

**MERAFONG CITY MUNICIPAL SPATIAL DEVELOPMENT  
FRAMEWORK 2019**

**ANNEXURE C**

**LOCAL SETTLEMENT LEVEL ASSESSMENT AND DIRECTIVES**

There are currently 8 formal settlements within Merafong City namely:

- ✓ Carletonville-Oberholzer
- ✓ Khutsong
- ✓ Welverdiend
- ✓ Blybank
- ✓ Fochville
- ✓ Kokosi
- ✓ Greenspark

Although not formally proclaimed, the central mining belt contains a number of mine shafts and mining villages.

These settlements contain the vast majority of the population. Through target driven management of these areas, development goals can be achieved. Each settlement has its own unique characteristics which should firstly be respected and secondly be used to guide strategic economic and social interventions.

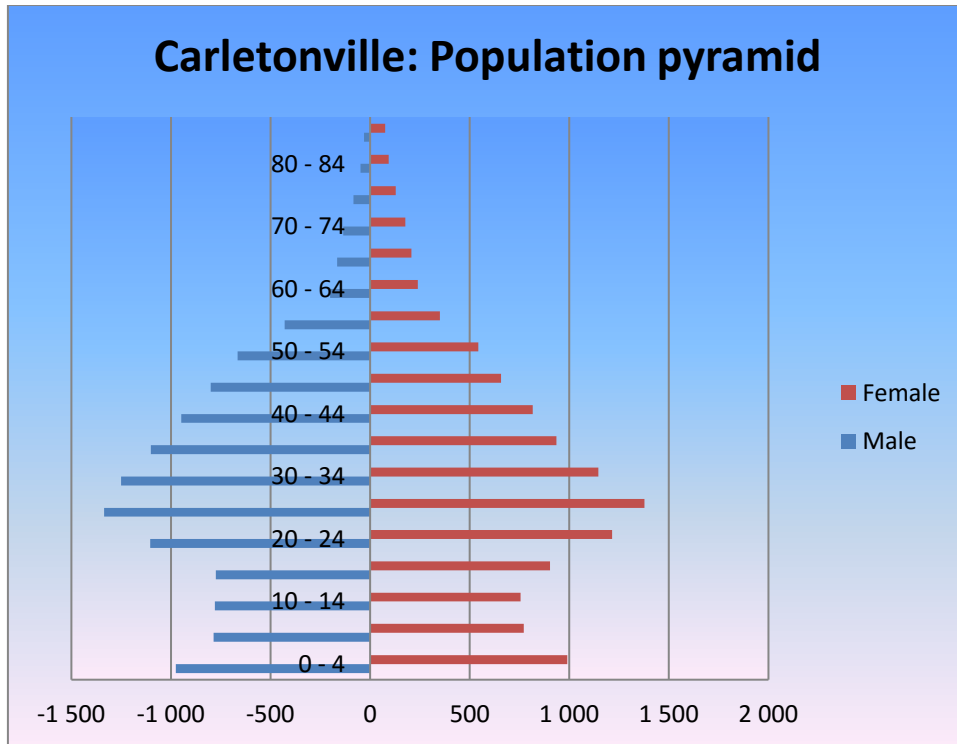
With regards to the planning and management of these nodes, general points are raised with a few specific points, however Precinct Plans will in future address nodal and corridor development in greater detail.

## **Carletonville-Oberholzer**

### Introduction

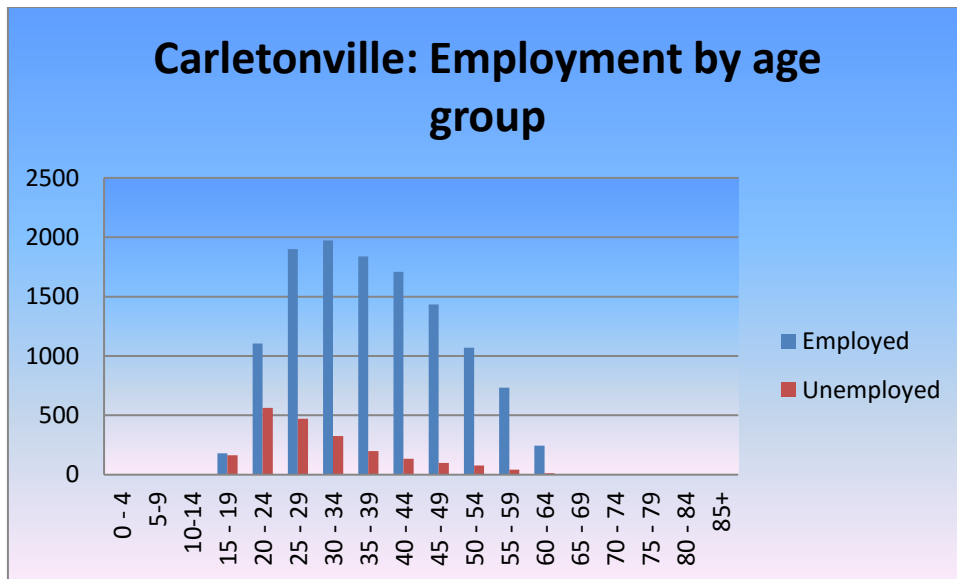
Carletonville is the main focus area for economic activity in Merafong. It is a larger sized town and the settlements of Khutsong, Welverdiend and Blybank are strongly dependent on Carletonville for employment, services and goods to varying degrees. The southern urban area is also dependent on Carletonville to a lesser extent. Most mining villages are also dependent on Carletonville. Oberholzer and Pretoriusrus are included under Carletonville because they are basically a functional part of the town. The town was planned to accommodate the influx of people working in the mining industry more than 50 years ago which actually makes Carletonville one of the youngest towns in South Africa. Despite its 'youthfulness' Carletonville dominated the space economy and is the administrative and institutional hub of the municipal area. The most important long term planning goal for the area is to integrate Welverdiend, Khutsong, Carletonville and eventually Blyvooruitzicht into a single integrated sustainable settlement.

## Socio-economic profile



Carletonville has a socio economic profile of an economically productive area, similar to Fochville. The average household size is 2.9 and about 29% of households consist of a single member. The male to female ratio is about even. A significant proportion of the population is of working age and dependency levels are low. Less than 33% of households fall within the RDP income category. Just fewer than 39% of households fall within the “Gap Market” income category. About 28% of households earn a higher level of income.

With approximately 2 100 unemployed persons, Carletonville has an unemployment rate of 16.5%. The following figure gives an illustration of employment by age group (It does not depict discouraged work seekers). Most employed persons are aged between 25 and 50 years. Youth unemployment levels are lower in Carletonville in comparison to many other areas. The level of education is relatively high. Around than 70% of people have matric as their highest qualification and 6% have university degrees or national diplomas. This is typical of a predominantly blue collar economy.



Infrastructure, service delivery and housing

- In Carletonville, 97% of households have access to municipal tap water on their erven and 84% have tap water inside their dwellings.
- About 96% of households in Carletonville have access to full waterborne sanitation.
- More than 96% of households have their refuse removed at least once a week and about 1% less often.
- More than 97% of households use electricity for lighting.
- Just fewer than 96% of households live in formal housing.

Public facilities

	URGENCY		
	HIGH	MEDIUM	LOW
Carletonville	Waste Disposal + Recycling Primary School Taxi Rank upgrade	Secondary School	Informal Market

- In terms of the desired size and teacher-pupil ratio of the Department of Basic Education, a new **primary school** is required and a new **high school** will soon be required, especially once the planned densification and infill development in Carletonville takes place.
- In terms of population size, Carletonville requires a single well equipped **clinic**, which is provided. The town is home to the Sybrand Van Niekerk **public hospital** that serves the entire Merafong. A new “One-Stop Occupational Health Services Centre” (Public sector) is planned next to the public hospital.
- Carletonville has a sizable **civic centre** with numerous halls that serve the entire municipal area.

- The existing **taxi rank** needs an upgrade, however if the Oberholzer Taxi Rank is refurbished in order to accommodate a taxi lay-over/waiting area it will delay the immediate need for a large scale upgrade.
- Carletonville has 2 **libraries** that serve the town sufficiently.
- The central storm water green belt has the potential to be developed into a **regional park** that can link up with the Carletonville Sports Complex. The town also has numerous other parks.
- The existing **fire station** next to the CBD provides adequate coverage in case of emergencies.
- A **waste transfer station** is required and could include provision for informal recycler enterprises.

#### Characteristics of the space economy, land use and development in Carletonville

- Carletonville forms the economic core of Merafong. The town has a relatively strong bi-nodal relationship with Fochville. This means that the two towns provide goods and services to each other. Carletonville provides many services and also strong retail functions and Fochville provides higher order services and many high income residents commute from Fochville to Carletonville. As the economies of both towns evolve, Fochville is gradually becoming less dependent on Carletonville with expanding retail floor space.
- The Carletonville CBD is the strongest economic node in Merafong with the widest variety of goods and services and institutions. The CBD also contains 2 shopping centres, a large taxi rank and a very vibrant informal trade sector.
- A major new development area is planned east of Carletonville. The circular Economy zone will encompass a number of industrial and agricultural developments in a manner that encourages circular economic activities. Employment opportunities will number in the thousands. Proposed projects include:
  - ✓ Bioenergy Agro-Industrial Park.
  - ✓ Regional Recycling Cluster (Industrial Park) – alternately to be located at the West Wits node.
  - ✓ Floriculture Hub (Agri Park).
- A process of informal trade infiltration and succession is taking place from the taxi rank spreading southwards. This is a process where informal traders infiltrate an area and cause formal businesses to move out and be replaced by formal businesses trading in lower end products and services, directly in competition with the informal traders. If this happens on a large enough scale severe decay may start to set in because the healthy mix of retail and service gets disturbed. Such morphological disturbances leave gaps for further infiltration and can lead to increased levels of crime and physical decay, causing a reinforcing feedback loop of decay. This process could be sped up by the development of new suburban shopping centres. A new informal trader plan is under compilation which will greatly improve conditions within the CBD and revitalisation initiatives are being considered.
- The new Carletonville Mall is showing signs of a sluggish take-off. Business will improve once more people realise the close distance and once residential development around the mall takes place. New shopping centre development is not advisable at this stage.
- Carletonville is experiencing slow growth in residential development due to geological conditions that add to development costs.

- Another constraining factor is that a significant proportion of potential development land belongs to mining companies in the form of single residential houses. Until mining companies sell the land, it will remain 'frozen' in the current state. Many properties are currently being sold to mine employees.
- A new emerging illegal trend is the construction of backyard rooms without building plans or land use rights. This is a symptom of a shortage of Gap and Social housing options. The Growth Management Zone policy will deal with the formalisation of rooms in the appropriate localities and numerous new social and gap housing projects have started.
- The area that experiences the highest demand for housing development is Extension 16 because it has been found to be geologically less risky.
- There are 2 industrial nodes in the greater Carletonville. The Oberholzer node along Station Street is mostly focused on industrial service activities and Carletonville Extension 6 more on actual fabrication. An expansion is already planned (Extension 14). A need for warehousing and mixed business and industrial space has arisen. Developable land has been identified between Extension 6 and the railway station and a geotechnical investigation has been completed. Along with the new road construction between the hospital and Extension 6 the expansion will link the 2 nodes into a single industrial complex with further large-scale expansion planned to the east.
- Over the long term it is planned that Carletonville, Khutsong and Welverdiend develop into a single seamless integrated and sustainable settlement.
- Public transport is provided by private taxi and bus operators. The West Rand district is looking into the possibilities of establishing a Bus Rapid Transit system in the west rand. The municipality is planning to reshape urban areas in Merafong into transit oriented settlements where public transport is highly accessible and affordable, thus reducing costs and increasing urban efficiency.

Status quo →	Synthesis →	Response
<b>Positive trends related to development:</b> <ul style="list-style-type: none"> <li>○ Largest economic nodes</li> <li>○ Demand for warehousing</li> <li>○ Large pool of technical skills</li> <li>○ Best linkages to other regions</li> <li>○ High level of income per household</li> <li>○ Low unemployment</li> <li>○ Demand for housing</li> <li>○ Potential for game changer projects</li> <li>○ Best locality for densification</li> </ul>	<ul style="list-style-type: none"> <li>○ Economic core area</li> <li>○ Opportunity to expand industrial base</li> <li>○ Opportunity to expand residential areas and supportive land uses.</li> <li>○ Densify residential</li> </ul>	<ul style="list-style-type: none"> <li>○ Improve linkages with economically depressed areas</li> <li>○ Enable economic growth through development nodes and corridors with improved infrastructure and appropriate land use management</li> <li>○ Increase allowable densities and plan for it</li> <li>○ Develop special economic areas</li> </ul>
<b>Development challenges:</b> <ul style="list-style-type: none"> <li>○ Geological constraints</li> <li>○ Land belongs to mining companies</li> <li>○ Illegal buildings</li> <li>○ Deteriorating appearance of CBD</li> <li>○ Stagnating business growth</li> <li>○ Congestion at taxi rank</li> <li>○ Industrial development opportunities in Carletonville not utilised</li> <li>○ Lack of green infrastructure and general appearance of the town is deteriorating</li> </ul>	<ul style="list-style-type: none"> <li>○ Cost of development</li> <li>○ Infrastructure upgrading needed</li> <li>○ Industrial development 'kick-start', incentives and marketing needed</li> <li>○ CBD revitalisation needed</li> <li>○ Taxi rank upgrade required</li> <li>○ Support for residential densification needed</li> <li>○ Mine owned land frozen</li> <li>○ Greening and improvement of aesthetics</li> </ul>	<ul style="list-style-type: none"> <li>○ Water Services Master Plan under compilation to facilitate informed decisions on infrastructure improvements</li> <li>○ Growth management strategy must increase densities at human scale</li> <li>○ Blanket geotechnical investigation needed for CBD and densification areas.</li> <li>○ Develop investment incentive scheme linked to spatial development zones and upgrade infrastructure.</li> <li>○ Green infrastructure upgrading needed</li> <li>○ Urban Design Framework needed</li> </ul>

## Local Spatial Development Directives

The following spatial development directives have been put in place to direct actors within the space economy to make decisions in line with spatial policy. It is intended for use by the public as well as private sector and should be interpreted as policy statements.

Promote or maintain:

- Support industrial development east of Carletonville and allow Extension 6 and Oberholzer industrial area to merge into a single industrial precinct.
- Promote investment of industrial and service sector SMMEs by subdividing larger erven and selling them off.
- Develop a new road link between Carletonville Extension 6 and the CBD.
- Develop the “Bloubos” and Extension 7 for commercial, transport, retail and service purposes as well as a high density residential component in the south eastern part.
- Maintain an acceptable ratio between facilities and population in terms of CSIR standards.
- Promote and enable the de-population of the mining belt and resultant population growth in Carletonville through densification.
- Maintain open spaces and improve green infrastructure.
- Promote practices that promote green infrastructure upgrading and climate change resilience.
- Maintain the Eucalyptus tree buffer between Extension 5 and 6 to protect the residential area against any negative impacts of industry. Eucalyptus is a Category 2 invasive and as such may be kept however not expanded upon.
- Promote vehicular mobility on the Primary Development Corridor, accept in the CBD.
- Promote universal access and enable non-motorised transport options within major nodes and along the Primary Development Corridor.
- Promote densification as permitted in the Growth Management Zones in order to leverage the opportunity generation potential thereof such as public transport, walkability, stronger nodal development, etc.
- Major Government offices are to locate within the Carletonville CBD and Oberholzer node.
- Promote mixed land uses within the Carletonville CBD, Oberholzer node and along development corridors.
- Promote stronger corridor development between major nodes.
- Promote the alternative use of land declared geologically unsuitable for conventional development.
- Enable small nodal development in a more scattered pattern focussed on convenience and walkability.
- Promote the revitalisation of the Carletonville CBD.
- Promote a small-town atmosphere in development, especially with regard to architecture and urban design.
- Protect the Mid Century Modern architectural heritage of Carletonville.
- Develop infrastructure to accommodate the new Circular Economy Zone.

