeing and income generated in the area from events
-  Open spaces within the various towns;
-  Environment for contemplation and spiritual renewal; and
-  River-based educational activities.

## 9.7 BIODIVERSITY

In terms of the C-Plan and MINSET assessments undertaken by Ezemvelo KZN Wildlife (EKZNW), UMngeni Local Municipality contains extensive areas of conservation significance. These assessments are at a very broad level, and a more detailed assessment has been undertaken at a local level taking current land use and slope into account. This was last updated in 2011 and takes into account the latest EKZNW information and current land use. The plan of environmental priority forms an integral part of the UMngeni Local Municipality's SDF and is used to assess development applications. The following categories of Environmental Priority are identified:

-  Priority 1: This category represents areas within the Municipality that have been identified by EKZNW as important species, ecosystems or landscapes; and which are natural ecosystems as per the land use data for the Municipality such as grasslands or

indigenous forests. These areas are therefore untransformed and of high biodiversity importance.

-  Priority 2: These areas represent natural ecosystems as above but which have not been identified by EKZNW as areas of important species, ecosystems or landscapes. They therefore are not of biodiversity importance, but do play a role in the functional importance of biodiversity and ecosystem goods and services. These areas are therefore still important, specifically in UMngeni Local Municipality, in terms of water production.
-  Priority 3: These areas are those that were identified by EKZNW as of importance but which are transformed i.e. cultivated. These areas could possibly be rehabilitated, but in terms of land use management cannot be regarded as high priority areas.

A 2011 study covering the sensitivity of landscapes to tourism confirms the suitability of the Midlands Meander area for tourism. Limited areas to the west in close proximity to the Drakensberg are highlighted due to the high sensitivity of the landscape. A worrying aspect is that these areas are in private ownership. Also highlighted is the sensitivity of the Karkloof Nature Reserve. The study has identified further areas to the north of Howick as having high capacity for tourism. The high agricultural potential of these areas has not, however, been taken into account. Recently there has been private Nature Reserves gazetted, for example, on portion of the Hilton College estate. A further Private Nature reserve has been

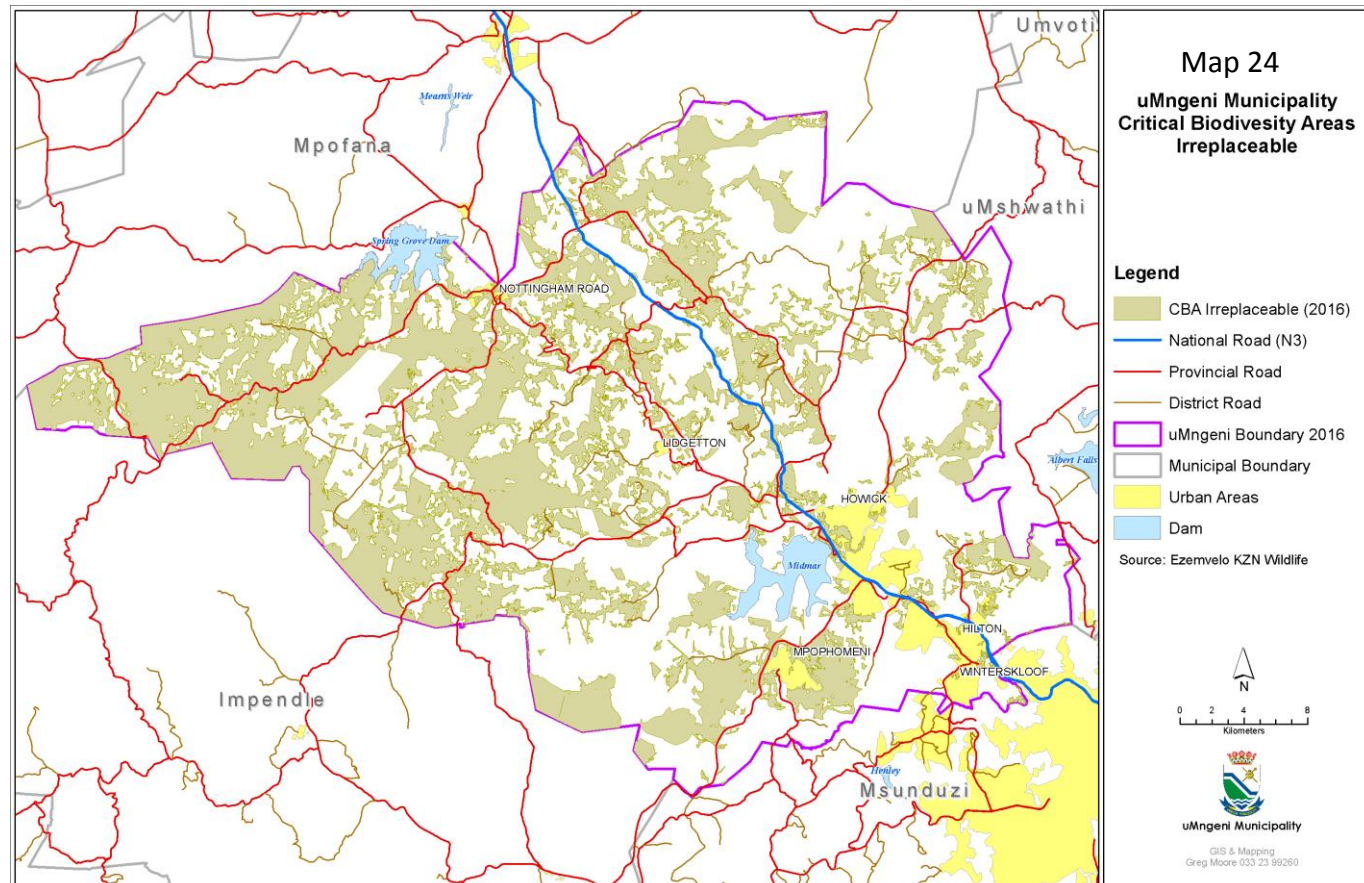


proposed in the Midlands. Within the Howick Urban area, there are areas set aside for Conservation purposes that include Howick Falls, portions of the Umgeni River Valley and Beacon Hill Ingongoni Mistbelt Reserve.

Further areas of recent environmental planning include the Provincial Environmental Corridors and the buffer proposed to be established to protect the Okhahlamba Drakensberg World Heritage Site. The impacts of these proposals on the areas of high agricultural value are of concern in the uMngeni Local Municipality context. The 2011 COP17 Conference held in Durban at the end of 2011 and the District's Climate Change Report has highlighted the need for focus on green issues and to strive for sustainable development practices.

## 9.8 CONSERVATION AREAS

A 2011 study covering the sensitivity of landscapes to tourism confirms the suitability of the Midlands Meander area for tourism. Limited areas to the west in close proximity to the Drakensberg are highlighted due to the high sensitivity of the landscape. A worrying aspect is that these areas are in private ownership. Also highlighted is the sensitivity of the Karkloof Nature Reserve. The study has identified further areas to the north of Howick as having high capacity for tourism. The high agricultural potential of these areas has not, however, been taken into account.

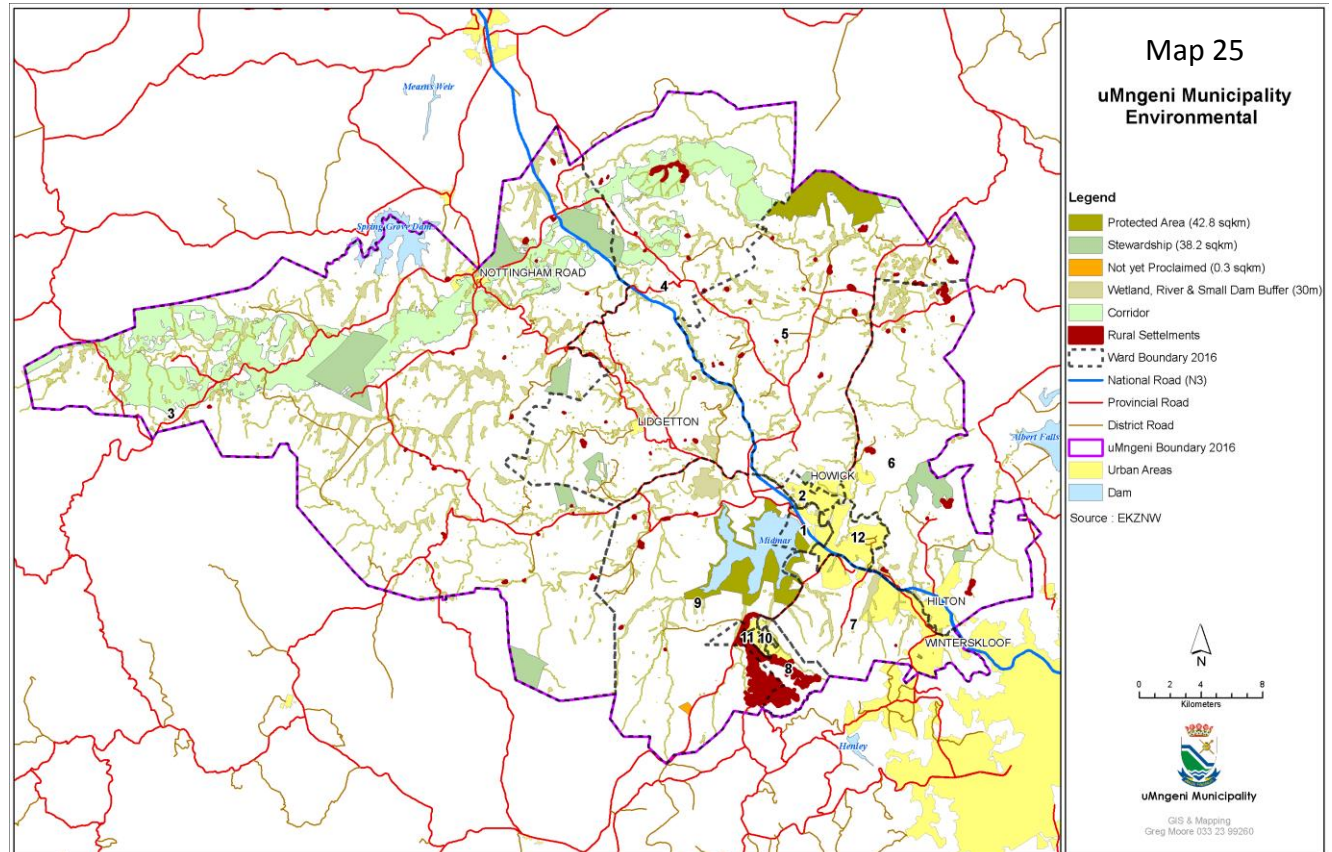


Recently, some private Nature Reserves have been gazetted, for example, on portion of the Hilton College estate. A further Private Nature reserve has been proposed in the Midlands. Within the Howick Urban area, there are areas set aside for Conservation purposes that include Howick Falls, portions of the UMngeni River Valley and Beacon Hill Ingongoni Mistbelt Reserve.

Further areas of recent environmental planning include the Provincial Environmental Corridors and the buffer proposed to be established to protect the Okhahlamba Drakensberg World Heritage Site. The impacts of these proposals on the areas of high potential agriculture are of concern in the UMngeni Local Municipality context.

### 9.9 ENVIRONMENTAL CHANGE, IMPACT AND PRIORITIES

Environmental change refers to the modification of the natural environment, either through humanly or natural (climate change) and human induced factors. These factors influence the biophysical environment and drives environmental change. These changes place pressures on the environment and create outcomes, which are not always desirable. This is why environmental pressures must be maintained within their limits to avoid sudden ecological change that can drastically reduce the flow of ecosystem services, and, thereby increase pressures on the social and economic systems. This is the basis of sustainability.





The District Municipality has commissioned consultants to create a climate change response strategy and plan. An Impact and Vulnerability Assessment has been completed, and work is proceeding on the response strategy plan for UMgungundlovu. The predictions show that there will be more severe storms and overall higher temperatures. The response strategy will cover disaster management and human settlements; municipal infrastructure and services; economic effects on agriculture and commerce; and biodiversity and ecosystems.

Key strategies include the determination of floodlines and the need for people to move out of flood plains, the preservation of grasslands and forests and the planting of trees. Increased fire risk means education on how to make homes safer, and the burning/creation of fire breaks. Infrastructure will need to be improved to be able to respond to increased storm water and higher temperatures. Farming and Conservation approaches will need to adapt.

#### 9.10 ENVIRONMENTAL GOVERNANCE

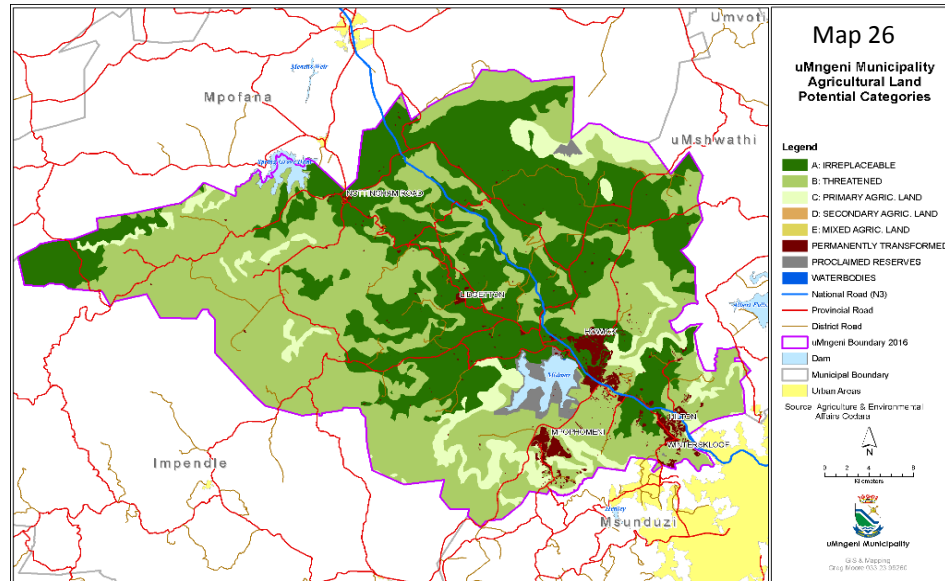
The prevailing environmental governance system in the UMngeni Local Municipality has the potential to create change and undesirable outcomes for the people and the environment. Environmental governance is defined as “the exercising of authority over the use and management of natural resources, and the environment. It is essentially about making decisions and about who makes decisions. It includes rules, processes and behaviours that affect the manner in which decisions are made. These decisions

ultimately determine whether the environment is harmed or improved” (DAEARD, 2010).

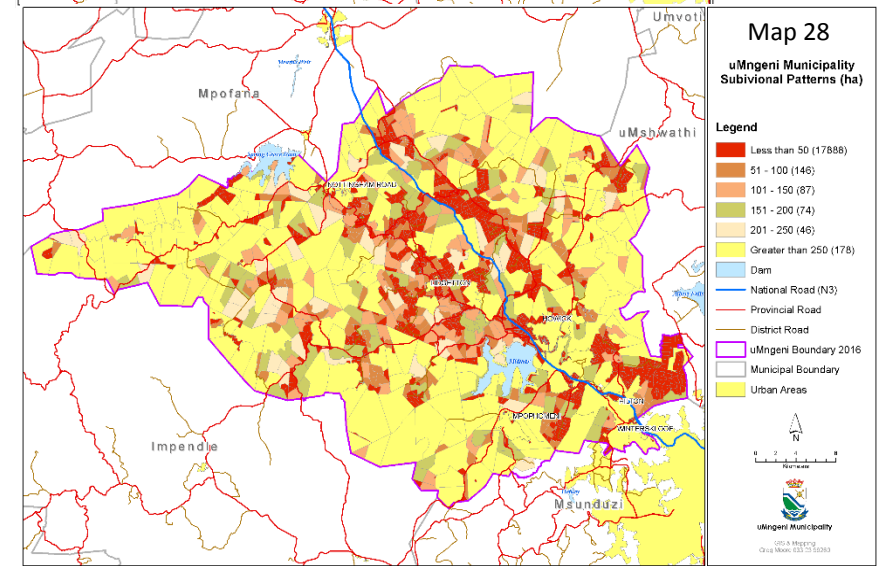
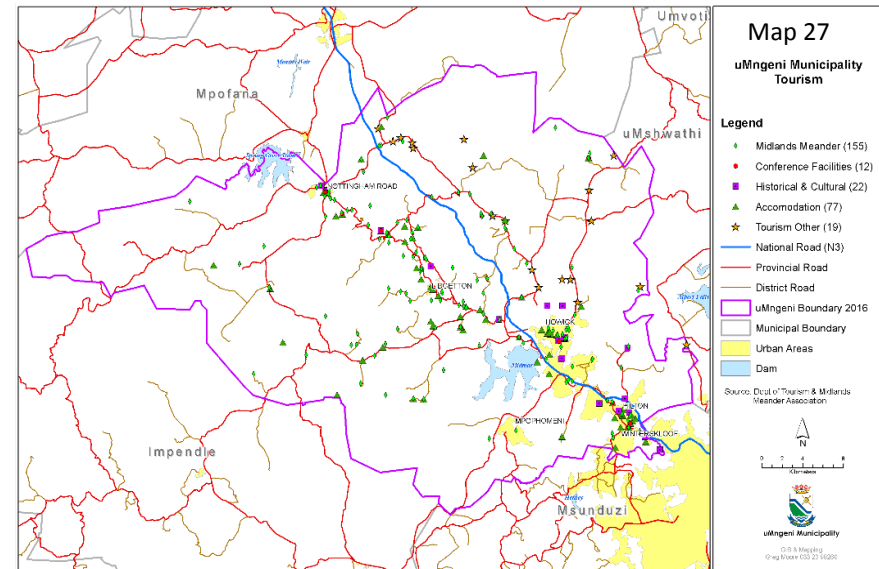
Good Governance is identified in UMngeni Local Municipality as one of the Key Performance Indicators. UMngeni Local Municipality has prioritised this KPI and through good governance, the municipality aims to ensure efficient and effective public participation processes; ensure cooperative governance with the district, neighbouring municipalities and other stakeholders and ensure a highly effective internal audit function. According to the IDP, these objectives are to be achieved through the implementation of community outreach programmes, of the communication strategy, through participating in IGR structures and will be achieved by addressing staff needs.

## 10. SPATIAL PLANNING ISSUES AND CHALLENGES

### 10.1 GOOD POTENTIAL AGRICULTURE VERSUS PROFITABLE TOURISM







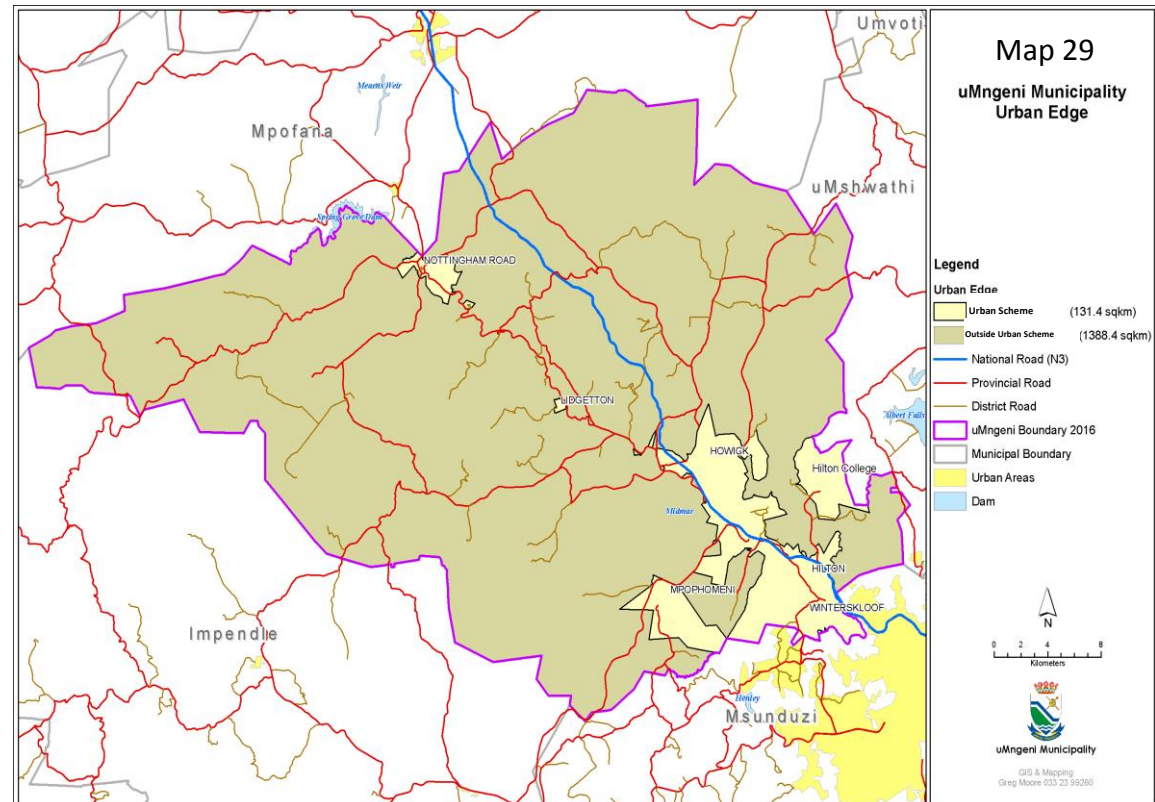
The high potential agricultural has over the years faced immense pressure from subdivision that is linked to creating a platform for tourism related investments. The maps indicate this correlation between smaller farm subdivisions and the location of tourism facilities. Highest concentrations occur along the primary tourist routes (R103 and the Curry's Post Road) and to a lesser, but still significant extent, along the secondary tourist routes, i.e. the Dargle / Impendle road and the Karkloof Road. This will need serious attention at a strategic spatial planning and food security point of view.



## 10.2 RURAL EMANCIPATION VERSUS URBAN BIAS




Although UMngeni is easily perceived as a medium sized municipality with a number of urban centres, the coverage of these urban centres is only 8% of the municipal area. This has a number of implications from a spatial planning point of view which can be outlined as follows:

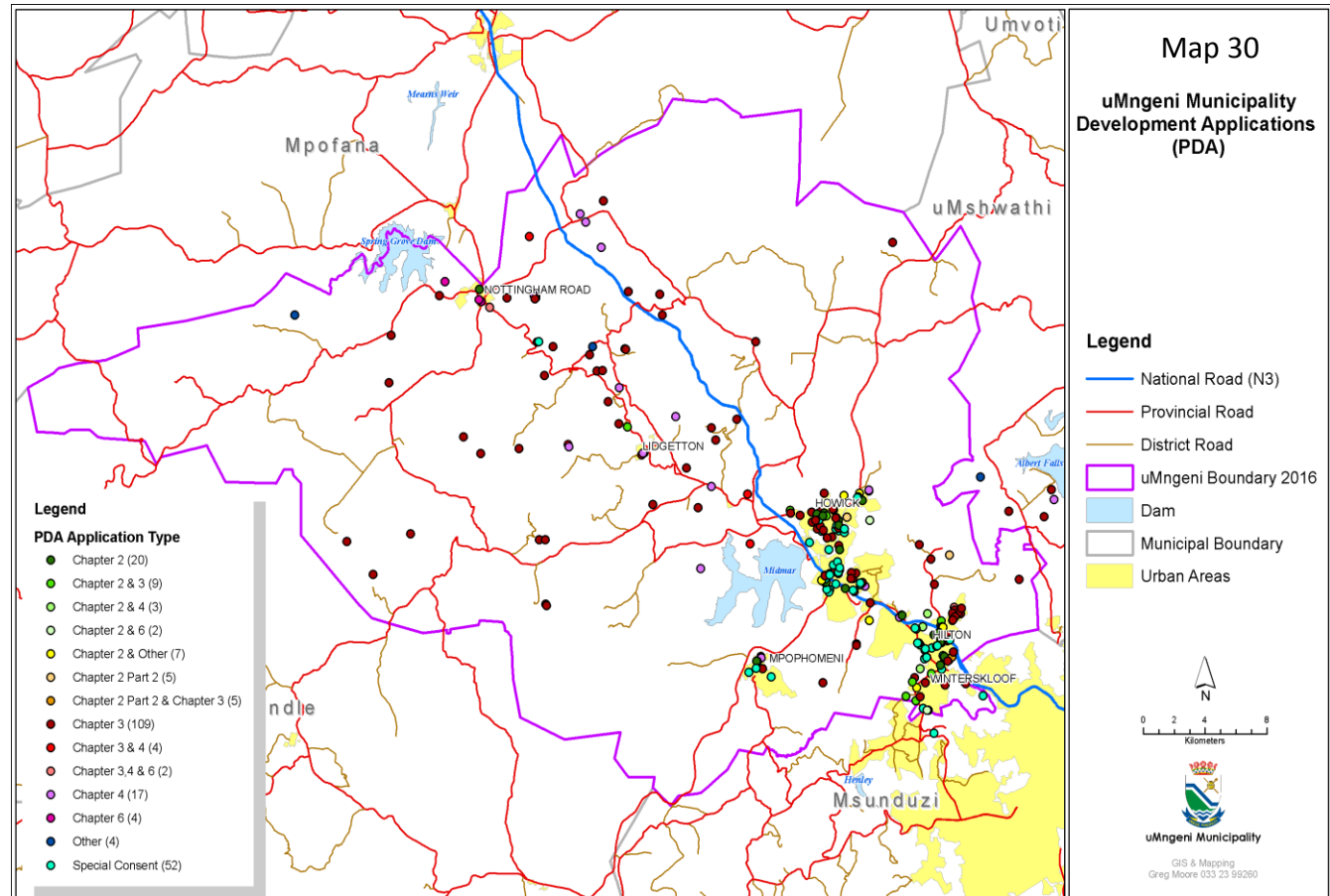
-  A fair amount of attention needs to be placed on rural development as advocated by the national rural development programmes including the CRDP;
-  This rural focus should also question some of the pressing issues affecting the rural areas e.g. farmworker housing and agrarian reform.
-  The vastness of good potential agricultural land requires stringent measures and protection. The global standards suggest that a ratio of 0.4ha should be used per person for food security. However, the increase on the number of non-agricultural uses implies that this target may not be achieved; and
-  The majority of these are fairly developed as commercial centres are ideally located along the main routes which include N3, R103 and R617. The concentration and proximity of some of these activity points within each other provides an opportunity for compact development. However, such process should be conscious of the role, characteristics and function of each node.



### 10.3 PATTERN OF PRIVATE SECTOR DEVELOPMENT

The Map above covers the development applications made in terms of the Planning and Development Act since it was introduced in May 2010 and up to December 2012. There were 134 applications during this period 80% of which were within the existing urban areas. The general pattern of these application is as follows:

-  Subdivision applications (Chapter 3) are normally proposed within the farms and these are normally accompanied by Chapter 4 application which is essential for the development of land outside of the scheme. This correlates with the agri-tourism that takes place within the area;
-  The majority of application that are processed within the town of Howick are Chapter 2 which is scheme amendment; and
-  There are few applications which are normally special consent application that are processed within Mpophomeni and Hilton.



#### 10.4 TRANSPORT ROUTES AS AN INFLUENCE FOR FUTURE DEVELOPMENT DIRECTION

The development that takes place within UMngeni Local Municipality are highly influenced by factors of accessibility and proximity to trading transport routes. This transportation network such as the main routes will still play a critical role in determining the structure of the area while creating the opportunities for investment at the same time. This is due to the basic fact that the transportation network should provide linkages between different areas and the level of access to social and economic opportunities influence the quality of life for the individuals.


