



Section C

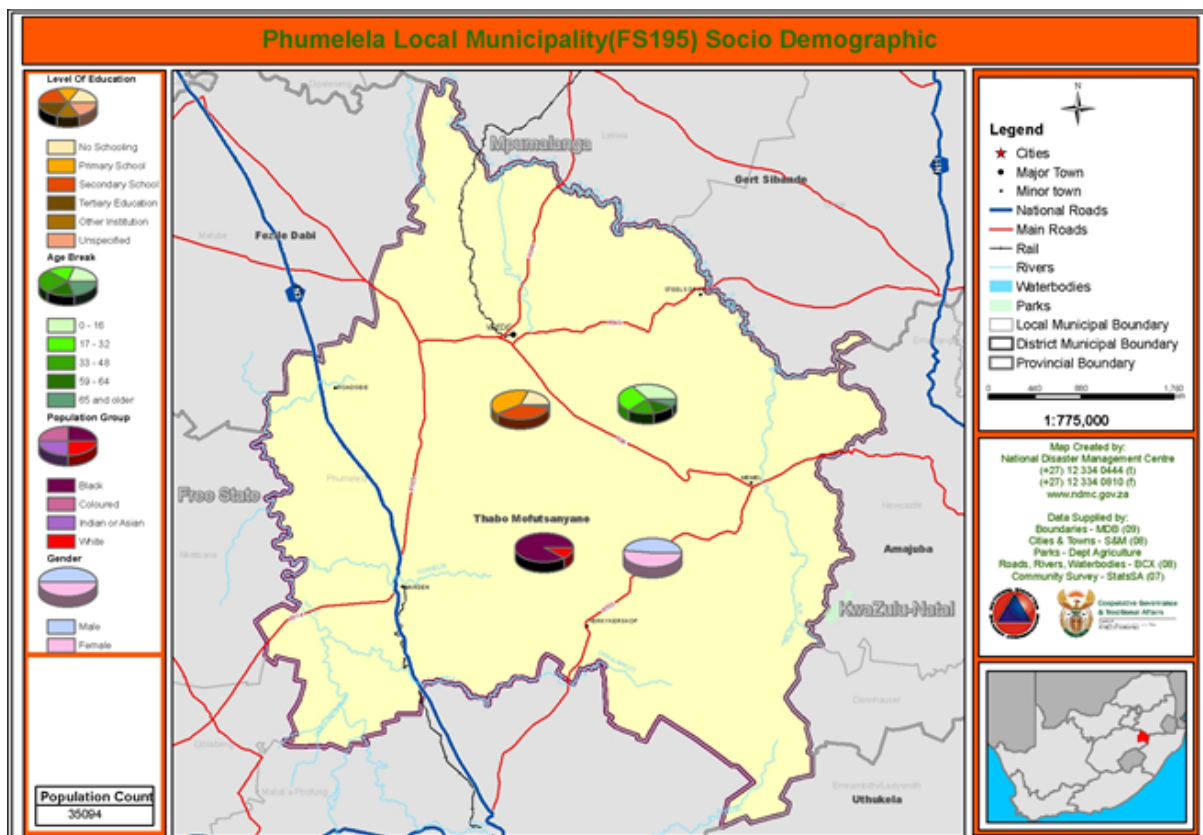
Spatial Development Framework





3.1 Principles

Map 3.1: Socio-Demographic Profile



(Source: <http://gisportal.ndmc.gov.za>: Disaster Management Center (National Disaster Management Center [GIS Portal], 2009)

A spatial development framework covers the following:

- i) The space needed for activities;
- ii) The area to be developed as distinct from conservation areas;
- iii) Sustainable and functional spatial inter-relationships between activities;
- iv) Provision for future growth.

The purpose of a spatial development framework is:

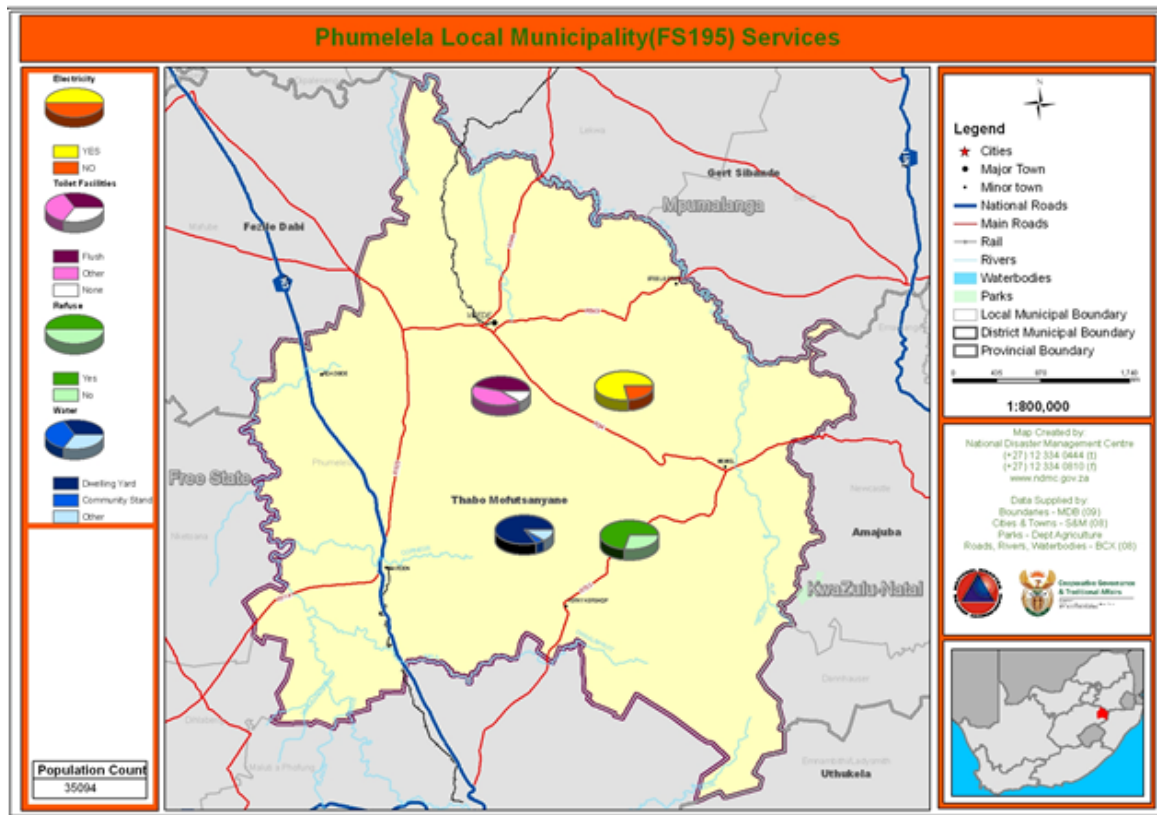
- i) To inform the decision-making processes within the public sector; and
- ii) To publicize the approved spatial development direction in order to provide a sense of order and certainty to enable the private sector to confidently make long-term investment decisions.

A spatial development framework integrates various sectoral planning proposals. The emphasis is on developing an inter-disciplinary approach, to bring different sectoral knowledge to bear on a shared objective. Spatial



development frameworks are not comprehensive blueprints. They must however be proactive and clearly define the desirable directions and outcomes of future growth.

Map 3.2: Access to Services



(Source: <http://gisportal.ndmc.gov.za>: Disaster Management Center (National Disaster Management Center [GIS Portal], 2009)

The Spatial Development Framework of the Phumelela Municipality is informed by the following objectives of the Free State Provincial Spatial Development Framework:

- Obtain economic growth rate of 6% - 7% per annum;
- Reduce employment from 38% to 20%;
- Reduce number of households living in poverty by 5% per annum;
- Adequate infrastructure for economic development;
- Improve functional literacy rate from 65.3% to 85%;
- Reduce mortality of children under five years to less than 65 per 1000 births;
- Reduce maternal mortality rate from 150 to 100 per 100 000 live births of woman in the reproductive group;
- Stabilize prevalence rate of HIV and AIDS and reverse the incidence thereof;
- Provide shelter for all in the province;



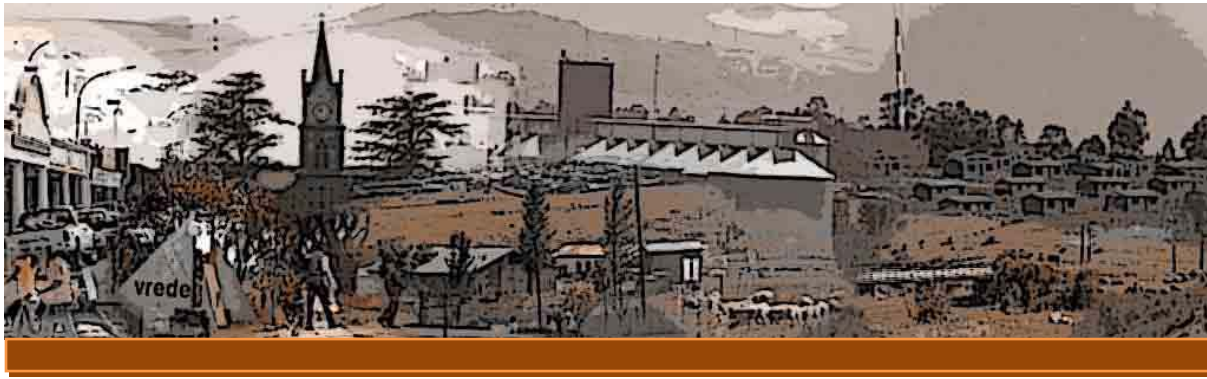
Phumelela Local Municipality intra-and inter-regional linkages need to be developed to create a grid of linkages opening the area and increasing the availability. Some areas, like the urban areas, would require a dense grid of linkages whereas the rural areas would require a more dispersed grid of linkages.