Avoid, restrict or contain:

- Carletonville is arguably one of the most socially integrated towns in the country. Avoid practices that would undermine this and lead to social marginalisation and polarisation.

### Development, project and investment proposals

#### Development nodes:

- The CBD is the largest economic node in Merafong. In the near future revitalisation initiatives will target this node in order to create a more business friendly environment and stimulate growth. New government offices have to locate in the CBD and residential development is encouraged.
- The Oberholzer node started out as a retail strip and evolved into a more complicated district node. The node should be allowed to grow along Van Zyl Smit Street and Ada Street.
- The node at the intersection of Onyx Drive and Paul Kruger Street consists of a hyper market centre, a car dealership, a public garage, a few shops and the Carletonville Sports Complex. This node has expansion potential, subject to geological suitability.
- The Carletonville mall has emerged as a major new node. It is slowly taking off and growth of the surrounding area is expected to commence eventually. The new bridge to the west has been completed which is drawing in more traffic between Old Khutsong and Carletonville. Although limited opportunities currently exist, rezonings should be allowed in order to create more development space.
- Two smaller emerging nodes are located along Annan Road. Mixed land uses are encouraged at these nodes.
- The Circular Economy Zone will be the largest economic development initiative ever attempted in Merafong and should be prioritised in terms of planning and financing.

#### Development Corridors:

- The entire Annan Road and Station Street form the structural spine of Carletonville and also extend through Khutsong South to Welverdiend. From the Southern tip of Annan to the CBD dwelling house offices are encouraged. From the CBD northwards turning west on Station Street Industrial activities dominate. Directly north of Station Street industrial and business land uses are encouraged and directly south of Station Street business uses are encouraged.
- The Onyx Drive corridor extends from the CBD to the Shoprite node with mixed uses encouraged.
- Along Ada Street business uses are encouraged that will link up with the Oberholzer node.
- Infrastructure upgrading:
  - ✓ Tree planting to create tree-lined boulevards. Corridors are to be upgraded first.
  - ✓ Paving for pedestrians in remaining unpaved stretches, particularly in the vicinity of taxi stops



- ✓ Bulk engineering services should be channeled through these corridors to serve increased densities and capture economies of scale if and when required.
  - ✓ Public transport pick-up points should be located along these routes at approximately 1 km intervals.
  - ✓ In areas of high pedestrian volumes, traffic calming measures should be put in place. Especially in the CBD.
- Land uses:
    - ✓ Mixed land uses are encouraged. The land use rights must be obtained if necessary. No industrial uses unless stated otherwise.
    - ✓ Future institutional uses including those of the municipality, state and NGOs should be developed along or near corridors and nodes and especially public transport, except uses that have a naturally dispersed pattern such as churches.
    - ✓ In future development corridors will form the spines of the public transport network with pick-up and drop-off facilities concentrated along these routes.
    - ✓ Generally land use intensification is promoted along corridors. This will create areas that are safer due to higher levels of activity.
    - ✓ Businesses that sell alcohol for consumption on the premises should be clustered along corridors and at nodes to facilitate minimal disturbance of quieter residential areas and for easy patrolling by police.

#### Government project proposals

- The proposed mixed commercial and business node on Portion 53 of Wonderfontein 103 I.Q. should be developed to supply the demand for land. A geotechnical investigation has been completed. This node could fulfill an important logistical function and open up more opportunities and reduce bottlenecks.
- The Department of Human Settlements has prioritised the Carletonville Extension 7 development because of its perfect locality for integrating housing into the urban fabric and land use patterns.
- With the development of the Carletonville mall the revitalisation of the Carletonville CBD will become more important. This is a major priority for Carletonville in the long term and should be undertaken as soon as economic decline starts to reverse.
- Carletonville requires its green infrastructure to be upgraded, especially the open space system. Ways to capture mine tailings sediment such as retention ponds have to be investigated.
- Greening initiatives are needed to improve liveability, ecosystem services and climate change resilience.
- The proposed Circular Economy Zone will be developed east of Carletonville Extension 6 and is of critical importance to create a new post mining base in industrial and agricultural activities.

#### Private sector business opportunities

- The consumer market in Carletonville can be broken up into the following segments:
  - ✓ LSM 1-5 = 14.1%

- ✓ LSM 6-9 = 54.8%
- ✓ LSM 10-10+ = 21.8%

A survey of current retail space in Carletonville is required to estimate expansion potential. Such a survey has not been done and therefore no opinion can be presented. The current opinion is that only small market niches remain to be exploited in the current market conditions.

- Several industrial erven are available in Carletonville Extension 6. These erven offer opportunities for small to large enterprises to establish.
- Supportive land uses are required at the proposed new taxi rank, most notably some retail activities and a public garage.
- Numerous opportunities will arise upon the successful implementation of the Circular Economy Zone including amongst others manufacturing agri-business and renewable energy.

Community priorities identified in the ground level participation:

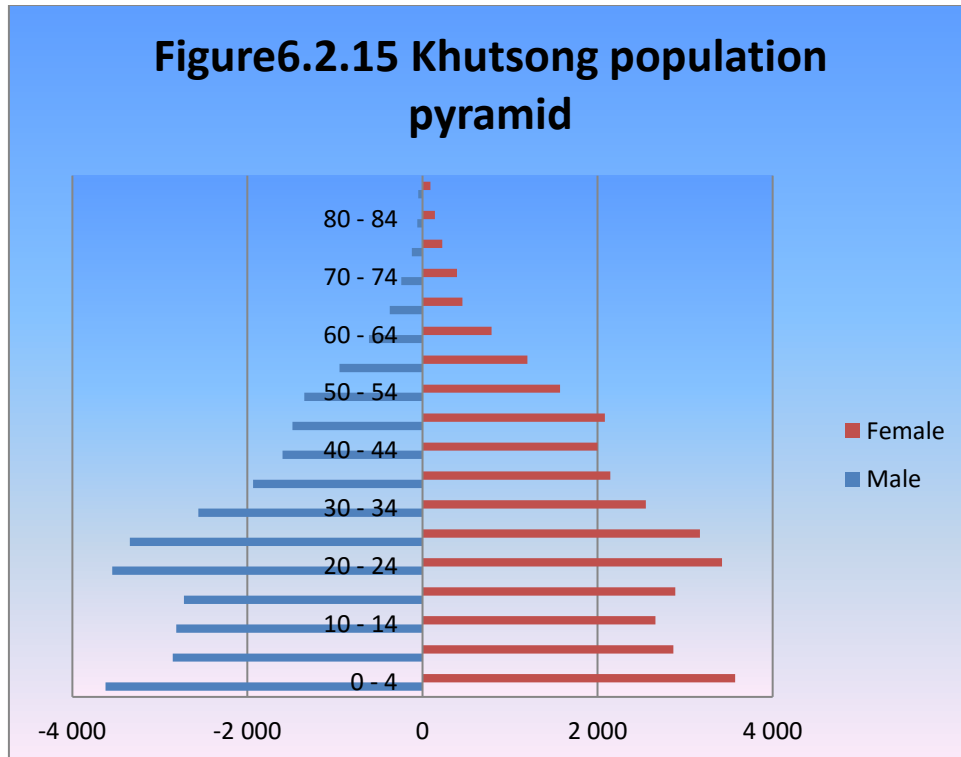
Problems	Proposed solutions (proposed by community)
1. Potholes	Do maintenance
2. Economic decline of the town	New projects to develop economy
3. High crime rate – zama zamas	Coordinate better with police and CPF, security companies
4. Illegal dumping	Clean up and fine people
5. Waste removal	
6. Water pressure	
7. Appearance of the town	Keep clean - EPWP
8. Street lights not working	Fix
9. Pedestrian safety	Street crossings, especially near schools and CBD
10. Activities for the youth	More activities needed for young people
11. Electricity outages	
12. High rates paid for bad service delivery	
13. Municipal billing problems	
14. Cost of development – geology	
15. Stands for housing	Make vacant stands available
16. State of parks are bad	Plant trees and flowers
17. Illegal land uses, especially rooms	Enforce by-laws
18. Pedestrian safety	Safety measures

## Khutsong

Almost no date is available that separates Khutsong and Khutsong South. Therefore the two areas will firstly be discussed together and then separated.

### Introduction

Khutsong is the largest previously disadvantaged area in Merafong. Khutsong includes Khutsong, Khutsong South and the new Khutsong South Extensions. It is the most populous area in Merafong with a population of over 62 000.



The Khutsong population pyramid has characteristics of a township and a mining dormitory township. The number of births is relatively high. The average household size is 3.2 and about 28% of households consist of a single member. The male to female ratio is slightly female dominated, especially in the middle aged group. Khutsong has a less favourable dependency level. About 76% of households fall within the RDP income category. About 21% of households fall within the “Gap Market” income category. The remaining portion of households earn a higher level of income (3%).

Unfortunately accurate data on employment in Khutsong is not available. However employment trends should be similar to that of other townships in Merafong. The level of education is moderately low. Around than 60% of people have matric as their highest qualification and 38% only have a primary school education or less. Post matric qualifications are scarce.

Infrastructure, service delivery and housing

- In Khutsong, 64 % of households have access to municipal tap water on their erven and 39% have tap water inside their dwellings.
- About 63 % of households in Khutsong have access to full waterborne sanitation.
- More than 63% of households have their refuse removed at least once a week.
- More than 64% of households use electricity of lighting.
- Around 53% of households live in formal housing.

- A proper investigation is needed to determine whether the 5 000+ hoses have made a proportionate dent in the housing and service backlogs, because preliminary estimations seem to indicate that the amount of informal dwellings have not significantly decreased.

### Khutsong North

#### Public facilities

	URGENCY		
	HIGH	MEDIUM	LOW
Khutsong South	Secondary School Primary School New Taxi Rank Informal Market	District Park Waste Disposal + Recycling	Post Office Home Affairs
Khutsong North	Waste Disposal + Recycling Informal Market	Taxi Rank upgrade	Secondary School Primary School

### Khutsong (North)

- Khutsong (North) is being de-populated and as such the under provision of educational facilities will be reduced in the long run.
- A new library will be constructed in Extension 3, which will bring the total amount of libraries to a satisfactory level.
- A **community park** is planned in Khutsong South and a **regional park** next to the river.
- The existing fire station in Carletonville provides coverage in case of emergencies.

### Characteristics of the space economy, land use and development

- Khutsong has some of the worst affected areas in terms of dolomite. A geotechnical study has indicated that due to the bad state of old infrastructure water and sewage leaks have over time worsened the situation. At this stage about 1 400 households will have to be moved out to the new Khutsong South extensions and later possibly more households which could eventually include the entire Khutsong (North)
- There is very little formal economic activity in Khutsong. The potential exists to increase the amount of formal businesses.
- The new interchange constructed on the R559 is providing better access to Khutsong and has opened up new business opportunities along its corridor. Given the fact that the high number of unemployed people in Khutsong will have to find employment at more economically viable localities makes this link very important.
- The Khutsong South Resettlement Program is changing the space economy of the area linking Welverdiend with Carletonville to form a continuous integrated settlement. This process will continue to move informal residents out of the area and thus reduce the population, which will in turn reduce facility viability.

### Local Spatial Development Directives

The following spatial development directives have been put in place to direct actors within the space economy to make decisions in line with spatial policy. It is intended for use by the public as well as private sector and should be interpreted as policy statements.

Promote or maintain:

- Implement special economic measures in order to normalise the economies of previously disadvantaged areas.
- Promote the development of NGOs in a variety of localities. Promote clustering; however.
- Promote green infrastructure development, beginning with major parks and major routes.
- Promote public and private gardening within the limits of climatic resources.
- Allow for the development of backyard dwelling units/rooms near public transport stops subject to geotechnical constraints and infrastructure availability. Conduct a study on service availability focused on densification and backyard dwellers.
- Promote the transformation of the greater Khutsong area from a dormitory settlement into a vibrant sustainable urban area integrated with Carletonville and Welverdiend.

Avoid, restrict or contain:

- No further human settlement developments may be initiated in Khutsong (North)
- The development of new facilities should focus on Khutsong South in order to maximise efficiency. Facility levels should be brought up to standard in terms of the expected lower population.

#### Development, project and investment proposals

Development nodes:

- Development nodes will be feasible at the following localities and should be developed as such:
  - ✓ The intersection at the entrance of old Khutsong after crossing the river
  - ✓ The existing node in Sompane drive.

Development Corridors:

- Business development should be focused on the activity streets identified.
- Infrastructure upgrading:
  - ✓ Tree planting to create tree-lined boulevards. Corridors are to be upgraded first.
  - ✓ Paving for pedestrians in remaining unpaved stretches, especially near public transport.
- Land uses:
  - ✓ Business land uses are encouraged. The land use rights must be obtained if necessary. No industrial uses except in Extension 5.

- ✓ In future development corridors will form the spines of the public transport network with pick-up and drop-off facilities concentrated along these routes.
- ✓ Generally land use intensification is promoted along corridors. This will create areas that are safer due to higher levels of activity.
- ✓ Businesses that sell alcohol for consumption on the premises should be clustered along corridors and at nodes to facilitate minimal disturbance of quieter residential areas and for easy patrolling by police.
- ✓ Bulk engineering services should be channeled through these corridors to serve increased densities and capture economies of scale if and when required.