#### 10.5 CREATION OF UNSUSTAINABLE RURAL SETTLEMENTS


As previously alluded to in this report, there are a number of few isolated farm settlements that are located within different parts of the municipal area. These exist purely as ancillary use to agricultural land use. However, security of tenure is very important for the dwellers. Existing data on land ownership within UMngeni Municipality is that land is primarily in private ownership. More recently, the land reform programme has also contributed to the establishment of isolated rural settlements on agricultural land in areas in the south and east within wards 9, 10, 11, 8, 7, 5 and 6. Most of these areas are relatively small and do not make sufficient thresholds for efficient delivery of services and development of public facilities. The key challenge is to contain further outward


expansion of these settlements and to turn them into sustainable human settlements in order to avoid these from degrading into rural slums.


#### 10.6 ENVIRONMENTAL CONCERNS

UMngeni Local Municipality has a multiplicity of environmentally interrelated challenges. These need to be addressed from an environmental perspective.


 **Grasslands** form the major component of the Critical Biodiversity Areas. Any form of proposed land use change including those of an agricultural nature shall take into account the Critical Biodiversity Areas and Environmental Support Areas as identified by Ezemvelo KZN Wildlife. However, it needs to be acknowledged that a balance has to be achieved in terms of human settlement, tourism, agricultural and environmental needs.


 **Wetlands and Rivers:** A 30m buffer has been shown for wetlands and rivers. These areas should be rehabilitated where necessary and conserved.


 **Headwaters of Rivers:** Due caution is needed in these areas in light of the potential impact on water quality.


 **Natural Bush:** Very few areas of natural bush occur, thus these need to be preserved.





 **Provincial level Environmental Informants:** Provincial level environmental informants have been identified on the Environmental Informants Map. These include the Provincial Environmental Corridors (Ezemvelo KZN Wildlife Macro Ecological Corridors) and the buffer proposed to be established to protect the Okhahlamba Drakensberg World Heritage Site.


 **Areas set aside as Nature Reserves, Natural Heritage Sites and Rehabilitation to Natural Habitat:** An encouraging environmental trend in UMngeni is the setting in place of Private Nature Reserves. Rehabilitation of areas to their natural habitat is to be encouraged. Furthermore,

 The number of dongas which are susceptible to soil erosion which need to be properly maintained and rehabilitated. Development in these areas should be minimised.

 The undulating terrains that are prevalent within municipal area restrict development.

 Areas located in the vicinity of the river banks, should be protected.

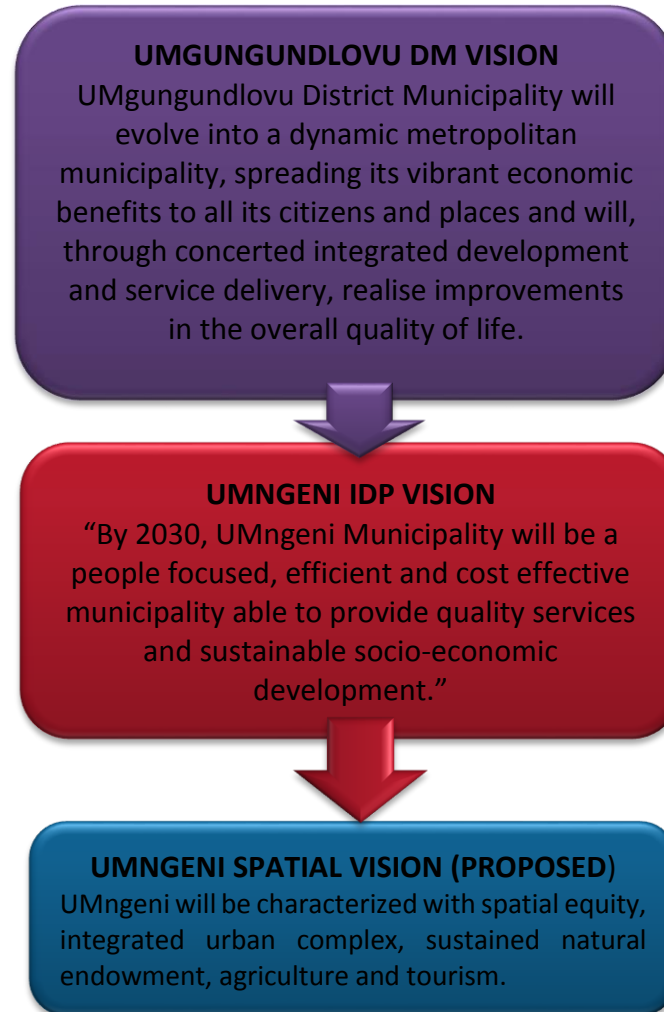
 The management of solid waste and the treatment of all waste should be considered.

 The high density rural settlements should be upgraded from VIP to waterborne sewerage system.

## 11. SPATIAL DEVELOPMENT STRATEGY

### 11.1 SPATIAL DEVELOPMENT VISION AND MISSION



The vision has been developed to guide the direction and growth of the Municipality through the status quo findings. The vision together with the Provincial Spatial Development Guidelines will guide the preparation of the SDF Plan in the next sections. UMngeni Municipality development vision is a core element of the development strategy as outlined in the IDP and fulfils the requirements of the Municipal Systems Act. Translated into spatial planning, the vision commits the municipality to Batho Pele Principles which includes “people focused”. It further states that the municipality will strive in providing efficient and cost effective municipality services. The latter involves the socio-economic development. The proposed Spatial Vision for UMngeni encourages compact and integrated development







within the Howick/ Hilton and Mpophomeni Urban Complex. This vision encourages the municipality to be responsible in terms of protecting the environment, preservation of agricultural land and promotion of tourism.

### 11.2 SPATIAL PLANNING PRINCIPLES




UMngeni SDF is strengthened by following principles which have been extracted from various pieces of legislation and policy documents and are considered applicable to guide the preparation, review and implementation of UMngeni Municipality SDF. The objective of the principles and norms is to influence directly the fundamental outcomes of planning decisions, whether they relate to spatial development frameworks or decisions on land use change or development applications. These include:

-  promoting sustainable use of the land;
-  channelling resources to areas of greatest need and development

potential, thereby redressing the inequitable historical treatment of marginalized areas;

-  Supporting an equitable protection of rights to and in land.
-  restructuring spatially inefficient settlements;
-  stimulating economic development opportunities in rural and urban areas; and
-  Taking into account the fiscal, institutional and administrative capacities of role players, the needs of communities and the environment.

In addition, they promote:

-  accountable spatial planning, land use management and land development decision-making by organs of state;
-  cooperative governance and wider information sharing in plan-making and implementation; and
-  Maximum openness and transparency in decision-making.



















The principles and norms collectively form a vision for land use and planning in UMngeni. They constitute a single point of reference, and an overarching coherent set of policy guides to direct and steer land development, planning and decision-making in land use so that outcomes thereof are consistent with the development objectives as outlined in the IDP.

### 11.3 DEVELOPMENT OBJECTIVES


























#### 11.3.1 OVERARCHING OBJECTIVE 1: MANAGE URBAN GROWTH AND BALANCE WITH ENVIRONMENTAL PROTECTION

This objective is informed by the principle of sustainable environment planning to manage the future growth, development of UMngeni in a way that balances growth, human benefit and environment addresses the impacts of climate change on livelihoods, urban infrastructure as well as biodiversity. The UMngeni SDF seeks to assist property developers to make informed investment decisions, develop in appropriate locations, by identifying the areas that are most suited to urban development and those that should be avoided for environmental reasons or for the hazards or risks they create for residents. It highlights the importance of cross-sectorial forward planning, the spatial alignment of interventions and provides broad guidelines for the phasing of the growth of the city. It recommends that cross-sectorial growth management plans such as IDP shall be used to guide the city's growth, development, and provide information on the municipality's bulk infrastructure delivery plans. To manage the urbanisation challenges, pressures facing UMngeni by proposing that the future form of urban development should be more compact and that higher densities be encouraged in targeted locations in order to promote the more sustainable use of resources, support the development of a low-carbon city, make more effective, efficient use of existing infrastructure, public transport systems, social facilities and amenities. Lastly, it is advocated that development impacts on natural resources be appropriately managed. The biodiversity network, aquatic network and agricultural areas to be protected must be taken into consideration when planning for new development, and national

biodiversity targets should be pursued. More efficient use needs to be made of non-renewable resources, the protection and maintenance of existing surface water, groundwater resources and the sustainable sourcing and use of existing as well as future water supplies are critical.














<b>TABLE 10: Managing Urban Growth and Balance with Environmental Protection</b>			
<b>Objectives</b>	<b>Strategies</b>	<b>Supporting Frameworks</b>	<b>Alignment with policies</b>
 <b>Facilitate urban development</b>	 Facilitate developments by identifying the locations potentially suited to densification and in-fill development  Facilitate urban development and direct the phasing of urban growth through deliberate and integrated use of planning, infrastructure provision, and the regulatory and fiscal authority of all spheres of government.	 Development of Precinct Plans  Updating of Planning Schemes and make provisions for new potential developments.  Development of Densification Strategy  Development of Nodal Framework Plans  Development of Precinct Plans	 UMngeni Spatial Development Framework  UMngeni Local Economic Development Strategy
 <b>Encourage a more compact form of development</b>	 Promote appropriate land use densification;  Contain the development footprint of the town, and protect natural, rural, urban and heritage assets with development edges: Urban Edge.  New developments that promote urban sprawl should be discouraged.  Prioritize infill development in areas that provide opportunities for linking and integrating peripheral areas.  Ensure clustering of various activities (work, live, play and pray) at appropriate locations.  Densification and Infill should be promoted in well serviced, strategically located areas and should contribute to the restructuring of urban environment.  Densification and Infill should help to create thresholds for public transport and contribute to		

**TABLE 10: Managing Urban Growth and Balance with Environmental Protection**













Objectives	Strategies	Supporting Frameworks	Alignment with policies
	<p>the more effective utilization of various modes of public transport.</p> <p> Higher residential densities should be promoted around nodes and within corridors</p>		
<p> <b>Manage urban development impacts on natural resources and critical biodiversity networks</b></p>	<p> Increase efforts to protect and enhance biodiversity networks at all levels of government</p> <p> Reduce the impact of urban development on river systems, wetlands.</p> <p> Manage urban development in a sustainable and precautionary manner</p> <p> Protect valuable agricultural areas, existing farmed areas and horticultural areas from urban infringement, and support urban agriculture</p> <p> Adopt a proactive planning approach to excavating resource management</p>	<p> Develop a Strategic Environmental Assessment (SEA)</p> <p> Develop the Environmental Management Plan</p>	<p> UMngeni Spatial Development Framework</p> <p> UMngeni Local Economic Development Strategy</p>
<p> <b>Make efficient use of non-renewable resources</b></p>	<p> Promote a culture of sustainable development and living</p>		
<p> <b>Protect and enhance the municipality's rural environment</b></p>	<p> Prevent urban development from intruding into the rural environment</p> <p> Support appropriate development and activities in rural areas, in and around unique and culturally significant rural settlements</p> <p> Rationalise and proactively manage smallholdings</p> <p> Develop and manage rural gateways</p>	<p> Develop a Strategic Environmental Assessment (SEA)</p> <p> Develop the Environmental Management Plan</p> <p> Carefully consider the compatibility of proposed land use when assessing rezoning</p>	<p> UMngeni Spatial Development Framework</p> <p> UMngeni Local Economic Development Strategy</p>
<p> <b>Sustain natural environments and resources</b></p>	<p> Optimize the economic, social, appealing and functional value of open space services through the implementation of Open Space System</p>		



**TABLE 10: Managing Urban Growth and Balance with Environmental Protection**

Objectives	Strategies	Supporting Frameworks	Alignment with policies
	 Existing natural environmental resources should be protected and enhanced to ensure that the ecosystem within the open space are able to effectively deliver services  Development must be directed away from hazardous areas such as floodplains, unstable soils and steep slopes  Protect environmentally sensitive areas, agricultural land and open space  Protect river catchments and develop a catchment management plans for river systems where rapid development will occur  Create a network of green open spaces and protect important environmental areas  Support sustainable catchment management and storm water practices.  Promote the prevention and reduction of pollution.	application especially in predominantly residential areas	
 <b>Establish an integrated, Urban-wide public transport system that supports the accessibility grid</b>	 Create a hierarchy of integrated public transport services related to the accessibility grid  Ensure that new urban development is supported by appropriate public transport infrastructure and services  Include walking and cycling as essential components of land use planning  Introduce parking policies to encourage use of the most context-specific and appropriate modal travel choice	 Develop the Integrated Transport Plan	

**TABLE 10: Managing Urban Growth and Balance with Environmental Protection**





Objectives	Strategies	Supporting Frameworks	Alignment with policies
 <b>Integrate land use, economic and transport planning</b>	 Reinforce and enhance development corridors  Encourage medium to higher-density forms of urban development to locate on or adjacent to activity routes, development routes and activity streets.	 Develop the corridor development studies.	
 <b>Support the rationalisation, upgrade and/or development of economic gateways, and manage land uses around them appropriately</b>	 Support the development of an integrated system appropriate surrounding land uses		
 <b>Improve connectivity within the Municipal area.</b>	 Strengthen and integrate public transport networks, services and modes to ensure that passengers move optimally from origin to destination in an efficient manner and in the shortest time possible.  Investigate and promote public transport links between disadvantaged areas and main economic nodes of the Municipality  Facilitate movement between areas of need and wider opportunities  Include Non-Motorized Transport as essential components of land use and transport planning  Investigate new road and rail based network links.		

### 11.3.2 OVERARCHING OBJECTIVE 2: EMPLOYMENT AND ACCESS TO ECONOMIC OPPORTUNITIES

This objective is informed by principles of spatial concentration to enhance, promote planning for employment, support economic growth by responding appropriately to the spatial needs, requirements of the economic sectors that are attracted to and function within UMngeni. Land use policies, mechanisms, economic incentives will be introduced to promote shared and inclusive economic growth. To correct spatial imbalances, the municipality shall support employment generating development in locations accessible to areas that are around UMngeni. The Municipality shall also use public investment and public interventions to generate market opportunities for investment and job creation in these areas. Perhaps most importantly, the municipality is prioritising investment in the improvement of its public transport systems and transport linkages, in order to facilitate more convenient, affordable access to employment opportunities, natural resources and social amenities. In support of these investments, UMngeni SDF has adopted an integrated approach towards land use, economic development and transport planning. Economic development and higher density forms of residential development will be encouraged to locate in areas well served by public transport. This will increase the efficiency of the local's public transport systems, and ensure that the town's opportunities become more accessible. Lastly, recognising the importance of regional, national and international connectivity, the town will engage with the relevant authorities to ensure that the town's function within KwaZulu-Natal is strengthened through sustained investment in strategic infrastructure.

**TABLE 11: EMPLOYMENT AND ACCESS TO ECONOMIC OPPORTUNITIES**


Objective	Strategies	Supporting Frameworks	Alignment with policies
 <b>Promote inclusive, shared economic growth and development</b>	 Maintain and enhance the features of UMngeni that attract investors, visitors and skilled labour  Introduce land use policies and mechanisms that will support the development of small business (both informal and formal)  Encourage area specialisation and the development of a diverse, mutually supportive system of economic areas  Encourage the use of available economic incentives  Promote sub-regional economic planning	 Translation of the Municipality's economic Plan into the Schemes as it relates to market trends.  Updating and Review of the Schemes to promote emerging land uses.	 UMngeni Local Economic Development Strategy  UMngeni Integrated Development Plan

 <b>Address spatial economic imbalances</b>	 Unlock employment-generating opportunities within UMngeni  Support private-sector development initiatives in locations that are easily accessible  Improve public transport links between UMngeni and the main economic nodes of the town		
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### 11.3.3 OVERARCHING OBJECTIVES 3: BUILD INCLUSIVE, INTEGRATED AND VIBRANT TOWN



This strategy is informed by the principle of spatial concentration to build an inclusive, integrated and vibrant town that addresses the legacies of apartheid by rectifying the existing imbalances in the distribution of different types of residential development and avoiding creating new imbalances. The transformation of townships and informal settlements into economically, socially integrated neighbourhoods and the encouragement of public/private partnerships to diversify housing delivery are considered to be integral to this process. UMngeni SDF promotes a greater mix of land uses, people and or densities, and the adequate, equitable provision of social facilities, recreational space and public institutions, in order to achieve integrated settlement patterns. UMngeni's heritage resources, cultural landscapes, scenic routes and destination places that are fundamental to this town's unique sense of place are to be identified, conserved and managed in accordance with statutory requirements. UMngeni's diverse historical legacies are to be celebrated and reinforced through appropriate management of urban form, architectural design, signage and artwork.

Table 12: Building Inclusive, Integrated and Vibrant Town

Objective	Strategy	Supporting Frameworks	Alignment with policies
 <b>Transform the apartheid town</b>	 Redress existing imbalances in the distribution of different types of residential development, and avoid creating new imbalances  Transform townships and informal settlements into economically and socially integrated neighbourhoods  Encourage public/private partnerships to develop integrated human settlements and diversify housing delivery	 Support development initiatives in locations that are easily accessible especially to areas of need	 UMngeni SDF

Objective	Strategy	Supporting Frameworks	Alignment with policies
 <b>Encourage integrated settlement patterns</b>	 Generally, support development, rezoning, subdivision and similar applications that promote a greater mix of land uses, people and/or densities  Ensure that land uses and built form within predominantly residential areas support the daily functioning of those areas and contribute to their overall character and well-being  Ensure that development proposals provide an adequate and equitable distribution of social facilities, recreational space and public institutions	 Land identification and packaging exercise	 UMngeni SDF
 <b>Enhance the unique sense of place and quality of the built form of UMngeni</b>	 Promote good contextual urban design fit, and ordering of the relationship between people, urban space and the environment (built and natural)		
 <b>Enhance the value of heritage resources and scenic routes</b>	 Identify, conserve and manage heritage resources, including cultural landscapes  Ensure access to and provide information about, public heritage resources  Create an enabling environment for urban regeneration that allows buildings and sites of historical and architectural significance to make a positive contribution to the economy and quality of urban life  Celebrate and reinforce UMngeni's diverse historical legacies through urban form, architectural design, signage and, where appropriate, artwork  Provide positive spaces for cultural and social ceremonies and life-related events  Carefully manage land uses and interventions along identified scenic routes, and in places of scenic and visual quality  Identify additional scenic routes		



Objective	Strategy	Supporting Frameworks	Alignment with policies
 <b>Promote accessible, citywide destination places</b>	 Develop high-quality, accessible destinations and public spaces in newly developed and neglected areas		

## 11.4 SPATIAL PLANNING CONCEPTS



### 11.4.1 FOCUSING DEVELOPMENT IN STRATEGIC NODAL AREAS




The assembling and location of services and facilities, in a manner that promotes accessibility and efficiency in service delivery, is required. This is critical for the performance of the municipal area as a whole and land use integration. As such, the clustering of various activities at appropriate and accessible nodal locations provides the UMngeni with a network/ system of opportunity centres. Some of these nodes have benefited from significant public and private sector investment in services and infrastructure, which needs to be managed and maintained. Others are located in previously disadvantaged areas, which have suffered from institutionalised neglect. Although the nodes have contrasting characters, profiles and management issues, they accumulatively accommodate the majority of economic activities, employment prospects, an existing/ growing residential stock, and access to community facilities. As such, the strength and feasibility of the nodal points is directly linked to the functioning and health of their catchment areas. The

concentration of activities in and around these areas will stimulate further development of higher order activities.

### 11.4.2 DEVELOPMENT CORRIDORS AS INVESTMENT ROUTES

Corridor development is associated with a system of transport facilities on key routes that work together as an integrated system to facilitate ease of movement. However, not all regional routes are the same in terms of the intensity of use and ability to attract investment, services, economic activities and settlement. Generally, larger routes linking generators of movement and investment have a greater generative capacity than smaller routes. It thus follows that regional facilities and services should gravitate towards these areas. Smaller facilities requiring smaller thresholds should be located along smaller routes. Viewed in this way, the issue of regional and rural spatial organization becomes one of creating a systemic framework of interlocking activity routes over time. This has an impact of:

-  increasing equitable access to all level of services;
-  promoting investment; and





-  reducing spatial marginalization
-  integrate communities with service provision, and
-  fulfilling a range of economic and social needs

Location of facilities along major routes recognizes the importance of choice to the rural communities with respect to services such as education, health and welfare facilities. Upgrade and road maintenance projects on corridors that leads to development opportunity areas such as rural service centres, high potential agricultural land and tourism nodes should be prioritized as this will encourage investment, improve accessibility and enhance mobility. This principle supports the phased approach to development, targeting areas of greatest potential first. Development corridors are effective in linking infrastructure and economic development as towns and structures connect to each other in a functionally effective manner.

#### 11.4.3 DEVELOPING SUSTAINABLE HUMAN SETTLEMENTS

Higher density settlements should be located along the main transportation routes and held together by a web of local access roads and public facilities. At a regional level, they should be knit together by a system of regional access routes. However, settlements are also not static. They respond to change and are continuously in the process of transformation. The key challenge is to turn them from being creations and remnants of the apartheid regime into sustainable human settlements. This has serious




implications for detailed planning and development of these settlements:

-  Urban areas promote integrated mixed use residential development; they should earmark all the strategically mark land parcels that can be used as opportunity. They should package land parcels for variety of housing projects i.e. BNG, low income housing, middle income housing and social housing.
-  A convenient settlement improves the level of choice, encourages creativity and investment while a less convenient settlement imposes a lifestyle on people and results in unnecessary expenses.
-  Settlements should be equitable in the sense that they should provide a reasonable access to opportunities and facilities to all. It is neither possible nor desirable for settlements to be homogenous hence an emphasis on choice.
-  Centrally located settlement should provide improved access to higher order public facilities, intensive agriculture and other urban services.

They should generate a wide range of opportunities. Rural sparsely populated settlements should be considered as opportunity areas for agricultural development such as crop production and livestock farming. Centrally located settlement should provide improved access to higher order public facilities, intensive agriculture and other urban services.

#### 11.4.4 RURAL-URBAN INTERFACE

The structure of the local economy shadows the discrepancy between urban and rural. These realities underscore the necessity of putting together a spatial strategy within the broader development context. It should thus focus on managing the form and texture of development, in a manner that contributes to the following performance criteria:





-  Developing a comprehensive spatial system that promotes integration of the previously disparate areas and eliminates the gap between where people live and where they work.
-  Creating the base for efficiency in the delivery of services (water, electricity, sanitation, etc.), movement, investment and decision-making.
-  Promoting integrated and coordinated development with all stakeholders working towards a common development vision and agenda.

Creating a more efficient and productive sub-region through the development adoption of policies that seeks to build of the competitive advantages while also unlocking new opportunities.

#### 11.4.5 GREEN CORRIDORS AND LUNGS

UMngeni Municipality has rivers, wetlands, agricultural farms and nature reserves that need to be protected and preserved. Land development within the municipality will be undertaken in an

economically, socially and environmentally sustainable manner, and with the following being acknowledged as key interventions for spatial transformation:

-  protection and enhancement of the environmentally sensitive areas;
-  protection and optimal utilization of good agricultural land;
-  creation of an integrated open space system in an urban context; and
-  Enhancement of the aesthetic quality of the environment.

Ezemvelo KZN Wildlife has made substantial progress in mapping the environmentally sensitive areas. However, this information needs to be refined and complemented by localised investigations and strategic assessments. Environmentally sensitive areas provide opportunities for eco-tourism, agriculture and sports and recreation. Similarly, ecological zones such as wetlands, areas where there are endemic species, scenic areas, etc., provides opportunities for environmental conservation and tourism development, and should not be subjected to development pressure.









#### 11.4.6 PROTECTION OF HIGH VALUE AGRICULTURAL LAND



A substantial amount of land in UMngeni is generally classified as having high and good potential for agriculture. It is important to note high potential agricultural land has become a scarce and a deteriorating resource. Its protection is high on the agenda for the Department of Agriculture. Sub-division and change of land use on

agricultural land is governed in terms of the Sub-division of agricultural Land Act (SALA), Act No. 70 of 1970, and is administered nationally. However, there is no coherent provincial policy that guides this process. As such, it is critically important for UMngeni Municipality to develop its own guidelines (as part of the SDF) for managing development on agricultural land.

#### 11.4.7 INTEGRATION OF DIFFERENT LANDSCAPES AND ZONES

The intention with the built environment should be the creation of large continuous precincts of built form, rather than it occurring in spatially discreet pockets or cells. This is necessary to obtain economies of agglomeration. At places, the continuity of the fabric should be systematically broken so as to ensure equitable access to green space and other opportunities. The benefits of mixed development:

-  Visual stimulation and delight of different buildings within close proximity;
-  A greater feeling of safety, with 'eyes on streets';
-  Greater energy efficiency and more efficient use of space and buildings;
-  More consumer choice of lifestyle, location and building type;
-  Urban vitality and street life;
-  Increased viability of urban facilities and support for small business (such as corner shops);
-  More convenient access to facilities;
-  Travel-to-work congestion is minimised;

-  Greater opportunities for social interaction; and
-  Socially diverse communities.

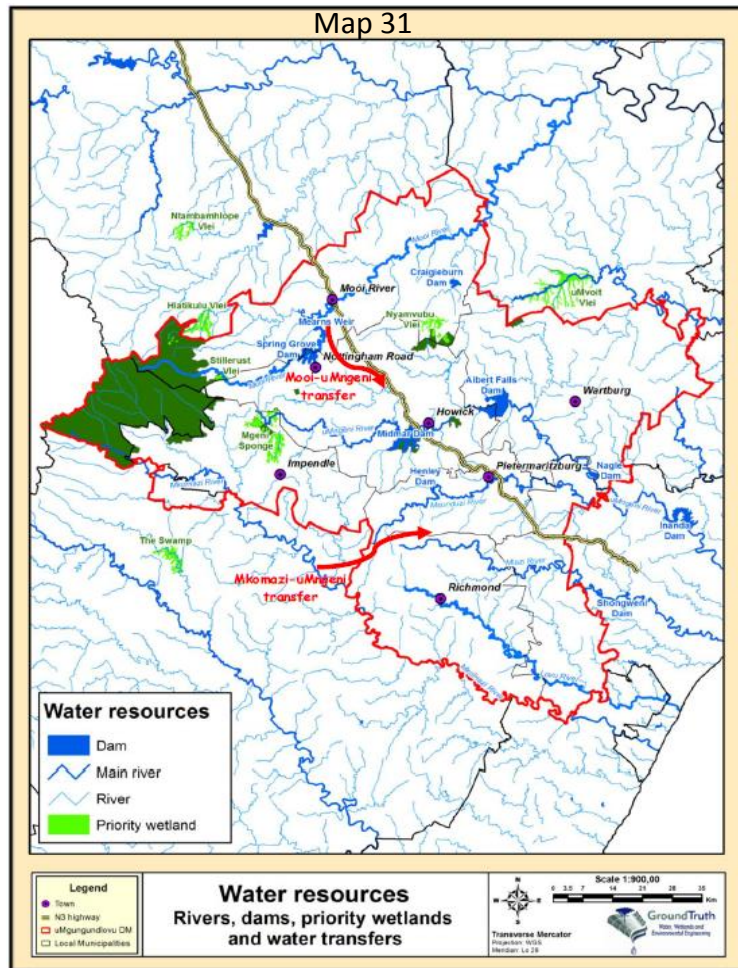
A more vibrant and sustainable spatial structure and form results from blurring the distinction between uses and designing places that make walking to the local Centre, and bus stop or taxi rank, as convenient and comfortable as possible.