The Phumelela Local Municipality have a number of National and Provincial Roads which traverse through the area, thereby linking major urban concentrations (Durban/Johannesburg) and the provision of linkages between the respective towns in Phumelela Local Municipality.

The following Spatial Development Framework Objectives have been established for the Phumelela Local Municipality:

- To develop a spatial pattern which will promote integration of all communities;
- To promote an environment which will contribute and facilitate local economic growth and be compatible with the needs of small, micro and medium enterprises;
- To stimulate agricultural development;
- To ensure that existing infrastructural services are maximized to the benefit of all the residents;
- To develop a spatial framework which accommodates the diverse socio-economic needs of the local communities and potential investors;
- Promote the sustainable use of land and resources;
- Channel resources to areas of greatest need and development potential, thereby redressing the inequitable historical treatment of marginalized areas;
- Take into account the fiscal, institutional and administrative capacities of role players, the needs of the community and the environment;
- Stimulate economic development opportunities in rural areas;
- Support the equitable protection of tenure and land use rights;
- Promote accountable, open and transparent decision-making in terms of land use and development; and
- Improve co-operative governance and information sharing.





3.2.1 Vrede / Thembalihle

Urban Fringe

An urban fringe is a boundary within which urban development should take place. Prior to any development proposals, this urban fringe was determined to ascertain such a boundary to restrict urban development, due to given elements and physical restrictions.

Owing to a number of restrictions to the north and east of Vrede, the town should only expand towards the south and west. These restrictions include, amongst others, the following:

1. Physical barriers such as flood areas to the east of Thembalihle.
2. Further development on existing vacant land towards the south will not conform to sound development principles and will eventually lead to “urban sprawl” rather than urban integration. P84/1 (Volksrust) should therefore act as a southern boundary of the fringe.
3. The provision of services to the north and west will be problematic and expensive due to the topography and slope.

As a result of the above mentioned the urban fringe will be defined by the existing residential areas to the north, Thembalihle to the east, (P84/1 (Volksrust Road) to the south and the future residential development to the west.

Urban Development

Residential Development Areas

The approach to be followed in addressing the residential development within Vrede and Themnalihle is as follows:

- Within the town of Vrede there are a number of large erven which is either underdeveloped or vacant. Over the short-term these erven could be either subdivided or rezoned to accommodate the growth within the middle to higher income categories;
- Small land parcels between Vrede and Tembalihle should be utilized for higher density rental-and ownership units;
- Further residential development should not threaten the quality of the natural river systems;
- Different housing typologies need to be implemented aimed at different income levels and sustainability; and
- Future residential development will be subject to adequate bulk infrastructure.

With regard to future residential development area, the following areas are proposed over the short and medium term;

- Vrede: Medium-to longterm southwards expansions;



- ❑ Tembalihle: Short-term expansion to the west and south of the existing residential areas. The southern area must be investigated and designed not to have a detrimental effort on the existing river system.

Implications for the strategic and operational activities of the Phumelela LM:

- *Future township expansion and development will be planned in accordance with the above-mentioned SDF recommendations.*
- ❑ A medium term development area is proposed to the west of Tembalihle (south of oxidation ponds). Once the oxidation ponds have been removed, an investigation into the suitability of this area needs to be conducted.

Implications strategy formulation and project selection:

- *The Municipality does not currently have the required resources to actively pursue and implemented this recommendation.*

Commercial and light industrial node

To accommodate business and employment opportunities in close proximity of existing businesses as well as making it more accessible to residents of Thembalhile, a smaller CBD area together with development corridors have been identified. The location and densification of business within this area is a natural phenomenon and will be further promoted for its accessibility to residents of all areas. The existing CBD of Vrede further be used as the main economic center of the town. All main economic activities need to be concentrated within this area in order to promote economy of scale principles.