Community priorities identified in the ground level participation:

Problems	Proposed solutions (proposed by community)
1. Water leaks everywhere	Maintenance
2. Sewage blockages everywhere	Maintenance
3. Unemployment is high	More business stands. Hire locals for projects and capacitate them. Training centres and college required. Mining SLPs must be utilised for economic development. Business financing, training and mentorship needed.
4. Roads – potholes, unsurfaced, no routes through some informal areas	Maintenance and surfacing, new routes through inaccessible informal areas
5. Street lights not working	Maintenance
6. Electrical overload during peak times	New Eskom lines in informal areas should help
7. Housing – Informal settlements and backyard	Housing projects including looking at backyards
8. Parks not developed	Develop more small parks
9. Children after school activities	
10. Sports facilities needed	
11. Community halls needed	
12. Street name signs and names	
13. Not enough libraries	More needed western side
14. School language issues	
15. Need another high school	
16. People all go to central clinic due to bad service at other clinics	Refer to Province
17. Policing – police station far, response time is long, not many patrols	Small satellite station
18. Illegal dumping	Provide skip bins, enable recycling and awareness program
19. Waste pick-up in informal areas	Skip bins
20. Churches – Steal all the stands	Avail land, but not all available land
21. Spazas –illegal foreigners and health concerns	Give out permits for spazas (No illegal foreigners) and do health inspections
22. No proper taxi ranks, toilets	Formalise taxi stopping areas with facilities and allow business. More taxi stops and busses. Containers are completely acceptable to the community
23. Land for agriculture	Release mining land for small farmer projects
24. Taverns – nuisance, crime, don't close down, selling to children	Permits for taverns
25. Paddadam/Abe Bailey resort is destroyed	Should be refurbished with opportunities for business and leisure development
26. Geologically unsafe open land is causing	Develop for parks, small farms (Hydroponics, dry land

problems – illegal dumping, crime, unaesthetic	crops, e.g. cactus pear), community gardens
27. Need for youth activities	
28. Offices for ward committees	
29. Small sportsgrounds with basic infrastructure required	
30. Illegal scrap yards and car repairs – a nuisance	Provide stands
31. Arts, culture, sport and educational programmes needed	
32. Ambulance and fire response times very poor	
33. Renting informal structures out when RDP has been allocated and empty shacks utilised by criminals for storage	Shacks must be demolished when RDP houses are allocated
34. Crèches don't have space to expand for demand	Stands for crèches are needed
35. No large community park	

## Khutsong South

### Public facilities

- In terms of the desired size and teacher-pupil ratio of the Department of Basic Education, Khutsong South requires 1 more primary and 1 more secondary school in the short to medium term. Properties are available.
- A new **taxi rank** is required urgently. The area along the R559 has become very dangerous with numerous traffic collisions and pedestrian safety is a major problem.
- Provision should be made for an **informal market** at the taxi rank.
- The area requires a **waste transfer facility** and provision for recyclers – provision can be made in Khutsong Extension 5.
- A brand new CHC **clinic** has been constructed. Carletonville is home to the Sybrand Van Niekerk public hospital that serves the entire Merafong.
- A **library** is provided for in Khutsong South Extension 2, which brings the total amount of libraries to a satisfactory level.
- A **community park** is planned in Khutsong South and **a regional park** next to the river. Another community park is planned for the new extensions.
- The existing fire station in Carletonville provides coverage in case of emergencies.

### Characteristics of the space economy, land use and development

- The dolomitic situation in Khutsong South is much better than in old Khutsong, however many people are dumping refuse into sewers causing blockages which could lead to new sinkholes forming.
- There is very little formal economic activity in Khutsong South. The potential exists to increase the amount of formal businesses, especially once business erven have become available.
- The Khutsong South Resettlement Program is changing the space economy of the area linking Welverdiend with Carletonville to form a continuous integrated settlement. This process will vastly improve urban efficiency in the area and help to reduce the cost of living, the cost of doing business and also reduce maintenance costs for the municipality.

## Local Spatial Development Directives

The following spatial development directives have been put in place to direct actors within the space economy to make decisions in line with spatial policy. It is intended for use by the public as well as private sector and should be interpreted as policy statements.

Promote or maintain:

- Develop Khutsong South Extension 8 as a major new node with a diversified basic-non-basic economic mix. Implement a walkable design with a prominent town centre as well as significantly higher densities to support universal access and non-motorised transport.
- Implement special economic measures in order to normalise the economies of previously disadvantaged areas.
- Bring the social facility-to-population ratio up to CSIR standards.
- Implement Transit Oriented Development. Cluster facilities, increase densities, mix land uses and improve accessibility near public transport stops.
- Promote the development of NGOs in a variety of localities. Promote clustering.
- Promote green infrastructure development, beginning with major parks and major routes.
- Promote public and private gardening within the limits of climatic resources. Encourage residents to utilise the large swathes of land designated for urban agriculture.
- Allow for the development of backyard dwelling units/rooms near public transport stops subject to geotechnical constraints and infrastructure availability. Conduct a study on service availability focused on densification and backyard dwellers.
- Promote the transformation of Khutsong from a dormitory settlement into a vibrant sustainable urban area integrated with Carletonville and Waverdend.
- Enable the development of land uses related to the future development of a PRASA railway station in Khutsong South Proper. Move the proposed locality of the station to Khutsong South in order to obtain higher densities and Transit Oriented Development.

Avoid, restrict or contain:

- Avoid future development in the typical dormitory style design that limits opportunity generation. The practice of fitting in the maximum number of residential erven at the cost of other considerations has to stop.

## Development, project and investment proposals

Development nodes:

- Development nodes will be feasible at the following localities and should be developed as such:
  - ✓ The Carletonville mall
  - ✓ The new link between Khutsong South and the Khutsong South extensions.
  - ✓ The intersection at the entrance of old Khutsong
  - ✓ Numerous smaller nodal points along activity streets

Development Corridors:



- There are 2 development corridors in Khutsong. Firstly the central development spine that links up with Carletonville and Welverdiend. Not all localities along the route are developable. Opportunities exist at nodes along the route. Secondly the new link will create a corridor running from the primary spine to the node in Sompane drive.
- Infrastructure upgrading:
  - ✓ Tree planting to create tree-lined boulevards. Corridors are to be upgraded first.
  - ✓ Paving for pedestrians in remaining unpaved stretches. Priority is to be given to areas radiating out from public transport stops.
- Land uses:
  - ✓ Business land uses are encouraged. The land use rights must be obtained if necessary. No industrial uses.
  - ✓ Consider designating the area between the cemetery and the railway line for industrial development during the establishment of Extension 8.
  - ✓ Future institutional uses including those of the municipality, state and NGOs should be developed along or near corridors and nodes, except uses that have a naturally dispersed pattern such as churches.
  - ✓ In future development corridors will form the spines of the public transport network with pick-up and drop-off facilities concentrated along these routes.
  - ✓ Generally, land use intensification is promoted along corridors. This will create areas that are safer due to higher levels of activity.
  - ✓ Businesses that sell alcohol for consumption on the premises should be clustered along corridors and at nodes to facilitate minimal disturbance of quieter residential areas and for easy patrolling by police.
  - ✓ Bulk engineering services should be channeled through these corridors to serve increased densities and capture economies of scale if and when required.

#### Government project proposals

- PRASA train stations at Khutsong South Extension 8 and Welverdiend.
- Facilities needed
- Infrastructure upgrading
- Khutsong South Extension 8 will be a major new human settlement.
- Greening initiatives are needed to improve liveability.

Community priorities identified in the ground level participation:

Problems	Proposed solutions (proposed by community)
1. Unemployment	Business stands
2. Electricity theft	Coordination between electrical section and ward committee regarding amnesty in terms of policy
3. Cable theft	
4. Road surfacing	
5. Sewer blockages	
6. Water leaks	
7. Street lights needed in new areas	

8. Waste removal not happening in new areas and illegal dumping taking place	Provide wheelie bins and skip bins
9. Street names not visible	
10. Space for ward committees	
11. Sports facilities required	Short term- graded areas with most basic equipment, long term – multi-purpose sports facility
12. Community hall needed	
13. Youth activities	Indigenous games, after school activities, soccer poles + netball
14. Crime –domestic violence and alcohol	Regulate taverns
15. Library too far	
16. Clinic too far	
17. Taxi rank and stops needed	
18. Parks needed	3 Small parks dispersed
19. Church land required	
20. Schools – primary, secondary and college required	
21. Taverns are a nuisance	
22. Scrap and car repair is a nuisance	Provide land
23. No land for crèches	Provide land
24. Cadastral issues	Investigate and fix
25. Trees and landscaping needed	Plant trees along roads and in parks
26. Stoch house and tree avenue should be utilised	

### **Welverdiend-Elijah Barayi**

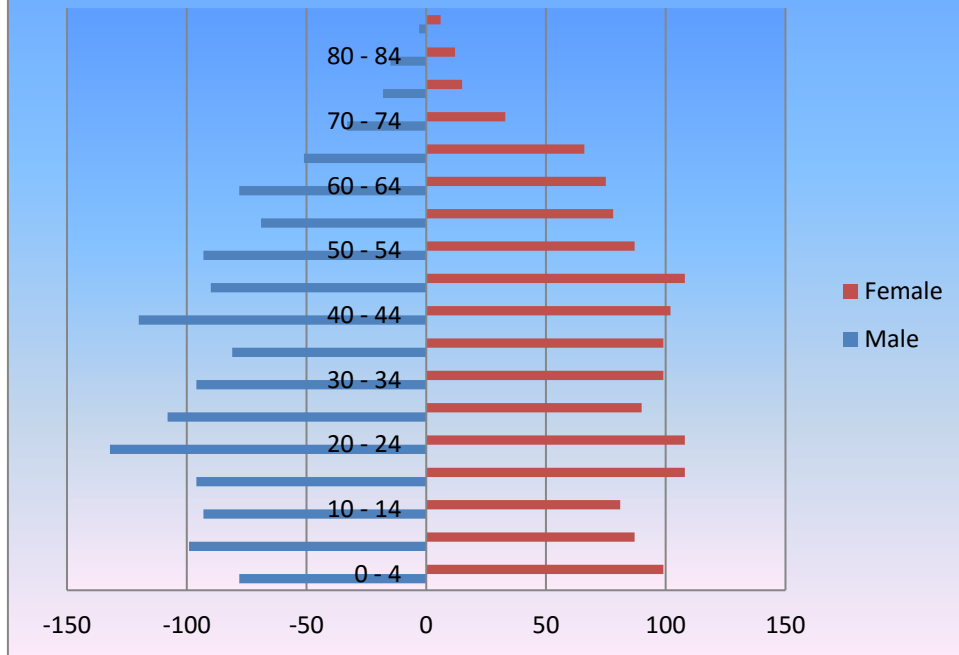
A new human settlement development is underway directly next to Welverdiend called Elijah Barayi. This is a new settlement and therefore no statistical data as of yet exists. Therefore demographic, economic and infrastructure statistics are for Welverdiend only.

#### Introduction

Welverdiend is a small town west of Khutsong and Carletonville. It originated as a 'railway town' with industrial activities. Railway activity has since decreased and many industries have closed down due to national changes in the space economy. The town is however experiencing a revival brought about by low property prices amongst other factors.

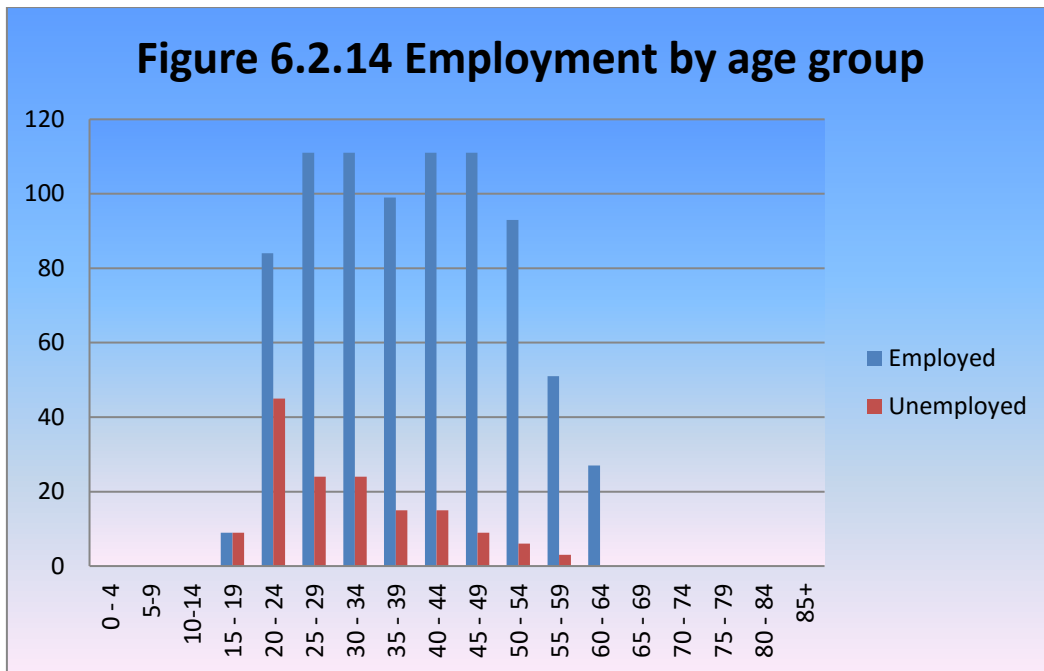
#### Socio-economic profile

**Figure 6.2.13 Welverdiend population pyramid**



The Welverdiend population pyramid is relatively uniform across different age groups. There is a strong elderly component to the population. This can largely be attributed to lower property prices which lead to retirees moving to the town and in-situ retirement. The number of births is also relatively high. This alludes to a change in the population composition. The average household size is 3.1 and about 20% of households consist of a single member. The male to female ratio is about even. Due to the higher proportion of elderly and children, Welverdiend has a less favourable dependency level. About 31% of households fall within the RDP income category. Just fewer than 38% of households fall within the “Gap Market” income category. The remaining portion of households earn a higher level of income (32%).

With approximately 150 unemployed persons, Welverdiend has an unemployment rate of 17.9%. Figure 6.2.14 gives an illustration of employment by age group (It does not depict discouraged work seekers). Youth unemployment up the age of 25 is proportionately high. The level of education is moderate. Around than 54% of people have matric as their highest qualification and 44% only have a primary school education or less.



Infrastructure, service delivery and housing

- In Welverdiend, 98 % of households have access to municipal tap water on their erven and 92% have tap water inside their dwellings.
- About 97% of households in Kokosi have access to full waterborne sanitation.
- More than 92% of households have their refuse removed at least once a week.
- More than 96% of households use electricity of lighting.
- Around 95% of households live in formal housing.
- 18 Households reported they have less than the minimum level of service.
- Apart from roads and basic infrastructure, there is also a disused commuter and freight railway station.

Public facilities

	URGENCY		
	HIGH	MEDIUM	LOW
Elijah Barayi- Welverdiend	New Taxi Rank	Informal Market Community Hall Secondary School Primary School Community Sports Facilities	Waste Disposal + Recycling

- As Elijah Barayi is a completely new human settlement development a full complement of facilities will be required as phased development progresses and nears completion.
- As far as possible, facility provision and all other aspects of development must be planned and implemented in such a way that Welverdiend and Elijah Barayi becomes integrated.

### Characteristics of the space economy, land use and development

- Welverdiend used to function as a rail freight and passenger station before the establishment of Oberholzer and Carletonville. With the decline in the significance of rail transport and the establishment of the Oberholzer passenger and freight station job opportunities were lost and Welverdiend has since never recovered fully.
- The Elijah Barayi development will change the space economy in Welverdiend completely with the addition of more than 12 000 dwelling units. More economic activities as well as government facilities will become feasible in the area.
- PRASA is considering reviving the Welverdiend railway station for commuter purposes. If this is done it will create a massive opportunity to create a transit-oriented town with densification, mixed uses and the intensification of land use in general. Non Motorised Transport infrastructure must be developed to Elijah Barayi if the Welverdiend station is brought back into operation.
- An area between Elijah Barayi and the older part of Welverdiend remains undeveloped and in private ownership. This land should be developed for mixed uses.
- The northern part of Welverdiend should as far as the infrastructure and geology permits be developed into a medium density residential area through subdivisions, consolidations, second dwellings, additional rooms and boarding houses.

### Local Spatial Development Directives

The following spatial development directives have been put in place to direct actors within the space economy to make decisions in line with spatial policy. It is intended for use by the public as well as private sector and should be interpreted as policy statements.

