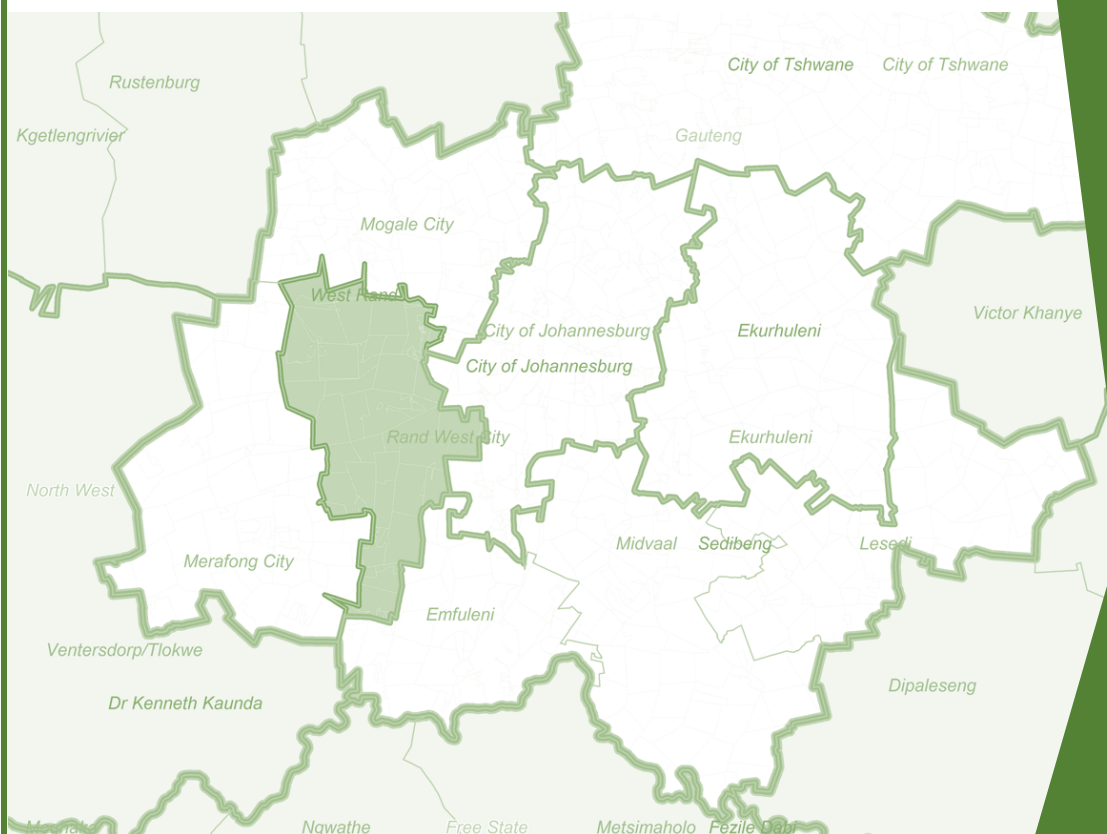


RAND WEST CITY LOCAL MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK

FINAL REPORT



rural development
& land reform
Department:
Rural Development and Land Reform
REPUBLIC OF SOUTH AFRICA



JANUARY 2019



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1 INTRODUCTION

1.1 BACKGROUND

During January 2018 the Department of Rural Development and Land Reform (DRDLR) commissioned the compilation of a Municipal Spatial Development Framework for the Rand West City Municipality in line with the requirements of Section 12 of the Spatial Planning and Land Use Management Act, Act 16 of 2013.