#### 11.4.8 COMPACT DEVELOPMENT

More compact settlements areas can be achieved with the maintenance of a settlement edge in order to discourage development sprawling into prime agricultural land and other natural resource areas. The settlement edge can be used to encourage more efficient use of underutilised land existing in a settlement, through development of vacant land or the re-use of degraded land areas. It can also be used to manage the investment and characteristics of infrastructure levels according to the needs of communities and economic activities located within settlement edges or outside settlement edges. This requires detailed planning at a settlement level and could best be sustained through the coding or integration of the existing community rules into a land use management system. Certainly, the level of compaction will take into account the nature and character of each settlement, as well as the prevailing spatial development trends and patterns.

## 12. STRATEGIC ENVIRONMENTAL MANAGEMENT

### 12.1 WATER RESOURCES AND ECOSYSTEMS MANAGEMENT



#### STATEMENT OF INTENT

Freshwater Ecosystem Priority Areas (FEPA) are important water resource and aquatic ecosystems areas that need protection for promoting sustainable water resource use and achieving the freshwater ecosystem goals of the country.

#### APPROACH

UMngeni is still faced with challenges of not being able to provide water in some areas. Access to clean water is a deep challenge in rural areas because people there have no option but to utilise spring, dam and rivers as sources of water and are prone to a number of water borne diseases. The National Water Act (1998) recognises that water is a scarce resource and that there is a need for the integrated management of all aspects of water resources. The National FEPA project aims to achieve such integration with the National Environmental Management Biodiversity Act (2004). The implementation of the measures in this Act must be improved in the area, specifically in respect of the protection, conservation, and sustainable use of the water resource assets in the UMngeni.

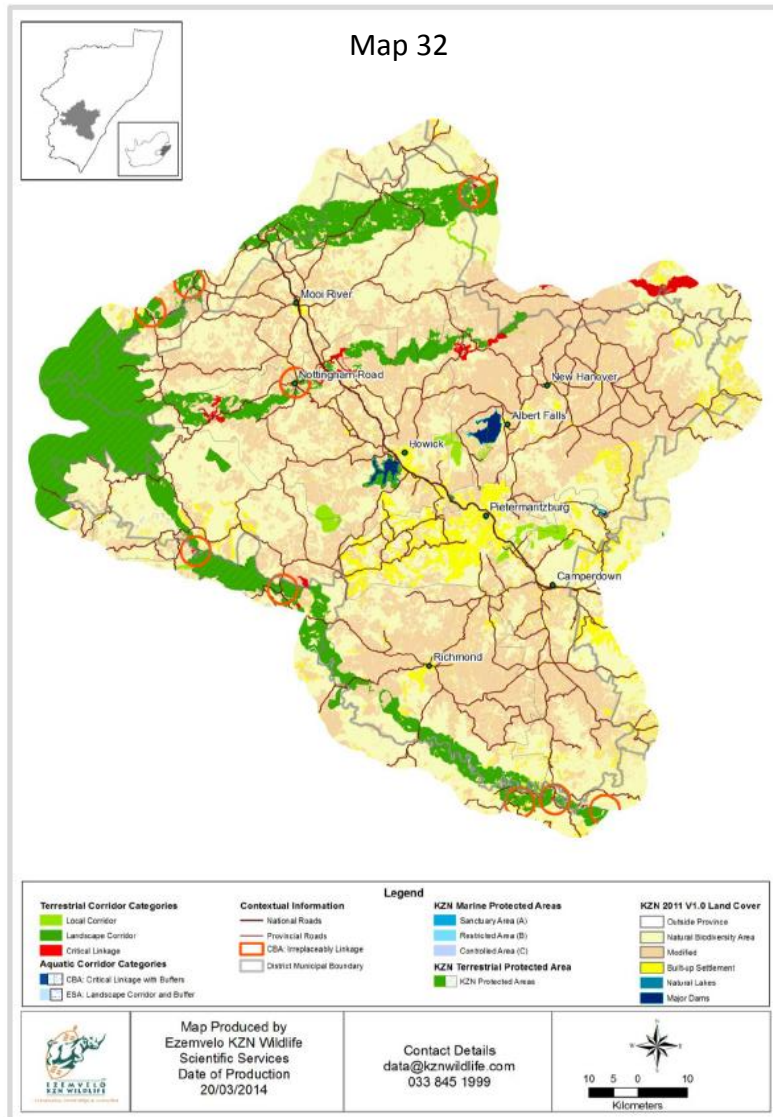
#### LAND USE GUIDELINES

- 1) All land use planned within the municipality must be consistent with the management objectives of FEPAs, i.e. FEPAs should be reflected in spatial planning categories or zones with appropriate restrictions on land uses.
- 2) Ecological corridors along large river corridors and wetland clusters should be established and managed. In some cases, it may be appropriate to incorporate FEPAs in the municipal conservation network.
- 3) The management objectives for water quantity, water quality, and habitat and biota, as well as more detailed management guidelines for specific land-use practices and activities are provided in the Implementation Manual for Freshwater Ecosystem Priority Areas (WRC, 2011).



WATER RESOURCES AND FRESHWATER ECOSYSTEM PRIORITIES			
Feature	Description and Current Condition	Desired State	Length (km)
Mpofana River	Mainly Natural: This is a cross border river between Mpofana and UMngeni Municipality. It is one of the important feeder rivers to the Spring Grove Dam. It is currently in a good natural condition.	This river is currently in a good condition and should remain so. It should receive top priority for retaining its free-flowing character. This means that land-use practices or activities that will lead to deterioration in the current condition of a river FEPA are not acceptable.	10.62km
Ndiza River	Mainly Natural: This river has a continuous flow in parts of its stream bed all year round during years of normal rainfall.		7.22km
Kusane River			16.11km
Gqishi River			9.76km
Karkloof River	Largely Natural: few modifications, a small change in natural habitats and biota may have taken place but the ecosystem functions are still predominantly unchanged. This means that land-use practices or activities that will lead to deterioration in the current condition of a river FEPA are not acceptable	This means that land-use practices or activities that will lead to further deterioration in the current condition of a river FEPA are not acceptable	36.4km
Mooi River			53.22km
UMngeni River	Moderately Modified: a loss and change of natural habitat and biota have occurred but the basic ecosystem functions are still predominantly unchanged.	This means that land-use practices or activities that will lead to deterioration in the current condition of a river FEPA are not acceptable	36.66km
Lion River			53.11km
Wetlands	There are numerous relatively small wetland areas scattered throughout UMngeni LM, as with rivers the development buffer around wetlands is dependent on the local situation such as the type of activity and may extend beyond the statutory 20m note that for particular activities within 32m of the edge of a wetland, environmental authorisation is required from the relevant environmental authorities (NEMA EIA regulations 2010)	All wetlands should be protected from development impacts. Wetlands that are in a good condition should remain so. Wetlands that are not in a good condition should be rehabilitated to their best attainable ecological condition. This means that land-use practices or activities that will lead to deterioration in the current condition of a wetland are not acceptable, and land-use practices or activities that will make rehabilitation of a wetland difficult or impossible are not acceptable.	

## 12.2 PROCLAIMED AREAS AND IMPORTANT TERRESTRIAL BIODIVERSITY AREAS



### STATEMENT OF INTENT

Protected areas are areas of land that are protected by law under the National Environmental Management: Protected Areas Act (Act 57 of 2003), and as a result are managed for the conservation of biodiversity. Critical Biodiversity Areas are natural or near natural landscapes that are considered critical for meeting biodiversity targets and thresholds, and which safeguard areas required for the persistence of viable populations of species and the functionality of ecosystems. There are five Formal Conservation areas in UMngeni namely Karkloof Nature Reserve, Hilton College Estate, Howick Falls, portions of the UMngeni River Valley and Beacon Hill Ingongoni Mistbelt Reserve. Other important biodiversity areas are Provincial Environmental Corridors and the buffer proposed to be established to protect the Okhahlamba Drakensberg World Heritage Site. The implications for development are that certain activities are prohibited or restricted within these high conservation value areas. There should be careful management of activities which can potentially impact negatively on the biodiversity of these areas.

### APPROACH

UMngeni contains several sensitive vegetation types or areas of conservation significance, these areas have been identified as being of conservation value as they are necessary to maintain a representative sample of biodiversity and to sustain the functioning of that particular ecosystem. The implications for development are that certain activities within these areas require environmental authorisation and may be subject to an offset requirement, Norms and Standards for Biodiversity Offsets. The objectives of national government, as well as the importance of threatened ecosystems to sustainable development of the area, a prescriptive approach to land use management would be required.

### 12.3 LAND DEGRADATION AND SUSTAINABLE AGRICULTURE






#### LAND USE GUIDELINES

1) UMgungundlovu District Biodiversity Sector Plan (2012) contains land management guidelines associated with Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs), and other land management units, as categorised by the Biodiversity Sector Plan. These guidelines contain the various possible land uses that may or may not be compatible with biodiversity objectives and must be used to inform land use planning, decision making and development authorisations.




2) Activity 12 in Listing Notice 3 of the EIA Regulations (R546 of 2010) relates to the clearance of 300m<sup>2</sup> or more of vegetation, which will trigger a basic assessment within any critically endangered or endangered ecosystem listed in terms of Section 52 of the Biodiversity Act. Critically endangered and endangered ecosystems were listed by Government Notice No 1002 of 9 December 2011 and the UMngeni contains such systems. This means any development that involves loss of natural habitat in a listed critically endangered or endangered ecosystem is likely to require at least a basic assessment in terms of the EIA regulations

Land plays a vital role in the production of food and other ecosystem goods and services. Consequently, its degradation negatively impacts the provision of ecosystem services in the long run increasing food insecurity, impeding sustainable development and poverty eradication. It is therefore crucial that a harmonized and coherent approach is utilised by the municipality to prevent the degradation of healthy and productive land through sustainable land management, sustainable agriculture, forestry management practices and furthermore where possible regeneration of land that

is already degraded. Therefore, population densities in rural communal areas in the municipality which tend to be high and over time, contribute to over-grazing and severe soil erosion needs to be properly managed. This proper management and conservation of land will lead to positive impacts including improved rain infiltration, increased water availability and storage, increased food security and biomass. UMngeni Municipality utilises the Environmental Management Framework (EMF) of the UMgungundlovu District which identifies, among others, the following as critical interventions to address the current accelerated rate of resource degradation:

-  Catchment management – properly managed catchments can achieve their important ecological services in a more effective and resilient manner than those which are under stress from development pressures. Interventions for catchment management can include range management, Alien plant management and Conservation through production.
-  Protecting sensitive areas or conservation- The foremost objective would be to manage for the improvement and maintenance of biodiversity conservation values, environmental integrity and ecosystem services.
-  Climate change vulnerability mapping
-  Conservation through production (include traditional/indigenous agricultural production systems mainly targeting homestead owners and subsistence farmers).
-  Waste management- proper treatment of wastewater will alleviate the problem of deteriorating water quality from rivers resulting in threatened primary river ecosystems.






The KZN Planning and Development Act (PDA) 2008, provides a practical guide and reference to planning and development. With reference to UMngeni Municipality's town planning Scheme areas outside of this scheme are not catered for and thus the chapter 4 of the PDA can be used as a guide by the municipality to guide development in these areas. This guide can be used to address specific issues, such as land degradation, soil and vegetation erosion and unsustainable land use with regards to development of agricultural land, or specific geographic areas. Therefore, imposing development controls for these areas will assist in addressing these issues, such as:

-  Setting maximum or minimum number of buildings allowed on that specific land, for instance in cases where farmers want to use part of their farm for tourism initiatives such as building lodges and guest houses the municipality should only consider this development if the area is located on or near a tourism corridor. Furthermore, the municipality can limit the size to be at most 0.5 percent of the size of the farm. However, tourism initiatives on farm land that is located outside of the tourism corridor should be prohibited.
-  Developments outside of the area scheme should be subject to professional evaluation and recommendation.
-  In terms of land under Ingonyama Trust the municipality needs to take consideration with regards to grazing management of grazing land including promoting strategies such as rotational grazing, developing settlement plans with full participation of local communities and the affected and interested parties. This

should be simple and provide guides to traditional councils for the allocation of land for the different land uses such that if the allocation involves farming land for livestock farming then livestock densities need to be taken into consideration relative to the size of the land. Furthermore, the municipality should establish and apply standards such as minimum lot size so as to promote fair and effective land use.

#### 12.4 HUMAN VULNERABILITY AND ENVIRONMENTAL CHANGE



Vulnerability embodies the boundary between exposure to the physical threats to human well-being and the capacity of the people and/or communities to cope with those threats. These threats may arise from a combination of social and physical processes and as such human vulnerability incorporates many environmental concerns including extreme events such as floods, drought, fire, storms, landslides and erosion. Most environments are in a constant state of unrest, but human adaptations for food production, settlements and infrastructure accelerates climate change causing a variety of natural disturbances and fluctuations. The municipality Interventions should include continuous research and monitoring of climate change and variability utilizing the Provincial Climate Change Disaster Response Plans. This strategy must therefore seek to achieve outcomes that reduce human vulnerability whilst maximizing natural resources. This will require consideration of the following:

-  Define high flood risk areas from a spatial point of view and developing a disaster response strategy with for settlements within these areas that will be inclusive of an implementation programme to relocate affected settlements.
-  The disaster management centres must also serve as early warning tools and develop potential risk and disaster scenarios.
-  Continuously reviewing disaster management plans conducted by all relevant departments including Department of Agriculture, Fisheries and forestry, Department of Water Affairs, Department of Land Affairs and Rural Development etc.
-  Interventions to improve the environmental management capacity of Traditional Leaders and Ingonyama Trust Board
-  The development of environmental planning standards that are aimed at creating ecological resilience.

Interventions to maximise community based natural resource management programmes, focused in those areas where land degradation has become a concern.




## 12.5 BIODIVERSITY MANAGEMENT

UMngeni Local Municipality comprises predominantly of endangered, vulnerable vegetation types, and contains exceptionally rich flora and fauna species diversity. The areas with the high biodiversity value are that is still at the pristine condition are environmentally sensitive. The recommended environmental practices for these areas should be as follows:

-  High biodiversity areas – Areas of high biodiversity are important for their intrinsic value in the ecosystem. These areas have very high development constraint and care should be taken to ensure that large scale transformation does not occur and that the ecological functioning of these sites is not lost. These areas are afforded legal protection in terms of environmental management legislation. Any development within protected areas is subject to an EIA (with vegetation assessment study) and will require extensive consultation with all interested and affected parties.
-  Medium to Average Biodiversity Areas – Any development proposed within this zone must be subject to a pre-feasibility assessment which must include all necessary specialist biodiversity investigations and the consideration of alternatives and mitigation. If the site is confirmed to be highly sensitive and the proposed activity is expected to result in the potential net loss of critical biodiversity elements, then the development should be considered fatally flawed from a biodiversity perspective and should not proceed. Activities that are compatible with biodiversity management objectives and that would result in a net increase in biodiversity should be supported. In cases where biodiversity impacts cannot altogether be avoided or acceptably mitigated on-site, consideration must be given to establishing suitable off-site biodiversity offsets that would result in positive impacts for biodiversity in the region.

## 12.6 WETLANDS MANAGEMENT



Wetlands play a critical role in the ecosystem water management and biodiversity conservation. As such, they deemed to be no-go areas in terms of development on site. In the interim the following will serve as guidelines for an effective management of wetlands:

-  No activity that will result in the transformation of wetlands is recommended. Wetlands should be retained for the ecosystem goods and services they supply, therefore only rehabilitation and conservation activities are proposed within the zone.
-  In cases where wetland impacts cannot altogether be avoided or acceptably mitigated on-site, consideration must be given to establishing off-site wetland offsets that would result in positive impacts for wetland management in the region.
-  32m confidence buffer will be established around each wetland are as on-site delineation of wetlands has not been undertaken.

## 12.7 CONSERVATION AND PRODUCTION

There is no fundamental physical difference between the rural settlements and commercial farmlands. They are both located in the same biophysical area, with the same rainfall, similar soils, and can support similar plant and animal species. However, the major difference is the management style and land tenure system. Breakdown of co-operative communal land management has led to extensive overgrazing by wandering livestock, which has bared much of the soil in the surrounding area. Biodiversity loss is severe,

livestock are often starving during winter and early spring due to insufficient biomass and nutrition, and most wildlife has disappeared as a result of poaching. The EMF advocates for the adoption of the 'conservation through production' concept with its central tenet being increasing agricultural production while reducing the vulnerability of rural livelihoods to drought and soil erosion. This requires the application of Community Based Natural Resource Management (CBNRM) approach to involve target communities in designing and driving their production. This will strengthen the chances of success, for both productivity and resource conservation and management.




-  Erosion prevention and rehabilitation driven from a point of soil, soil nutrient and water management for improved production
-  Indigenous and plantation forest development strategy that takes into account impacts of different species on the environmental resources. Proper demarcation of land uses based on land quality, potential and available resources.

## 12.8 WASTE MANAGEMENT

One of the main challenges in UMngeni Local Municipality is poor waste management in the landfill sites. Most of the landfill sites are not yet registered in accordance with the requirements of the Department of Water Affairs and Forestry. The proposed interventions are as follows:












-  Establish by-laws to implement national and provincial regulations, and review of new legislation;
-  Collection of information and data for planning and of Provincial/National requirements; Incorporating waste minimization and recycling in municipal waste management activities;
-  Promote the development of waste minimization and recycling partnerships with the private sector;
-  Regulate waste management activities undertaken by the Waste Management utility (collection, disposal, composting initiatives, etc.);
-  Establish public-private partnerships; Co-ordinate collection contracts for high-density low income areas (i.e. informal settlements);
-  Review, evaluate and report on the performance of community waste collection services and programmes;
-  Monitoring progress on implementing waste management plan initiatives;
-  Developing communication strategies;
-  Enhance education and awareness on recycling to promote extensive implementation of recycling and composting practices;
-  Undertake waste minimization, recycling and waste management education, awareness and communication programmes;
-  Commenting on environmental impact assessment within interacting areas, such as water, air, land-use and traffic;
-  Revise and update general waste management plans;

-  Establish and implement waste data collection systems and Setting up pilot projects;
-  Implement the guidelines for health care waste and hazardous waste collection and transportation;
-  Co-operation and exchange of experience among stakeholders such as National, Provincial, other Councils and service providers.

## 12.9 AIR QUALITY MANAGEMENT

UMngeni Local Municipality has numerous factories and industries that are major air pollutants. The proposed interventions are as follows:


-  The establishment of national norms and standards,
-  Setting up a regulatory framework for
-  an air quality management planning;
-  Setting up a reporting regime and numerous regulatory instruments for the control of air pollution;
-  Ensuring a comprehensive approach to compliance and enforcement.
-  Protecting, restoring and enhancing the air quality in the District, having regards to specific ensure sustainable development;
-  Providing increased opportunities for public involvement and participation in the protection of air quality;
-  Ensuring that the public has access to relevant and meaningful information about air pollution; and
-  Reducing risks to human health and prevent the degradation of air quality.


## 12.10 ZONING AND MANAGEMENT OVERLAYS

The management of the environment was operationalized within the urban areas through the town planning scheme. There are environmental zones that were identified which prescribed the standards and controls. UMngeni Municipality is still in the process of extending a scheme to the rural areas which basically implies that the management of environmental areas is without zoning at the moment. The town planning scheme identify an Environmental Service Zones as a parent zones.

## 12.11 DEVELOPMENT PARAMETERS/ SCHEME CONTROL

The Environmental Service Zones identified the specific environmental zones as Active Open Space, Private Conservation, Public Open Space (Reservation) and Special Areas subject to Periodic Flooding and/or having Special Environmental Conservations and requiring Conservation (Reservation). The development parameters for these are as follows:

 Active Open Space – This zone provides part of the sustainable open space system which includes independent or linked open space areas and green lung areas of the urban environment for sporting and recreational needs and associated activities of the local and visiting public and may include areas of passive open space where appropriate, these areas are to be developed and maintained for a range of active pursuits.

 Agricultural Buildings, Agricultural Land, Back Packers, Bed and Breakfast, Boarding House, Crèche, Dwelling House, Educational Building, Institution and Places of Public Amusement are permitted by a letter of special consent for land use purposes.

Private Conservation – The primary purpose of this zone is to afford protection to areas in private ownership which are considered to be of conservation significance. Agricultural Land Dwelling House Guest House, Guest Lodge, Back Packers, boarding house require a permit of special consent if any of these establishments are to be developed. Bed and Breakfast require neighbours' consent to be obtained. Shop/Business establishments are restricted to 100m<sup>2</sup>; educational establishments are restricted to education of a conservation nature.

## 13. SPATIAL STRUCTURING ELEMENTS

### 13.1 SPATIAL STRUCTURING

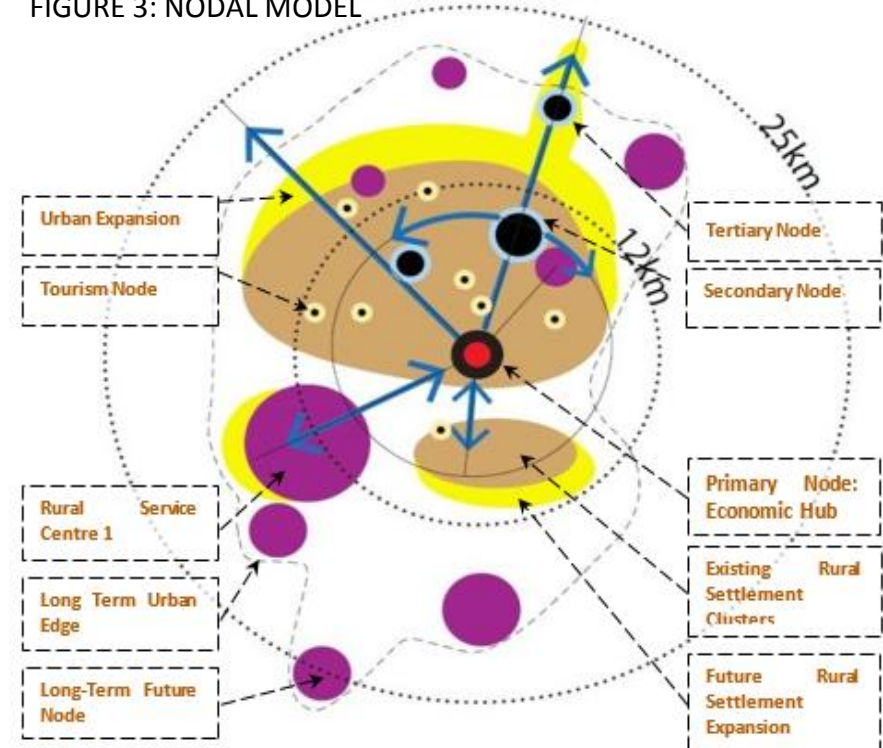
The first structuring element is the development and reinforcement of a system of varied activity nodes. This will enable greater access to city-wide opportunities, as well as equitable access to a system of local opportunities. The idea is to ensure that all people within the area live within easy walking distance of a public transport hub which will link to the city's public transport systems. These nodes, depending on their position in the hierarchy, will form points of access to a range of local and in some cases regional opportunities. Through the focus of development at these points the 'emerging core' will begin to reflect the opportunities that are present in the more developed areas of UMngeni local Municipality.

#### 13.1.1 SYSTEM OF ACTIVITY NODES

One of the main issues facing UMngeni Local Municipality is poor settlement pattern, which manifests in the form of the dominance of small towns as a regional service centres and economic hubs, as well as the expansive farming areas and a general rural character of the area. The net effect of this is the inability to decentralise and coordinate service delivery at a localised level. As a means to address this, there is a need to facilitate the evolution of a system of nodes incorporating primary, secondary, tertiary/ incipient and rural service nodes. An activity node is a place of high accessibility onto







which both public and private investments tend to concentrate. The nodes identified are primarily located along the N3 corridor with a number of Activity Points located within the hinterland of the R103 towards Nottingham road R617 to Mpophomeni township.

FIGURE 3: NODAL MODEL





The development and structure of the Municipality has resulted in the existing nodal pattern due to the major movement networks such as the National and Provincial corridor and well as the R103 running parallel in a north-west direction towards Gauteng. The

energy and friction produced from the N3 has resulted in the towns, which have formed nodes like 'bead on a string'. Limited connections exist within the hinterland therefore preventing the desired energy required to foster the development of substantial nodes. An activity node offers the opportunity to locate a range of activities, from small to large enterprises, often associated with mixed-use development. They are generally located along or at the cross-section of development corridors. They serve as points in the spatial structure where potentially access to a range of opportunities is greatest, where networks of association create diversity and where people are able to satisfy the broadest range of their day to day needs. Being points of maximum economic, social and infrastructure investment, as well as representing established patterns of settlement and accessibility, these nodes must be regarded as primary devices on which to anchor the structure of the sub-regional spatial system. The nodes that are identified include the following:

-  Primary Node;
-  Secondary Node;
-  Tertiary Node;
-  Rural Service Node;
-  Tourism Node; and
-  Long-Term Future Node.

The primary node is fed by development corridors in terms of people and physical thresholds. There is provision of concentration of

different activities and services at areas as identified in the SDF Map. In terms of simple secondary nodes, the peri-urban area of Mpophomeni is a dense settlement along the R617. This area needs formalisation in terms development planning so as for easy provision of services to the community. The rural service nodes are usually the most accessible location within an acceptable walking distance of a particular community. These were identified in Curry's Post and Lidgetton. These areas have potential for the location of multipurpose community centres (to include clinics, AIDS support services, library, adult education and skills training and computer facilities). The provision of employment opportunities is to be encouraged at these points as well as tourism development which may take place at a higher density than in other areas. To reinforce these activity nodes, a set of tools or supportive strategies at the local level are needed to realise these areas as safe, economically vibrant and accessible places. These are listed below and are applied to the area as part of the development framework:

-  Social facility clusters (kit of parts) in line with the hierarchy of activity nodes supporting equitable access to these opportunities and contributing to quality environments
-  Reinforcing the hierarchy through the development of dignified public spaces and market infrastructure. These spaces are a precondition for investment and generation of local economic development.

Supporting the activity nodes through the development of high quality housing infill. This brings people closer to opportunity and the accessibility grid and can contribute to safe, quality environments.

Interchange development in line with the hierarchy of activity nodes. This promotes a system of 'access to access' whereby all nodes within the system become accessible through changing directions (and modes of transport) at these central points.