Promote or maintain:

- Within the limits of what is possible, develop Welverdiend as a major economic node in order to provide employment for Khutsong and to make the Primary Development Corridor stretch through Khutsong more viable.
- Promote mixed land uses between Khutsong South Extension 5 and Welverdiend Police Station, integrated with existing urban areas.
- Promote industrial development on industrial zoned vacant land and light manufacturing and service industry in the mixed use area.
- Promote moderate incremental densification north of the railway line.
- Promote Transit Oriented Development around the future PRASA station on both sides. Develop non-motorised transport access across the railway line. Develop Non-Motorised Transport routes radiating out from the station, especially to Elijah Barayi.
- Promote non-intrusive mixed uses along the R559 corridor.

Avoid, restrict or contain:

- Contain urban sprawl beyond Elijah Barayi.
- Avoid actions that would limit north-south accessibility over the railway line.

### Development, project and investment proposals

Development nodes:

- The existing retail and service street in 10<sup>th</sup> Ave Welverdiend has a significant proportion of vacancies. However the Khutsong South extensions will soon change the fortunes of this node. This avenue also leads to Welverdiend's industrial area which has rental space available. PRASA is considering reviving the Welverdiend railway station for commuter purposes. If this is done it will create a massive opportunity to create a transit oriented town with densification, mixed uses and the intensification of land use in general.
- The conditions required to form a new node are improving along Main ave (R559) in the south western part of Welverdiend. Three businesses exist and the municipal library and clinic will soon be complimented by a municipal pay point and will eventually be utilized as a Social Development Cluster.
- If development in Welverdiend takes off sufficiently in future, a new mixed use node will be feasible along the R 559 and the D92. This proposed node would actually be a functional extension of the previously mentioned business street.

#### Development Corridors:

- The main urban spine that integrates the northern settlements of Welverdiend, Khutsong and Carletonville starts at the Main Ave node and stretches to the proposed Warehousing node in Carletonville.
- Infrastructure upgrading along corridors:
  - ✓ Tree planting to create tree-lined boulevards. Corridors are to be upgraded first.
  - ✓ Paving for pedestrians and cyclists in remaining unpaved stretches to improve safety, convenience and aesthetics.
- Land uses:
  - ✓ Business land uses are encouraged where possible, viable and desirable. The land use rights must be obtained if necessary.
  - ✓ Future institutional uses including those of the municipality, state and NGOs should be developed along or near corridors and nodes, except uses that have a naturally dispersed pattern such as churches.
  - ✓ In future development corridors will form the spines of the public transport network with pick-up and drop-off facilities concentrated along these routes.
  - ✓ Generally land use intensification is promoted along corridors. This will create areas that are safer due to higher levels of activity.
  - ✓ Businesses that sell alcohol for consumption on the premises should be clustered along corridors and at nodes to facilitate minimal disturbance of quieter residential areas and for easy patrolling by police.
  - ✓ Bulk engineering services should be channeled through these corridors to serve increased densities and capture economies of scale if and when required.

#### Government project proposals

- PRASA station
- Facilities

- Infrastructure upgrading
- Greening initiatives are needed to improve liveability.

#### Private sector business opportunities

- There are a number of industrial buildings available for rent in Welverdiend.
- Business development associated with new developments

Community priorities identified in the ground level participation:

Problems	Proposed solutions (proposed by community)
1. Water interruptions	
2. Municipal rates are too high	
3. Illegal land uses – next to library	Enforce By-laws
4. Economy is not doing well	Development opportunities needed
5. Appearance of town	Better parks
6. Transport to Carletonville is expensive	Reopen train station + better public transport
7. Street lights are not working	Fix
8. Not enough shopping and services	More development needed
9. Unemployment	
10. Illegal dumping	

## **Blybank**

### Introduction

Blybank is situated east of Carletonville, directly south of the R559. It is a small urban area that was laid out as a township/dormitory area for the nearby mine shafts. The municipality has no official statistics available on Blybank as a town, however from the available ward data a profile very similar to that of Wedela emerges. Using available data from the Merafong cadaster and illegal land use survey the population is estimated at ± 2900

### Socio-economic profile

The Stats SA sub-place data that was used to draw profiles for all other formal towns is unfortunately not available for Blybank as a town on its own. Blybank has a socio-economic profile that is very similar to that of Wedela as derived from ward based data. Therefore general assumptions can be made based on the Wedela data. The fact that Blybank is so similar in the functions that it performs to Wedela, backs the data assumptions up.

Blybank is almost completely dependent on the nearby mine shafts for its employment. The settlement is male dominated and has a smaller than average family size. This is due to a high proportion of migrant labourers that reside in Blybank.

### Infrastructure, service delivery and housing

Once again specific data is not available. From visual surveys and municipal data it is clear that there are almost no basic service backlogs in Blybank. There are also no informal

settlements and very few backyard informal dwellers in Blybank. There is however a proliferation of illegally built “semi-formal” backyard structures. In most cases these structures are built using pre-fabricated concrete wall sections also known as “precon” walls or “stop nonsense”. At the last count these structures numbered 115 and contained on average 3 rooms. The existing infrastructure does not have the capacity to service this number of people. Intermittent power failures are common in Blybank and many illegal service connections exist.

#### Public facilities

- In terms of the desired size and teacher-pupil ratio of the Department of Basic Education, a small primary school can be considered due to the long distance to the nearest school in Carletonville.
- The population is well below the minimum threshold for a secondary school.
- In terms of population size and walking distance, Greenspark requires a single clinic which is provided for. Carletonville is home to the Sybrand Van Niekerk public hospital that serves the entire Merafong.
- A smaller capacity social hall will be sufficient for Blybank. Land is available on Erf 2510.
- Due to the large distance to the Carletonville library a library has been provided in Blybank on Erf 2510.
- The existing fire station in Carletonville does not provide adequate coverage in case of emergencies due to the long distances. The fire services of the nearby mine shafts are closer.

#### Characteristics of the space economy, land use and development in Blybank

- The proliferation of illegal housing structures can be attributed to the shortage of housing for employees of mining and affiliated companies. The other illegal uses can be attributed to the travel distance to Carletonville.
- There is virtually no formal economic activity in Blybank.
- The potential for new formal retail developments in Blybank is very limited. The total Gross Leasable Area (GLA) estimate for Blybank is ± 4864 m<sup>2</sup>. Considering that at least half of that potential will always be absorbed by the Carletonville CBD and that at least a further quarter is taken up by spaza shops, new developments will be marginally feasible at best for the foreseeable future. (4864 m<sup>2</sup> @ 50% minus existing spazas @±25% = 1 216 m<sup>2</sup> - absolute maximum.
- Blybank is spatially isolated and not entirely feasible as a settlement in the long run.
- The presence of the municipal solid waste landfill and good quality agricultural land in the area means that there are significant economic opportunities.

#### Local Spatial Development Directives

The following spatial development directives have been put in place to direct actors within the space economy to make decisions in line with spatial policy. It is intended for use by the public as well as private sector and should be interpreted as policy statements.

Promote or maintain:



- Enable economic development without investing heavily in economic infrastructure in this marginal locality.
- Implement special economic measures in order to normalise the economies of previously disadvantaged areas.
- Promote small scale farming, especially related to Bioenergy, in and around Blybank without negatively affecting human health.

Avoid, restrict or contain:

- All further human settlement projects are to be halted. Further development is to commence at Carletonville which is much more sustainable.
- Illegal backyard room construction must be stopped and backyard tenant guidelines should be developed subject to the proposed study into service availability.
- Sprawl beyond the currently established town should be contained unless it is economic land uses related to Bioenergy.
- Avoid the development of facilities before thresholds are reached.
- The development of taverns and shebeens should be restricted. The negative externalities associated with these businesses outweigh the small employment gains. We need decent jobs, not jobs that cause socio-economic problems. A policy is needed.

### Development, project and investment proposals

Status quo →	Synthesis →	Response
<b>Positive trends related to development:</b> <ul style="list-style-type: none"> <li>○ Some micro scale business opportunities</li> <li>○ Human need moderate</li> <li>○ Large taxi rank wasted space can be utilised</li> <li>○ Regional solid waste landfill site nearby</li> </ul>	<ul style="list-style-type: none"> <li>○ Retain purchasing power</li> <li>○ Opportunity for skills development</li> </ul>	<ul style="list-style-type: none"> <li>○ Expand existing recycling activities and consider rezoning of surrounding land for industrial activities related to recycling.</li> </ul>
<b>Development challenges:</b> <ul style="list-style-type: none"> <li>○ Low skill levels</li> <li>○ Gold mining nearing depletion</li> <li>○ Unsustainable settlement</li> <li>○ Illegal buildings very common</li> <li>○ Unaesthetic appearance</li> </ul>	<ul style="list-style-type: none"> <li>○ Greening and improvement of aesthetics</li> <li>○ Economic development needed</li> </ul>	<ul style="list-style-type: none"> <li>○ Green infrastructure upgrading needed – small park</li> <li>○ No further human settlement development</li> </ul>

Development node:

- Emerging activity node. In the centre of Blybank an activity node is emerging due to the clustering of social facilities. These facilities include a library, pay point, taxi rank and a clinic. The taxi rank is much too large for the settlement it serves, therefore it is proposed that small scale micro and survivalist enterprises be given space to operate from the surplus rank space.
- The stretch of land between Carletonville and Blybank is characterised by mixed land uses including dry land agriculture, industrial services, retail, institutional, solid waste land fill and residential. Although geological conditions are less favourable, the land adjacent to the Blybank road is available for mixed use development subject to obtaining land use rights.

### Government project proposals

- Greening initiatives are needed to improve liveability.

### Private sector business opportunities

- Given the locality of the municipal land fill site close to Blybank, recycling activities may be feasible in the area, subject to the geology.
- Some opportunities exist in small scale farming and bioenergy. These are to be unlocked by the municipality in coming years.

Community priorities identified in the ground level participation:

Problems	Proposed solutions (proposed by community)
1. Speeding in streets	Speed humps, roads signage/markings
2. No street names	Non-metallic name signs
3. Street lights	Fix and include new
4. Power failures	Should be fixed
5. Housing: Gap and BNG market	More housing should be provided by the mine and municipality
6. Church erven (5+ churches)	Avail land
7. Community hall/Community Centre	Centrally located multi-purpose
8. Youth Centre	Centrally located
9. Need for sports facilities	
10. Illegal dumping. Waste not collected at times contributes to dumping. More people per stand than municipality realises	Provide skip bins in addition to regular service. Collect waste weekly
11. High crime especially theft, few police patrols	More patrols, satellite police office
12. Plans of mine and municipality not the same	Coordination between mine and municipality
13. Library needs more study space	Even containers would help
14. Taxi rank was not asked for and is under utilised	Use rank for additional purposes
15. Primary school needed. Children traveling to Letsatsing at West Driefontein	Request primary school at National Gov
16. Taverns are a nuisance, however still required	Look at reduced hours, better policing age restrictions. Reduce on-consumption (Sit down) and provide communal area/park for people to socialize with alcohol allowed
17. Need more/bigger crèches	Land and/or increase size, containers
18. Children after school care	Provide facilities such as play parks where adults can supervise
19. An agreement exists between municipality and mine regarding properties – at Housing Section?	Could refer to Conditions of establishment
20. Confusion between mine and municipal ownership of land	Transfer land to municipality
21. Agri project collapsed	Blybank surrounded by agricultural land owned by mines. Should be transferred to municipality
22. Need for jobs	
23. Need for more business	Opportunities should be created by Municipality. Business is preferred in concentrated areas to avoid

	disturbing neighbours
24. Municipality is not accessible in Blybank, pay point does not work many times	Stronger municipal presence required
25. Road out of Blybank to the south-east is in a bad condition	Maintenance should be done
26. Space/office required for ward committee and councilor	Centrally located
27. Imbizos are held when most people are at work	Should be after hours or during weekends
28. No place for artistic and cultural expression	Could be included in community hall
29. Blybank is growing faster than the municipality realises	
30. Some people are moving to Blybank from Mpathlwa village	

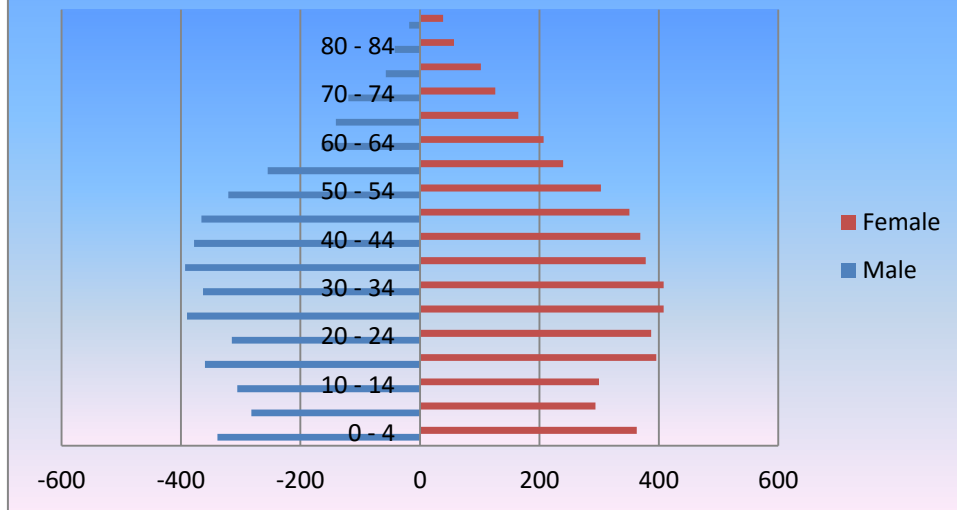
## Fochville

### Introduction

Fochville is a relatively small town in the south of Merafong. It forms the centre of economic activity in the south. The town lies between the Gatsrand and Losberg mountainous formations and has a distinct country atmosphere. In spite of its small size it has a large variety of amenities and services. Fochville has a population of about 9 500 and is flanked by Kokosi to the south-west and Greenspark to the south-east. Although the Kokosi-Fochville-Greenspark urban area is planned to become an integrated sustainable settlement over the long run, each settlement is discussed separately due to the different socio-economic conditions prevalent in each.

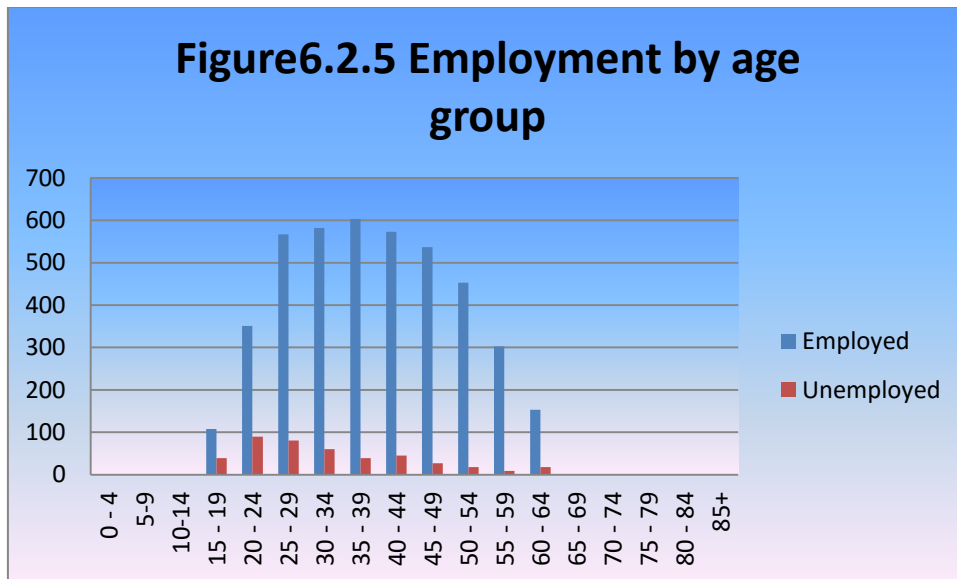
### Socio-economic profile

**Figure 6.2.4 Fochville population pyramid**



Fochville has a socio economic profile of an economically productive area, similar to Carletonville. Fochville is the most affluent urban area on average in Merafong and as such is socio-economically well positioned. The average household size is 3.05 and about 22% of households consist of a single member. The male to female ratio is about even. A significant proportion of the population is of working age and dependency levels are low. Less than 23% of households fall within the RDP income category. Just fewer than 30% of households fall within the “Gap Market” income category. The largest proportion of households earns a higher level of income (47%).