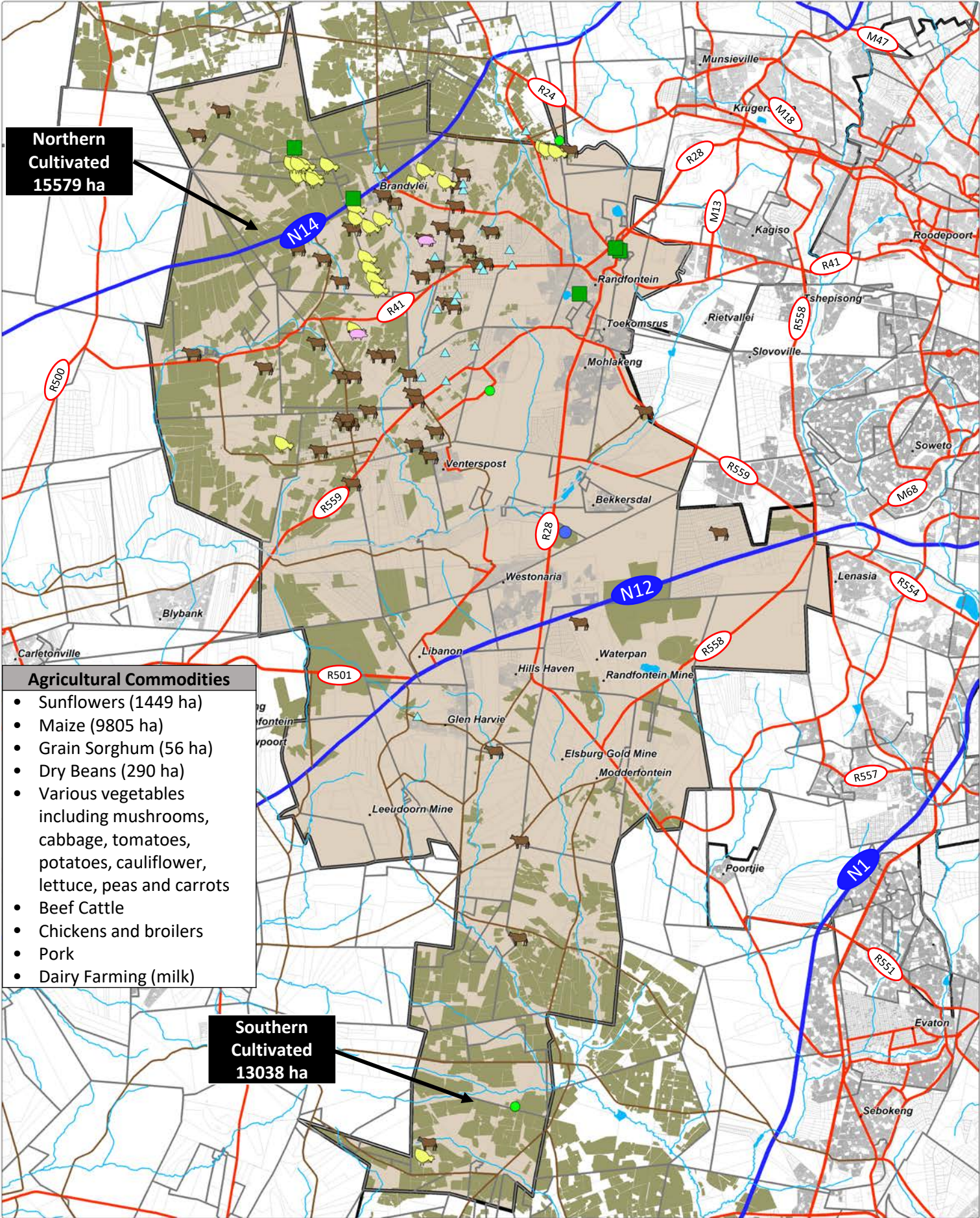
1.2 STUDY OBJECTIVES

The main objective of the project is to develop a MSDF for the entire Rand West City municipal area (refer to **Figure 1**) which will address spatial, environmental and economic issues confronting both the urban and rural areas. The Municipality is characterised by a dispersed spatial structure, with various towns and mining villages spread across the entire municipal area, whilst the rural areas consist of a large number of farms, as well as agricultural holdings.

The MSDF will also respond to the policy and legislative parameters established by National and Provincial Government, and take cognisance of the municipal space economy in the context of the provincial and national space economies.

More specifically, the Rand West City MSDF will aim towards achieving the following objectives:














- Provide a strategic spatial development vision for the new municipality in line with the broad development objectives of the National and Provincial policies;
- Provide a clear and comprehensive Spatial Framework for the Rand West City Local Municipality which will inform, improve and guide cross-sectoral policy alignment and project implementation and integration;
- Indicate in as much detail as possible to stakeholders the desired future spatial form for the municipality;
- Highlight planning, environmental, infrastructural and institutional issues that gave rise to the proposals contained in the final document;
- Provide all stakeholders an opportunity to participate during the process of formulating the SDF;
- Provide a spatial reflection of the needs and priorities established in the municipal integrated development plan and identify specific issues which are unique to the municipality;
- Address rural development issues such as the integration with urban areas, the provision of social facilities, the provision of infrastructure and involvement during the public participation process;
- Identify areas for economic opportunities, particularly in industrial, commercial and agriculture;
- Identify infrastructure needs and services constraints and bring forward tangible solutions to address these;