TABLE 12: NODAL FUNCTION AND TYPE OF SERVICES





TYPE OF PLANNING AREAS	FUNCTIONS	TYPE OF SERVICE
<b>Primary (Regional Centre)</b>	<ul style="list-style-type: none"> <li>Distribution and coordination point</li> <li>High order level goods and services</li> </ul>	Magistrate Court, Town Hall, Police Station, Community Policing Forum, Regional Hospital, Community Health Centre, Welfare Office, Schools, Community Hall, Post Office, Bank, Court, Comprehensive sport facility, Regional Economic Centre and Emergency Service Centre.
<b>Secondary (Sub-Regional Centre)</b>	<ul style="list-style-type: none"> <li>Medium order level of goods and services.</li> </ul>	Police Station, Community Policing Forum, Hospital, Community Health Centre, Welfare Services, Schools, Community Hall, Post Office, Shopping and Industrial Centre, Bank Services and Comprehensive Sport Facility
<b>Tertiary (Community Centre)</b>	<ul style="list-style-type: none"> <li>Low order level of goods and services as compared to secondary node</li> </ul>	Police Station, Community Policing Forum, Community Health Centre, Schools, Community Halls, and Comprehensive Sport Facility, Local Commercial and Industrial Centre.
<b>Rural Service Centre</b>	<ul style="list-style-type: none"> <li>Serve to provide a convenient service to the village community</li> </ul>	Satellite Police Station, Community Policing Forum, Clinic, Schools, Community Halls, Basic Sport Facility, Local Commercial and Industrial Centre.
<b>Long term Future Node</b>	<ul style="list-style-type: none"> <li>Aim to provide convenient services to community in future.</li> </ul>	Mobile Clinic, Schools, MPCC, Basic Sport Facility, Shops and workshops.

#### 13.1.1.1 PRIMARY NODE: HOWICK

Howick, Tweedie and Merrivale Urban Complex are regarded as the main urban centres within UMngeni Local Municipality. The complex

is strategically located at the midlands of the district and it plays an important role as a regional centre for district. It has a good potential as a primary node for investment promotion and centre of supply of services in the district. Howick is the main commercial centre and the

major location of employment. It forms part of the provincial spatial systems and is identified in the PSEDP as one of the economic hubs. This node has administrative, social, and economic potential and there is provision of concentration of different activities of services. As a regional node, the following activities should be strengthened in these towns:

-  Location of district and sub-district offices of various government departments and serve delivery agencies.
-  Location of facilities and services for an effective administration.
-  Industrial development, focusing mainly on the processing of raw materials produced within the sub-region.
-  Location of public facilities serving the whole sub-region and beyond. These may include district hospital, sports facilities and transportation facilities.

#### 13.1.1.2 SECONDARY NODES: HILTON AND NOTTINGHAM ROAD


Hilton and Nottingham Road have been identified as the secondary nodes. This is due to the fact that these areas have attained a certain level of development in relation to commercial and social services. The current role of function of these areas is already at the level of the tertiary node and these have the opportunity to be developed further into a higher level on the nodal hierarchy.

#### 13.1.1.3 TERTIARY NODE: MPOPHOMENI




Mpophomeni is currently a settlement area for a sizeable number of UMngeni residents. It has received very little attention from private sector investment point of view which has limited the commercial and industrial activities within it. The long term goal is to transform Mpophomeni into a self-sufficient settlement with all the attributes that would sustain it economically and socially. The proposed nodal hierarchy level that Mpophomeni needs to pursue at this stage is a Tertiary Node. This includes the basic interventions from the private investment point of view such as the local commercial centre as well as the industrial centre. Spatial development interventions should focus on transforming the area into a mixed land use area with a viable service centre (developed with social, economic and other facilities as current activities such as Schools, Places of worship, Community centres, Sasol Howick Mageza Service Station and a Police Stations etc).

#### 13.1.1.4 RURAL SERVICE NODES: CURRY POST AND LIDGETTON

In addition to the tertiary nodes, the vision for the future spatial development provides for the development of community centres within a cluster of settlements. These small centres will serve as location points for community facilities serving the local community such as:

-  Local Commercial and Industrial Centre;



-  Primary and secondary schools;
-  Mobile clinics, Pension pay points; and
-  Community halls and other community facilities.

There are no foci that operate as Rural Service Centres at this stage, but some Activity could be upgraded to perform this role. The location of these nodes is usually the most accessible location within an acceptable walking distance of a particular community. These were identified in Curry's Post and Lidgetton. These areas have potential for the location of multi-purpose community centres (to include clinics, AIDS support services, library, adult education and skills training and computer facilities). Major capital investment is not required and by making use of alternative approaches, including mobile structures (containers or prefab construction) and providing only essential infrastructure, combined with periodic service delivery and markets, the potential of centres to fulfil a rural service function can be tested efficiently and at relatively low cost. Approaches to attracting private sector investment to these nodes must be further considered. Curry's Post is part of the Midlands meander and is located, north-east of the N3. Curry's Post derives its name from the Curry family who settled and established an overnight wagon and cart stop. With the discovery of gold and diamonds up on the "old Transvaal" reef, wagon and cart traffic increased to such an extent that Curry's Post became well known as a watering hole and place of rest for the weary travellers. During the Zulu and Anglo-Boer wars the route became an important military highway between the Pietermaritzburg HQ and the Ladysmith garrisons. The Curry's Post

region is steeped in history with strong evidence, such as remnants of hunting camps and Stone Age tools, revealing that the region, although at a fairly high altitude was settled in Stone Age times.

This node forms part of the tourism corridor to the east of the N3, the proposed nodal development is assumed to be following the linear pattern along the Curry's Post Road. This will improve movement network and access to social facilities. The development and location of social facilities, commercial activities and various government departments will limit influx of traffic and people to Howick CBD. This peri-urban area needs formalization in terms development planning to facilitate provision of services to the community. Lidgetton is located along R103 and is surrounded by a number of commercial farms. It has a total area of 7.99km<sup>2</sup> with a total population of 4,521 and a density of 570 people per km<sup>2</sup>. The Node is serviced by local level services and contains array of social and administrative facilities, array of educational facilities and sport fields. It should be developed and prioritized as a rural service centre which is positioned to roll out some of the essential public facilities and services within close proximity to the surrounding rural settlements.

#### 13.1.1.5 LONG-TERM FUTURE NODE: KARKLOOF

The long term future node is still more of a proposal than an activity investment point. This node need to be re-evaluated over time once the impetus of the Proposed Secondary Activity trade route takes off, as well as the numerous east/ west links have been achieved.

The restructuring of the Municipality, overtime, might indicate the development of other areas which have not been identified through this process. This node is proposed within Karkloof area which is identified at the 'T intersection' of the proposed inland Activity Route and N3 to New Hanover. This area is currently vacant with surrounding rural settlement with limited land use activities. According to the site visit that was undertaken on May 2016, the non-residential land uses that were found are two shops, a school and subsistence agriculture. In addition to the above mentioned developmental factors, this node will materialize provided that it is found to be economically and physically feasible. Economic feasibility will be dependent on market forces and attitude of investors for the area. Physical feasibility is depended on specialist's studies such as geotechnical assessment, EIA and infrastructure capacity. The economic assessment should be the first point of departure prior to embarking towards the physical feasibility assessment.

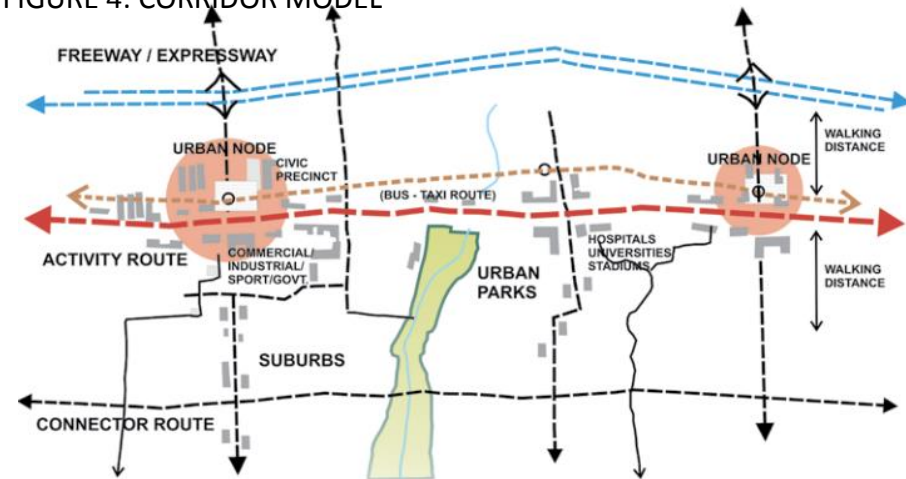
### 13.1.2 OPPORTUNITY POINTS

A gateway model is proposed for the development of highest accessible entry points within UMngeni. These are prioritized along the access points from N3 to main urban centres where strategic land parcels can be unlocked for investments. These interchanges are Hilton, Merrivale and Tweedie. The provision of employment

opportunities is to be encouraged at these points as well as tourism development which may take place at a higher density than in other areas. Servicing is, however, to be thoroughly investigated and agreed to before any development is permitted.

## 13.2 HIERARCHY OF DEVELOPMENT CORRIDORS



FIGURE 4: CORRIDOR MODEL




Development corridors are dynamic, mutually supporting relationship between land use and the supporting movement system. Development corridors are generally supported by a hierarchy of transport services that function as an integrated system to facilitate ease of movement for private and public transport users. Corridor development is focused predominantly on activity/development routes serviced by mass rapid public transport services (i.e. rail or bus rapid transport-BRT); however, the system of routes may serve different functions, with some routes combining route



functionality in terms of accessibility and mobility. The concentration of intense bands of high-density urban development reduces overall trip lengths and improves access to opportunities, offering a means of conveniently integrating communities with service provision, and fulfilling a range of economic and social needs. Development corridors attract different levels and types of private investment, which generate different types of formal and informal economic and social opportunities. The areas of intensification are usually characterised by strip or nodal development located within development corridors on activity routes.

The second structuring spatial element is the development and reinforcement of a hierarchy of activity routes. This supports the strategic direction of the framework in a number of ways: Firstly, it involves reinforcing a hierarchy of 'integrating' activity routes, which provide access to both citywide and local opportunities. These activity routes are focussed on linking and reinforcing clusters of activity (activity nodes), with frequent access points supporting business activity locating at accessible places along the route. The conceptual framework reflects:

-  Higher order activity routes, parallel to the National Road (N3), connecting major activity nodes. These routes have high levels of continuity,
-  Local activity routes, which connect local activity nodes to each other and to major activity nodes and feed into the higher order activity routes.

-  New links supporting physical integration of the areas

Secondly, to support the role of these activity routes as integrating elements, a set of tools or supportive strategies are identified and are reflected below.

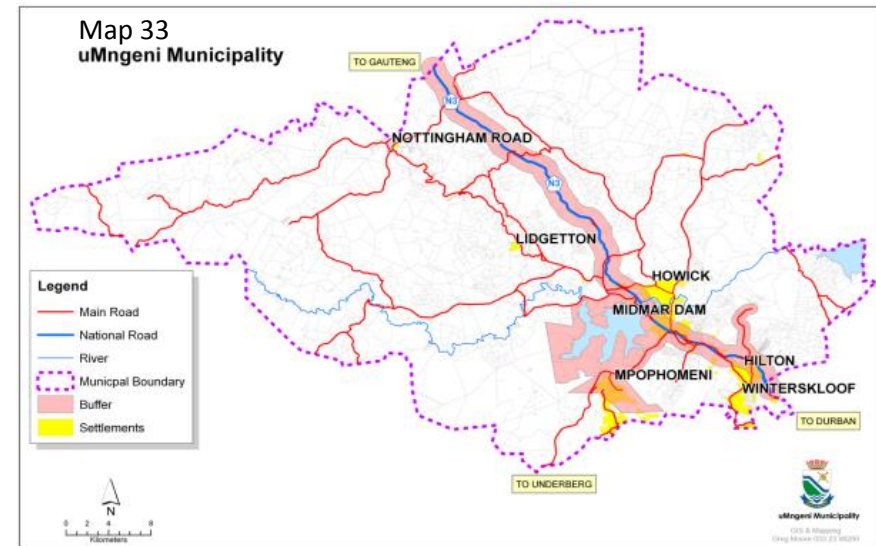
-  Key network linkages are developed to reinforce the accessibility grid and the centrality of the activity nodes
-  An integrated network of Non-Motorised Transport (NMT) routes is developed to support access to local and broader opportunities.

Development corridors in UMngeni Local Municipality occur at different scales depending on function and categorization of the transportation route that forms the basis of the corridor. They carry the flows of people and trade between two points (origin and destination) and encourages nodal development at strategic point. Corridor development as a spatial structuring element, and a tool for economic growth, seeks to create functional linkages between areas of higher thresholds (levels of support) and economic potential, with those that have insufficient thresholds. This will enable areas that are poorly serviced to be linked to areas of opportunity and benefit with higher thresholds. Corridors constitute an effective form of decentralization and enables larger and smaller activities to form a relationship. Linear systems can handle growth and change well. They are an effective means for breaking down fragmentation and increasing integration and spatial transformation. System of

development corridors in UMngeni Local Municipality has been developed on the basis of the levels of mobility and access routes, intensity of use and role in the regional spatial economy. The aforesaid figure summarizes the relationship between these two concepts and provides a framework for the three levels of corridors in UMngeni Local Municipality. Upgrade and road maintenance projects on corridors that leads to development opportunity areas such as rural service centres, high potential agricultural land and tourism nodes should be prioritized as this will encourage investment, improve accessibility and enhance mobility.

TYPE OF ROUTE	FUNCTIONS	BUILDING LINES
<b>National Route (Provincial Corridor)</b>	<ul style="list-style-type: none"> <li>Principal Arterial</li> <li>Expressway</li> <li>Mobility Route</li> <li>Prohibited Direct Access</li> </ul>	60 metres
<b>Provincial Route (Primary Corridor)</b>	<ul style="list-style-type: none"> <li>Major Arterial</li> <li>Mobility Highway</li> <li>Limited Access</li> </ul>	15 metres.
<b>District Routes (Secondary Corridors)</b>	<ul style="list-style-type: none"> <li>Minor Arterial</li> <li>Main Road</li> <li>Limited Access</li> </ul>	15 metres
<b>Local Roads (Collector Tertiary Corridor)</b>	<ul style="list-style-type: none"> <li>Collector Road</li> <li>Access Permitted</li> <li>Off Road Edge or Lay-byes</li> </ul>	7 metres


### 13.2.1 PROVINCIAL CORRIDOR: N3






#### N3 Corridor in relation to UMngeni Local Municipality (Source: UMngeni Local Municipality GIS and Mapping)

The N3 is identified as a Provincial Corridor given its national and regional importance. It provides a direct linkage to the primary economic nodes of Durban and Gauteng allowing for ease of trade, industrial and transportation activity. According to the Economic Profile for UMngeni Local Municipality, the changes in transportation economics has had a direct impact on the economic development, trends and profile of the municipality. The corridor astride the N3 has also been prioritised by Provincial Government to lever public and private investment. The extent of the corridor

relative to UMngeni is from Hilton to Nottingham Road. In addition to the corridor linking Gauteng to Durban on a regional scale, it also extends and links Pietermaritzburg, Durban and UMngeni on a provincial scale. UMngeni Municipality initiated the formulation of a N3 Corridor management plan for the component of the corridor that runs through the municipality to optimise development of the strategically located land. According to McCarthy (2008) in 'de facto terms growth impulses from Pietermaritzburg/ Msunduzi will be felt even more strongly in Hilton and Howick (due to their closer geographical proximity and N3 alignment)'. UMgungundlovu as a whole is strategically well located astride the N3 freeway linking the port of Durban to economic heartland of Gauteng; and UMngeni, Msunduzi and Mkhambathini are especially privileged in that regard. In an east/ west direction along the N3 between Howick and Mooi-river is the primary links with a number of secondary supporting routes. It is a tourist route to the major tourist destinations in the Midlands. Development along this route should occur as follows:

-  The N3 links the eThekweni Municipality and further intersects with the north-south bound N2 thus providing access to the south and north of the eThekweni Metropolitan area. Moreover, the rail and air transport also serve as the primary corridors in the municipality as these play a major role in the promotion of tourism

-  Facilitate the establishment of mixed land use activity nodes at the intersection of the N3 and the Regional (R103, R617 etc.) or Provincial routes. Activities that may locate in these areas include logistics, warehousing, light industry and commercial facilities. i.e. Proposed Development of the Stockowners Site (Tweedie / Howick)
-  In the short to medium term, high value agricultural land located along the corridor should be protected, but in the long term, strategically located areas abutting onto the mixed land use nodes should be opened for development as mixed land use precincts.
-  Compliance with the policies and regulations introduced by the South African National Roads Agency (SANRAL).

### 13.2.2 PRIMARY CORRIDOR: R617



The road that has been identified as the Primary corridor is R617. It is the mobility corridor that links UMngeni with Eastern Cape via Underberg. It also has a potential to be Mixed Use Corridor between Howick and Mpophomeni Urban Edge Boundary. R617 consists of a number of Cultural and Tourism Opportunities such as the Zulu Cultural experience. The heritage route has much to offer the senses and imagination. One can also visit the various community upliftment projects for income generation and Mpophomeni Township overlooking Midmar Dam. The many other attractions



include Montrose House, authentic Sangoma consultation rooms that will enthrall you, Shebeens, Shembe traditional church, the Mandela capture site, the magnificent Howick Falls and a golf course.

### 13.2.3 SECONDARY AND AGRI-TOURISM CORRIDORS: R103

These routes are located along an irreplaceable agricultural land with a strong tourism linkage because they form part of the Midland Meander Tourism route, it is therefore prudent that these routes shall be designated as Agriculture and Limited Tourism in acknowledgement of their tourism significance in the space economy of UMngeni Municipality and the Midlands at large. Most farmers have underutilised resources on their farms. Produce can be sold directly to the market, via agents or through co-operative companies.

However, not all the land is suitable for agricultural production and/or production is seasonal. Agri-tourism can assist in the better utilisation of farming land. There are many different types of Agri-tourism services offered to the visitor/tourist – accommodation, therapy/relaxation experiences, sport or adventure event based, educational or children based ecotourism. The primary objectives of agri-tourism corridors are:

-  'firstly, to generate sustainable economic growth and development;
-  secondly, to generate sustainable long term employment creation;

-  thirdly, to maximise the extent to which private sector investment and lending can be mobilised into the process; and
-  fourthly, to exploit the opportunities that arise from the development of tourism and eco-tourism developments for the development of SMMEs and for the empowerment of local communities'.

Secondary Corridor (R103) - These corridors link nodes inside the Municipality, and also provide linkages with external nodes. In the case of the R103, it serves as both an established tourist route and an alternative route to the N3, which is problematic. During a disturbance on the N3 usually traffic is diverted to the R103 which causes stress to the tourist route as you would have much more traffic than desired for tourism purposes.

The R103 is one of the Midlands roads with the most shops, restaurants and other attractions. The main reason to visit the Midlands is to remember how beautiful our country is. Curry's Post Road – This Secondary corridor is the old R103 which emanates from the R107 in Howick in the South and stretches in a north-westerly direction running parallel to the N3 and intersects with the N3 towards the R103 at Michael House.






#### 13.2.4 SECONDARY COMMERCIAL CORRIDOR: KARKLOOF ROAD

The Karkloof Corridor provides a strategic link between UMshwathi and UMngeni Municipality. It is also a link road between Howick, Karkloof farms and Albert Falls Dam. This route will be very important for future trade that can take place between these two municipalities. In addition, this route will also be helpful in terms of unlocking the development of the long term future node which is proposed within Karkloof.

#### 13.2.5 TERTIARY CORRIDORS: TOURISM LINKS

P27-3: Nottingham to Himmeville/Underberg tourism route is identified as a Tertiary Corridor. This gravel road is considered as more adventurous is a short cut to and from the N3 northwards. Best mastered with high clearance vehicles it is definitely worthwhile if you like stunning scenery. It gives access to some of the most remote and beautiful Nature reserves Lotheni, Vergelegen, Highmoor and Kamberg. A favorite destination for Fly-Fisherman looking for that elusive trout. Key opportunities lie in the tarring and upgrade of the hard surfacing of the Nottingham road to Underberg for passing trade, easy access and linkage of primary and secondary nodes and tourism development along corridors.

-  P134 from the R103 at Howick-Impendle Corridor. This will develop cultural tourism potential of Impendle and link to Drakensberg and Meander.
-  The north-south corridor along the R617 associated with tourism and trade between Eastern Cape and KwaZulu-Natal.
-  The total driving distance is estimated at 61 km at an estimated 57minutes.

#### 13.2.6 PROPOSED TERTIARY CORRIDOR




There is a gravel road that links Curry Posts with Karkloof Road. This route provides strategic linkages between the proposed Curry Post rural service node and proposed Karkloof long term node. It also links a number of farms between these nodes.

#### 13.2.7 URBAN LINKAGE CORRIDOR

Dennis Shepstone Drive upgrade between Hilton and Sweetwater/Pietermaritzburg into an Urban Link Corridor on the R103 will open a new economic corridor with potential growth in retail, hospitality and tourism.

#### 13.2.8 ROADS TO BE UPGRADED

There are a number of roads that are identified as a priority for upgrading. These include the following:

-  Hilton Avenue;
-  Gravel Road from Mpophomeni to P134; and
-  Curry Posts Road to N3.

### 13.3 CONTINUUM OF SUSTAINABLE HUMAN SETTLEMENT CLUSTERS










The 1976 Vancouver Declaration defined human settlement as:

*"The totality of the human community - whether city, town or village - with all the social, material, organizational, spiritual and cultural elements that sustain it. The fabric of human settlements consists of physical elements and services to which these elements provide the material support"*

The concept of sustainable human settlements has been developed further into a strategic framework for overall socio-economic development. Human settlements are the spatial dimension as well as the physical expression of economic and social activity. The creation of sustainable human settlements is inevitably an objective for social development as it defines and determines the relationship between where people live, play and work on the one hand and how this occurs within the confines of the natural environment. It is one of the most visible and quantifiable indicators of the society's ability to meet one of its basic needs - shelter, and a pre-requisite for sustainable human development and economic growth.

#### 13.3.1 LAND RELEASE

Land identification exercise should be undertaken to identify, map and assess all strategically located land that is suitable for housing development. This is in addition to the land that is subject of the current and planned housing projects. The exercise should be based on the following criteria:

-  Ownership of land.
-  Restrictive conditions of title and other encumbrances.
-  Current land use and existing zoning.
-  Size and potential yield for different housing products.
-  Availability of services within the site.
-  Location in relation to employment and other urban opportunities.
-  Market value of the land as determined by the municipality for rating purposes.
-  Geotechnical, topographical and other environmental conditions.
-  The use of the land for housing purposes should be in accordance with IDP and the associated sector plans i.e. Housing Sector Plan and Spatial Development Framework.



This exercise should be supported by a land release policy clearly stating the manner in which the Municipality will acquire, allocate land and release it for development. In some instances, this may include entering into collaborative initiatives with the private sector (e.g. private public partnerships).


### 13.3.2 HOUSING DELIVERY

A comprehensive housing strategy should be followed in the development of sustainable human settlements. Particular focus should be paid on integrated mixed residential development and slums clearance within urban areas while the focus on rural areas should be the eradication of inadequate housing (Farm worker housing). Rural settlements should be prioritised for the development of human settlements through the rural housing subsidy scheme.

### 13.3.3 INTEGRATED MIXED RESIDENTIAL DEVELOPMENT



This involves the following strategic approaches:

-  Identification of vacant strategic located land parcels to undertake BNG projects and Mixed Residential Development;
-  To facilitate the provision of bulk infrastructure and services within the sites earmarked for future integrated residential development; and

-  To package mixed residential (low, middle and upmarket) housing projects involving the Department of Human Settlements and Private Sector (Banks).

### 13.3.4 SLUMS CLEARANCE

The following spatial planning directives will be applied in the implementation of slums clearance projects:

-  Identify all informal settlements and quantify housing need and demand e.g. Howick Informal settlements, and
-  Mapping and assessment of informal settlements to establish whether they can be upgraded In-situ or requires relocation.

Develop and introduce a land invasion policy as a means to prevent development of new and expansion of the existing informal settlements.

### 13.3.5 RURAL HOUSING

The government's rural housing assistance programme has been designed to complement the realisation of the objectives of Integrated and Sustainable Human Settlements. The rural housing assistance programme is needs or demand based and designed to provide housing and infrastructure assistance within the specific circumstances. Dense rural settlements will be for prioritized rural housing.






### 13.4 PROTECTION OF AGRICULTURAL LAND

#### 13.4.1 COMPREHENSIVE AGRICULTURE PROTECTION PLANS



UMngeni Local Municipality and the Department of Agriculture, Environmental Affairs and Rural Development (DAEARD) have a responsibility to protect agricultural land from development that leads to non-agricultural uses and/or diminished agricultural productivity. The impact of alien invasive plants on agricultural land becomes an important contributor to vegetation degradation and loss of productive of lands. The loss of productive land clearly affects farming and rural communities and as such degraded land becomes costlier such that more fertilizer, machinery and supplementary feeds are needed to improve productivity of land. Therefore, any proposal for non-agricultural development on agricultural land should be subject to an application made to, and assessed by, the Department of Agriculture in terms of the Sub-division of Agricultural Land Act, (Act No. 70 of 1970). Agricultural land in UMngeni Local Municipality is roughly divided into four main categories as follows:

UMngeni Local Municipality already has a town planning scheme that caters for agricultural land in urban areas that includes setting aside land for agricultural development purposes. Therefore, based

on the four categories of municipality the protection of agricultural land should be centred on the following policy principles:

-  The Irreplaceable and Good potential agricultural land should be protected through appropriate land use management schemes and as such it should not be built on unless there is an overriding need for the development in terms of public benefit and that no other site is suitable for that particular purpose.
-  When preparing, reviewing or amending planning schemes, the Municipality will be expected to include provisions for protecting good quality agricultural land, irrespective of the effect of market variations on its sustainability.
-  The preparation of planning schemes should include an evaluation of alternative forms of development, and significant weight should be given to those strategies which reduce the impacts on good quality agricultural land.
-  The land Use Scheme should aim to reduce cases where incompatible uses are located adjacent to agricultural operations in a manner that inhibits normal farming practice. Consequently, where such instances do arise, measures need to be taken to avoid potential conflict.
-  In cases of threatened and/or potentially threatened agricultural land action plans need to be developed to protect this land from degradation. This would involve the relevant provincial

departments that can assist in identifying this area and providing the necessary interventions.

-  Adopting environmentally friendly agricultural practices are will help preserve and sustain the quality and quantity of agricultural land under production.
-  Continuous research and development will be plays a significant role in ensuring long term sustainability and improvement of these lands.

#### 13.4.2 LOCAL LAND USE REGULATIONS

The scheme has seven developmental zones including residential, mixed use, industrial, civic and social, Eco-Tourism, agricultural, environmental and lastly land reservation zones. In terms of agricultural sustainability, the purpose of the Agriculture Zones is to involves making provision for agricultural land uses and ensures that development occur in a manner which protects the zone's natural and topographic character maintaining and enhancing the identity, aesthetic qualities, environmental sensitivities, and the public health, safety, and general welfare of the zone.

The protection of these lands eliminates potential soil erosion, silting of lower slopes, land slide damage, flooding problems, and severe cutting or scarring, as any proposed non-agricultural use or development and certain agriculturally related activities will be subject to pre-assessment. The Planning Scheme has divided the












agricultural zones into two namely zone Agriculture 1 (AG1) and zone Agriculture 2 (AG2) the former relating to land with a minimum erf of four hectares (4 Ha) and the later with areas of low impact having a minimum of two hectares (2 Ha).

The planning controls for both AG 1 and AG2 permit the use of land for agricultural building, dwelling house and agricultural land. The Scheme prohibits the use of agricultural land for the use of hotels, funeral parlour, commercial workshop, medium density housing, retirement village, restaurant and much more. However, in terms of land uses permitted by special consent AG1 permits the use of the area for crèche, educational building, place of worship and institution whereas AG2 prohibits it. The municipality will need to develop a wall to wall scheme, and should collaborate with Ingonyama Trust and the Department of Agriculture and Land Reform to ensure sustainable land use practices in their respective areas.