With approximately 430 unemployed persons, Fochville has an unemployment rate of 9.9%. Figure 6.2.5 gives an illustration of employment by age group (It does not depict discouraged work seekers). Most employed persons are aged between 25 and 50 years. Youth unemployment levels are lower in Fochville in comparison to many other areas. The level of education is relatively high. Around 63% of people have matric as their highest qualification and 9.6% have university degrees or national diplomas (The highest percentage in Merafong).



Infrastructure, service delivery and housing

- In Fochville, 98.85% of households have access to municipal tap water on their erven and 95.1% have tap water inside their dwellings.
- About 99.2% of households in Fochville have access to full waterborne sanitation.
- More than 97.31% of households have their refuse removed at least once a week and 1.06% less often.
- More than 99% of households use electricity for lighting.
- Just fewer than 98% of households live in formal housing.

Public facilities

	URGENCY		
	HIGH	MEDIUM	LOW
Fochville	Informal Market		

- In terms of the desired size and teacher-pupil ratio of the Department of Basic Education, there are no new *primary or secondary schools* required in Fochville.
- In terms of population size, Fochville requires a single well-equipped *clinic*, which is provided. The town also has a small *private hospital* and Carletonville is home to the Sybrand Van Niekerk *public hospital* that serves the entire Merafong.
- Fochville has a small civic centre with a public hall that serves the entire southern sub-region.
- Fochville has a *library* that serves the town sufficiently.
- An informal market is required at the Fochville Taxi Rank. The same concept as the Township Hubs can be used for the market.
- The Piet Viljoen Park functions as a *community park* and has potential to be upgraded with additional facilities. Fochville also has numerous smaller parks.

- The existing *fire station* in the south-west of Fochville provides adequate coverage in case of emergencies.

#### Characteristics of the space economy, land use and development in Fochville

- Fochville forms the economic core of the south of Merafong. The town has a relatively strong bi-nodal relationship with Carletonville. This means that the two towns provide goods and services to each other. Carletonville provides many lower order service and also strong retail functions and Fochville provides higher order services and many high income residents commute from Fochville to Carletonville. As the economies of both towns evolve, Fochville is gradually becoming less dependent on Carletonville with expanding retail floor space. Economic development that occurs in the northern or central parts of Merafong always benefits Fochville.
- Fochville is experiencing slow economic growth (The highest growth rate in Merafong) with expanding retail and office floor space. There is also some demand for new residential units in the lower middle income segment. In more recent years the construction of walk-up flats has increased significantly.
- The area that experiences the highest demand for housing development is in the north of Fochville, however from an urban sustainability perspective the most viable area for residential densification is to the south where infrastructure costs to the municipality will be much less in the long run. Therefore a balance needs to be struck.
- Fochville has a 'small town' appeal. The town originated as a central place for farmers in the area. Since the development of gold mines in the area the functions of Fochville have changed, with more service and industrial activities linked to mining. The town has however retained its charm and this offers many opportunities, especially considering the migration changes that are occurring nationally within high income categories of households. The trend is referred to as Polarisation Reversal. Polarisation Reversal is part of the natural evolution that a national space economy goes through (Termed Differential Urbanisation) where firstly high income families start to move away from core metropolitan areas due to the negative externalities associated with 'big city living'. Fochville is situated about 65km from the Johannesburg Central Business District which makes it completely feasible to commute from Fochville to Johannesburg for work and have children attend schools in the countryside which generally have fewer problems such as drug use, etc. There are also a wide variety of amenities available that are usually not associated with a small town, such as a private hospital.
- Given the higher level of education and the good linkages with the rest of the Gauteng City Region, Fochville seems to be a good location for high technology, high skills companies that are less spatially bound to relocate to. Many of these types of companies are looking at alternatives due to negative externalities such as traffic congestion, pollution, unaesthetical environments, and high crime levels.
- Development in the Losberg industrial township has never taken off properly due to spatial factors at the time of its establishment. There are however several factors that currently bode well for industrial development in Losberg. The two most notable are the very low prices of land and the willingness of many industries to relocate outside the core area of large cities.
- Fochville is starting to experience bulk engineering service capacity problems. Upgrades are needed to accommodate growth in the future. Upgrading has started with water reservoirs and is continuing.

- Over the long term it is planned that Kokosi, Fochville and Greenspark develop into a single seamless integrated and sustainable settlement. The following planned interventions are currently used as tools to create the planned settlement:
  - ✓ Improved connectivity. A new access road is planned between Kokosi and Fochville in the south which will drastically improve accessibility.
  - ✓ Urban infill and growth areas. Fochville Extension 8 and 14, and Kokosi Extension 6 and 7 will fill in gaps to reshape the settlements into a compact town.
  - ✓ Development nodes. These nodes guide development to desired localities with planned infrastructure upgrades.
  - ✓ Development corridors. These corridors guide development in desired directions and in future will become the main spines of development and routes for public transport. Nodes and corridors will help to create a transit-oriented settlement that will improve connectivity and reduce the cost of living.
  - ✓ Containment. Undesirable development is curbed by containment boundaries. A good example is the encroachment of industrial activities on residential areas in the south of Fochville.
  
- Public transport is provided by private taxi and bus operators. The West Rand district is looking into the possibilities of establishing a Bus Rapid Transit system in the west rand. The municipality is planning to reshape urban areas in Merafong into transit oriented settlements where public transport is highly accessible and affordable, thus reducing costs and increasing urban efficiency. Refer to Nodes and corridors.

Status quo →	Synthesis →	Response
<b>Positive trends related to development:</b> <ul style="list-style-type: none"> <li>○ High level of education</li> <li>○ High level of income per household</li> <li>○ Low unemployment</li> <li>○ Small town atmosphere/lifestyle</li> <li>○ Demand for housing</li> <li>○ Growth in number of new businesses</li> </ul>	<ul style="list-style-type: none"> <li>○ Economic core area</li> <li>○ High tech and high skilled business development opportunities</li> <li>○ Quality of life offered can attract high income households that commute to Johannesburg for work or retirees</li> <li>○ Economic growth</li> <li>○ Greening to support small town appeal</li> </ul>	<ul style="list-style-type: none"> <li>○ Improve linkages with economically depressed areas – Kokosi Ext. 7 road link</li> <li>○ <u>Proposal:</u> Promote office development and improve high tech infrastructure and connectivity to Gauteng core</li> <li>○ <u>Proposal:</u> Market Fochville as a 'country town' and improve aesthetics</li> <li>○ Enable economic growth through development nodes and corridors with improved infrastructure and appropriate land use management</li> </ul>
<b>Development challenges:</b> <ul style="list-style-type: none"> <li>○ Small population threshold</li> <li>○ Bulk service capacity constraints</li> <li>○ Development pressure increasing</li> <li>○ Encroachment of industries on residential areas</li> <li>○ Slow industrial growth at Losberg</li> </ul>	<ul style="list-style-type: none"> <li>○ Decreased viability of certain higher order functions</li> <li>○ Infrastructure upgrading needed</li> <li>○ Space needed for smaller service industries</li> <li>○ Industrial development 'kick-start' needed</li> </ul>	<ul style="list-style-type: none"> <li>○ Town will grow naturally to reach larger development status</li> <li>○ Water Services Master Plan under compilation to facilitate informed decisions on infrastructure improvements</li> <li>○ <u>Proposal:</u> Growth management strategy to follow Water Services Master Plan</li> <li>○ Fochville extension 14 will provide industrial space for smaller businesses</li> <li>○ <u>Proposal:</u> Develop investment incentive scheme linked to spatial</li> </ul>

### Local Spatial Development Directives

The following spatial development directives have been put in place to direct actors within the space economy to make decisions in line with spatial policy. It is intended for use by the public as well as private sector and should be interpreted as policy statements.

Promote or maintain:

- Promote mixed land uses in the CBD.
- Promote the development of office uses at the Civic Centre and Jacaranda node.
- Also promote suburban convenience uses at the Jacaranda Node.
- The Losberg Ave corridor should be the main focus area for business-, personal- and professional services.
- Maintain a social facilities-to-population ratio at CSIR standards.
- Maintain the open space system and improve green infrastructure.
- Promote the use of bio swales for major developments and municipal storm water systems in order to reduce urban storm water pollution.
- Promote moderate densification in the central town especially areas south of Kerk Street and West of Loopspruit Ave.
- Mixed land uses should be promoted along the Kerk Street and Loop Spruit Ave corridors.
- Develop a new Light Industrial Township between Fochville and Kokosi.
- Mixed land uses should be promoted between Fochville and Losberg along the R500 in order to develop a low intensity corridor. Development should be in accordance with the provisions of the MSDF.
- Residential densification should be promoted along the Primary Development Corridor with business activities on ground floor level and residential above.
- Promote mixed land uses at the R500-Greenspark node.
- Service industry is to be promoted within the CBD south of Kerk Street.

Avoid, restrict or contain:

- Restrict residential densification in the northern parts of Fochville.
- Restrict development within ecological corridors and biodiversity hotspots in areas such as Loopspruit, Gatsrand and Losberg.
- Contain industrial encroachment upon residential areas in the south of Fochville.
- Avoid restricting access to the open space system.

### Development, project and investment proposals

Development nodes:



1. The CBD forms the primary node of Fochville and contains numerous retail, service and institutional activities. The main growth area of the node is to the north along Losberg Street, north of Kerk Street. There is some expansion on the southern side. Leapfrogging development has to be controlled, because stretching the CBD too far horizontally without high levels of economic growth will cause areas of decay to develop and it will also cause encroachment into residential areas.
2. The intersection between the R500 and the Kloof road that passes Greenspark is emerging as a node. Currently it is only occupied by an industrial business, however applications for a public garage (Focused on freight transport), residential development and a golf course with associated retail activities has been approved. This node should be allowed to develop mixed land uses that are non-noxious.
3. The intersection between Losberg Street and Jacaranda Avenue forms a neighbourhood node with land uses supportive to the surrounding high income neighbourhood. With the exception of office developments, this node should only contain land uses that would retain its current functions.
4. The Fochville Civic Centre is located about half a kilometer south of the Jacaranda node in Losberg Street. This is the main hub of municipal offices and other facilities in the south of Merafong. A relatively large portion of land remains next to the facility that would be ideal for office functions and thus this area is designated as a specialised node.
5. In spite of the town's small size it hosts a private hospital, located in Derde Street. The presence of the hospital opens up opportunities for a node to develop based on supportive land uses such as doctors and dentists consulting rooms, frail care centres, old age homes, pharmacies, and any other retail, service or institutional land uses that may obtain a locational advantage around the hospital.
6. The general nature (morphology) of the small farm portions between Fochville, Kokosi and Losberg has changed over the years. Farming activities have ceased, Kokosi is encroaching from the north and there is significant pressure for business and light industrial development. Many land uses, specifically in the transport sub-sector require larger tracts of land and a lower level of services, and due to the nature of the activities need cheaper land than is generally available in fully serviced towns. Considering the changing character of the area and the demand for cheaper land this area is opened up for business development for small enterprises as long as activities are non-noxious.
7. The Losberg industrial node is located south of Fochville and has rail access to most even as well as a freight and passenger station that is not currently in use. Noxious industrial activities are allowed at this node subject to compliance with all applicable legislation and regulations.

#### Development Corridors:

1. The main development corridor in Fochville follows Losberg Street. Between the Civic Centre and the CBD home office type developments are allowed, with business uses in the CBD and mixed business and industrial uses further south outside the CBD in Loopspruit Avenue.
2. From the CBD up to Extension 14, business uses are encouraged along Kerk Street.
  - Infrastructure upgrading:
    - ✓ Tree planting to create tree-lined boulevards. Corridors are to be upgraded first.
    - ✓ Paving for pedestrians in remaining unpaved stretches.

- ✓ Bulk engineering services should be channeled through these corridors to serve increased densities and capture economies of scale if and when required.
  - ✓ Public transport pick-up points should be located along these routes at approximately 1 km intervals.
  - ✓ In areas of high pedestrian volumes, traffic calming measures should be put in place. Especially in the CBD.
- Land uses:
    - ✓ Business land uses are encouraged. The land use rights must be obtained if necessary. No industrial uses unless stated otherwise.
    - ✓ It should be noted that not all areas along corridors are earmarked for development simultaneously as this would create a situation where certain areas experience decay. As the economy grows more areas along corridors and nodes are 'released' for redevelopment. Therefore refer to the SDF main map for the distinction between current and proposed development areas and also refer to the guidelines for nodes and corridors.
    - ✓ Future institutional uses including those of the municipality, state and NGOs should be developed along or near corridors and nodes, except uses that have a naturally dispersed pattern such as churches.
    - ✓ In future development corridors will form the spines of the public transport network with pick-up and drop-off facilities concentrated along these routes.
    - ✓ Generally land use intensification is promoted along corridors. This will create areas that are safer due to higher levels of activity.
    - ✓ Businesses that sell alcohol for consumption on the premises should be clustered along corridors and at nodes to facilitate minimal disturbance of quieter residential areas and for easy patrolling by police.

#### Private sector business opportunities

- The consumer market in Fochville can be broken up into the following segments:
  - ✓ LSM 1-5 = 10%
  - ✓ LSM 6-9 = 44%
  - ✓ LSM 10-10+ = 36%

A survey of current retail space in Fochville is required to estimate expansion potential. Such a survey has not been done and therefore no opinion can be presented. The retail landscape in Fochville is dominated by the President Square shopping centre which has recently been ramped up the size to a community centre which should keep the market satiated for a number of years. Further shopping centre developments are welcomed as long as viability can be proven.
- Some of the cheapest industrial land in the country is available in Losberg. Currently only Eskom electricity and water is available, however the municipality plans to upgrade the infrastructure of Losberg to attract more investment.
- As mentioned in the previous section, there is potential for the development of office type businesses in the high tech and business services sub sectors. Land is available next to the Fochville civic centre. The civic centre itself could be alienated.

- The development node at the N12 is suited for transport and logistics activities. A small 'Logistics Village' that provides services to transport may be feasible. At a later stage industrial development will be considered.
- The urban–rural transition area between Fochville and Losberg has been opened for non-noxious business and industrial development subject to obtaining the land use rights and comments from neighbours.