**Northern Cultivated
15579 ha**

**Southern Cultivated
13038 ha**

- Agricultural Commodities**
- Sunflowers (1449 ha)
 - Maize (9805 ha)
 - Grain Sorghum (56 ha)
 - Dry Beans (290 ha)
 - Various vegetables including mushrooms, cabbage, tomatoes, potatoes, cauliflower, lettuce, peas and carrots
 - Beef Cattle
 - Chickens and broilers
 - Pork
 - Dairy Farming (milk)

	Cadastral		Piggery		National Roads
	Extensive Agriculture		Tunnels / Shadecloth		Main Roads
	Cultivated Land		Grain Silos		Secondary Roads
	Cattle Feedlot		Agri Industries		
	Chicken Feedlot		Hydroponics Project		

0 1,2 3,6 6 km

32

The WRDM Regional Economic Development Plan notes that various agri-business development projects are planned for Westonaria, e.g. production of herbs, essential oils and vegetables, a livestock breeding programme, a nursery and instant lawn project, and hydroponics farming (implemented) and poultry production in the area between Simunye and Bekkersdal as illustrated on Figure 32.

3.7.5 Summary of Economic Opportunities

The following **Table 14** represents a brief summary of development opportunities as identified for each economic sector in the RWC LM area and surrounds as determined from the Gauteng Economic Opportunity Atlas.

Table 14: RWC LM Economic Development Opportunities

Sector	Development Opportunities
Agricultural Sector	<ul style="list-style-type: none"> • Intensive commercial farming opportunities • Aquaculture development • Small-scale commercial farming • Subsistence farming • Other development opportunities within the agricultural sector
Mining Sector	<ul style="list-style-type: none"> • New gold mining projects • Improving the profitability of mines • Small Scale mining • Strengthening local backward linkages • Mining assisted small business development • Processing and beneficiation of mining produce • Mining Centre of Excellence
Manufacturing Sector	<ul style="list-style-type: none"> • Industrial cluster development • Manufacturing opportunities in niche markets • Manufacturing activities using local produce as inputs • Supportive and service industries linked to the mining sector • Promotion of further investment in currently successful manufacturing activities • Chemical Waste Sector
Utilities and Construction Sector	<ul style="list-style-type: none"> • Development of Donaldson Dam: • Development of Riebeeck Lake • Katlego cultural facility • CBD Regeneration and Industrial Development Districts: • Township and Urban Renewal Projects
Wholesale and Retail Trade Sector	<ul style="list-style-type: none"> • Gaps in regional retail hierarchy • Mining and agriculture supplies and services • Fresh produce market • Development of commercial clusters
Transport and Communications Sector	<ul style="list-style-type: none"> • Utilise existing infrastructure optimally through proper routine maintenance and rehabilitation routines • Improvement of existing infrastructure with the aim of increasing accessibility to the area • Transportation corridor development with surrounding areas and economic of importance • Improving the safety and efficiency of rail commuter services, in order to utilise the system to full capacity



Sector	Development Opportunities
	<ul style="list-style-type: none"> Introducing new communication technology, i.e. logistics, ICT, networking platforms, call centres, etc. Possibility of a Logistics/Distribution Centre along route N12 could be investigated
Finance and Social/Community services	<ul style="list-style-type: none"> Provision of services to the mines Multi-Purpose Community Centres in former townships areas Call Centres
Tourism Sector	<ul style="list-style-type: none"> Promotion, information and infrastructure Development of tourism attractions: Development of specific tourist routes Tourism and hospitality training Tourism facilities SMMEs in tourism

3.8 ENGINEERING SERVICES

3.8.1 Water

Figure 33 schematically illustrates the bulk water network for the RWC LM area. The following should be noted:

- The RWC LM acquires all its bulk water from Rand Water feeder lines running parallel to route N12 and northwards along the eastern border of the municipality.
- The RWC LM does not use surface water as a water source for the area.
- Most of the farm areas and agricultural holdings are provided with water from boreholes.

The water supply around Westonaria town is distributed from 10 reservoirs and 1 elevated tower as shown on Figure 33 and listed in **Table 15** below.