#### 13.4.3 DEVELOPMENTAL LAND AND AGRARIAN REFORM


Land reform in the municipality has been rather slow and as yet has not translated into the establishment of adequate sustainable new black farmers and restitution. Even with good integrated development planning processes in UMngeni Local Municipality, alignment between land tenure reform and spatial planning within the municipality remains secluded. Rural development is intended to create lively, fair and sustainable rural communities. There are a

number of factors/challenges affecting the sustainability of land reform including but not limited to:

-  Lack of access to services such as mentorship, training, credit and transport by beneficiaries;
-  Lack of access to markets;
-  Lack of skills, infrastructure and capital;
-  A lack of serviced and zoned industrial land;
-  Delays in gaining access to Ingonyama Trust land for commercial development and community agriculture;
-  Slow pace and/or failure of land reform programmes;
-  Lack of monitoring and evaluation of projects;
-  Competing land uses;
-  Large number of beneficiaries per project resulting in unmanageable projects and thus results in conflicts and infighting which affects the progress of the projects negatively;
-  Threats of land invasion; either as an organized invasion or by creeping appropriation; and
-  Improper land use leading to degradation of the natural environment and uncontrolled urbanization.




The effectiveness of land reform will only be effective access to inputs, equipment, draught power, Infrastructure for transport and communications, and support services such as extension, training and marketing advice and channels are essential. These are mainly lacking in the communal areas or are inadequately provided for in most land reform projects. The municipality needs to play a significant role in planning and implementing such programmes and must work closely with other relevant government departments, agencies such as NGOs and the private sector, and with the surrounding communities.

The promotion of sustainable agriculture and awareness creation by the Local Municipality will assist in dealing with concerns expressed relative to the environmental sustainability of small-scale agriculture and natural resource harvesting in communal areas. Thus an extensive redistribution of land and resources should be accompanied by the securing of tenure rights both in practice and in law, to ensure long-term sustainability. The KZN Provincial Growth and Development Strategy makes way to provide potential interventions to addressing sustainable agriculture from land reform including:



-  Establishing a mechanism that will help shorten the land claim processes to secure land tenure for aspiring commercial farms (including agricultural land with high potential under Ingonyama Trust Board), as well as the acceleration and optimisation of





post-settlement agricultural support on land reform farms (i.e. Technical, financial and capacity development support).

-  Recognising the importance of stimulating commercial farming as a means of expanding agricultural production and enhancing
-  strengthening of strategic partnership between government and private sector, streamlining of support packages, and consolidation of funding.
-  The establishment and support of commercial farmers through the full range of agricultural sub-sectors with reference to the municipality the dairy and timber industries have been identified as presenting a number of opportunities.

Land reform processes are slow and may result in agricultural land losing its value more especially if transformed into rural settlements, and thus the following needs to be taken into consideration:

-  The establishment of broad awareness-raising and training programmes regarding sustainable land-use, agricultural production and land-care techniques is vital.
-  Generation of opportunities that will grow agricultural production through innovative and sustainable agricultural practices within the commercial, subsistence and/or small-scale farming sectors is required.

the contribution of small-scale farmers within the sector in KZN and providing support to new commercial farmers, particularly access to new trade markets and opportunities, improved production methods and mechanisation, access to funding, and skills training and mentorship as key.

-  Tougher measures are required to ensure that if the land has reached full capacity people should not be allowed to continue building, this will also require the involvement of the Department of Rural Development and Land Reform.
-  There will be a need to promote off-farm settlement as a land delivery approach where the main need for land is settlement. This land should be situated in accessible areas which can be provided with social facilities and basic services in a resourceful manner which will facilitate housing delivery and development of such settlements as sustainable human settlements.

## 13.5 PROPOSED LAND USES

### 13.5.1 PROPOSED COMMERCIAL

Future commercial land uses are proposed around Mpophomeni Node. These would include the business parks, (Shopping Mall). These will facilitate the expansion and diversification of this nodes.

### 13.5.2 PROPOSED INDUSTRIAL

The proposed light industries are proposed in Tweedie and Mpophomeni. This will be ideally located on the outskirts of the main settlement areas in order to avoid conflicting land use activities. The intention is to strengthen the industrial sector within UMngeni Local Municipality.

### 13.5.3 PROPOSED MIXED USE

The proposed mixed uses are identified around along Mpophomeni corridor and Lidgetton and Nottingham Road. The intention is to encourage commercial, offices and residential. Residential development mainly targets gap housing or middle income housing within the appropriate threshold of the nodes. These will also facilitate expansion of Nottingham Road towards Zenzele settlement.

### 13.5.4 PROPOSED URBAN SETTLEMENTS

Prime land within close proximity to the urban nodes of Howick, and Hilton are identified for urban settlements. These land parcels are within the urban areas of the Municipality and should be seen as an opportunity for future housing opportunities which include integrated residential development with diverse typologies.

## 13.6 TOURISM DEVELOPMENT

### 13.6.1 AGRI-TOURISM DEVELOPMENT

Agri-tourism can be defined as the act of visiting a working farm, or agribusiness enterprise, for the purpose of enjoyment, education or active involvement in the activities of the farm or operation (Che, Veeck and Veeck, 2005:227). The inception of Agri-tourism into traditional farming practices is a relatively new concept in South Africa and is based on the premise of attracting visitors to farms. Agri-tourism has been identified as a potential means to this end. The Midlands Meander is a tourism route with many visitors passing through the area en-route to the Drakensberg. Therefore, the potential already exists to host Agri-tourism activities that will benefit farmers in various ways. Agri-tourism has been identified as a unique opportunity for the UMngeni Local Municipality to combine its diverse agricultural industries with tourism.

When a farm is diversified into Agri-tourism venture, the farm nature will turn to operate as a supplementary, complementary or primary enterprise (Blacka et al. 2001). All these Agri-tourism enterprises are indispensable to protect the environment and they are considered to be of benefit to the farm business as they are promoting sustainable consumption and production of agricultural goods and

services in the societies (GOE, 2007). Additional details about Agri-Tourism are attached as Annexure C.

### 13.6.2 MEDIUM TO HIGH EXTENSIVE TOURISM

#### 13.6.2.1 TOWNSHIP TOURISM: MPOPHOMENI



Township tourism took off after the first post-Apartheid elections in 1994. It is becoming increasingly more popular as visitors to the country look for a more 'authentic' experience, away from game reserves, nature based tourism and the usual breath-taking scenery. The idea is pretty much self-explanatory such that visitors are taken on guided tours through South Africa's townships (historically marginalised communities where non-whites were forced to live during the separatist Apartheid regime). Most tours include guided walks through sections of the low-cost housing settlement areas and shacks. This also include visits to places of interest such as township schools and sites dedicated to people and events pivotal in the

struggle against Apartheid. As you mosey along, check out the local craft stalls for souvenirs. Though there is criticism of township tourism as being voyeuristic, the upshot is that it brings a portion of South Africa's lucrative tourism sector to the poorest of its people. Local restaurants, bars and craftsmen benefit financially from the tours, and there are even a few guesthouses riding the wave, for the more intrepid traveller who fancies an overnight stay.

Possibly more important than the economic benefits however, is that this brand of tourism opens visitor's eyes to the reality of the living conditions of much of the population and the urgent need for its amelioration. It also showcases places not just full of poverty and strife, but also full of energy, culture and hope for the future. The heritage route has much to offer the senses and imagination. One can also visit the various community upliftment projects for income generation and Mpophomeni Township overlooking Midmar Dam. The attractions include Montrose House, authentic Sangoma consultation rooms, Shebeens, Shembe traditional church and **Mandela Capture Site**.












There are six Bed and Breakfast establishments located within Mpophomeni township. The Zulu Mpophomeni Tourism experience has a variety of captivating eating places, including the self-catering chalet serving traditional food, as well as a shebeens with **shisa nyama** (braai meat) while interacting with locals. The Mandela

Capture Site Monument was recently developed to commemorate the late Former President Mandela. He was arrested the 5<sup>th</sup> of August 1962 at a point on the main R103 near Lions River and was imprisoned in the Johannesburg. He had been on the run from the Security Police for seventeen months. A Wall of Reconciliation pays tribute to those who died in the area for their political beliefs. Together with Montrose House – an 1880 farmhouse that is being developed into a community and museum centre – it gives guests first-hand insight into the violence and forced removals of the apartheid era. Individual stories add a very human element to these events.


#### 13.6.2.2 HOWICK FALLS AND KARKLOOF FALLS

Howick is in the heart of UMngeni Municipal region and hub of the Midlands. It is known as the place of many waterfalls for it is here that UMngeni River and its tributaries tumble down gorges and over precipices on a journey to the Indian Ocean. In the centre of the town, Howick Falls thunders 95m over dolerite cliffs on the UMngeni River which passes through Howick on its way to the Indian Ocean. The Zulu people called the falls KwaNogqaza, which means "Place of the Tall One". Also in Howick are Cascade Falls (25 m) and Shelter Falls (37m), while Karkloof Falls (105m) is 16 km to the east. With all the modern conveniences of a larger town, Howick offers a tranquil shopping experience for the locals and visitors alike with a number of shopping centres, each offering a wide range of services and





products. Howick offers a range of tourism products as well as all accommodation types such as:

-  Hilton Hotels,
-  Guest Houses,
-  Bed & Breakfast,
-  Howick Self Catering,
-  Holiday apartments and Suites,
-  Holiday Cottages& Chalets,
-  Holiday Homes & Villas,
-  Conference Venues, and
-  Honeymoons etc.




Other Attractions Include:

-  The Karkloof Canopy Tours is an eco-experience that takes visitors on a two-hour adventure through the Karkloof indigenous forest just 20km outside Howick in KZN. The canopy tour involves traversing from one platform to another along a steel cable suspended up to 30m above the forest floor. The tour comprises nine platforms and eight slides that zig-zag down a forested valley. The scenery is spectacular and professional

guides provide interesting facts about the forest ecology during the tour.

-  The Karkloof Conservancy was formed on the 19 March 1998. It is made up of local landowners interested in the protection of biodiversity in the Karkloof and have been actively involved in a number of community projects in the area for the past 13 years.
-  The Karkloof Conservancy covers an area of 40 000 hectares in the Karkloof, KwaZulu-Natal. The area includes wetlands, mist belt grasslands and huge tracts of mist belt forest, which are protected biomes. Some of the farmers are registered crane custodians and all 3 species of crane occur in the area - especially the critically endangered Wattled Crane.
-  Midlands Conservancies – The KZN Midlands is an important water catchment area, has forests which are home to the rare Cape Parrot, some of the last moist mist-belt grasslands (which are an important carbon sink) and includes habitats of many endangered species. The very first conservancy established in SA was in Balgowan in 1978 and since then the area has become renowned for commitment to stewardship of natural resources.
-  Midmar Resort is an all-round family resort, choose from self-catering accommodation or a day visit at a picnic site or nature

reserve with activities including biking, fishing, sailing and canoeing.

-  Midmar Dam Nature Reserve: Situated just seven kilometres from Howick and 24 kilometres from Pietermaritzburg, the Midmar Dam Nature Reserve is a great spot for locals and visitors alike. The large fresh water dam is fed by the UMngeni River, offering a fun water sports and fishing venue. Day trippers often make use of numerous shady picnic areas and braai facilities along the shoreline. Windsurfing, canoeing, swimming and mountain biking are popular activities around the Midmar Dam. In certain areas it is zoned for yachts and powerboats.
-  The world's largest open water swimming event, the Midmar Mile, draws over 16 000 international and local competitors annually to swim the dam in record time. The reserve is also home to numerous red hartebeest, blesbok, reedbuck, black wildebeest, oribi and zebra. Carp, bass, scalies and bluegill fish proliferate in the dam. Pick up a freshwater fishing licence at the office near the entrance gates. Below the dam, the UMngeni River plummets over the Howick Falls on its way to the Indian Ocean.
-  The Karkloof Farmers' Market is an authentic and unique indoor market with a wide variety of stalls offering everything

from fresh fruit and vegetables to delicious home-baked treats and organic products.

 UMngeni Valley Nature Reserve

 Howick UMngeni Museum

 Sakabula Golf Course

**Table 12: Howick Activities**

<b>Crafts Southern Africa</b>	The old Agricultural Hall house curios and local arts and crafts for sale.
<b>Howick Museum</b>	A well-documented look at the history of the Lions River district and Howick itself, including period costumes and antique British military insignia.
<b>Laager Wall</b>	A near-intact laager wall built in 1879 as protection against an imminent Zulu attack after the fearsome Battle of Isandlwana.
<b>Midmar Resort</b>	A fun-filled, superbly equipped family resort.
<b>Military Cemetery</b>	64 British and 84 Boer graves lie in the grounds used both as a military hospital.
<b>Nature Trails</b>	An excellent selection awaits the visitors. Including Umgeni River, Howick Falls, Howick Gorge, Beacon Hill, Stables and Howick Town Trails.
<b>War Memorial</b>	Commemorates of WWI and WWII.
<b>Waterfalls</b>	Those beguiling natural displays that have made the area famous. In addition to the Howick Falls and Karkloof Falls north of the town.

### 13.6.2.3 HILTON

The town is home to 9 340 residents, but it manages to retain its village character. The broad streets are tree-lined, and although the village is not officially a 'garden city', it bears a



strong resemblance to those cities so tagged, with window boxes brimming with flowers, garden clubs and green interest groups. Hilton is home good schools, including the boarding schools Hilton College and St Anne's. Hilton College has become the site of the Hilton Arts Festival. There is usually a line-up that includes drama, comedy, music, cabaret and an arts and craft market - most of them straight from the Grahamstown festival that happens in July. Hilton offers a range of tourism products as well as all accommodation types i.e. Hilton Hotels, Bed and Breakfast, Hilton Self Catering, Holiday apartments and Suites, Holiday Cottages & Chalets, Holiday Homes & Villas, Conference Venues and Honeymoons etc.

Queen Elizabeth Nature Reserve serves as the headquarters of Ezemvelo KZN Wildlife. This small reserve offers an outdoor leisure and environmental education facility for the Natal Midlands. It is situated in Hilton and is home to impala, zebra, blesbok, bushbuck, grey and blue duiker, dassies, and crowned eagles. Numerous indigenous and exotic plants grow throughout the park.





## 13.7 UMNGENI SDF LAND USE PROPOSALS

### 13.7.1 LAND USE PROPOSALS WITHIN URBAN AREAS

The following is a broad description of the general intention of the different zones or designations applied inside the primary and secondary nodes. It must be stressed that the SDF does not assign any legal development rights to land – it is a broad identification of the preferred future development pattern to guide public and private investment and development related decisions. It is only through the Planning Scheme, which is to be formulated as part of the LUMS that legal rights are awarded through the zoning of land.

### 13.7.2 EXISTING URBAN

This designation acknowledges the already built up areas within the main towns of Howick, Hilton, Mpophomeni and Nottingham Road. At a macro level point of view, there specific proposal that is suggested for these areas. The municipality has the responsibility to manage the existing land use activities within this zone. There are two prominent zones within the existing urban area. These are Mixed Uses that are proposed, as General Mixed Use and Limited Mixed Use (Tourism).

### 13.7.3 GENERAL MIXED USE

These areas occur mainly along major transport routes and proposed development corridors in which a wide range of land uses will be encouraged, namely commercial, light industrial and office complexes and residential development. The proposed uses need to complement each other, and comply with environmental requirements. More detailed master planning is therefore required for these areas. The development of a corridor between Mpophomeni and Howick will achieve integration of previously segregated areas.

### 13.7.4 LIMITED MIXED USE TOURISM

These areas are linked to existing tourism nodes and resources, and the following land uses would be encouraged: Residential Estates, Golf Course Estates, Theme/ Niche Villages, Recreation Infrastructure and facilities, Museums, Exhibition Centres, Conference facilities, Hotels, Chalets, Restaurants, Sports Centres, Health Hydros and other tourism-orientated uses. The main focus area for Mixed Use Tourism is **Midmar Dam**, and a detailed Masterplan to guide development has been formulated. The Nottingham Road Node includes areas identified as having potential for Mixed Use Tourism.

### 13.7.5 FUTURE RESIDENTIAL

The need for security of tenure and the provision of housing was identified as a high priority at a policy level in the IDP. Areas where land parcels have been identified for proposed residential usage include; Nottingham Road, Lidgetton, areas to the north of Howick; the area between Mpophomeni and Howick, the area between Merrivale and Hilton, various pockets in the Hilton area as well as northeast of it. Development in **Howick** is generally somewhat disjointed. Infill and densification is possible in various locations, and should be pursued in more detail as part of the LUMS process. Although it is important to maintain the country village atmosphere of **Hilton**, a greater degree of efficiency and flexibility can be achieved through densification of appropriate areas. This should also be pursued in more detail through the LUMS process.

### 13.7.6 URBAN TRANSITION

These are the areas which form the interface between the existing built-up urban areas and the surrounding rural area, where development pressures are likely to occur. Accordingly, these areas are included in the primary and secondary nodes to facilitate orderly development. Agriculture, residential estates and tourism related development are the type of land uses which would be encouraged. Generally, densities would be lower than in the existing built-up areas, and the appropriate density would be determined by an analysis of factors such as accessibility, availability of services,

physical features and environmental considerations. As a general rule a maximum density of 1 unit per hectare is suggested.

### 13.7.7 URBAN AGRICULTURE

Given the high agricultural production potential of large areas especially inside the primary node, agriculture is seen as an integral part of the urban fabric. The primary land use in these areas should be intensive agricultural usage.

### 13.7.8 URBAN AGRICULTURE AND INSTITUTION

This designation applies to the three Education/Institutional facilities of Hilton College, St Joseph's, and Cedara College which are located on high value agricultural land that form an integral part of the activities of these institutions. The following table provides a summary of the extent which the different zones occupy in the various nodes.

### 13.7.9 URBAN AGRICULTURE AND ECO-TOURISM

This designation applies to land adjoining Midmar Dam. The main objective is to ensure that the type and magnitude of development is sensitive to the general landscape quality, and that the potential impact on water quality is a primary consideration. Tourism development should be of a limited and eco-tourism nature, and restricted to appropriate locations. A detailed Master Plan to guide



development needs to be formulated. As a general rule a maximum density for tourism accommodation of 1 tourism unit per 2 hectares is suggested.

Primary Node	Area (Ha)	% of node
Existing Urban	4545.51	20
Formally Conserved	2528.62	12
Future Residential	1016.10	4
General Mixed Use	1409.53	6
Limited Mixed Use (Tourism)	805.79	3
Urban Transition	2528.96	12
Urban Agriculture	5209.67	23
Urban Agriculture and Eco-Tourism	2325.84	10
Urban Agriculture and Institution	2386.34	10
Whole Node	22756.35	100
<b>Secondary Node (Lidgettton)</b>	<b>Area (Ha)</b>	<b>% of node</b>
Existing Urban	70.31	11
Future Residential	104.77	15
General Mixed Use	145.06	22
Limited Mixed Use (Tourism)	20.72	3
Urban Transition	304.65	49
Whole Node	645.52	100
<b>Secondary Node (Nottingham Road)</b>	<b>Area (Ha)</b>	<b>% of node</b>
Existing Urban	257.31	25
General Mixed Use	62.62	6
Limited Mixed Use (Tourism)	231.14	22
Urban Transition	444.40	43
Urban Agriculture	36.35	4
Whole Node	1031.83	100

#### 13.7.10 LAND USE PROPOSALS WITHIN THE RURAL COMPONENT

The main economic drivers in the rural component of the municipality are agriculture and tourism. The primary objective of the SDF in this area is therefore to provide opportunities for both these sectors while minimizing mutually negative impacts. Previous reviews generated considerable debate about the ability of tourism and commercial agriculture to co-exist, and there seems to be a general consensus that this is possible provided that tourism development is of appropriate type and scale, and that it is managed correctly.

The following general planning strategies should apply in the rural component of the municipality.

(i) Commercial agriculture and tourism are the main economic drivers, and the needs of both sectors need to be accommodated.

The very successful existing tourism sector in the UMngeni Municipality needs to be consolidated and enhanced, taking into account existing development patterns. Consequently, more intense tourism development will be encouraged along the primary tourist routes, scaling down along the secondary tourist routes.




(iii) Small tourist developments (e.g. bed and breakfast establishments aimed at supplementing farming income) may be considered throughout the rural component of the municipality.


(iv) Residential Estates aimed at permanent residential occupation which have no links to the resource base and which have no tourism focus will not be supported in any of the rural zones. Such developments should be located in the primary and secondary nodes.

(v) In view of the potential negative impact which commercial forestry has on water quality and quantity and landscape quality, it should be restricted to areas where permits have already been awarded.

(vi) The loss of high quality agricultural land is to be avoided.

(vii) Section 42 of the Planning and Development Act lists the matters to be taken into account in determining the merits of the proposed development of land situated outside the area of a scheme. This includes any local practice to land use management. In the case of the rural component of the municipal area, it is suggested that the following should be also taken into account when considering development proposals:

-  The extent to which the proposal will have a positive impact on the local economy and the area of employment, and its sustainability.
-  The maintenance and enhancement of landscape quality.
-  The loss of prime agricultural land.

 The potential impact on water quality and quantity.

 The potential impact on biodiversity.

 Serviceability.

What follows is a broad definition of the objectives of the different zones as set out in the SDF map. As is the case in the primary and secondary nodes, these zones do not award legal development rights. It must also be noted that more detailed definitions and development controls will be developed as part of the rural scheme, which is currently being formulated.

#### 13.7.11 AGRICULTURE AND HIGH INTENSITY TOURISM

This zone coincides mainly with the existing Midlands Meander Route, and is characterized by high accessibility, a wide range of tourism facilities and smaller subdivisions. The main objective in this zone is to maintain and enhance the existing rural tourism character and the full range of rural-based tourism land uses and more intensive agriculture will therefore be encouraged. Land subdivision will not be supported if it will jeopardize the agricultural viability of existing or potential future farming operations, and if subdivision will negatively impact upon the biodiversity and ecosystem services such as clean water production; and large-scale land transformation such as exclusive residential estates should not be allowed. However, rural housing projects to accommodate the rural poor, and farm and tourism workers will be allowed in appropriate locations.

### 13.7.12 AGRICULTURE AND MEDIUM INTENSITY TOURISM

These are the areas on the periphery of the Agriculture and High Intensity Tourism Zone, and along the secondary tourism routes as identified in the Tourism Management Plan. Tourism developments should be rural-based, of a small scale, labour orientated and related to the existing agricultural activities and the natural resource base in this designation. It is envisaged that agriculture will be the primary land use in this zone, exceeding tourism in importance. Tourism will not be developed as intensely as in the previous zone. Large-scale land transformation such as exclusive residential estates and other forms of large-scale accommodation should not be allowed. However, rural housing projects to accommodate the rural poor, and farm and tourism workers will be allowed in appropriate locations. Land subdivision will not be supported if it will jeopardize the agricultural viability of existing and or potential future farming operations, and if subdivision will negatively impact upon the biodiversity and ecosystem services such as clean water production. Particular attention should be paid to the retention of the integrity of rural landscapes.



### 13.7.13 AGRICULTURE AND ECO TOURISM

These are generally areas of lower accessibility and higher environmental sensitivity. The general objective is therefore that agricultural activities should continue, and natural resources be conserved. Tourism developments should be limited to natural and




culture-based activities, and preferably integrated with farming activities. Large-scale land transformation such as exclusive residential estates shall not be allowed, nor will other forms of accommodation which have no link to the natural resource base and which diminish the agricultural potential and biodiversity value. Land subdivision will also be discouraged, but rural housing projects to accommodate the rural poor and farm and tourism workers will be allowed in appropriate locations. Particular attention should be paid to the retention of the integrity of rural landscapes.

### 13.7.14 AGRICULTURAL DEVELOPMENT ONLY

Most of the land in the municipality is utilised for commercial agriculture, and a significant proportion of the land has a very high production potential. Apart from the Howick/ Hilton area, those areas identified through the IDP agricultural assessment as having the highest agricultural potential have been reflected on the Spatial Framework Map as areas of agricultural development only. In general, the subdivision of prime agricultural land is discouraged and the development of this land for non-agricultural purposes should only be allowed if:

-  The land has already been subdivided to such an extent that it is no longer agriculturally viable;
-  The land has already been developed for non-agricultural purposes;



-  The proposed development does not compromise the primary agricultural activity of the property;
-  The proposed development comprises a secondary activity to supplement a landowner's income;
-  It will facilitate the implementation of the Land Reform Programme and Labour Tenant Projects.

Rural housing projects to accommodate the rural poor and farm and tourism workers will be allowed in appropriate locations.

#### 13.7.15 AGRICULTURAL AND LIMITED TOURISM





The high potential irreplaceable agricultural land should not be subdivided or subjected to any non-agricultural land uses. However, such land is at times located along tourism routes. The farms that are located adjacent to the SDF tourism routes can be allowed to transform into Agri-tourism whereby a % of the farm can be used for tourism related development.

#### 13.7.16 FORMALLY CONSERVED





The formally conserved areas will be protected for conservation purposes. These areas should not be subjected to high intensity development. Any proposal that supplements conservation should be subjected to a detailed Environmental Impact Assessment.

### 13.8 FUTURE DEVELOPMENT DIRECTION

The direction for future development within UMngeni has been prioritized along three areas as follows:

-  Mpophomeni towards Howick along R617 corridor: there are a number of land parcels that can be unlocked for future commercial and light industrial development.
-  Winterskloof towards Hilton: this involves the densification within the existing commercial centre of Hilton.
-  Main Road from Tweedie towards Howick: this involves areas that should be prioritized for densification.
-  Zenzele Township toward Nottingham Road: this should facilitate the integration of Nottingham and Zenzele Township.

In addition to the above mentioned, there are four priority spending areas which are:

-  Mpophomeni and R617 Corridor;
-  Tweedie;
-  Merrivale; and
-  Hilton.