Implications strategy formulation and project selection:

- *The Council supports the recommendation, but the Municipality does not currently have the required resources to actively pursue and implemented it.*

Reference to the National Spatial Development Perspective:

- ❑ *Rapid economic growth that is sustained and inclusive is a pre-requisite for the achievement of other policy objectives, amongst which poverty alleviation is key.*

Light industries of a non-noxious and non-pollutant nature will be promoted within the area indicated on the spatial framework.



Open spaces, recreation and tourism

Reference to the National Spatial Development Perspective:

- ❑ *Rapid economic growth that is sustained and inclusive is a pre-requisite for the achievement of other policy objectives, amongst which poverty alleviation is key.*

Owing to the topographical characteristics of the area, various areas were identified as being environmentally sensitive and reserved for passive open space. These spaces are mostly located along the river system between Vrede and Thembalihle.

Beautification and recreation is one of the main priorities, not only for the enjoyment of local residents, but to add to the tourism potential of the area.

The existing dam's area will play a vital role in this development, with the development of a conservation area between the two dams to form the main public open space node, supported by various areas identified for the planting of trees and general beautification.

Implications strategy formulation and project selection:

- *The Council supports the recommendations, but the Municipality does not currently have the required resources to actively pursue and implemented it.*

Commercial and light industrial node

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Light industries of a non-noxious and non-pollutant nature will be promoted within the area indicated on the spatial framework. An area to the southwest is proposed for industrial expansion. This sit is located south of the intersection of P16/1, P16/2, A60 and S13. The development of this area will be subject to a detail EIA process.

Implications strategy formulation and project selection:

- *The Council supports the recommendation, but the Municipality does not currently have the required resources to actively pursue and implemented it.*



Spatial Integration

Vrede/Thembalihle is one of the few urban areas in South Africa which are already integrated in terms of spatial functionality. The biggest challenge to completely integrate these two areas is rather to eradicate the vast disparities which exist between the level of service delivery, and to focus on smaller infill development between the respective towns.

3.2.2 Memel/Zamani

Urban Fringe

Owing to a number of restrictions to the north and west of Memel, infill development and densification should be promoted. The urban fringe is guided by restrictions which include, amongst others, the following:

- Physical barriers such as flood areas along the spruit;
- The existing vacant land to the north feeds the tributaries of the Seekoeivlei wetland and should not be jeopardized or polluted;
- Some land for residential expansion still exists between the towns Zamani and Memel'
- Development toward Memel will bring residents of Zamani closer to regional transport network and local employment opportunities;
- The provision of services to the north and west will be problematic and expensive due to the topography and slope; and
- The existing Provincial Road network leading to an from the Town.

The urban fringe is defined by:

- The eastern and southern boundaries of Memel;
- The P16/2 Road to Vrede;
- The Pampoenspruit riversystem;
- The northern boundary of Zamani; and
- The S/782 Road to Vrede towards the east of Zamani.



Urban Development

Residential Development Areas

Considering the location of Memel and Zamani respectively in relation to the entire municipal area and urban fringe, it becomes clear that the only logical expansion area for the town is to develop over the short-to medium term in the infill areas between the two towns towards Pampoenspruit, including the unused golf course. This development area was identified to be Priority A.

A smaller area for medium-to long-term development (Priority B) was identified to the north of Zamani, along the S/782 Road to Vrede. The reason being to divert some of the developments away from the Pampoenspruit.

Implications strategy formulation and project selection:

- *The Municipality does not currently have the required resources to actively pursue and implemented this recommendation.*

Commercial and light industrial node

To accommodate business and employment opportunities in close proximity of existing businesses as well as making it more accessible to residents of Zamani, a smaller CBD area has been identified in Zamani.

An additional industrial area is proposed to the north east of Memel and in close proximity to Zamani. It will be located on the main road (S/782) leading from Vrede into Memel, and will serve as a natural expansion of the existing industrial area.

KPA Alignment: Local Economic Development dimensions and implications for bulk infrastructure investment

Implications strategy formulation and project selection:

- *The Council supports the recommendation, but the Municipality does not currently have the required resources to actively pursue and implemented it.*



Open spaces, recreation and tourism

The Seekoeivlei wetland will play a vital role in tourism development, but Memel should (a) be effectively linked to the reserve via proper infrastructure; and (b) be an attractive area for tourists in itself.

Implications strategy formulation and project selection:

- *The Council supports the recommendation, but the Municipality does not currently have the required resources to actively pursue and implemented it.*

3.2.3 Warden / Ezenzeleni

Urban Fringe

As a result of the above mentioned, the urban fringe will be defined by the Cornelis River to the East, Verkykerskop/Bethlehem Road to the South, the residential area of Ezenzeleni to the North and the N3 Highway to the west.

Future development of medium income areas will be promoted by way of densification within all areas of Warden and Ezenzeleni, but with specific focus on the most eastern part of Warden.