Community priorities identified in the ground level participation:

Problems	Proposed solutions
1. Roads – potholes, signage and markings	
2. Street name signs	
3. Street lights not working	
4. Reservoir leaks	
5. Sewer blockages	
6. Waste – illegal dumping	
7. Facilities – Civic Centre (Maintenance), Sports facilities (Maintenance), cemetery (maintenance), swimming pool (maintenance), Piet Viljoen park (Dilapidated)	Privatise components – occupy and maintain
8. Unemployment	
9. Number of basic by-laws required	
10. Illegal structures	Enforce by-laws and legislation
11. Business development centre required in south Merafong	
12. Grass cutting	
13. Crime	

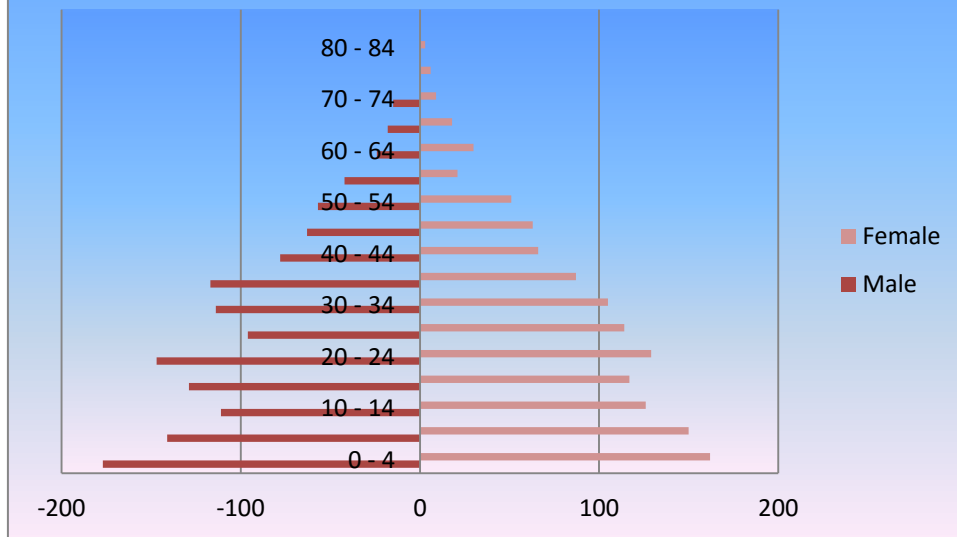
## Greenspark

### Introduction

Greenspark is situated east of the southern part of Fochville across the Loopspruit and the R500 dual carriageway. It is a small urban area that was initially laid out as a “coloured” township/dormitory area. It has a population of about 2 600. Functionally it is a part of Fochville, however due to its unique socio-economic characteristics it is discussed separately.

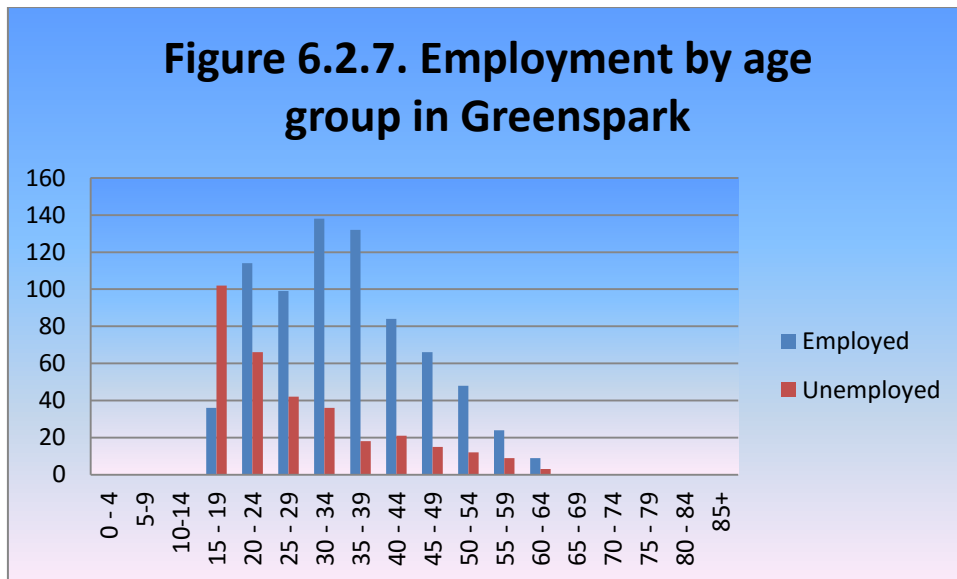
### Socio-economic profile

**Figure 6.2.6 Greenspark population pyramid**



Greenspark has a socio economic profile of a non-mining township area, similar in many respects to Kokosi. The average household size is 4.86 which is significantly higher than the average for the municipal area. The female to male ratio (F:M) is about even at 1:1.06. The younger part of the workforce is slightly male dominated. A significant proportion of the population is of working age (Notably less than other settlements) and it is clear from the pyramid that the birth rate is increasing rapidly. About 70% of households fall within the RDP income category. Just fewer than 25% of households fall within the “Gap Market” income category. A very small proportion of households earn a higher level of income.

With approximately 330 unemployed persons, Greenspark has an unemployment rate of 40%. Figure 6.2.7 gives an illustration of employment by age group (It does not depict discouraged work seekers). Youth unemployment up to the age of 24 is proportionately very high. Most employed persons are aged between 20 and 35 years. Youth unemployment levels are critically high in comparison with many other areas. The level of education is very low. Around than 52% of people have matric as their highest qualification and 47% only have a primary school education or less. 61% Of Greenspark residents were born in Gauteng.



Infrastructure, service delivery and housing

- In Greenspark, 96.1% of households have access to municipal tap water on their erven and 27% have tap water inside their dwellings.
- About 91.1% of households in Greenspark have access to full waterborne sanitation. Around 21 households reported they have less than the minimum level of service.
- More than 96.1% of households have their refuse removed at least once a week.
- More than 91.6% of households use electricity of lighting.
- Around 80.75% of households live in formal housing. The backlog in 2011 was approximately 489 units. On average for the whole of Merafong about 70% of housing units required fall within the RDP segment and 28% in the Gap market. Extrapolating from this average the number of RDP houses required will be around 342 and 137 Gap houses around. Providing housing is however more complicated and a sub-regional pooling approach is taken where people living in informal settlements in some areas will be provided housing in other nearby areas where job opportunities are more readily available and services can be provided sustainably.
- About 3.26 km of roads in Greenspark is unsurfaced, however the deficit is planned and budgeted for.
- Apart from roads and basic infrastructure, there is no significant economic infrastructure in Greenspark.

Public facilities

	URGENCY		
	HIGH	MEDIUM	LOW
Greenspark		Waste Disposal + Recycling Neighbourhood Sports Facilities Informal market	

- In terms of the desired size and teacher-pupil ratio of the Department of Basic Education, only 1 primary school is required and provided.

- The population is well below the minimum threshold for a secondary school. Secondary schools in Fochville and Kokosi are accessible. It should be noted that a new primary and high school is currently under construction. The two schools will be located next to each other and will share facilities. The facility is situated between Kokosi and Fochville. The Education department envisages that this school will serve the entire region with the boarding facilities that will accommodate pupils from rural areas. This new school will accommodate learners from Kokosi and Fochville.
- In terms of population size and walking distance, Greenspark requires a single clinic which is provided for in the form of a new large CHC that serves Fochville as well. Fochville has a small private hospital and Carletonville is home to the Sybrand Van Niekerk public hospital that serves the entire Merafong.
- Due to the large distance to the Fochville library a library has been provided in Greenspark (Erf 427).
- The existing fire station in Fochville provides adequate coverage in case of emergencies.

#### Characteristics of the space economy, land use and development in Greenspark

- There is virtually no formal economic activity in Greenspark. There is a single liquor store and a single general dealer.
- As part of the continued housing rollout, 340 subsidised houses have recently been handed over to new owners. Unfortunately the informal settlement these houses were meant to replace still stands. Beneficiaries were not forced to demolish their informal structures and as a result most of these structures remain. These are supposedly being rented out. Most of these structures are on private land.
- The potential for new retail developments in Greenspark is very limited. The total Gross Leasable Area (GLA) estimate for Greenspark is ± 1 132 m<sup>2</sup>. Considering that at least half of that potential will always be absorbed by the Fochville CBD, new developments will be marginally feasible at best for the foreseeable future. (566 m<sup>2</sup> @ 50% minus 370 m<sup>2</sup> existing GLA = 196 m<sup>2</sup>).
- Greenspark forms a functional part of the proposed Kokosi-Fochville-Greenspark sustainable settlement that is planned to evolve through integration, infill development and guided intensification. A pedestrian bridge that will create a safe pedestrian link between Greenspark and Fochville is under construction.
- The new large clinic that is under construction will bring in more jobs and some business activities to the area, especially considering the fact that the clinic will be serving Fochville as well.

Status quo →	Synthesis →	Response
<b>Positive trends related to development:</b> <ul style="list-style-type: none"> <li>○ Some micro scale business opportunities</li> <li>○ Close proximity to Fochville</li> </ul>	<ul style="list-style-type: none"> <li>○ Link up with Fochville</li> </ul>	<ul style="list-style-type: none"> <li>○ Enterprise hive under construction and pedestrian bridge (Under construction) to improve linkage to Fochville.</li> </ul>
<b>Development challenges:</b> <ul style="list-style-type: none"> <li>○ Low skill levels</li> <li>○ Unaesthetic appearance</li> </ul>	<ul style="list-style-type: none"> <li>○ Greening and improvement of aesthetics</li> </ul>	<ul style="list-style-type: none"> <li>○ Green infrastructure upgrading needed – community park to be developed</li> <li>○ Urban Design Framework needed</li> </ul>

## Local Spatial Development Directives

The following spatial development directives have been put in place to direct actors within the space economy to make decisions in line with spatial policy. It is intended for use by the public as well as private sector and should be interpreted as policy statements.

Promote or maintain:

- Enable economic development without investing heavily in economic infrastructure.
- Implement special economic measures in order to normalise the economies of previously disadvantaged areas.
- Bring the social facility-to-population ratio up to CSIR standards where possible; otherwise improve accessibility to Fochville facilities.
- Promote the use of bio swales for major developments and municipal storm water systems in order to reduce urban storm water pollution.

Avoid, restrict or contain:

- Restrict horizontal sprawl beyond the current footprint with the exception of the R500-Greenspark node.

## Development, project and investment proposals

Development nodes:

- Emerging node. A local node is emerging at the entrance to Greenspark. It consists of 2 stores, a new business hive and some institutional activity. The expansion potential of this node is limited and the existing vacant erven are sufficient.
- Future node. A mixed use node is envisaged for the crossing between the R500 and the road to Fochville. An application for a public garage, a golf course and a medium density housing development has been approved.

## Government project proposals

- Greening initiatives are needed to improve liveability.

Community priorities identified in the ground level participation:

Problems	Proposed solutions (proposed by community)
1. Sewer blockages	
2. Water – leaks, meters	
3. Roads – surfacing Ext 1, road damage due to clinic project	
4. Illegal creches	
5. Informal settlement – services- sewage tanks not emptied	
6. Street lights not working	
7. Street name signs	
8. Waste – illegal dumping	Skip bins with recycling
9. Bee Hive management issues	
10. Cemetery in a bad state	
11. Community hall in disrepair	

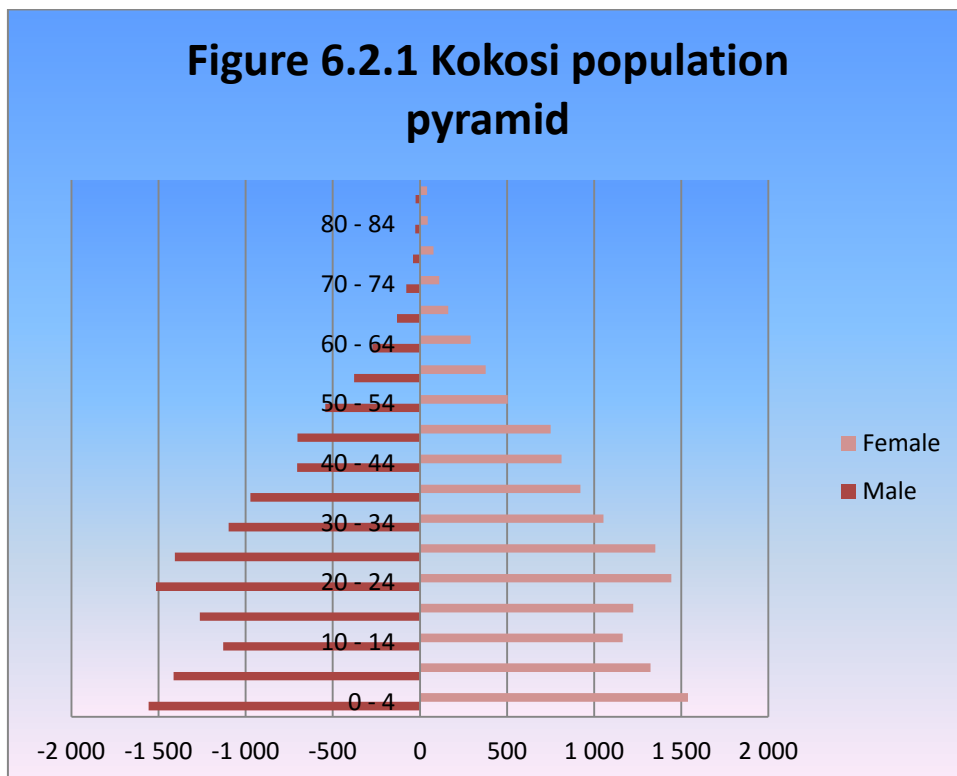
12. Sports facilities	Small spaces for sports
13. Town entrance looks bad	
14. Youth facilities needed	
15. Parks needed	
16. Crime – few police patrols, no CPF, problems with police call-outs	
17. Indigent registration fraud taking place	
18. Unemployment – mine layoffs, hospitals closing	LED to do skills matchmaking – technical skills available - many artisans
19. Church business and NGO stands needed	
20. Spazas – foreign dominated	
21. Taverns – nuisance – closing times	Taverns should be confined to business area
22. Many social ills	
23. Grass cutting	

## Kokosi

### Introduction

Kokosi is situated directly south east and adjacent to Fochville. The Loopspruit River and wetlands separate Kokosi from Fochville. Kokosi was established as a dormitory town (“township”) and the population has reached about 26 400 in 2011. The spatial objective is to integrate Kokosi, Fochville and Greenspark into a single integrated settlement. However, in order to address specific needs and develop potential each town is discussed separately.