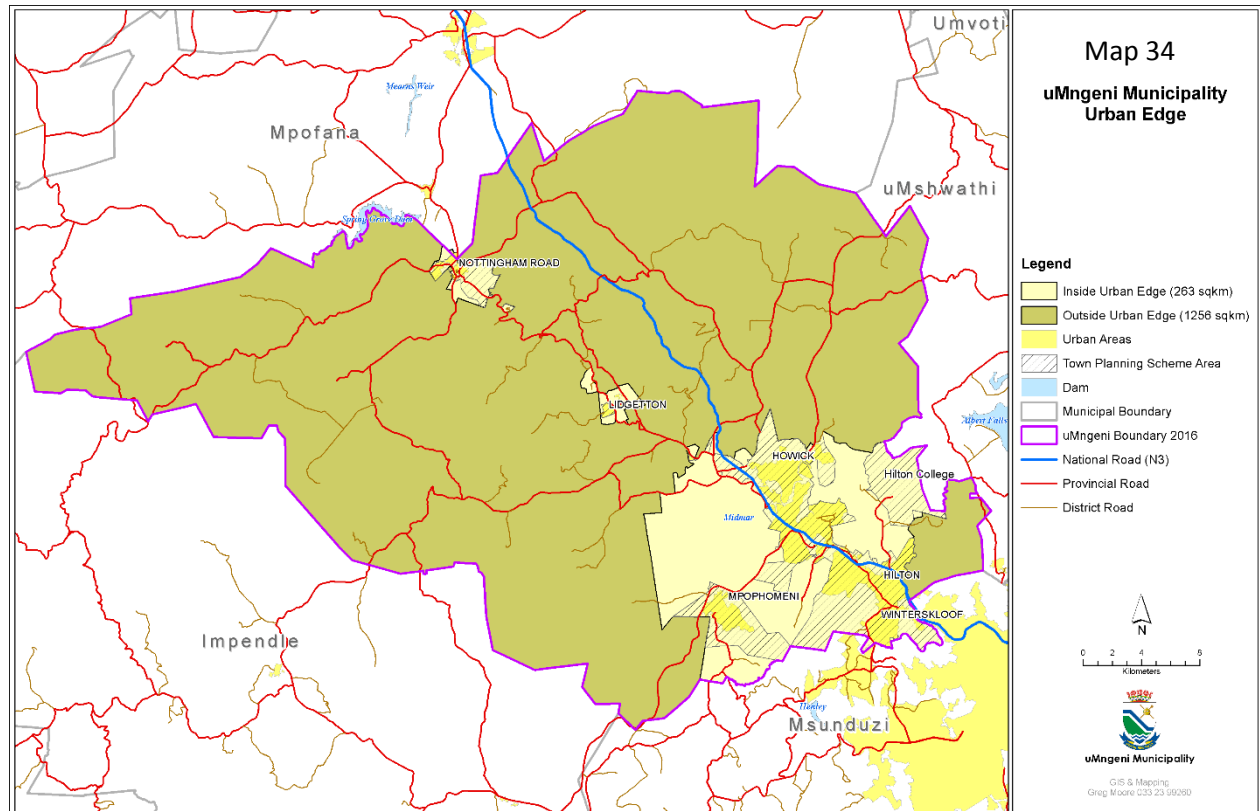
### 13.9 URBAN EDGE

There are three Urban Edges that have been identified within UMngeni Municipal Area. These cover the following areas:

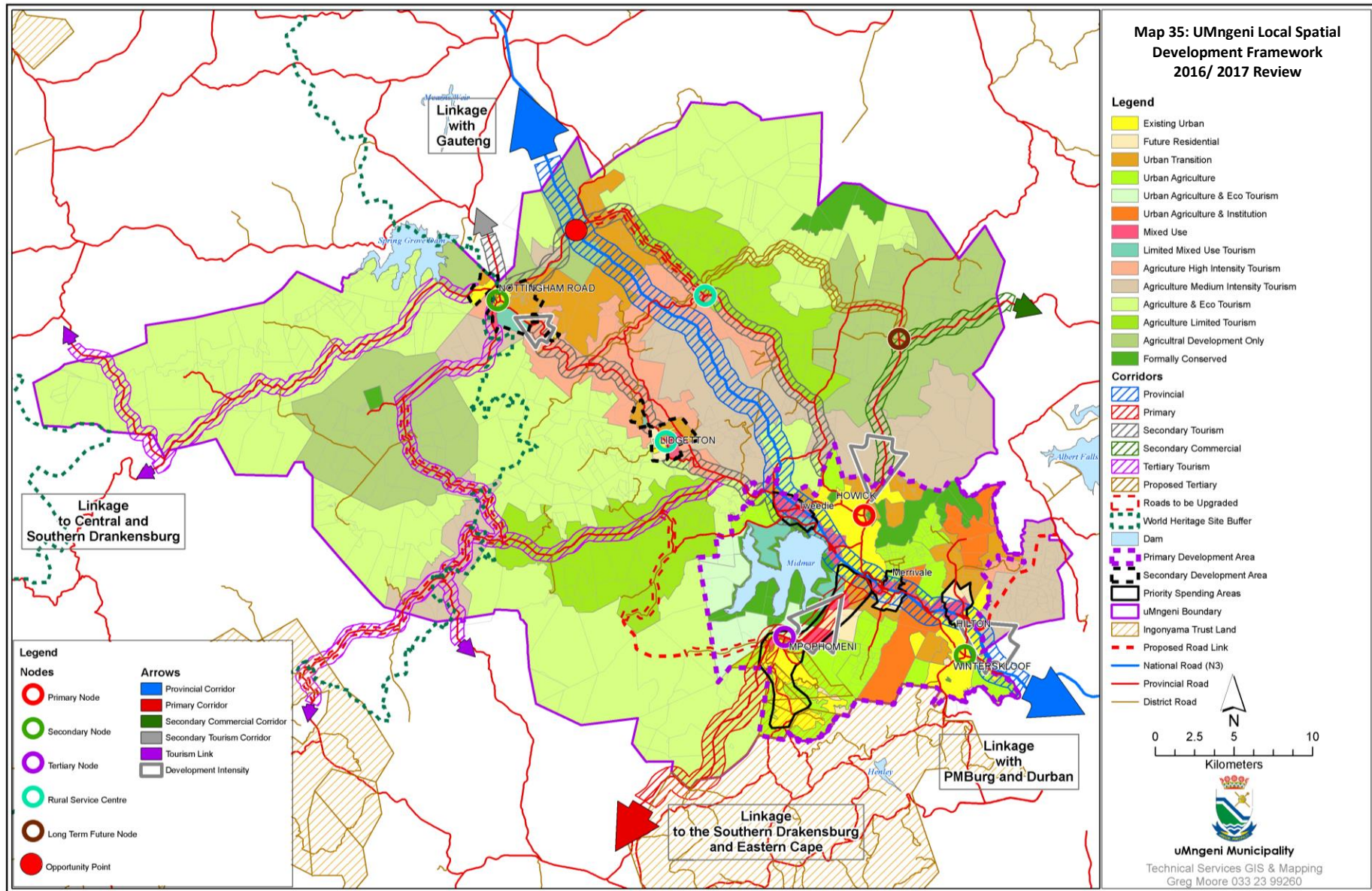
- Howick, Hilton and Mpophomeni Urban Complex;
- Nottingham Road and Zenzele Urban Complex; and
- Lidgetton.

The administrative logic for the demarcation of this urban edge was mainly influenced by the *Provincial Spatial Planning Guideline 5: Defining Limits on Settlement Expansion: The issue of the Urban Edge* produced in July 2009. These guidelines state that:

*There is no 'scientific' way of defining these containment edges: they require strong administrative actions to defend them. A number of factors contribute to the delineation which are characteristics of the natural environment (natural barriers such as water courses, steep slopes, vegetation of significance and so on), central purpose of these edges is to compact urban development in order to achieve greater urban efficiencies (an effective edge should be as close to the existing built-up area as possible), should not follow existing cadastral boundaries (strong straight geometric edge not wavy lines) and should be reinforced through the creation of fire-breaks and more intensive forms of agriculture which should be encouraged to occur hard against the edge. Suburban and leap-frog' sprawl should be discouraged. As far as is possible, new development should be contiguous with the existing built edge. (Department of Co-operative Government and Traditional Affairs: 2009, p8-10).*









The proposed urban edges have incorporated the existing built up areas which are mostly covered by the Urban Planning Schemes of the Municipality. These edges have also incorporated important land parcels that will act the role for infill development requirements and expansion of existing urban areas. The important environmental management areas have also been incorporated for proper management against urban conurbation and areas include Midmar Dam and Howick Falls.



### 13.10 NODAL SPATIAL DEVELOPMENT FRAMEWORKS

Mpophomeni, Howick and Hilton are the major residential areas within the UMngeni Municipality. The primary urban management area would incorporate the following areas.

-  Mpophomeni;
-  Midmar Dam and its immediate surrounds;
-  Howick; Merrivale and surrounding smallholdings;
-  Cedara;
-  Hilton; The area between Hilton and Hilton College; and
-  World's View.

The area has a largely urban setting and incorporates the major economic and administration activities. It accommodates the municipal offices, Provincial Government offices, major schools, police stations, a magistrate's court and a large variety of commercial and retail outlets. The "village in the country" atmosphere which is evident in large portions of the area is an important attribute which needs to be conserved and enhanced. The three residential nodes are separated by farms and smallholdings, but linked by the Primary Transportation Route (N3) and the Boston Bulwer Road (R617), providing a high degree of accessibility. It is recommended in the UMngeni SDF that the concept of a mixed use

corridor be employed to link Howick and Mpophomeni. The emphasis is on providing a growth of mixed usage between separate parts of the urban area created by apartheid planning policies. More detailed planning of the corridor in the form of a local area development plan needs to be undertaken, taking into account the proximity of Midmar Dam and issues such as water quality, landscape quality and compatibility with tourism objectives.

Midmar Dam is a hugely underutilized recreation and tourist resource, which in future will serve as the green core and be an integral part of the urban area. Its primary function is obviously to continue providing high quality water to the downstream urban areas and Metropolitan Durban, but its recreation and tourism usage can be significantly enhanced without having a detrimental effect on its primary function. This will require a strategic and well informed plan and inter-governmental consensus with regard to integrated planning, development and optimum resource usage.

#### 13.10.1 HOWICK

##### 13.10.1.1 LOCATION

Howick is a small town located approximately 30 kilometres northwest of Pietermaritzburg. It relies on Pietermaritzburg city for higher order goods, services and facilities not found within it. Some of the residents of Howick commute on a daily basis to places of work in Pietermaritzburg. Howick is also in close proximity to Mooi River



which is a much smaller town. Business linkages between Howick and Mooi River are relatively negligible, as are the linkages between Howick and Bulwer to the south west and Greytown to the north east.

#### 13.10.1.2 ROLE AND FUNCTION





Howick is in the heart of the UMngeni Municipal region and hub of the Midlands. It is known as the place of many waterfalls for it is here that the UMngeni River and its tributaries tumble down gorges and over precipices on a journey to the Indian Ocean. Howick is a great place to find antiques, arts and crafts, and parts of the Midlands Meander. It is fundamentally a farming town that supplies the number of farms in the area. Howick offers a tranquil shopping experience for the locals and visitors alike with a number of shopping centres, each offering a wide range of services and products.

There are also a number of schools and higher education opportunities in and around Howick, including High School and Primary School. Mpophomeni has mainly remained as a residential township with limited commercial or industrial development while Merrivale has experienced a modest amount of commercial development as a result of the passing traffic which uses the R103. Merrivale residents tend to have the means to own private transport which negates the distances that have to be travelled to places of work and shopping facilities. KwaMevane is situated within, and is

surrounded by, Howick. As a result, it is relatively well integrated into the town and enjoys relatively good access to Howick CBD.

#### 13.10.1.3 STRUCTURE

Howick is made up of two spatial entities which are the Howick town and Mpophomeni Township. There are two prominent features which bisect Howick and these are the N3 National Road and UMngeni River. The structure of settlement in Howick are fragmented which does not create a convenient environment for people, especially those with limited means. The Spatial Structuring Elements of the Town include:

-  CBD where there is a concentration of activity,
-  R103 Corridor (Main roads / Arterials) which is a ring road that bisects the town from the N3 in the south and back to the N3 in the north,
-  Settlement Patterns whereby the suburban residential area to the north are separated by the UMngeni River which runs in a west-east direction thus separating the Suburb of Merrivale to the south, and
-  Restrictive environmental features such as Topographical, UMngeni Valley nature reserve to the east thus preventing any further expansion thereto) and Environment/ Open Spaces (Active/ Passive).








#### 13.10.1.4 LAND USE PATTERN

Howick essentially harbours a full range and variety of activities normally associated with vibrant and economically active CBDs including work opportunities, commerce and business opportunities, residential precincts, public spaces, recreational and entertainment facilities, social facilities and public open space. In recent years, Howick has expanded significantly following the establishment of a number of major retirement villages, such as Amberfield, Amberglen, Amber Valley, Amber Ridge and Amber Lakes that flank the Karkloof Falls Road.





#### 13.10.1.5 SPATIAL PLANNING CHALLENGES

The town of Howick currently faces the following spatial planning challenges:

-  Dilapidated and ageing infrastructure;
-  Ensuring proper densification and compaction of CBD for maximum utilisation of existing services;
-  Definition of the urban edge to prevent urban sprawl;
-  Management of expansion along Karkloof Road to the north; and
-  Management and maintenance of the existing built and natural environment.

#### 13.10.1.6 SPATIAL PLANNING PROPOSAL

The following proposal are suggested for spatial planning in Howick:

-  Preparation of a Local Area Plan or Precinct Plan;
-  Structured and planned densification;
-  Infrastructure upgrade, maintenance and management; and
-  Provision of 1,5m bicycle lanes and Bus Lay-byes Stops with shelters.

#### 13.10.2 HILTON

##### 13.10.2.1 LOCATION

Hilton is a small town that lies on the brow of the escarpment above Pietermaritzburg in KwaZulu-Natal. It has a total area of 30.90km<sup>2</sup> at an elevation of 1 080 m with a population of 9 340 at density of 300 people per km<sup>2</sup>. Hilton is located on a ridge ten kilometres west of Pietermaritzburg's northern suburbs, while considered a suburb of Pietermaritzburg, Hilton actually falls under the UMngeni Municipality based in Howick.

##### 13.10.2.2 ROLE AND FUNCTION

Hilton is considered by its local residents as a very special urban village with a grace, character and pace all of its own. It is serviced

with its own centre that offers local residents a choice of shopping experiences from food to antiques. The tenants include Mi Office, Artisan Pizza Restaurant, Wakefields Estate Agents, Tops Bottle Store and KwikSpar, Steers, Arrow Properties, Bartho's Fish Company, EAP and Digit. The picturesque village of Hilton is regarded as the “Gateway to the Midlands” which boasts with a retail at The Quarry Centre. Hilton is largely a tourist’s hospitality town with a Hotel and a number of gourmet restaurants found within it.

#### 13.10.2.3 STRUCTURE





Hilton has a linear town centre and a community level planned centre adjacent to it. There are a number of small clusters of flats towards the western edge of the town. The rest of the inner roads runs in different directions forming a curvilinear layout or framework for ease of movement, legibility and subsequently accessibility to the offering of the town.

#### 13.10.2.4 LAND USE PATTERN

Hilton essentially accommodates a full range and variety of activities normally associated with vibrant and economically active CBDs including retail, residential precincts, public spaces, recreational, entertainment facilities, social facilities and public open space.






#### 13.10.2.5 SPATIAL PLANNING CHALLENGES

The town of Hilton currently faces the following spatial planning challenges:

-  Management of expansion through Dennis Shepstone Road;
-  The Bus Stop in Hilton is in a very bad condition and may need attention;
-  Definition of the urban edge to prevent urban sprawl; and
-  Low density especially within Winterskloof.

#### 13.10.2.6 SPATIAL PLANNING PROPOSAL

The following proposal are suggested for spatial planning in Hilton:

-  Reinforcement of Hilton Central as Activity Corridor (Densification);
-  Preparation of a Local Area Plan or Precinct Plan;
-  Structured and planned densification in Winterskloof and Hilton commercial centre;
-  Infrastructure upgrade, maintenance and management; and
-  Provision of 1,5m bicycle lanes and Bus Lay-byes Stops with shelters.

### 13.10.3 MPOPHOMENI

#### 13.10.3.1 LOCATION

Mpophomeni is located approximately 12 km south west of Howick along the R617 leading to Bulwer and eventually Underberg at the foot of the Drakensberg Mountains. It remains an under-developed urban settlement with high levels of unemployment, relatively isolated from the main development corridors and nodes of the rest of the municipality. Mpophomeni has a total area of 4.58km<sup>2</sup> with a population of 25 732 and a density of 5 600 people per km<sup>2</sup> and a racial makeup of 99.6% Black African.

#### 13.10.3.2 ROLE AND FUNCTION

Mpophomeni township was originally established in 1964 as a dormitory suburb for black labourers who came from rural areas to Howick town for work at SARMCOL (South African Rubber Manufacturing Company Limited) and also to work in the construction of the Midmar Dam. Most of the Mpophomeni dwellers were forcibly removed from where the Midmar Dam is today. Mpophomeni derives its name from the world renowned Howick Waterfalls. Mpophomeni Node is located in land Midmar, abutting Boston Road (R617) that will also form part and continuation of the proposed mixed use connector corridor N/S. This node has the potential location of mixed development such as residential, commercial, offices and conference facilities. The development of

Mpophomeni Node has the potential of forming up as a tourism corridor to Mpophomeni area and the southern Drakensberg as it's the one of formalised township that tourists will likely to visit that will be inclusive.

#### 13.10.3.3 STRUCTURE

Layout and functioning of Mpophomeni Township was conceptualized as residential suburbs for the working class. The dominant housing typology is one house per plot. Although the sizes of the residential plots are small the housing typology results in low densities and long walking distances between different parts of the township. In the initial township master plans large pieces of land were set aside for a full set of social facilities but only few were built. The same applies to commercial land uses for which large tracts of land were set aside in the township centre. However, very limited economic development happened and the centre has remained vacant. The main reason for the limited economic development was the low economic threshold due to low wages and high costs of rents and transport.


#### 13.10.3.4 LAND USE PATTERN

Mpophomeni Township is a predominantly high density residential characterised by higher population density, mostly single plot households thereby retaining its historical role as a dormitory township for Howick. The limited retail outlets are the spaza shops




that are scattered around Mpophomeni, particularly along transport routes, outside of schools and near the taxi rank. The Sasol Garage at the Nelson Mandela Drive and R617 T-Junction which marks the entrance to the Township has a small supply store, but this mainly serves passing motorists.

#### 13.10.3.5 SPATIAL PLANNING CHALLENGES

At the outset, the peripheral location of Mpophomeni Township and its limited links to the towns was the worst aspect of spatial exclusion – and still face this problem. The predominant typology is one house unit per family per plot, which results in South African cities being among the least dense cities in the world. CSIR researchers set out to identify the benefits of medium density, mixed housing as an alternative housing solution. This is defined in the CSIR research project as having a minimum of 50 dwelling units per hectare (du/ha) and a maximum of 125 du/ha. The case studies selected were generally a maximum of four storeys with private external spaces. These developments are also characterised by a mix of building/unit types, tenure forms (ownership, rent-to-buy or rental units), income groups (affordable and market-rate housing) and mix of land uses (residential, commercial, public open space, business). Principles of National Spatial Development are drawn to address these challenges in Mpophomeni Township:




-  Government spending on fixed investment should be focused on places of economic growth and/or potential. This will play a role

in attracting private-sector investment, stimulating sustainable economic activities, and creating employment opportunities.






-  The focus should be on people, not places, to address past and current social inequalities. Places of high levels of poverty with development potential should receive fixed capital investment.
-  In areas of low development potential and high levels of poverty, the development focus should be on providing social transfers, human resource development and labour market intelligence to capacitate people to access economic opportunities.
-  Future settlement and economic development opportunities should be channelled into activity corridors and nodes adjoining or linked to main growth centres. This will play a role in overcoming apartheid spatial distortions. (Source: NSDP, 2003, adapted)

#### 13.10.3.6 SPATIAL PLANNING PROPOSAL


The following proposal are suggested for spatial planning in Mpophomeni:

-  Future Mixed Use Tourism Corridor
-  Nelson Mandela Drive Activity Street Urban Renewal
-  R617 and Nelson Mandela Drive Commercial Node (i.e. Proposed Mall)

Strategies to improve the built environment and public spaces in Mpophomeni Township are:

-  Activity routes can be developed along public transport routes connecting different nodes or sub centres. Very small node may emerge along public transport routes often at intersection or T-junctions (R617 and Nelson Mandela Drive). They often consist only of a few stalls. These minor land use changes should be acknowledged as potential points for interventions.
-  A land audit should be conducted to identify underutilized land for infill development e.g. for commercial uses, facilities, housing, or open space;
-  The municipality should facilitate the release, sale or lease of vacant and under-utilised land;
-  Residential infill of different types of housing and tenure can be promoted in such a way that higher density housing is built in the vicinity of nodes; rental accommodation is created that offers an alternative to hostels; rental housing is created for different income groups including households with middle income who may not want to own property;
-  Crime prevention can be assisted through security conscious design and temporary land uses. Allocating vacant or under-utilised land temporarily for uses such as urban agriculture

improves appearance and security through people taking responsibility for this land.

-  Passive surveillance of public areas should be improved e.g. through street lighting. This also contributes to safety of pedestrians.

#### 13.10.4 NOTTINGHAM ROAD

##### 13.10.4.1 LOCATION

Nottingham Road is a town 19 km south of Mooi River and 59 km north-west of Pietermaritzburg. Founded in 1905 and named after the Nottingham Regiment which was stationed there when trouble was expected from the Basotho in the 19th century. A popular trout-fishing area.

##### 13.10.4.2 ROLE AND FUNCTION

This area plays an important role as a service centre to farmers in the western and central portions of the municipality, providing housing and a smaller range of commercial and social services than what is offered in the Primary Node. The tourism role of Nottingham Road is acknowledged. Nottingham Road is today considered the hub of the KZN Midlands. The hotel, the village, its farmers' hall, the shops of The Junction and the residential success story of Gowrie Village, Gowrie Farm and the superb Gowrie Golf Course, create a cohesive

centre that draws people to the area. Parents with children at the excellent local schools have bought second homes here, and the attractions of the Midlands Meander as well as upmarket spas such as Fordoun and Brookdale bring leisure travellers for both day-trips and longer stays. In addition, weddings have become big business for the Midlands, with bridal parties delighted by historical and picturesque venues such as the Nottingham Road Hotel at rates to suit all budgets. Adventure activities are also a draw card for the area, with MTB races, equestrian events, fishing, shooting and high action past times such as the Karkloof Canopy Tours nearby. Notties Hotel is also the perfect landmark destination to break a trip between Johannesburg and Durban (especially for rugby and other sporting events) and is convenient for travellers intending to explore the mountain kingdom of Lesotho.

#### 13.10.4.3 STRUCTURE



The main structuring elements in Nottingham road are the R103 and the Railway line as most activities are located adjacent to these mobility conduits for accessibility and convenience to transient traffic.

#### 13.10.4.4 LAND USE PATTERN

The significant amount of non-residential uses is focused along the main activity routes i.e. R103 Junction wherein low to medium impact mixed use and Light industrial is located. i.e. Engen and Spar.





#### 13.10.4.5 SPATIAL PLANNING CHALLENGES

The following are spatial planning challenges that confront Nottingham Road:

-  The R103 Corridor has significant Biodiversity priority regions along; and
-  Small town is faced with significant infrastructural challenges in terms of bulk services to attract investment.

#### 13.10.4.6 SPATIAL PLANNING PROPOSAL

More detailed planning of Nottingham Road should be undertaken in the form of:

-  Local Area Development Plan (The primary aim is densification, consolidation, upgrading and urban regeneration);
-  The lower order Service Centre to serve the surrounding rural community. Services such as a library, clinic, pension payout point are provided;
-  Permanent residential opportunities are offered for all income groups; and
-  Nottingham Road-Zenzani expansion.



## 13.11 PRIMARY URBAN MANAGEMENT AREA

### 13.11.1 CENTRAL BUSINESS DISTRICT

This existing Central Business District of Howick town. The main focus will be on the upgrade and maintenance of the existing infrastructure. The later involves the conservation of built environment such as historical buildings and monuments.

### 13.11.2 FUTURE MIXED USE ACTIVITY

The main focus is a mixture of light industrial, retail and residential development within a 3 – 4 storey densified street. The infrastructure will need to be upgraded in order to accommodate this proposed density.

### 13.11.3 MIXED USE COMMERCIAL

This will accommodate the concentration of retail and residential development within a 2 – 3 storey densified corridor. The infrastructure will need to be upgraded in order to accommodate this proposed density.

### 13.11.4 PRIORITY COMMERCIAL NODE

The focus should be future commercial. This should be approached as single storey low density developments.

### 13.11.5 PRIORITY URBAN LINKAGE

The upgrading of important routes that link the important urban areas. The focus should be on the road infrastructure to be sufficiently resourced for the requirements that each road serve i.e. bicycle lanes, sidewalks etc.

### 13.11.6 PRIORITY URBAN LINKAGE MIXED USE AND INDUSTRY

The focus will be to accommodate light industrial business parks as well as retail along this route. The capacity of infrastructure must be upgraded prior to the commencement of this proposal.

### 13.11.7 URBAN MIXED USE ACTIVITY

The low density mixed use developments can be encouraged along this important route. The existing properties can be granted low impact mixed use development rights during scheme amendment process.

### 13.11.8 DIRECTIONS FOR GROWTH

A proposal to compact the existing urban management area prior to embarking on outward expansion. Thus ensuring that the town does not grow in a fragmented fashion.