The Spatial Development Framework of the Municipality proposed the following initiatives that may have economic growth implications:

- That a multi-purpose service station complex be established at the northern entrance to Warden;
- That the corridor development along the Warden main road be extended from the northern entrance to the southern entrance (S789 Verkykerskop Road).
- Overnight facilities for caravan travelers;
- The marketing and selling of products to holiday makers (meat products and complimentary goods thereto) travelling towards Durban. The Phumelela Local Municipality is renowned for it's supply of small- and large stock to markets;
- The promotion of the establishment of overnight hospitality facilities (Bed-and Breakfast); and
- The establishment of an information centre.

Strategy implications: Local Economic Development

Implications strategy formulation and project selection:

- *The Council supports the recommendation, but the Municipality does not currently have the required resources to actively pursue and implemented it.*



Open spaces, recreation and tourism

The development of an open space system along the Cornelis River will have to be planned and managed and a development proposal will have to take into account any environmental impact.

In view of the locality of Warden adjacent to the N3 Freeway, it is proposed that a tourism node be established at the entrance to (to the west of the N3) Warden which will generate additional income. This development will focus on overnight facilities (caravanning), recreation and eco-tourism.

Strategy implications: Local Economic Development

Implications strategy formulation and project selection:

- *The Council supports the recommendation, but the Municipality does not currently have the required resources to actively pursue and implement it.*

3.3 Agricultural Development

Intensive Farming

With the locality of Warden, Vrede and Memel fragmented throughout the area; these centers should be utilized for storage, processing and distribution.

Extensive Farming

The majority of the Municipal area is being utilized for extensive farming (small – and large stock, game and maize). This agricultural sector presents a number of opportunities insofar as limited value adding activities is taking place.

In view of the above, the following is proposed:

- A detailed agricultural development plan need to be established in conjunction with all stakeholders;
- Manufacturing and processing activities incidental to the agricultural sector need to be promoted, such as:
 - (1) Processing of meat products;
 - (2) Establishment of abattoirs;
 - (3) Value added maize products;
 - (4) Taxidermus; and
 - (5) Others



- ❑ Secondary activities which need to be established could include:
 - (1) Tourism and hospitality facilities on farms;
 - (2) Arts and Crafts;
 - (3) Retail support to farms; and
 - (4) Eco-Tourism

Implications strategy formulation and project selection:

- *The Council supports the recommendations and suggested strategies and projects, but does not currently have the required resources to actively pursue and implemented it.*

Urban Agriculture

There are a number of communal land portions which is being utilized by the community, primarily for grazing purposes.

In additional to the above, food lot schemes should be implemented which will give the community the opportunity to farm, in close proximity to the area of residence. This could only be implemented with the support from all stakeholders (funding, training and effective monitoring).

Strategy implications: Agriculture

Implications strategy formulation and project selection:

- *The Council supports the recommendation, but the Municipality does not currently have the required resources to actively pursue and implemented it. However, the Council will aims to pursue it indirectly through its strategy, by-laws and policy formulation and approval processes and interventions.*

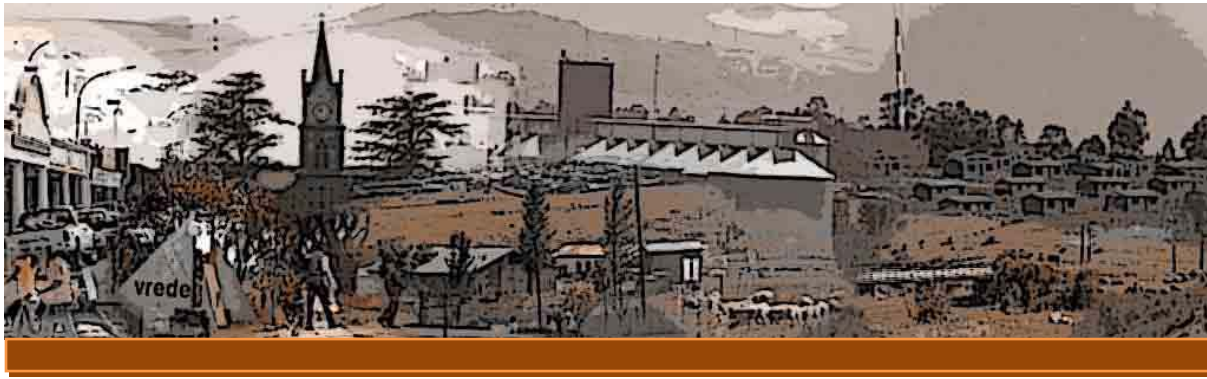
3.4 Land Reform

The Phumelela Local Municipality has good agricultural land and need to be utilized effectively. The process of land reform need to be promoted in order to provide opportunities to the emerging farmers.