### Socio-economic profile

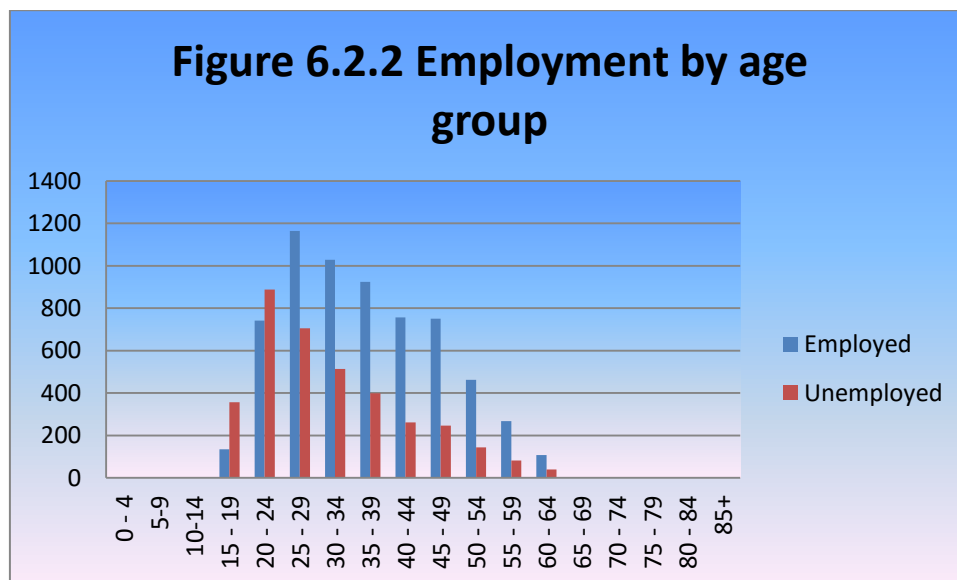


Kokosi has a socio economic profile of a non-mining township area, similar to Khutsong. With a population of around 26 400 Kokosi is the third most populous urban area in



Merafong. The average household size is 3.56 and about 25% of households consist of a single member. The male to female ratio is about even. The younger part of the workforce is slightly male dominated. A significant proportion of the population is of working age (Slightly male dominated) and it is clear from the pyramid that the birth rate is increasing. More than 71% of households fall within the RDP income category. Just fewer than 25% of households fall within the “Gap Market” income category. A very small proportion of households earn a higher level of income.

With approximately 3600 unemployed persons, Kokosi has an unemployment rate of 33.4%. Figure 6.2.2 gives an illustration of employment by age group (It does not depict discouraged work seekers). Youth unemployment up the age of 24 is proportionately high. Most employed persons are aged between 20 and 50 years. Youth unemployment levels are lower in Kokosi in comparison to many other areas. The level of education is very low. Around than 54% of people have matric as their highest qualification and 44% only have a primary school education or less.



#### Infrastructure, service delivery and housing

- In Kokosi, 83.4% of households have access to municipal tap water on their erven and 30.1% have tap water inside their dwellings.
- About 95.9% of households in Kokosi have access to full waterborne sanitation. Around 138 households reported they have less than the minimum level of service.
- More than 76.6% of households have their refuse removed at least once a week.
- More than 84% of households use electricity of lighting.
- Around 81% of households live in formal housing. The backlog in 2011 was approximately 1400 units. On average for the whole of Merafong about 70% of housing units required fall within the RDP segment and 28% in the Gap market. Extrapolating from this average the number of RDP houses required will be around 980 and Gap houses around 390. Providing housing is however more complicated and a sub-regional

pooling approach is taken where people living in informal settlements in some areas will be provided housing in other nearby areas where job opportunities are more readily available and services can be provided sustainably.

- Apart from roads and basic infrastructure, there is no significant economic infrastructure in Kokosi.

### Public facilities

	URGENCY		
	HIGH	MEDIUM	LOW
Kokosi	Police Station Post Office ECD Resource Hub Community Sports Facilities Informal Market New Taxi Rank	Community Hall Primary School	High School

- In terms of the desired size and teacher-pupil ratio of the Department of Basic Education, there will be a deficit of 1 **primary school** in Kokosi with the addition of Extension 6.
- With the construction of houses in Extension 6 and 7, one additional high school will be required. Land will be available in Extension 7.
- It should be noted that a new primary and high school is currently under construction. The two schools will be located next to each other and will share facilities. The facility is situated between Kokosi and Fochville. The Education department envisages that this school will serve the entire region with the boarding facilities that will accommodate pupils from rural areas. This new school will accommodate learners from Kokosi and Fochville. Another school in Extension 7 may not be needed in the short to medium term. The land will however still be available for future educational use as the needs evolve.
- A new Community Healthcare Centre will be constructed on a portion of Erf 3335 which will bring healthcare services up to a satisfactory level. Fochville has a small private hospital and Carletonville is home to the Sybrand Van Niekerk public hospital that serves the entire Merafong.
- A large capacity social hall is needed in Kokosi in addition to what is currently available. It should be located at the new Kokosi Hub site. The old hall could be sold to a church once the newer hall has been constructed.
- Due to the locality of the existing library in the far northern part of Kokosi (Ext. 2) another has been provided for on Erf 3335 Ext. 4
- Kokosi needs another community park equipped with ablution and recreational infrastructure. The Kokosi Hub site is very well suited.
- The existing fire station in Fochville provides adequate coverage in case of emergencies.
- As far as possible and practical, all new facilities must be clustered in the new Kokosi Hub.

### Characteristics of the space economy, land use and development in Kokosi

- According to a survey conducted in 2012, illegal land use activities are conducted on 4.3% of erven in Kokosi. The vast majority of these activities are survivalist and micro enterprises. There is no well-defined spatial pattern to the distribution of these activities

other than its scattered nature, i.e. no concentrations/clusters exist. However if a temporal component is added a trend emerges that suggests residents in newer RDP developments have a higher propensity to conduct illegal activities. This trend becomes discernable when consideration is given to the patterns in different extensions, e.g. in Kokosi, the newer extensions have more and a greater variety of illegal land uses with differences showing clearly. Extension 5 in Kokosi has the greatest variety even though transport and shopping opportunities are more accessible there than other parts of Kokosi where land use contraventions are less prevalent. These activities, although currently illegal in terms of the Fochville Land Use Management Document, 2000 (FLUMD), have a positive socio-economic impact on the town and its residents prefer to have these activities. Therefore these micro enterprises must be legalised through an amendment to the FLUMD.

- There is virtually no formal economic activity in Kokosi. There is significant potential for a shopping centre and also other retail and service activities.
- As part of the continued housing rollout, Kokosi Extension 6 and 7 are expected to be proclaimed within a year. The Township Establishment processes have been halted due to legal complications. Extension 6 will consist of ± 2 140 subsidised and Extension 7 ± 2 000 Gap or affordable houses. These developments will, once completed, eradicate the housing backlog in Kokosi almost completely. As part of Extension 7 a new distributor road will be built connecting the southern part of Kokosi with Fochville.

#### Local Spatial Development Directives

The following spatial development directives have been put in place to direct actors within the space economy to make decisions in line with spatial policy. It is intended for use by the public as well as private sector and should be interpreted as policy statements.

Promote or maintain:

- Enable economic development without investing heavily in economic infrastructure (Except at the Kokosi Hub).
- Implement special economic measures in order to normalise the economies of previously disadvantaged areas.
- Bring the social facility-to-population ratio up to CSIR standards where possible; otherwise improve accessibility to Fochville facilities.
- Promote the use of bio swales for major developments and municipal storm water systems in order to reduce urban storm water pollution.
- In the long term a road link between Kokosi and Losberg should be considered.
- A non-motorised transport path should be developed between the Kokosi Hub and Fochville, crossing the Loopspruit and linking up either to the proposed new light industrial area or Kort Street.
- The road link between Kokosi Extension 7 and the south of Fochville is a priority and should be completed as soon as possible.
- All development should take into account the objective of developing the Kokosi Hub as a major new node and facility cluster.

Avoid, restrict or contain:

- The development of taverns and shebeens should be restricted. The negative externalities associated with these businesses outweigh the small employment gains. We need decent jobs, not jobs that cause socio-economic problems. On-consumption establishments should be restricted to nodes and corridors.

Development, project and investment proposals

Development nodes:

- Emerging nodes.
- Future nodes.

Development Corridors:

- Infrastructure upgrading:
  - ✓ Tree planting to create tree-lined boulevards. Corridors are to be upgraded first.
  - ✓ Paving for pedestrians in remaining unpaved stretches.
  
- Land uses:
  - ✓ Business land uses are encouraged. The land use rights must be obtained if necessary. No industrial uses.
  - ✓ Future institutional uses including those of the municipality, state and NGOs should be developed along or near corridors and nodes, except uses that have a naturally dispersed pattern such as churches.
  - ✓ In future development corridors will form the spines of the public transport network with pick-up and drop-off facilities concentrated along these routes.
  - ✓ Generally land use intensification is promoted along corridors. This will create areas that are safer due to higher levels of activity.
  - ✓ Businesses that sell alcohol for consumption on the premises should be clustered along corridors and at nodes to facilitate minimal disturbance of quieter residential areas and for easy patrolling by police.
  - ✓ Bulk engineering services should be channeled through these corridors to serve increased densities and capture economies of scale if and when required.

Status quo →	Synthesis →	Response
<b>Positive trends related to development:</b> <ul style="list-style-type: none"> <li>○ Some micro and larger scale business opportunities</li> <li>○ Close proximity to Fochville</li> <li>○ Sizable consumer market</li> <li>○ New gap market development will increase market size</li> <li>○ Decommissioning of old WWTP opens new land for development</li> </ul>	<ul style="list-style-type: none"> <li>○ Link up with Fochville</li> <li>○ New land for development available</li> <li>○ Demand for business and micro industrial uses</li> </ul>	<ul style="list-style-type: none"> <li>○ Subdivide land for business, micro industry and urban agriculture</li> <li>○ Encourage the development of a neighbourhood shopping centre</li> </ul>

<b>Development challenges:</b> <ul style="list-style-type: none"> <li>○ Low skill levels</li> <li>○ ± 3600 unemployed persons</li> <li>○ Unaesthetic appearance</li> <li>○ Social development need</li> </ul>	<ul style="list-style-type: none"> <li>○ Greening and improvement of aesthetics</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop Social Development Cluster</li> <li>○ Green infrastructure upgrading needed – community park to be developed</li> <li>○ Urban Design Framework needed</li> <li>○ New link with Fochville to be created</li> </ul>
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### Government project proposals

- With the closure of the old Kokosi Waste Water Treatment Plant recently, the buffer zone surrounding it has become redundant. The development potential of the newly available portions of land is however subject to the position of the Floodline of the Loopspruit. Therefore the Floodline has to be determined by a suitably qualified engineer. Portions north of the Loopspruit have been designated as Critical Biodiversity Area in the West Rand Bioregional Plan and are therefore “off limits”.
- The Kokosi Hub will be the focus of government investment in order to create a viable and sustainable node
- Greening initiatives and habitat restoration is needed.
- In addition to the proposed industrial land use component, land in the northern part of Extension 1 can be utilised for urban agriculture projects.
- The township establishment and subdivision processes for the light industrial and institutional expansion in the north (Fochville Extension 14) have to be completed. Engineering services including water, electricity, sewage and roads have to be installed before the erven can be sold.

### Private sector business opportunities

- The consumer market in Kokosi can be broken up into the following segments:
  - ✓ LSM 1-5 = 71%
  - ✓ LSM 6-9 = 25%
  - ✓ LSM 10-10+ = 4%

From the available data it is estimated that with a 25% market share, a large convenience centre or a small neighbourhood centre with a GLA of about 6 300 m<sup>2</sup> is feasible. There is virtually no formal retail space available in Kokosi currently and given the population size and travel distance to Fochville a shopping centre at the right locality will intercept a significant proportion of the market without affecting shops in Fochville too negatively because demand outweighs supply. Merafong Municipality has 2 properties that are suitable for development of a shopping centre in Kokosi. The one is situated next to the Popo Molefi soccer stadium and proposed sports grounds expansion and the other could form part of a planned “Social Development Cluster”. This is a new concept that will include public facilities as well as spaces for NGOs and informal traders (Informal trade, based on the ‘chaos precinct’ concept which could be included in the shopping centre).

- Several business erven will become available in the near future in Kokosi Extension 2, 3 and 4. These erven offer opportunities for small and micro enterprises to establish in Kokosi.

Community priorities identified in the ground level participation:

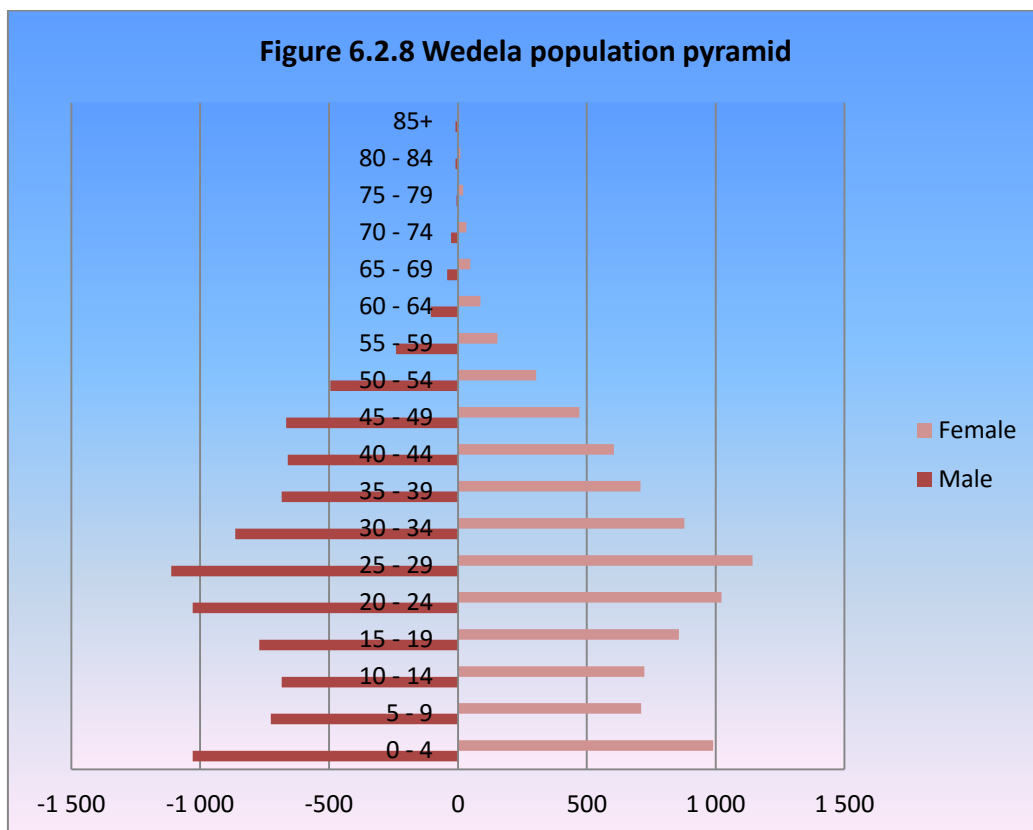
Problems	Proposed solutions (proposed by community)
1. Sewer blockages	
2. Unemployment, NYS learnerships + EPWP not working	Lists of unemployed need to be kept at LED/Social Development, small urban farms
3. Electricity – theft from Ext 1 to Ext 99, Expensive, outages, problems with meters	
4. Water – leaks, meters not working properly	
5. Street lights not working	
6. Roads – surfacing, potholes, paved roads damage	
7. Storm water – damage to roads in Ext 1 and Ext 3	
8. Speeding	Traffic calming measures
9. Passages in Ext 1 causing conflict	Investigate
10. Street names not visible	
11. Waste – Weekly pick-up, dumping, bins in new extensions, stealing bins	Education program, skip bins, recycling
12. Crime – long wait for police, only 1 vehicle	
13. More sports facilities needed	Upgrade Popo Molefi
14. Cemetery is in a bad state	Do maintenance
15. Government offices such as SASSA and Home Affairs is inaccessible	Small satellite offices required
16. More small parks	
17. Municipal offices are far	
18. Public toilets	
19. Schools Ext 6	
20. Tertiary education institutions required	
21. Community hall needed – too far from south	
22. Churches are taking land – no land left for other purposes	
23. Children crossing Potch road to get to school - dangerous	Safety measures needed
24. People have to walk through the river to Fochville	Pedestrian bridge over Loopspruit needed
25. More land for small business needed	
26. Problems with Bee Hive administration	
27. Housing shortage and informal settlements stay the same size	Suggestions to demolish shacks when RDPs are allocated
28. There are many foreigners in informal settlements that will never get RDPs	
29. Ward committee training and office space	
30. Taverns – don't close, nuisance	Closing times to be enforced, on-consumption in business areas
31. Spazas – Foreign dominated	Spazas belong in neighbourhoods, cooperatives should be formed through training
32. Taxi stops and larger taxi rank needed	Discuss with taxi association
33. The concept of a multi-purpose hub was supported and indicated that Popo Molefi and Extension 6 or 7 should both be developed .	