**Map 36: Hilton/ Howick/ Mpopophomeni Primary Development Area**

**Legend**

- Existing Urban
- Future Residential
- Urban Transition
- Urban Agriculture
- Urban Agriculture & Eco Tourism
- Urban Agriculture & Institution
- Mixed Use
- Limited Mixed Use Tourism
- Agriculture High Intensity Tourism
- Agriculture Medium Intensity Tourism
- Agriculture & Eco Tourism
- Agriculture Limited Tourism
- Agricultural Development Only
- Formally Conserved
- Dam
- Primary Development Area
- Secondary Development Area
- Priority Spending Areas
- uMngeni Boundary
- Ingonyama Trust Land
- Rivers
- National Road (N3)
- Provincial Road
- District Road

0 1 2 4  
Kilometers

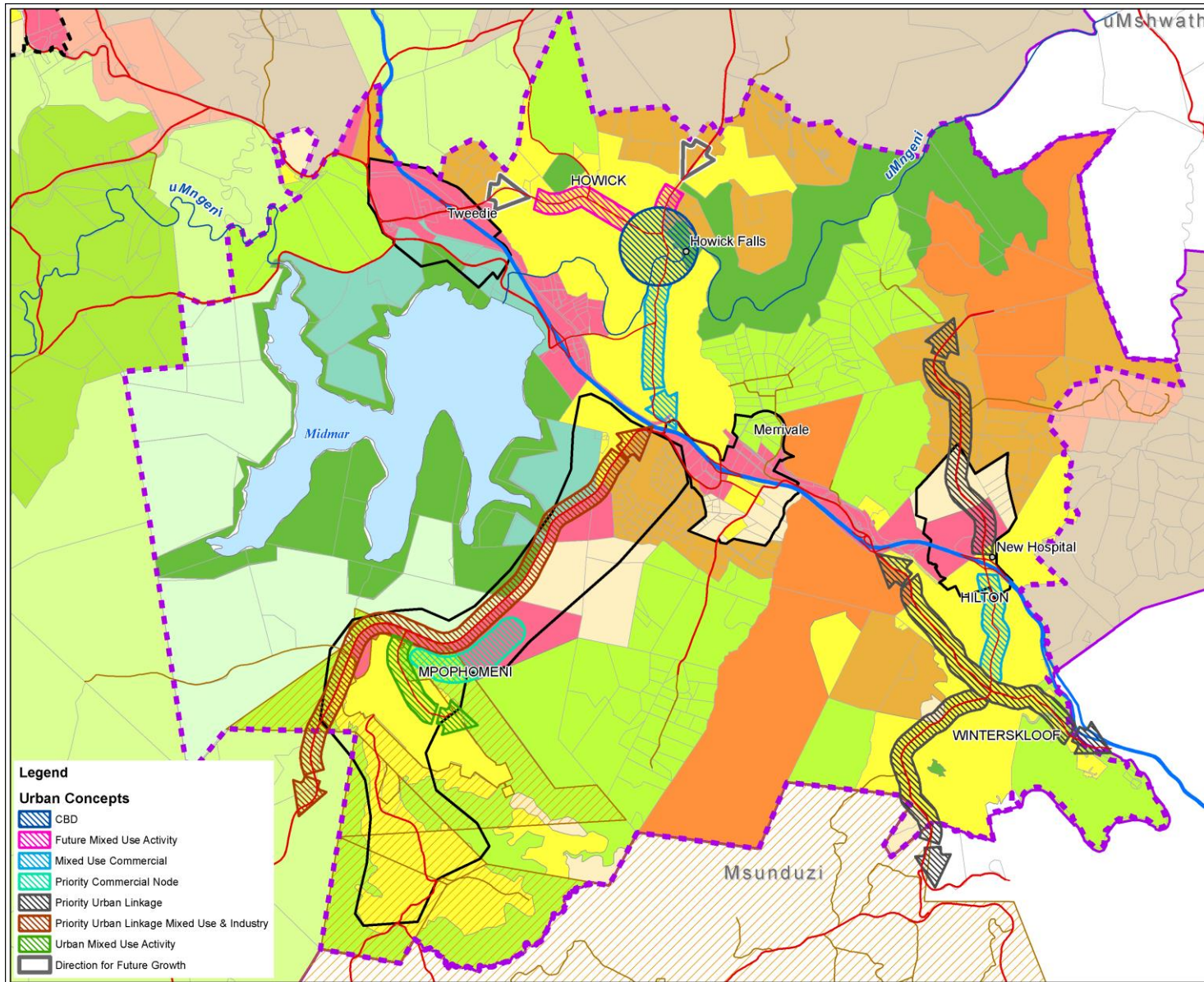


**uMngeni Municipality**  
Technical Services GIS & Mapping  
Greg Moore 033 23 99260

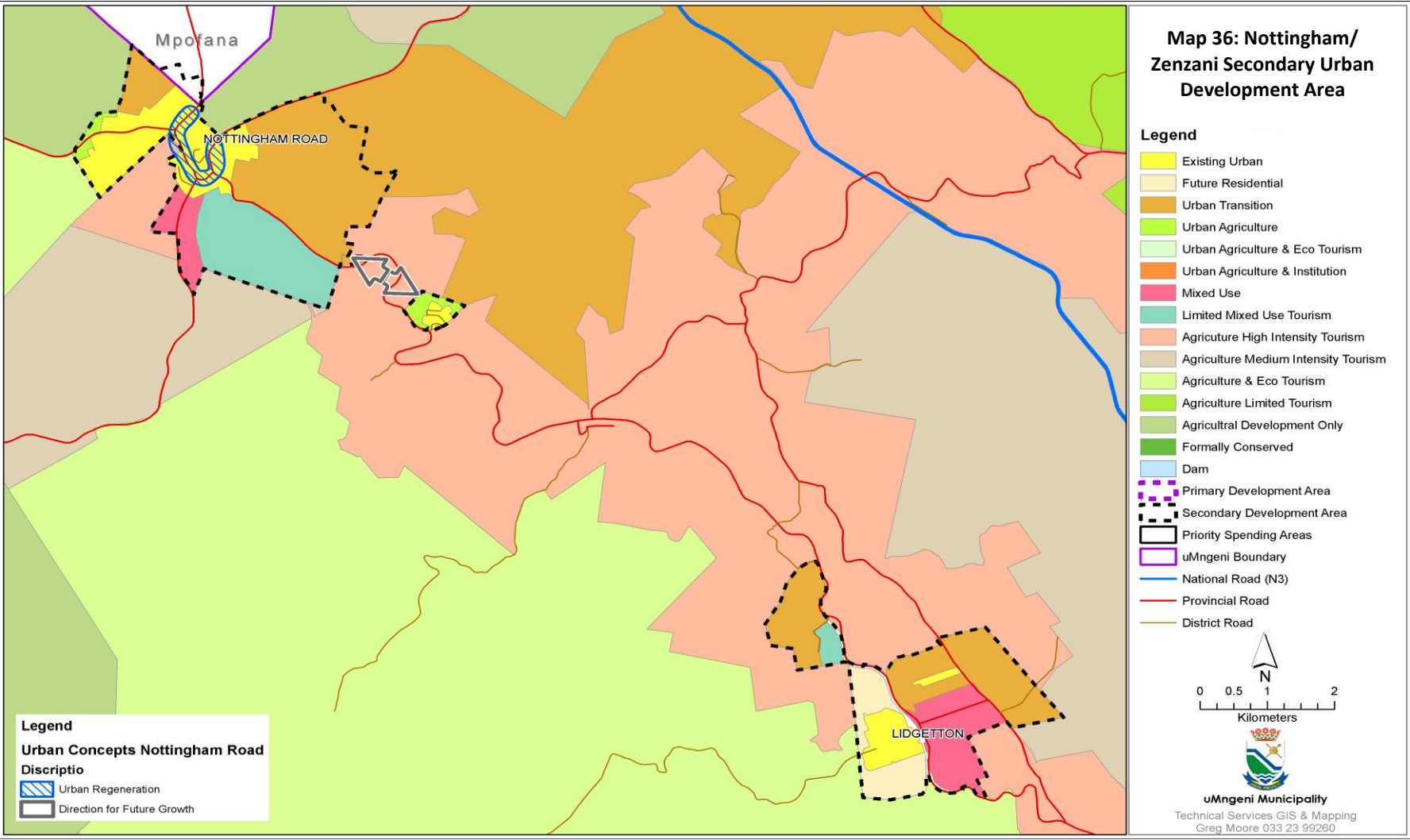
**Legend**

**Urban Concepts**

- CBD
- Future Mixed Use Activity
- Mixed Use Commercial
- Priority Commercial Node
- Priority Urban Linkage
- Priority Urban Linkage Mixed Use & Industry
- Urban Mixed Use Activity
- Direction for Future Growth



## 13.12 SECONDARY URBAN MANAGEMENT AREA





## 14. IMPLEMENTATION PLAN

### 14.1 LAND USE MANAGEMENT FRAMEWORK

A land use framework is one of the components of the land use management system of a municipality. The latter, referring to a set of actions required by a municipality to manage land and includes different components, such as a SDF, Land Use Framework, Scheme, Valuation and rating system, ownership and tenure, infrastructure and services etc. A land use framework provides for the linkage between the Spatial Development Framework (SDF) and the Scheme. It in effect, bridges this gap by providing additional information and guidelines that can assist the municipality in decision-making processes, while a Scheme is under preparation.


#### 14.1.1 LAND USE MANAGEMENT SCHEME

The KwaZulu-Natal Planning and Development Act, 2008 (Act No. 6 of 2008), requires all municipalities in the province to develop and introduce wall-to-wall Land Use Schemes throughout their area of jurisdiction. This has to take place within 5 years of the promulgation of the PDA provisions that deals with the Land Use Schemes. The same requirement has been included in the Spatial Planning and Land Use Management Act, Act No 16 of 2013, which requires municipalities to adopt wall-to-wall schemes by 2018.

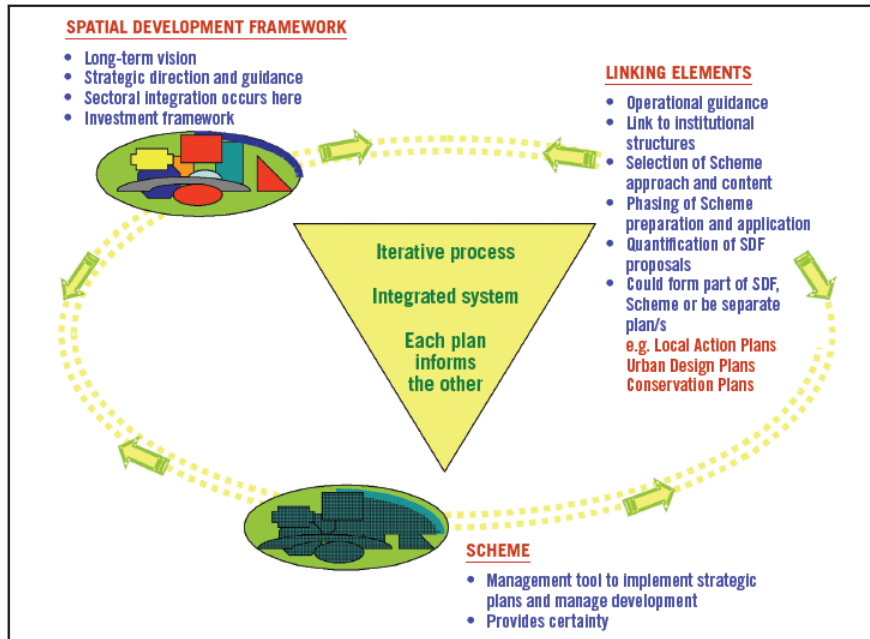
According to the Municipal Systems Act, a Land Use Scheme is a key component of the Integrated Development Plan (IDP). As such, the extension of the UMngeni Scheme should be undertaken within the context of the IDP and the associated Spatial Development Framework (SDF), and with due cognizance of the development and transformation agenda that underpins these strategic documents. It must contribute towards sustainable development, and improve governance (as it relates to land use management) within Hibiscus Coast. As such, alignment and integration with the other tools (land audit, valuation roll, etc.) should be maintained.

#### 14.1.2 LINKAGE BETWEEN THE SPATIAL DEVELOPMENT FRAMEWORK, LAND USE FRAMEWORK AND THE SCHEME

As mentioned previously, the Land Use Framework is a bridging/linking element that provides a linkage between strategic planning (SDF) and statutory planning (Scheme). As such, the SDF provides strategic direction, the Linking Elements provide more detailed spatial plans and the Schemes provide the statutory basis for land use decision-making. The relationship between the SDF, Land Use Framework and Scheme is indicated in figure 8.

 The main functions of developing a Land Use Framework for UMngeni Municipality are as follow:

- To translate strategic objectives contained in the IDP and SDF to a level that will provide spatial representation;
- Quantification to guide the preparation of the Scheme;



- To provide institutional guidance that takes account of existing governance structures (e.g. involving Traditional Council in some areas of land use decision-making);
- To provide an indication of timing and phasing of development;
- To guide the preparation of a Scheme for the area;
- Guide planning decisions in the Municipality (together with the SDF on which this Framework is based) in the interim period when the different phases of the Scheme are being prepared.

#### 14.1.3 PURPOSE OF A SCHEME

The KwaZulu-Natal Guidelines for the Preparation of Schemes defines a scheme as:

“a tool used by a municipality to guide and manage development according to the vision, strategies and policies of the Integrated Development Plan and Spatial Development Framework, and in the interest of the general public to promote sustainable development and quality of life. “

A scheme can be described as a statutory document that divides a municipality in zones, which are regulated according to:

The use of land and buildings for commercial, industrial, residential and other purposes

The height and bulk of buildings and other structures










The area of a lot which may be occupied, and sometimes the size of required open spaces


Indirectly the density of population.

Source: KZN Land Use Management Guidelines for the Preparation of Schemes for Municipalities – Update 2011

There are a number of reasons for the preparation of Schemes. Firstly, a municipality must satisfy the legal requirements emanating from both the Municipal Systems Act and the PDA, which require a municipality to prepare a Scheme as part of an Integrated Development Plan (IDP). Secondly, the municipality has a

responsibility to encourage harmonious development within its area of jurisdiction. This includes the protection of property rights and ensuring that development occurs in a compatible manner. In addition, scheme will promote sustainable land use and assist the municipality and other role-players to address environmental management issues. As indicated on Figure above, the scheme divides a municipal area into zones and regulates the use of land and buildings on the one hand, and the nature, extent and texture of development on the other. UMngeni Local Municipality scheme will therefore:


-  Indicate what may or may not occur on particular areas of land.
-  Provide land use certainty and boost investor confidence.
-  Promote amenity, efficient land use practice and reserve land for essential services.
-  Resolve conflict between different land uses and control negative externalities.
-  Enable mix of convenient land usage, efficient movement processes and promote economic development.
-  Protect natural and cultural resources and land with high agricultural production potential.
-  Provide for public involvement in land management decision processes.
-  Provide for sound local regulation and enforcement procedures.
-  Accord recognition to indigenous and local spatial knowledge, land use practices land allocation practices.

-  Facilitate social justice and equitable regulation of contested spaces.

Reserve land for future uses where the need for location and extent is not certain at present.

#### 14.1.4 ADMINISTRATION OF THE SCHEME

The municipal officials must administer the Scheme, while final decision-making rest with the Council. The current, structure of UMngeni makes provision for five positions that are responsible for the scheme and these are:

-  Head of Department Planning and Economic Development (HOD) – the section 57 Manager has an overall responsibility of the scheme. This includes overseeing its preparation, adoption and amendment.
-  Manager for Integrated Development Planning – is a full-time (permanent) manager who reports to the HOD. He is responsible for managing the development and maintenance of the scheme.
-  Chief Town and Regional Planner (Statutory and Spatial Planning) - is a part-time Shared Service Planner who is responsible for the scrutiny of development applications and advising the applicants.
-  GIS Specialists – is a Shared Services Specialists and is responsible for maintaining and updating the scheme maps.



As such the municipality has sufficient capacity to implement and maintain the land use management scheme.

#### 14.1.5 WHAT NEEDS TO BE MANAGED

##### 14.1.5.1 URBAN TOWNS AND TOWNSHIPS

There are a number of urban settlements that are located along N3 and R103 which include the suburban areas of Howick, Hilton and Mpophomeni. These are developed into towns due to the high level of visibility and accessibility. The urban settlements tend to be mainly residential areas with limited commercial activities within these.

##### 14.1.5.2 HIGH POTENTIAL AGRICULTURAL LAND

The commercial farmlands cover a substantial amount of the municipal area. These largely include areas that are used for commercial agricultural purposes.

##### 14.1.5.3 WATER RESOURCES

There are numerous water resources which include main rivers such as Mooi River which drains the north-western part of the Municipality, the Mgeni River with its major tributaries, the Lions River and Karkloof Rivers and a number of smaller ones. There are two major dams that exist in UMngeni, namely, the Midmar Dam with its tourist appeal added to its vital role with regard to being a

source of water, and Albert Falls dam. The 1:50 year and 1: 100-year flood line is requirement for major developments to take place. Although this has not been undertaken at the municipal scale as it is done on a project by project basis, the SDF has identified a need to guide against development that affect rivers and wetlands. The SDF therefore recommended that a 20m – 32m confidence buffer should be reserved for environmental service. The width of the river corridor is dependent on the local situation, for example the condition of stream, and may extend beyond the statutory 20m. Note that for particular activities within 32 meters of the edge of a stream, environmental authorisation is required from the relevant environmental authorities (NEMA EIA regulations, 2010).

##### 14.1.5.4 ECO- TOURISM AREAS

There are certain environmental areas in UMngeni Municipality with the inherent potential to contribute to Local Economic Development. As such, the environmental conditions that prevail to make these high potential tourism areas must be conserved.




##### 14.1.5.5 IMPORTANT ENVIRONMENTAL AREAS

These areas are protected in terms of the environmental conservation legislations. These include Midmar Dam, Karkloof Nature Reserve and a Portion of the Hilton College estate. Further than those a Private Nature reserve has been proposed in the Midlands, within the Howick Urban area, there are areas set aside

for Conservation purposes that include Howick Falls, portions of the Umgeni River Valley and Beacon Hill Ingongoni Mistbelt Reserve. The other areas of recent environmental planning include the Provincial Environmental Corridors and the buffer proposed to be established to protect the Okhahlamba Drakensberg World Heritage Site. The provincial policies also identified “Priority Conservation Areas” to occur to the north along the Mooi and Karkloof Rivers, and the UMngeni River Valley is indicated as a “Biodiversity Priority Area”.

#### 14.1.6 SCHEME APPROACH

A wall-to-wall scheme should cover the entire UMngeni Municipality and provide certainty to land users and land development applicants irrespective of location. The municipality will develop a comprehensive scheme with a range of zones some of which may not apply in less developed areas. The following broad categories will be used in developing the scheme:

-  Urban which includes all areas that fall within the urban edge as delineated in this SDF.
-  Areas that are subject to the Sub-division of Agricultural Land Act, Act No. 70 of 1970.
-  Rural settlements located on communal land, state land and/or privately owned land.

Land use policies will be developed to guide land use management on agricultural land and rural settlements.

#### 14.1.7 LAND USE PROPOSALS AND USE ZONES




Broad land use typologies for UMngeni Land Use Framework are suggested in table 1 on the overleaf. It is suggested that a more prescriptive/ regulatory approach is required where important resources (e.g. high potential agricultural land and important environmental service areas) need to be protected and where pressure for development is higher such that the Municipality needs clear regulations to manage this development e.g. a potential urban settlement where there is or may be a demand for commercial and industrial development sites. A policy-orientated approach would be suitable for areas where there is less pressure for development.

### 14.2 POLICIES AND GUIDELINES

#### 14.2.1 DENSIFICATION

Urbanisation requires pro-active measures of creating more residential units for the surplus of new people that has relocated to the urban centres. However, such urban areas are already built-up to larger extent and do not have an abundant vacant land for new dwelling units. Densification of the existing built up areas is normally a good solution towards fulfilling this kind of urbanisation need. Densification is one of the key elements of compact development and a drive towards building an integrated and efficient spatial form. This can be achieved by limiting outward expansion, by promoting

higher densities, infill and re-development activity nodes and by the promotion of mixed use activity corridors linking otherwise isolated and non-functional areas with a focus of public transport. There are three densification opportunity areas that should be prioritized within UMngeni Municipality which are:




-  Hilton – the Hilton Avenue commercial corridor presents an opportunity with 3 – 4 storey height buildings that accommodate retail at the bottom and flats at the top. However, the bulk infrastructure will need to be upgraded for this goal to be realised. The main focus of this upgrade should include bulk sanitation and road widening.
-  Winterskloof – this settlement has large plots per households and opportunities exists for the private owners to subdivide their sites into reasonable smaller plots in order to accommodate future private households within the already built up urban settlement.
-  Howick – there are three opportunity points where densification can be encouraged within the town of Howick. The pattern of this densification is prioritized to be centred around the Main Howick Road (R103) to Central Business District (CBD). The CBD, Main Road (R103) from Merrivale to Howick CBD and Main Howick Road from CBD to Tweedie can be prioritized for accommodating



lateral height densification with 3 – 4 storey height buildings that can accommodate retail at the bottom and flats at the top. The bulk infrastructure capacity of the area will need to be upgraded before this goal pursued.

The densification to be adopted is dependent on the spatial context of development, the site specific characteristics, the capacity of existing infrastructure and what the impact of that the development will have on the environment. The municipality should formulate a densification strategy, in which it is acknowledged that there has to be a balance between compactness and the retention of significant open space to satisfy other social and environmental needs. Additional discussion on densification policy direction is discussed on Annexure B.










#### 14.2.2 COMPACTION


The objective of this policy is to mitigate the negative impact of sprawling settlements by encouraging the planning of coordinated, harmonious, sustainable and compact settlements. Growth in peripheral areas is an inevitable process which needs to be managed in order to:

-  facilitate the establishment of planned settlements;
-  promote sustainable development;
-  encourage the protection of sensitive environmental and agricultural areas;

-  ensure that ad hoc developments do not impact negatively on the development of quality and efficient environments.
-  ensure effective and efficient social, engineering and other services.





Other guidelines that should be applicable are as follows:

-  Development Plans must be used to provide clear guidance on directions for future settlement growth.
-  Responsible authorities shall assume responsibility for appropriate levels of planning for underdeveloped areas.
-  Development Plans shall clearly indicate proposed directions for future growth and proposed release of land for development.
-  Development Plans shall identify environmentally sensitive and agriculturally important areas for preservation.
-  Where plans do not exist the Municipality shall identify areas where development should be promoted and restricted.
-  The provision of infrastructure by the Local municipality shall be used as a mechanism for guiding development in settlements.
-  The application of growth boundaries and other growth management techniques should take due cognisance of the adequacy of supply of land.
-  The development of low cost housing on Greenfield sites on the periphery, which do not have strong linkages to areas of employment and adequate services, is discouraged.
-  Projects of this sort must be specifically motivated indicating why they may be necessary on social and other grounds.

-  Responsible authorities should develop policies to discourage land speculation, which sterilises land for development needs.

#### 14.2.3 CLIMATE CHANGE ADAPTATION AND MITIGATION

The objective of this policy is to adapt to and mitigate the impact of climate change on the vulnerability of people in UMngeni Municipality. This policy relates to the sustainability issues that have emerged from the SDF process, as it relates to and impacts on climate change. UMngeni is an area that is highly sensitive and vulnerable to climate change, due to the high degree of natural variability in climate, and regular climate extreme events that are already affecting the inhabitants of UMngeni negatively. The high levels and densities of poverty in UMngeni in combination with the existing levels of degradation and the flood hazard record constitute a high level of sensitivity and vulnerability for the resource-poor people in the area. In an attempt to mitigate the effect of climate change and the vulnerability of the people of UMngeni, the following actions are required:

-  Delineate and map areas with high flood risk;
-  Develop a risk reduction strategy that is aimed at relocating settlements that reside in high flood risk areas;
-  Relocating settlements that reside in floodplain areas;
-  Empowering traditional leaders in respect of the consequences of allocating land for settlements in flood risk areas;

- 📄 Prohibit development of land on steep slopes –specifically areas steeper than 1:3; and
- 📄 Prohibit development where the land is in the opinion of the Municipality otherwise affected by virtue of soil instability, liability to flooding, inaccessibility or topography.

### 14.3 INSTITUTIONAL FRAMEWORK



The Department of Economic Development and Planning is the custodian of the SDF. This department is headed by the Head of Department who is at the level of a Section 57 Manager. The IDP Unit has a Manager with the technical expertise to run the daily activities of spatial planning.

## 14.4 STRATEGIC SPATIAL PLANNING PROJECTS
































PROJECT NAME	PROJECT DESCRIPTION	TOTAL BUDGET	MEDIUM TERM EXPENDITURE FRAMEWORK		
			2017/2018	2018/2019	2019/2020
<b>Howick Falls CBD Precinct Plan</b>	To provide a detailed framework for co-ordinating public and private investments as well as directing development. This framework will assist the municipality to create a safe environment for business owners and residents and be a useful tool for the municipality in the management of land uses.	R 500 000.00	R 500 000.00		
<b>Mpophomeni Township Regeneration Strategy</b>	A detailed township regeneration for the entire Mpophomeni Township will be intended to initiate the development of a commercial precinct within the township and also focus on building a new character for the area within the elements of township regeneration.	R 200 000.00	R 200 000.00		
<b>R617 Mpophomeni to Howick Mixed Use Development Corridor</b>	The plan will be built on targets areas identified for industrial, Mixed use, social activity. Conceptual Precinct plans must focus on movement, urban form, public space, quality of environment. Broad development guidelines must be developed to assist the municipality in accessing development applications for this area.	R 300 000.00	R 300 000.00		
<b>Nottingham Road/ Zenzele Urban</b>	This project will target specific areas within the CBD for urban renewal interventions,	R 400 000.00		R 400 000.00	



































PROJECT NAME	PROJECT DESCRIPTION	TOTAL BUDGET	MEDIUM TERM EXPENDITURE FRAMEWORK		
			2017/2018	2018/2019	2019/2020
<b>Renewal and Management Plan</b>	streetscape enhancement of the public realm. The focus of the project will be to improve the overall aesthetic image of the CBD's by introducing, lighting, tree planting, paving, signage's etc. The intention is to improve the image of the public realm in particular the tourist activity areas and reinforce the status of these areas. The plan will also involve proposals for future urban expansion between Nottingham Road and Zenzele Township.				
<b>Farmworker Housing and Rural Development Strategy</b>	The plan will target the needs for farmworkers in terms of farmworker housing and agrarian reform. It will inform the municipality and the Departments (Dept. of Rural Development and Land Reform as well as the Department of Human Settlements) about important interventions that needs to be done in order to improve the lives of UMngeni farm dwellers.	R 300 000.00		R 300 000.00	
<b>Preparation of a Strategic Environmental Assessment.</b>	A strategic environmental assessment is a legislative requirement and a guiding framework for macro level environmental management at a municipality.	R 300 000.00			R 300 000.00


















PROJECT NAME	PROJECT DESCRIPTION	TOTAL BUDGET	MEDIUM TERM EXPENDITURE FRAMEWORK		
			2017/2018	2018/2019	2019/2020
<b>Preparation of the Wall-to-Wall Scheme</b>	The preparation of the Wall-to-Wall Land Use Management Scheme is a legal requirement as stipulated by the National Spatial Planning and Land Use Management Act 'SPLUMA'. This should indicate what may or may not occur on particular areas of land. Provide land use certainty, promote amenity, efficient land use practice and reserve land for essential services. Resolve conflict between different land uses and control negative externalities.	R 800 000.00			R 800 000.00
<b>TOTAL</b>		<b>R 2 800 000.00</b>	<b>R 1 000 000.00</b>	<b>R 700 000.00</b>	<b>R 1 100 000.00</b>

## 14.5 MONITORING AND EVALUATION FRAMEWORK

Objective	Performance Indicators	Means of Verification	Assumptions
 Environmental Management	 Established programmes for clearing of invasive aliens through Working for Water, or other forms of rehabilitation e.g. through Working for Wetlands, Land Care, Coast Care.  Established environmental management programs.  Effective Water Resource Management  Delineation of flood risk areas  Establishment of protected areas  Coastal management  Catchment management  Alien plant management  Protected area development  Wetland management  Biodiversity zones	 1:50 years and 1:100-year flood lines.  People removed from flood risk areas.  Developed Water Resource Management Strategy  Improved sanitation and waste management infrastructure and services in primary nodal areas.  Rehabilitated wetlands and riparian zones.  Development of a coastal management scheme  Catchment management programme.  Participation in national catchment management initiatives.  Application of carrying capacity standards to grazing land management.  Amount of land cleared of alien plants.  Programme to remove alien plants.  Initiatives to rehabilitated land affected by soil erosion.  Protection of indigenous forestry.  Proclamation of environmentally sensitive areas that are not currently protected.  Delineation of all major wetlands.  Observation of a 32m buffer from each wetland.  Management of bio-diversity corridors.  Environmental overlays.	 The municipality must work with all stakeholders towards an environmentally sustainable development.

Objective	Performance Indicators	Means of Verification	Assumptions
 Regional Access and Road Network	 Upgrading of major access and arterial/link roads.  Improving access to the existing and growing settlements.  Creating new linkages.  Location of development nodes along and at the intersection of key roads.  Focusing development projects on settlements located along strategic roads.	 Number and location of roads upgraded.  KMs of roads upgraded.  New roads.  Number of high impact and catalytic projects located along development corridors.  Type and level of services provided to settlements located along development corridors.	
 Clustering Public Facilities and Economic Activities in Development Nodes	 Development of service centres.  Focusing strategic and high impact projects within development nodes.  Promoting clusters of public facilities as a means to encourage nodal development.	 Number, nature and budgets for municipal projects in each of these nodes.  Level of access and location of public facilities serving different communities in these nodes.  Availability of infrastructure in nodes to enable these to perform their role.  Number of public facilities locating in identified service	 Development nodes have potential to improve access to basic and public services.
 Protection of agricultural land	 High potential agricultural land  Agricultural protection plans  Agricultural development support	 Identification and mapping of agricultural land with high potential.  Size and use of high potential agricultural land Scheme clauses designed to protect high potential agricultural land.  Introduction of land use controls for agricultural land.  Initiatives to promote agriculture.  Direct support to land reform projects.	 Agricultural land is under threat from non-agricultural uses such as settlement.