In order to assist some of the emerging farmers, the Local Municipality initiated the following projects:

A Vrede / Thembahile

After the local Department of Agriculture estimated the number of cattle roaming the streets at about 3,000, sheep at approximately 200, 150 goats, 100 horses and 400 pigs an urgent need for a municipal commonage was



raised. The LM and local Agricultural stakeholders identified the farm Kalkoenkrans No. 272 with an extent of 463 ha.

The Land will mainly be used for grazing and keeping cattle, goats and horses with some horticulture development as well as a piggery. In terms of the IDP, the LM will consider the development of this land in the context of employment creation. The Department of Agriculture also encouraged various agricultural CBDs to use the commonage as a launching pad for commercial farming through skill development and training.

Sector Engagement: Land Development

B Memel / Zamani

The Department of Land Affairs is currently in process of establishing the first municipal commonage to be handled by them since 1994, within the Memel area. The entire project will consist of the following farms:

- Remainder of the Farm Mooipan No. 625, measuring 768.0598 ha.
- Subdivision 1 of the Farm Driehoek No. 627, measuring 238.9724 ha.
- A portion of the Remainder of Subdivision 1 of the Farm Waterval No. 412, measuring 215.3870 ha.

Sector Engagement: Land Development

C Warden / Ezenzeleni

Commonage areas have been identified and are being utilized for grazing purposes at the following localities:

- West of Ezenzeleni; and
- East of Warden.

In all of the above commonage areas it is important to establish a land management plan with the intention to have a system where the land is not overgrazed.

Rural Service Centre

In order to address integrated development in the rural areas of the Phumelela Local Municipality, attention should also be given to the possible development of Rural Service Centre in Verkykerskop.



3.5 Tourism

Tourism is considered a powerful tool for developing economies, with the ability to integrate diverse strengths and improve socio-economic conditions.

Within Phumelela Local Municipality a number of existing and proposed activities exist which need to be developed and promoted. The activities are as follows:

- Seekoivlei Wetlands;
- Cultural Activities;
- Vrede Dam;
- Bird Watching
- Eco-Tourism
- Farm Holidays;
- Verkykerskop area;
- Caravan Park in Warden;
- Recreation area and wildlife camp at Twin dams (Vrede);
- Game farming; and
- Promotion of the Hospitality industry.

Implications strategy formulation and project selection:

- *The Council supports the recommendations and suggested projects, but the Municipality does not currently have the required resources to actively pursue and implement it. Refer to the LED strategies as reference to what the Municipality could realistically afford over the MTREF period ending 2012.*

3.6 Environmental Strategies Recommended in the SDF

The following strategies should be implemented to address environmental aspects:

- Promotion of Environmental Education:**
 - Environmental awareness campaign;/Environmental education;
 - Environmental responsibility promotion;
 - Greening of environment and ethically pleasing environment;
 - Availability of environmental information; and
 - Preserving heritage and cultural sites.



❑ **Promotion of Environmental Rehabilitation**

- Ensure a healthy, clean and safe environment for all Molemole Local Municipality residents;
- Improvement and rehabilitation of mining areas and related mining activities;
- Sensitive existing mining activities close to residential areas;
- Preserving heritage and cultural sites;
- Promoting Maintenance of parks and natural areas; and
- That ridges be protected from intensive development;

❑ **Promotion of Environmental Sustainability**

- Reducing all level of air, water, underground water, dust, etc, pollution;
- Implementing an effective waste management system;
- Integrated environmental conservation, protection and development;
- Access to the natural environment;
- Environment tourism throughout the district;
- Sensitive and sustainable land use planning;
- Regulations to protect the Environment;
- Protection of valuable Agricultural land;
- That watercourses and rivers not be polluted and that development not take place within flood lines;
- That red-data species be protected; and
- That pollution from Settlements is monitored.

Implications for the strategic and operational activities of the Phumelela LM:

- *The Council supports the recommendations of the SDF, but cannot afford the recommended projects and strategies. Council will aim to pursue it indirectly through its strategy, by-laws and policy formulation and approval processes and interventions.*

3.7 Land Use Management System

The Spatial Development Framework of the Municipality provides guidelines for the development of a Land Use Management System. The Spatial Development Framework must not be viewed as a Town Planning Scheme as the Spatial Development Framework focus on future land use trends/proposals as opposed to the Town Planning Scheme which deals with the existing use of land and buildings.

Such a system has as its main objectives to ensure:

- ❑ **Healthy Living Environment:** Land use such as open spaces and community facilities are required to create healthy communities, whereas land use causing nuisance or pollution need to be in the right location.