## Wedela

### Introduction

Wedela is situated between Welverdiend and Kokosi with the closest proximity to Kokosi. It originated as a mine worker dormitory township and to this day still retains this function. The town is located directly south of the Gatsrand mountainous formations in a very beautiful landscape setting. The town has a population of about 18 000.

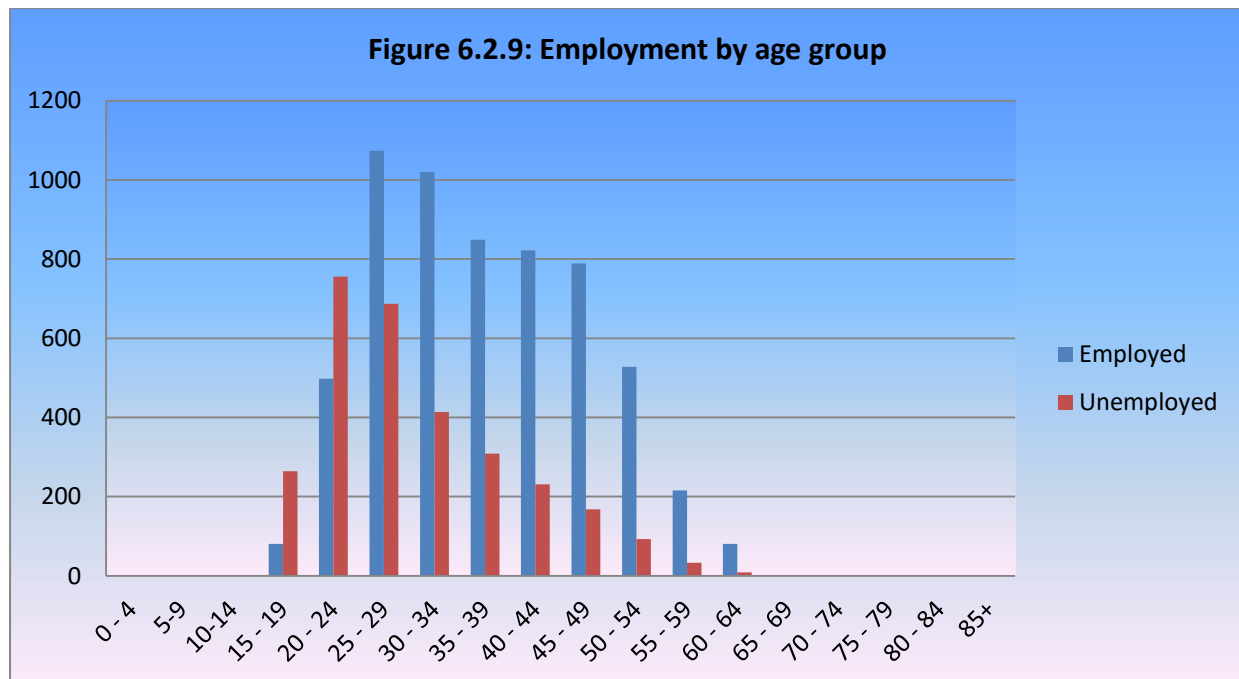
### Socio-economic profile



Wedela has a socio-economic profile that is typical of a mining dormitory area. With a population of about 18 000 it is the fourth most populous urban area in Merafong. The majority of households in Wedela are small with almost 40% consisting of a single member. In many cases these one person households are migrant labourers from rural areas. About 51% of residents are male which means that many families live with the breadwinner. It is evident from the pyramid that the female population increased and the younger part of the workforce consists of about an equal number of males and females. A large proportion of the population is of working age and the birth rate has increased recently. Just under 50% of households have an annual income of less than R 40 000.00. This income bracket would

qualify for RDP housing. More than 40% of households fall within the gap market that can afford home loans with assistance. A low proportion of households earn a higher level of income.

With approximately 3 000 unemployed persons in Wedela the town has an unemployment rate of 31% which is quite high. Figure 6.2.9 gives an illustration of employment by age group (It does not depict discouraged work seekers). Unemployment amongst the youth is proportionately very high. Most employed people are between 25 and 55 years of age.



#### Infrastructure, service delivery and housing

- Over 98% of households in Wedela have access to municipal tap water on their respective erven, and 61% have tap water inside their dwellings.
- About 99% of households in Wedela have access to full waterborne sanitation.
- Approximately 98% of households have their refuse removed at least once a week.
- More than 96% of households in Wedela use electricity for lighting.
- Above 77% of households live in formal housing structures (As defined by themselves or the Stats SA surveyors) and the rest reside in Informal and illegal semi-formal structures (Built without proper approval).
- The small service coverage gap of between 1 and 2% can be attributed to informal backyard dwellers in most cases. Notably the level of electrification is higher than the proportion of formal dwellings which means that there are numerous illegal service connections in Wedela.
- All formal roads (Part of the township) in Wedela except for the latest Extension 3 subdivisions are paved and a road hierarchy exists that varies from residential access streets to distributors. The road network has sufficient capacity to carry traffic for the foreseeable future. Approximately 4.08km of road has to be surfaced in Wedela.
- Apart from the existing road infrastructure there is very limited economic infrastructure in Wedela.



- There are serious problems with the construction of illegal buildings and fences. In many instances structures have been erected over erf boundaries onto adjacent properties, including street reserves. There is also a proliferation of illegal dwellings due to a shortage of accommodation for mine workers of the nearby shafts. AngloGold Ashanti is currently constructing numerous new dwellings on available land at medium densities in order to supply in the demand.

Public facilities

	URGENCY		
	HIGH	MEDIUM	LOW
Wedela	Informal market	Secondary School	

- Schools. In accordance with the accepted standards there are 3 primary and 1 secondary schools required in Wedela and the current provision is 2 primary and 1 secondary (Technical).
- Healthcare facilities. There is sufficient provision with one operational clinic in Wedela. The nearest regional hospital is in Carletonville.
- Municipal. Wedela reaches the threshold for a smaller sized community hall and it is also provided for. There is a customer care centre with a pay point. Wedela has 2 libraries for easy access.
- An informal market would improve product offerings and slightly reduce unemployment.

The space economy of Wedela

Wedela was established to function as a mine worker dormitory area and as such no locational factors were taken into consideration other than proximity to mine shafts at its establishment. Therefore it is spatially isolated from major urban areas. It is surrounded by the mountainous hills of the Gatsrand which also makes it seem more isolated (Mental distance friction). The town is also somewhat removed from major routes. The N12 is located nearby, however it is visually removed. Unfortunately due to these factors Wedela has a very weak inherent economic growth potential. The mining sector is the only economic driver and due to its imminent decline, economic growth prospects are low. There are adaptive reuse possibilities for mining plants and other existing infrastructure such as heavy engineering, which can eventually offer opportunities for recovery.

It is anticipated that after mine shafts close down, Wedela will remain as an affordable dormitory town with residents commuting to areas of employment such as Fochville, Carletonville, West Wits and the node on the N12. Limited opportunities for economic growth exist in small scale industrial and industrial service activities as well as the retention of purchasing power in the form of retail and services.

Status quo →	Synthesis →	Response
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<b>Positive trends related to development:</b> ○ Some business opportunities ○ Human need moderate ○ Technical high school underutilised	○ Retain purchasing power ○ Opportunity for skills development	○ Improve linkages with economic core areas ○ Develop a neighbourhood centre based on the “chaos precinct” model
<b>Development challenges:</b> ○ Low skill levels ○ Gold mining nearing depletion ○ Unsustainable settlement ○ Illegal buildings very common ○ Unaesthetic appearance	○ Greening and improvement of aesthetics ○ Economic development needed	○ Green infrastructure upgrading needed – community park ○ Urban Design Framework needed

### Local Spatial Development Directives

The following spatial development directives have been put in place to direct actors within the space economy to make decisions in line with spatial policy. It is intended for use by the public as well as private sector and should be interpreted as policy statements.

Promote or maintain:

- Enable economic development without investing heavily in economic infrastructure. Promote the development of more formal and informal economic activities related to convenience and services.
- Implement special economic measures in order to normalise the economies of previously disadvantaged areas.
- Bring the social facility-to-population ratio up to CSIR standards where possible; otherwise improve accessibility to Fochville facilities.
- Promote the use of bio swales for major developments and municipal storm water systems in order to reduce urban storm water pollution.
- Develop a substantial economic and social facilities component with the establishment of the proposed Wedela Extension 4.
- Promote the development of usable parks.
- Green infrastructure upgrading should be promoted.

Avoid, restrict or contain:

- Major expansion beyond Extension 4 should be avoided.
- Avoid the development of facilities before thresholds are reached.
- Illegal backyard room construction must be stopped and backyard tenant guidelines should be developed subject to the proposed study into service availability.
- The development of taverns and shebeens should be restricted. The negative externalities associated with these businesses outweigh the small employment gains. We need decent jobs, not jobs that cause socio-economic problems.

### Development, project and investment proposals

Development nodes:

- Node 1. Existing convenience centre on First Street and adjacent properties.
- Node 2. Fourth Street taxi rank.
- Node 3. J.B. Marks road, T-junction at the library.

Corridors:

- Tugela Street connecting node 1 and 2.
- Fourth, and Hellen Suezman Street connecting node 2 and 3.

General Merafong SDF node and corridor specifications apply.

Government project proposals

- The existing Bee hive will be upgraded to a larger enterprise hive on Erf 609 to 624 Wedela Proper. This initiative will provide support to small and micro enterprises in Wedela and help to reduce illegal land uses by providing alternatives.
- The facilities at the Wedela Technical High School are currently underutilised. Given the need for technical skills development in Merafong, the high school facilities can be expanded upon and utilised for a training centre for technical skills.
- A community park is needed in Wedela to provide for recreational needs. There is a serious shortage of land available for facilities, especially in the right localities. Although not ideally located, Erf 186 Wedela Proper which belongs to AngloGold Ashanti and is zoned for a park is suitable.
- **The northern part of the Remainder of Portion 78 of the farm Buffelsdoorn 143 IQ may be suitable for light industrial use. Of the ±25 Hectares, about 40% may be developable. The property currently belongs to Randfontein Estates LTD. The most recent purchase price seems highly inflated considering the value the property offers. Therefore the municipality will not be able to purchase the property. A deal could be made to develop the land as part of a Public Private Partnership deal.**
- Greening initiatives are needed to improve liveability.

Private sector project opportunities

The consumer market of Wedela can be broken up into the following segments:

- ✓ LSM 1-5 = 22.1%
- ✓ LSM 6-9 = 78.3%
- ✓ LSM 10-10+ = 0,45%

Community priorities identified in the ground level participation:

Problems	Proposed solutions (proposed by community)
1. Street name signs	
2. Street lights	
3. Storm water blockages, erosion of channels and water through erven	
4. Water meters	
5. Sewer blockages	
6. Bridges over streams/storm water channels, road surfacing	
7. Ext 3 road bridge needs to be fixed	

8. Tree roots are lifting up street surfaces in northern areas	
9. Waste – illegal dumping, collection during holidays, some families are too large for just 1 wheelie bin	Skip bins, fence off dumping sites and use for other purposes, enable recycling
10. Grass cutting	
11. Speeding	Traffic calming measures needed
12. Crime – high, police responses are slow	
13. Rec Club - dilapidated	Could be converted as a small multi-purpose centre
14. Land required – business, NGOs, churches	Land audit of mine owned land - alienate to municipality. Subdivide small spaces next to roads where available
15. Need for more access to economic activities	Banks, retail, filling station, basic services
16. Bee Hive – Need for more, admin problems, vacant spaces not made available	Build more hives for different types of business, improve administration and avail vacant units
17. Unemployment – rising, mine layoffs imminent, Wedela totally dependent on mining for jobs, other industries needed	Create more investment opportunities for business in Wedela, link up to N12, industrial and agriculture needed, utilise underground water
18. Indigent registration – not receiving benefits	
19. Spazas – foreign dominated, expired products sold	Regulate, expel illegal foreigners
20. Taverns - nuisance	Keep out of residential areas, enforce closing times,
21. Opportunities needed for farming, dissatisfaction with current project	Avail more land for numerous small farms
22. Parks – bad state	Develop small parks over many areas
23. Clinic and community hall needed	
24. Youth activities	
25. Primary school needed	
26. Pay point far and bad service at times	
27. Agri forum potential issues with Wedela Ext 4	LED +Housing to communicate with Agri Forum and ward committee
28. Illegal electr connections causing power failures	
29. Housing need RDP and Gap	
30. Low levels of payment – municipal services	
31. Residents in the south and south-west complain that all facilities are far from them	

## Central Mining Belt

Promote or maintain:

- Promote the current and future development of mixed land uses next to the Primary Development Corridor.
- Promote the development of future industrial uses east of the Primary Development Corridor at West Driefontein with softer transitional uses directly next to the corridor.
- Promote development that is conscious of future post-mining opportunities and constraints. Precinct planning is required for West Wits and West Driefontein to enable sustainable future development.

- Maintain sustainable economic infrastructure.
- Utilise economic opportunities presented by land rehabilitation, such as bioenergy and phytoremediation.

Avoid, restrict or contain:

- In general, further residential development should be restricted because it is unsustainable. A noteworthy exception is the central valley (West Wits and West Driefontein) next to the Primary Development Corridor.
- Once appropriate housing options have been provided for informal dwellers, the establishment of new informal settlements should be strictly controlled by land owners.

Community priorities identified in the ground level participation:

Problems	Proposed solutions (proposed by community)
<u>West Wits and Elandsrand</u>	
1. Water meters – readings disputes	Install pre-paid meters
2. Waste – big bins provided – not emptied	
3. Dumping sites	
4. More facilities needed whilst mines are demolishing structures	
5. Access to business and services is limited	
6. Facilities are not being maintained	
7. Security problems – crime	
8. Informal settlements not getting basic services regularly (Block 8)	Municipality to improve delivery
9. Clinics and libraries inaccessible to many people	Consider mobile clinics and other facilities
10. Skills development section of Municipality only caters for Khutsong	
<u>Blyvooruitzicht</u>	
1. Crime police are afraid	
2. Dumping	
3. Infrastructure is collapsing – roads, water, sewer, electricity	
4. Community facilities	
5. Taxi routes not going to Blyvoor	
6. Councilors, ward committees and community not involved in township formalization processes	Invite councilor or relevant ward committee member to meetings
<u>Mohales Hoek</u>	
1. Basic service issues – water, toilets, waste	Provide skip bin
2. Crime prevalent	