Objective	Performance Indicators	Means of Verification	Assumptions
 Unlocking Economic Development	 Tourism development  Commercial & industrial development in nodal areas  Number of Public Private Partnership Agreements signed	 Increased investment in terms of tourism, leisure and commercial within UMngeni.  Branded Tourism Route.  Introduction of new tourism products.  Number of new tourism facilities and products located in UMngeni.  Commercial & industrial development applications received by the municipality.  Percentage increase in commercial land.  Uptake of commercial land in dense rural settlements	
 Development of social and service infrastructure	 Improved sanitation services and infrastructure  Improved access to water  Improved access to electricity  Improved access to social facilities	 All households access a health facility within a 5km radius.  Number and location of new health facilities.  Weakly mobile clinics  Number of VIP's in rural areas  Waterborne sanitation system in areas inside urban edge  Piped water within the house in urban settlements  Water on site or at least within a 200m from each household in dense rural settlements  Eradication of electricity backlogs  Number of new health facilities  Number of new schools	 The municipality must work together with government departments to improve the quality of life of residents through the development and improvement of social and service infrastructure.




Objective	Performance Indicators	Means of Verification	Assumptions
 Sustainable Spatial Planning System	 The sustainable Spatial Planning System must be able to map out all the strategically located land parcels for packaging for commercial and tourism investments.	 Council approved land use management system.  Cooperation between traditional leaders and the municipality on land use management issues.  Continuum of settlements from urban high density to remote low density settlements. Number of functional tertiary nodes.  Availability of infrastructure in UMngeni to enable the area to perform its role.  Upgrading and renewal of Nottingham Road and Mpophomeni.	 The municipality must refine the SDF and develop it further through the formulation of a series of plans with varying degrees of detail and flexibility.
 Developing sustainable human settlements	 Upgrading of informal settlements.  Consolidation of settlements located along primary and secondary corridors.  Level and type of infrastructure in each settlement.  Implementation different types of housing projects.	 Number of informal settlements upgraded.  Number of consolidated settlements.  Number of Integrated Residential Development packaged.	 There is a need to improve the structure and form of settlements.



## 14.6 CAPITAL INVESTMENT FRAMEWORK








### 14.6.1 BACKGROUND

A Capital Investment Framework (CIF) is considered to be a very important component of the Spatial Development Framework (SDF). CIF is a sound step towards a more systematic approach to infrastructure planning and coordination. This key goals of this component are as follows:

-  Spatial budgeting – which involves mapping of the capital infrastructure projects that are approved by the IDP. This assists to determine whether the development trajectory that is advocated by the IDP is in harmony with the spatial development vision that is suggested by the SDF.
-  Intensify spatial objectives with infrastructure proposals – the SDF identifies a number of spatial development proposals for further economic development and investments within the area but these proposals will be meaningless if the supporting infrastructure has not been planned for in tandem with the overall SDF. The CIF provides an opportunity to relook at these proposals in line with infrastructure requirements.
-  Comparison of areas of greatest needs and where services or infrastructure proposals are directed to – this is intended to

establish if the areas that encounters backlogs are receiving attention to address that. There are areas within the municipal area which suffers from historical and institutional neglect from benefiting from services. It is the role of a developmental government to be pro-active at developing these areas. This is part of the reconstruction and developmental mandate.


























The normative aims and objectives are:




-  To inform public and private sector investment decision-making.
-  To influence municipal capital infrastructure project allocation.
-  To serve as a strategic infrastructure guide for economic infrastructure priority areas.
-  To map out all service delivery priority areas.
-  To identify all major infrastructure priority areas including the projects currently underway.
-  To determine if spatial proposal can be resourced by sufficient infrastructure resources.
-  To integrate Capital Investment Framework with the IDP.

## 14.6.2 SPATIAL BUDGETING

### 14.6.2.1 IDP CAPITAL PROJECTS









There are a number of capital projects that are identified within the municipal IDP and the majority of these are funded through a Municipal Infrastructure Grant (MIG). This allocation amount to approximately R 504 816 350.00 over five years. These mainly include the construction of roads, stormwater and sports facilities. The majority of these projects are located within the SDF nodal areas which are as follows:










-  Informal Traders Stalls;
-  Mpophomeni roads and stormwater Phase 12;
-  Upgrade MV Greendale to Patterson;
-  Nottingham Road Community Hall;
-  UMngeni Widening Bridge;
-  Construction of Sidewalks;
-  Symonds and Buchanan Street extension;
-  Midlands Roads – Cedara, Emandleni, Tumbleweed, Siphumele, Lions River, Lidgeton, Zenzani;
-  Cedara access road construction;
-  Khayelisha roads and storm water (construction);
-  Mpophomeni Sportsfield Phase III;
-  Lidgeton West Sportsfield – construct sportsfield and combi court subject to counter funding;
-  Emandleni Sportsfield;
-  Lidgeton West Sportsfield;
-  Curry's Post Landfill Site Weigh Bridge;
-  Curry's Post to Mount West tar road;
-  Traffic Signage in ward 1 and 2;
-  Birnamwood road tarring;
-  Howick West and KwaMevana pedestrian bridge;
-  Khayelisha roads and storm water (construction);
-  Howick CBD rehabilitation (phased);
-  Howick CBD storm water replacement (phased);
-  Main street upgrade additional lane;
-  Mandela Capture Site underpass under R103 construction;
-  Hilton Avenue traffic flow improvements refuge lanes and intersections;

-  Mandela Capture Site access road and storm water and parking;
-  Traffic and Driver's License Test Centre; and
-  Nottingham Road Taxi Rank.




#### 14.6.2.2 SECTOR DEPARTMENTAL PROJECTS

There are a number of projects that have been proposed by the Sector Departments within UMngeni Municipal Area. These include regravelling of the roads which are identified by the Department of Transport as well as the Midlands Community College which is proposed by the Department of Co-operative Government and Traditional Affairs. The road infrastructure projects that are well aligned the SDF priority corridors are:

-  Regravelling of D709 (km0-2.95) - R 720 000.00
-  Regravelling of D2077 (km0 - 1.62) - R 400 000.00
-  Regravelling of D2078 (km1 - 2.19) - R 300 000.00
-  Regravelling of D494 (km1.4-5.18) - R 953 099.68
-  Regravelling of D534 (km0-2.17) - R 859 544.80
-  MR 135/MR 7-2 Specialised Maintenance – R 500 000.00
-  MR 1/R 103 Specialised Maintenance - R 500 000.00
-  Routine Maintenance - Howick-specialised 1 – R 200 000.00

-  Routine Maintenance - Howick-specialised 2– R 200 000.00
-  Routine Maintenance - Howick-Pipe desilting 1– R 200 000.00
-  Routine Maintenance - Howick-Tree felling -1– R 200 000.00
-  Routine Maintenance - Grass Cutting-Howick 1– R 200 000.00
-  Regravelling of P144 – this route is identified as a Tertiary Corridor;
-  Regravelling of P548 – which is identified as a Tertiary Tourism Corridor;
-  Regravelling of P162 – is a Secondary Tourism Corridor;
-  Regravelling of D494 – is an Urban Linkage Route; and
-  Regravelling of P133 – is also a Secondary Tourism Corridor.

The other road infrastructure projects which are not within the SDF priorities are:

-  Gamaletu Causeway;
-  Regravelling of D734 and D735; and
-  Regravelling of D290.

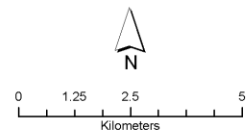
These projects are however important within their own merit in terms of improving access and mobility for the communities that make use of it.

Map 37

# uMngeni Municipality Capital Projects Southeastern Portion

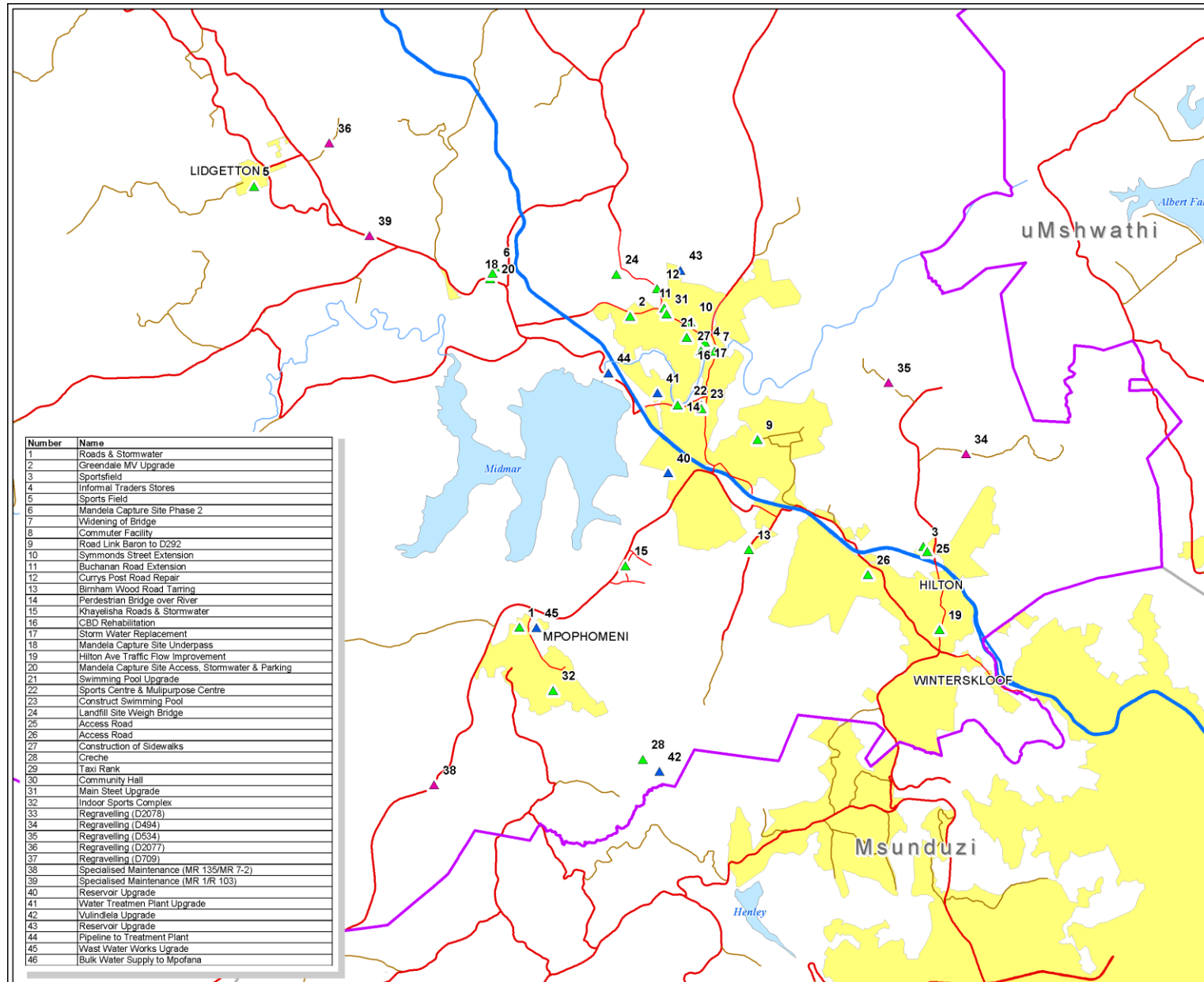
## Legend

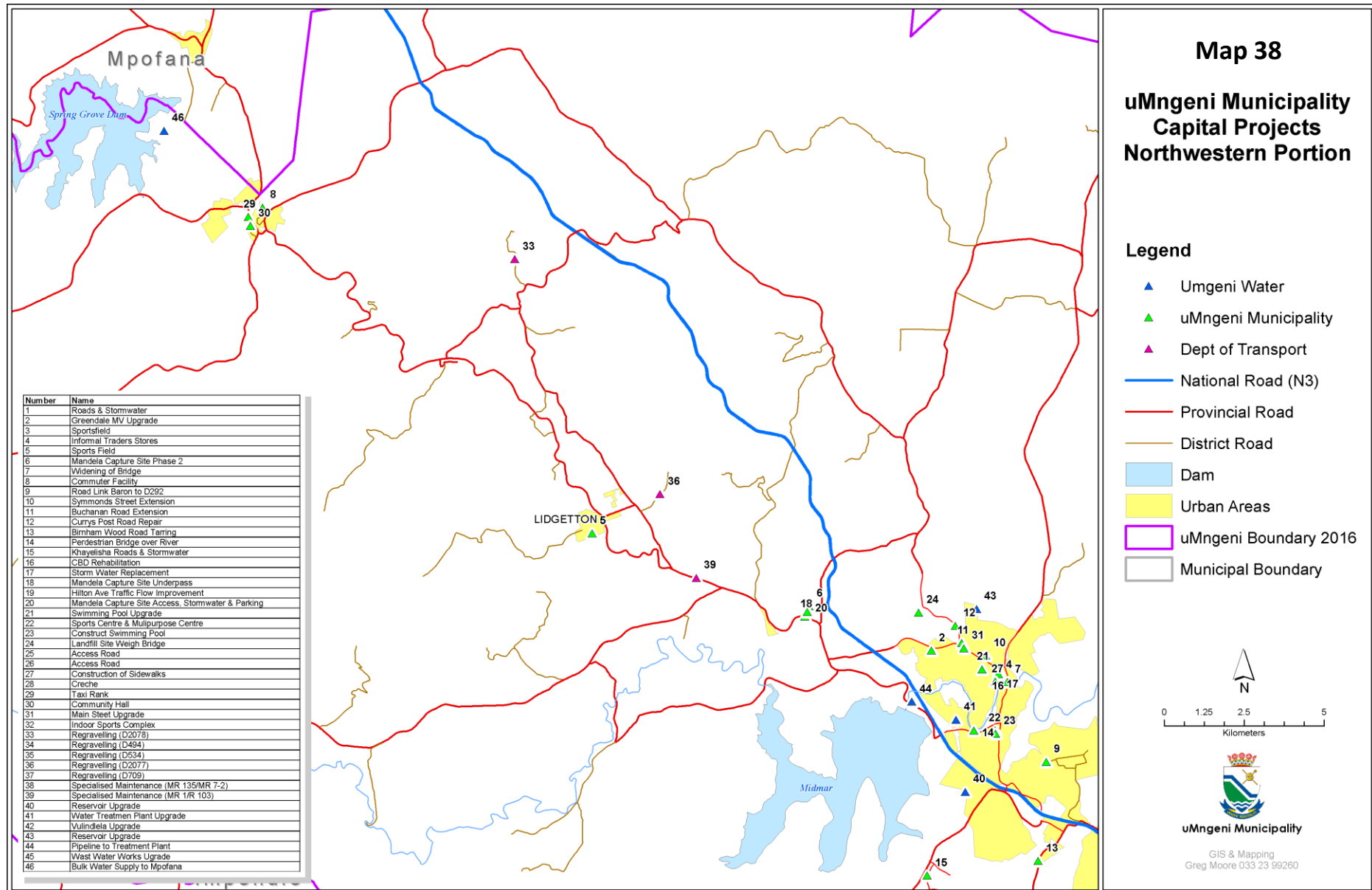
- ▲ Umgeni Water
- ▲ uMngeni Municipality
- ▲ Dept of Transport
- National Road (N3)
- Provincial Road
- District Road
- Dam
- Urban Areas
- uMngeni Boundary 2016
- Municipal Boundary



**uMngeni Municipality**

GIS & Mapping  
Greg Moore 033 23 99260













### 14.6.3 SERVICE DELIVERY PRIORITY AREAS

#### 14.6.3.1 WATER PRIORITY AREAS





UMngeni IDP estimated a very low backlog of approximately 5%. This implies that the municipality has made positive strides in terms of the provision of services over the years. The backlogs are mainly created by informal settlements and will be addressed through proposed housing projects. The following are the projects that are proposed to roll out bulk water infrastructure:

-  Howick West Reservoir Upgrade – R 61 236 000.00
-  Vulindlela Upgrade – R 287 112 000.00
-  Midmar Water Treatment Plant Upgrade – R 223 795 000.00
-  Howick North Reservoir Upgrade – R 19 618 000.00
-  Greater Mpofana Bulk Water Supply Scheme – R 615 487 000.00
-  251 Raw Water Pipeline: Midmar Dam to Midmar WTP – R116 026 000.00
-  Upgrade of Mphophomeni WWW – R 150 722 000.00
-  Kwa-Haza, KwaChief and Enguga Water Supply Scheme (Ward 9) – R 23 019 000.00;

-  Cedara/Khanya Village – construction of bulk water supply (Ward 7) – R 17 281 000.00;
-  Khayelisha Bulk Water Supply – construction of bulk water supply (Ward 7) – R 13 093 000.00;
-  Howick AC Pipe Replacement (Ward 2) – R 155 617 000.00;
-  Hilton AC Pipe Replacement (Ward 7) – R 117 546 000.00;
-  Merrivale and Merrivale Height AC Pipe Replacement;
-  Lions River and Lidgeton Bulk Water Supply Upgrade;
-  Birnam Wood Water Supply Upgrade; and
-  Groenekloof Reservoir Upgrade.

#### 14.6.3.2 SANITATION PRIORITY AREAS

The sanitation backlog within the municipal area is currently estimated at 13% and it is mainly created by informal settlements. These will be addressed through proposed housing projects. There are few sanitation infrastructure projects which includes:

-  Cedara/Khanya Village – construction of bulk sewer;
-  Kwa-Haza Ward 9 Sanitation - construction of VIP sanitation;
-  Khayelisha Pump Station;
-  Mpophomeni Waste Water Works – Massification; and



## Midmar Water Treatment Plant Upgrade





### 14.6.3.3 ELECTRICITY PRIORITY AREAS

The electricity backlog is estimated at 15%. The majority of the SDF priority are located within the existing grid coverage. The challenges may be the fact that the network is currently strained in some parts of the municipal area. There is one project that is proposed which is Greendale Howick bulk electricity upgrade (construction of substation and switch gear 300mm 2 cable).

### 14.6.4 ECONOMIC INFRASTRUCTURE PRIORITY AREAS




#### 14.6.4.1 ROAD INFRASTRUCTURE AND AGRICULTURAL PRIORITY AREAS

The majority of roads that service the agricultural priority areas are in a good condition and this is very important for the agrarian economy. These include the following:

-  R103 (P133) – tar road which is in a good condition;
-  P165 (Curry Post Route) – which is partially a tar road;
-  R617, P141, P27 and P 134 – tar road which are in a good condition; and
-  D293 – is a gravel road that needs regular maintenance.



#### 14.6.4.2 ROAD INFRASTRUCTURE FOR TOURISM OPPORTUNITY AREAS




The tourism opportunity areas are also serviced by the agricultural routes which includes the following:

-  R103 (P133) – tar road which is in a good condition;
-  P165 (Curry Post Route) – which is partially a tar road; and
-  R617, P141, P27 and P 134 – tar road which are in a good condition;

#### 14.6.4.3 BULK INFRASTRUCTURE REQUIREMENTS FOR NODES

The development of nodal areas requires efficient bulk infrastructure to be in-place. There is a certain level of bulk infrastructure within the existing nodes, however there are capacity challenges which can be summarized as follows:

-  Howick – new proposed development will require a 300 kℓ/day increase in demand which will cause the current demand to exceed the capacity of the Mpophomeni pipeline. New infrastructure will be required to meet the future demands.
-  Hilton – one of future development trajectories for this area requires that the commercial area be densified. This will also require for the area to be provided with the sewer pump station and water purification plant.

-  Mpophomeni - Refurbishment of existing sewage reticulation system in Mpophomeni Township in order to increase wastewater flows to the works (ADWF 3.6 Mℓ/day)
-  Nottingham Road – the area may need to be provided with bulk sanitation infrastructure which will augment the waterborne sewerage within the area in the near future.
-  Lidgetton – the area may need to be provided with bulk sanitation infrastructure which will augment the waterborne sewerage within the area in the near future.

#### 14.6.5 PUBLIC FACILITIES

##### 14.6.5.1 PLANNING STANDARDS ON PUBLIC FACILITIES

The standards that should be used for the provision of schools must take into account the Department of Education's Regulations relating to Minimum Norms and Standards for Public Infrastructure (2013, p8-11).

CATEGORY	TYPE OF SCHOOL	DENSITY REQUIREMENTS	SERVICE THRESHOLD
Primary schools	Micro primary schools (less than 135 learners)	60 Households or 300 people	1,5 km
	Small primary schools, (135 - 310 learners)	150 Households or 750 people	1,5 km
	Medium primary schools (311 - 620 learners)	300 Households or 1500 people	1,5 km
	Large primary schools (621 - 930 learners)	400 Households or 2000 people	1,5 km
	Mega primary schools (more than 931 learners).	600 Households or 3000 people <sup>1</sup>	1,5 km
Secondary schools	Small secondary schools (200 - 400 learners)	200 Households or 2000 people	2 km
	Medium secondary schools, (401 – 600 learners)	560 Households or 4500 people	2 km
	Large secondary schools (601 - 1000 learners)	960 Households or 8000 people	2 km
	Mega secondary schools (more than 1001 learners)	1 200 Households or 10 000 people <sup>2</sup>	2 km

<sup>1</sup> KwaZulu-Natal Planning and Development Commission. (2008). Guidelines for Planning of Facilities in KwaZulu-Natal

<sup>2</sup> KwaZulu-Natal Planning and Development Commission. (2008). Guidelines for Planning of Facilities in KwaZulu-Natal

The planning standards for Health Facilities are as follows:

TYPE OF FACILITY	CAPACITY	DENSITY REQUIREMENTS	SERVICE THRESHOLD
Mobile Point	100 patients per month	300 Households or 1 000 people	1km
Health Station	400 – 600 patients per month	560 Households or 5 000 people	3km
Small Clinic	2000 patients per month	1 200 Households or 5 000 – 10 000 people	5km
Small Clinic with Maternity	2000 patients per month + 20 deliveries per month	1 200 Households or 5 000 – 10 000 people	5km
Medium Clinic	3000 patients per month	2 500 Households or 10 000 – 20 000 people	5km
Medium Clinic with Maternity	3000 patients per month+ 20 deliveries per month	2 500 Households or 10 000 – 20 000 people	5km
Large Clinic	4000 – 5000 patients per month	7 500 Households or 30 000 – 50 000 people	5km
Large Clinic with Maternity	4000 – 5000 patients per month + 30-50 deliveries per month	7 500 Households or 30 000 – 50 000 people	5km
Extra Large Clinic	6000 – 10 000 patients per month	15 000 Households or 60 000 – 70 000 people	7km
Extra Large Clinic with Maternity	6000 – 10 000 patients per month + 30-50 deliveries per month	15 000 Households or 60 000 – 70 000 people	7km
Community Health Centre	10 000 patients per month	25 000 Households or 70 000 – 100 000 people	10km
District Hospital	10 000 – 80 000 patients per month	50 000 Households or 100 000 – 250 000 people	
Regional Hospital	Provides for up to Group 2 of specialists services including Cardiology, Neurosurgery and Renal Transplant	Specialized Services. Depend on the need.	Specialized Services. Depend on the need.
Tertiary Hospital	Provides for up to Group 3 of specialists services including Liver Transplant and Hepatology.	Highly Specialized Services. Depends on the need	Highly Specialized Services. Depends on the need

The planning standards for other facilities are as follows:

TYPE OF FACILITY	CAPACITY	DENSITY REQUIREMENTS	SERVICE THRESHOLD
Crèche	300 m <sup>2</sup> (including minimum play area of 20 – 30 m <sup>2</sup> )	5000 people or 1000 homesteads	Undetermined
Community Hall	2 000 – 3 000m <sup>2</sup>	5000 people or 1000 homesteads	Undetermined
Playlot	0,5ha	230 – 800 people	0,5km
Playground	2ha	2000 – 5000 people	1,2km
Neighborhood Park	2ha	Up to 6000 people	0,4km
Community Park	8ha	50 000 – 20 000 people	3,6km
Major Park	40ha	50 000 people	60km

KZN Planning and Development Commission (2008)

#### 14.6.5.2 EXISTING AND REQUIRED

The quantification of public facilities and an application of the planning standards was done with an intention to determine if the wards were adequately provided with facilities. Generally, there are 92 public facilities that are found within the area of UMngeni which includes Clinics, Crèches, Schools and Community Halls. The planning standards suggests that there are 136 facilities that are needed to service the existing population which implies that at a municipal wide scale, there are insufficient facilities for the population. When one considers the distribution of these facilities within wards, it becomes apparent that some of the wards are provided with more facilities that the standards warrant while other wards are underprovided. This creates a backlog of 71 additional facilities within the wards that are underprovided. The table below is a color notation which reflect per ward the backlogs (red) and adequate number of facilities (green).

Area	Number of People	Facility	Current	Backlogs	
				Type of Facility Required	Number of Facilities Required
Howick (Ward 1, 2 & 12)	19 229	Clinic	4	2 Small Clinics	0
		Crèche	10	4	0
		Primary School	5	6 Mega Primary Schools	1
		High School	2	1 Mega Secondary School and 2 Larger Secondary School	1

Area	Number of People	Facility	Current	Backlogs	
				Type of Facility Required	Number of Facilities Required
		Hall	1	4	3
Hilton (Ward 7)	7 664	Clinic	0	1 Small Clinic	1
		Crèche	4	1	0
		Primary School	3	2 Mega Primary Schools and 1 Medium Primary School	0
		High School	0	2 Medium Secondary School	2
		Hall	2	1	0
Mpophomeni (Ward 8, 10 & 11)	26 134	Clinic	1	2 Small Clinics and 1 Health Station	2
		Crèche	7	5	0
		Primary School	5	8 Mega Primary Schools and 1 Medium Secondary School	4
		High School	2	1 Mega Secondary School and 3 Large Secondary School	2
		Hall	1	5	4
Fort Nottingham and Farmlands (Ward 3)	6 411	Clinic	1	1 Health Station and 1 Mobile Point	1
		Crèche	0	1	1
		Primary School	7	1 Medium Primary Schools and 6 Small Primary Schools	0
		High School	3	3 Small Secondary Schools	0
		Hall	1	1	0
Lidgetton West, Curry Posts and Farms (Ward 4)	9 302	Clinic	0	1 Small Clinic	1
		Crèche	3	2	0
		Primary School	6	1 Medium Primary School and 8 Small Primary Schools	3
		High School	1	4 Small Secondary Schools	3
		Hall	1	2	1
	7 051	Clinic	0	1 Health Station and 1 Mobile Station	2

Area	Number of People	Facility	Current	Backlogs	
				Type of Facility Required	Number of Facilities Required
Karkloof and Surrounding Farms (Ward 5)		Crèche	4	1	3
		Primary School	4	1 Medium Primary Schools and 7 Small Primary Schools	4
		High School	1	3 Small Secondary Schools	2
		Hall	0	1	1
		Farmlands adjacent to Albert Falls (Ward 6)	7 345	Clinic	0
Crèche	3			1	2
Primary School	2			1 Medium Primary School and 7 Small Primary School	6
High School	5			3 Small Secondary School	2
Hall	1			1	0
Farmlands adjacent to Midmar Dam and Mpophomeni (Ward 9)	9 572	Clinic	0	1 Small Clinic	1
		Crèche	0	2	2
		Primary School	1	1 Medium Primary School and 8 Small Primary School	8
		High School	0	5 Small Secondary School	5
		Hall	1	2	1
TOTAL			92	136	71

#### 14.6.5.3 IMPLICATIONS

The majority of the MIG infrastructure projects are directed towards the priority nodes and corridors. There are a number of backlogs for public facilities. The majority of these backlogs exists within the rural areas and there appears to be no commitment from the sector departmental plans to address these.