- Safety:** Land use harmful to health need to be placed in areas where it can be controlled. Adequate space between neighbouring properties provide for storm-water and fire control.
- Conservation:** Certain buildings, places or areas need to be conserved for future generations.
- Order:** Land use that is not compatible need to be separated. People need to be certain when they buy or rent property, that their amenity and property values will be protected.
- Amenity:** A pleasant living environment is established by residential areas that look good, where people feel safe, and which are close to facilities.
- Convenience:** People need to be conveniently located in relation to employment opportunities and to community and other facilities.
- General Welfare:** By creating a healthy and safe environment, and by ensuring that adequate provision has been made for all necessary services and facilities, the whole community is benefited.
- Efficiency and Economy:** Maximum use of scarce resources.

Definition of LUMS

A land Use Management System in its broader sense refers to the codification and simulation of all actions required by the municipality and other role-players to manage land use and regulate land development. It is one element in a suite of land management tools, and is intended to promote coordinated, harmonious and environmentally sustainable development. Typically, key elements of a land management system include:

- Spatial Development Framework including development framework plans for different areas within the municipality.
- Valuation and rating system.
- Property registration, ownership and tenure system.
- Infrastructure and services provision.
- Building bylaws, including signage and elevation control
- Health bylaws
- Environmental issues and requirements, and
- Road and transportation requirements.

Aims and Objectives

The primary aim of the LUMS is to **guide and manage** development and use of land according to the vision, strategies and policies of the Integrated Development Plan and Spatial Development Framework. This should be done in the interests of the general public to promote sustainable development and quality of life. Its objectives are as follows:

- To promote the creation of safe and healthy living environment.
- To provide for the conservation of historic buildings, and protection and enhancement of the biodiversity of the natural resources.
- To promote orderly development and enhance amenity (pleasant living environments).



- To promote convenient access to opportunities and services.
- To provide legal basis for the participation of the public in land use management matters.
- To designate land uses and provide clarity on what may or may not occur on a property and what may be considered at the discretion of the municipality.
- To promote the certainty of land use that protects property values and creates investor confidence.
- To resolve conflict between different land uses and to control negative externalities.
- To balance the interests of individuals with those of the public.
- To promote efficiency in the performance of urban and regional social and economic systems.
- To manage land generally including change of land use.
- To provide a means of enforcement of rules and regulations contained in the LUMS.
- To ensure the reservation of land for longer-term uses.

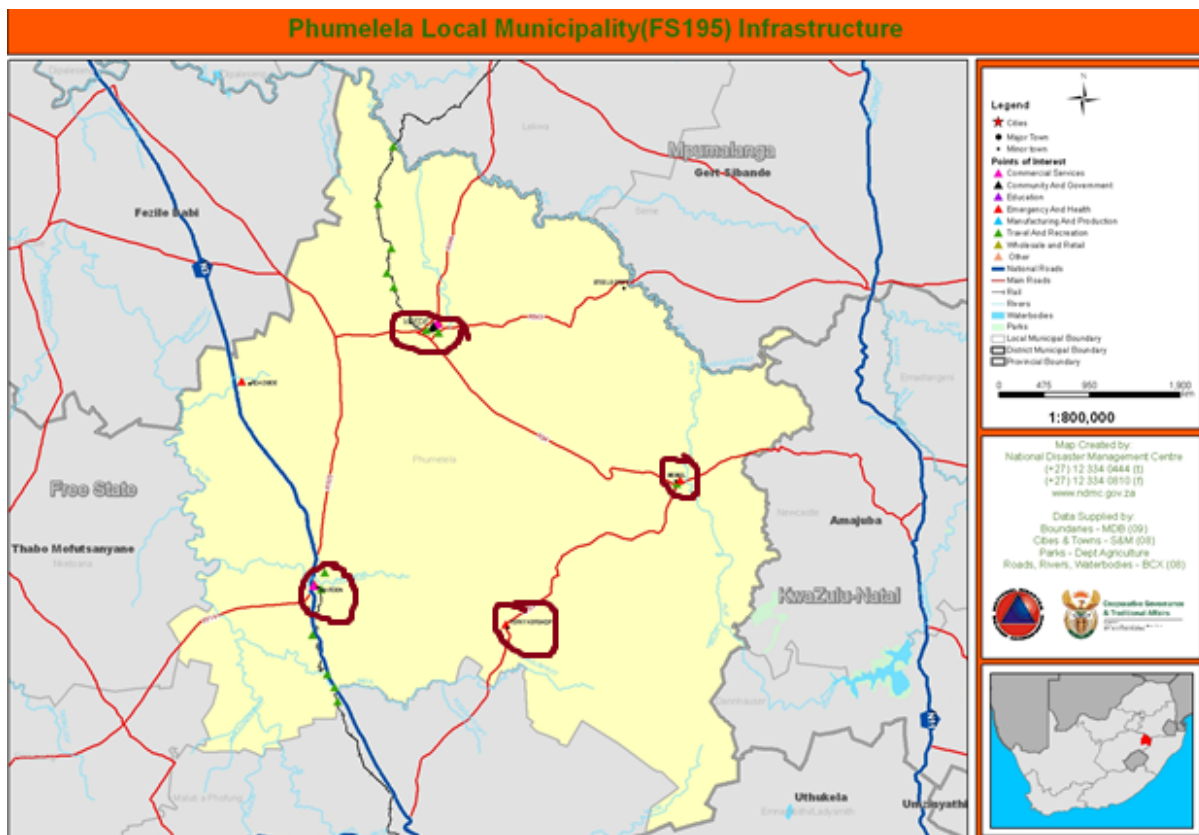
Reflection of the current capacity of the Phumelela LM:

- *The Council understands and supports the importance of a fully fletched and operational Land Use Management System, but faces severe capacity limitations; technical, human and financial in implementing the system. For the interim, the Municipality will therefore focus on finalising a credible SDF that is integrated into the various elements, strategies and projects in its IDP and budget.*



3.8 Infrastructure Dimensions of the Municipal SDF

Map 1: Infrastructure: Phumelela area



(Source: <http://gisportal.ndmc.gov.za>: Disaster Management Center (National Disaster Management Center [GIS Portal], 2009)

Infrastructure Assessment: Vrede / Thembahile

□ Road Infrastructure

The continued pressure for proper maintenance of the surrounding provincial routes will ensure countering of damage caused by constant truck throughfare.

The upgrading of the road links between Thembalihle and the provincial routes will increase accessibility to the area and to employment opportunities and social amenities. A proper taxi/bus route is also being planned through Thembalihle to increase mobility.



Water

There are no water supply problems within the urban area.

Sanitation

Eradication of the bucket system is a high government priority. At present a total number of 1400 households within Tembalihle are still dependent upon the bucket system. This system needs to be phased out as a matter of urgency.

Social

Cemeteries

There are three cemeteries found within the greater Vrede, although only two are use owing to the third (in Extension 1 of Tembalihle) being situated on an area with a rising water table. The first cemetery in use is located within Extension 3 of Tembalihle traditionally serving residents of this area and is close being fully used. The second cemetery in use is situated closer to Vrede, between the existing oxidation ponds and the town area. This facility has sufficient capacity for expected medium term needs. It is proposed that the cemetery be expanded in a southerly direction towards the southern boundary.

Analysis of the Phumelela LM's response:

No provision has been made to address this proposal on the Municipality's MTREF capital budget.

Infrastructure Assessment: Memel / Zamani

Road Network

The continued pressure for proper maintenance of the surrounding provincial routes will ensure countering of damage caused by constant truck and traffic thoroughfare.

The upgrading of the road links between Zamani and Memel will increase accessibility to the area and to employment opportunities and social amenities. A proper taxi/bus route is also being planned through Zamani to increase mobility.

The Department of Public Works, directorate Roads has planned a change in the intersections of provincial routes in the vicinity of the town and this could affect the expansion of the town towards the south.

Water

Water is one of the major obstacles Memel faces in terms of future development. Currently the water supply can only accommodate existing developments.

It is therefore proposed that the Catchment Dam located south east of Memel be expanded to accommodate future developments within this area.

Electricity

The electricity network in Zamani needs to be extended to service an additional 400 erven.



Infrastructure Assessment: Warden / Ezenzeleni

❑ Road Network

Public transportation will always be a prominent component of the urban system in the bigger towns. Although all three modes (taxi, bus and railway) are represented in Warden and Ezenzeleni, it is only the taxi and long distance bus operators, which have developed. A large portion of the Warden and Ezenzeleni population is dependent on public transport (taxi and bus services) for out of town visits.

Warden is situated next to the main Durban/Witwatersrand route and easily accessible from a number of towns. A well-structured street infrastructure exists in Warden and Ezenzeleni but the streets in Ezenzeleni are in a bad condition. There is currently one existing taxi rank in Ezenzeleni. A proposed taxi rank has been identified in Warden which will replace the existing facilities.

❑ Sanitation

The majority (96%) of the bucket system within Ezenzeleni have been eradicated. This however creates another problem from the municipality in that as the bucket system is eradicated, the pit latrine system develops.

❑ Refuse Removal

A new site is proposed south of the industrial area, which still needs to be investigated from a technical perspective.