Table 15: Components of Water System

Reservoirs	Reservoir Capacity (Ml/day)	Spare Capacity (Ml/day)
Westonaria Central 1	18	0.72
Westonaria Central 2	18	0
Westonaria Central 3	22	0
Glenharvie 1	8	0
Glenharvie 2	8	0
Wagterskop	4	1.2
Hillshaven	4	0
Waterpan	4	2
Elevated Tower	20	20
TOTAL	106	21.92

The Randfontein water system is supplied from 4 main connections to the Rand Water bulk supply system (RW1, RW2, RW3 and RW4). Connection RW1 supplies the Greenhills reservoir and connections RW2 and RW3 supply the Westergloor reservoirs. RW4 supplies Badirille.

The total storage capacity in the Randfontein town reservoirs and water towers amounts to approximately 39 500 kℓ as shown in **Table 16** below.

Table 16: Reservoirs and Water Towers

Name	Volume (kℓ)	Space Capacity (m.asl)
Greenhills reservoir	2 x 6 800	1 715
Greenhills water tower	1 100	1 715
Westergloor reservoir	3 x 6 800	1 725
Westergloor water tower	1 100	1 725
Finsbury reservoir	3 000	1 714
Finsbury water tower	215	1 714
Droogeheuvel reservoir	20 mℓ/day	
Droogeheuvel water tower	1 mℓ/day	
Badirile reservoir		
Total reservoirs	37 000	
Total water towers	2 415	

The water network system of Randfontein town is operated in three distribution zones namely, Greenhills/ Westergloor water tower zone, Finsbury water tower zone, and Droogeheuvel water tower zone. The Greenhills/ Westergloor water tower zone is the largest as it is supplied from the Greenhills and Westergloor water towers via their respective reservoirs. The Finsbury water tower zone is supplied from the Finsbury water tower through the Finsbury reservoir and its reservoir is filled through the network of the Greenhills/ Westergloor water tower zone under gravity.¹

3.8.2 Sanitation

The main components of the RWC LM sewer system (**Figure 34**) are operational in two drainage areas, namely the Randfontein Waste Water Treatment Works (WWTW) in the north and the Westonaria (Hannes van Niekerk) Waste Water Treatment Works (WWTW) in the south:

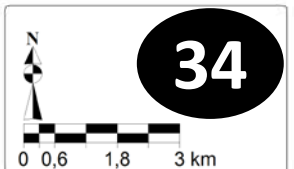
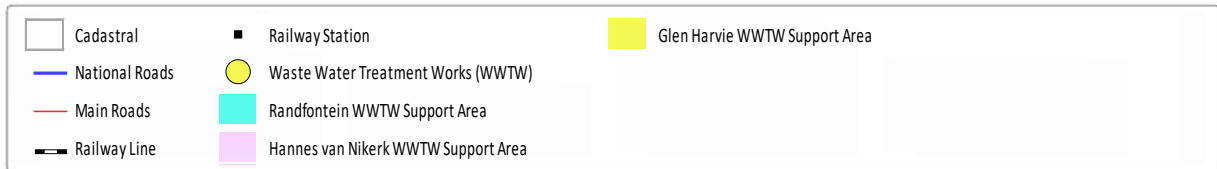
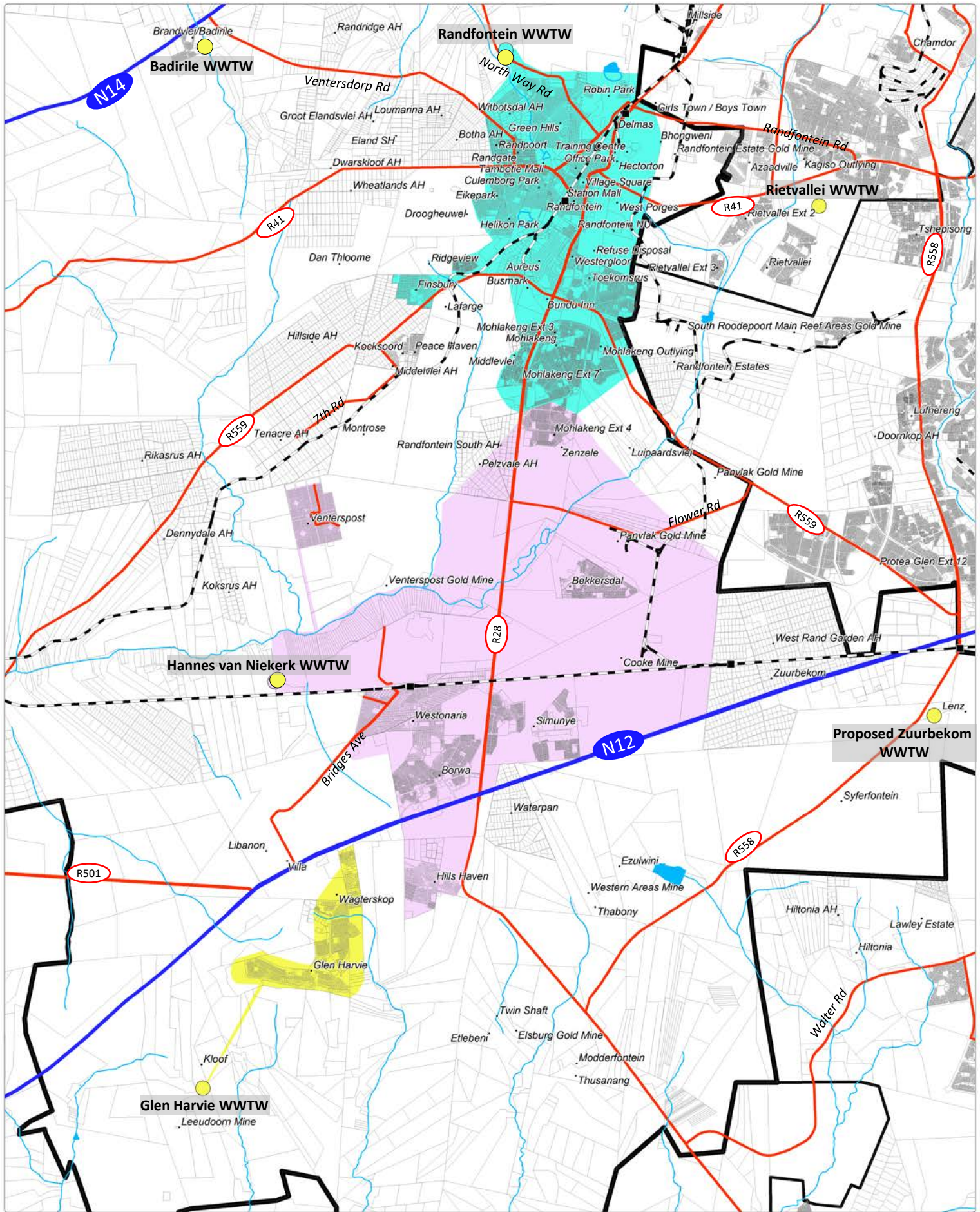
- The Randfontein drainage area includes all 9 sub-drainage areas and drain or pump into a main sewer, which traverses the town from Aureus in the south, through Greenhills in the north, and discharges at the Randfontein WWTW
- The Westonaria drainage area for which the gravity sewer extends from the Mohlakeng sub-drainage area and discharges at the Hannes van Niekerk WWTW.
- There are also two small treatment facilities at Glenharvie to the south and Badirille to the north.

More than 60% of the sewage from the Randfontein system is treated at the Randfontein WWTW and the remaining 40% is treated at the Hannes van Niekerk WWTW.

¹ RLM. 2009. Water Services Plan.



Rand West City Local Municipality – Bulk Sanitation Infrastructure



There are nine pump stations in the Randfontein system and five privately owned pump stations that discharge sewerage into the sewer system.

Existing Sewer Pump Stations

Type of Pumps	Number of pumps	Pump station capacity ℓ/s	
		Min	Max
Flyght 3085-181-15 (434 mm)	2	4,8	5,9
Hugh Mellor 3127-180	2	15,7	16,3
Flight	2	1,5	2,4
ABS	2	2,8	3,4
Wallwin 4 x HRH 7-71	3	19,3	20,8
Toro 16-50 HP2/LB 3A	2	18,7	20,8
Flyght L.3126-462	2	8,4	9,6
Rolot HW 3300-2 FR	2	20,0	20,0
KSB KWP 1-125-500	2	60,0	60,0

Source: Randfontein Water Service Plan, 2009

To address new demand, extensions to the current system are proposed. The construction of the Droogeheuvel and Middelvlei outfall sewers will substantially increase the discharge into the Hannes van Niekerk WWTW at Westonaria. It is estimated that a part of the Droogeheuvel development can discharge to the Randfontein WWTW in future.

Upon completion of these outfall sewers, it is planned for Finsbury, Kocksoord and part of Aureus to also discharge into this main outfall sewer feeding into Hannes van Niekerk WWTW.

The proposed future Zuurbekom WWTW at Syferfontein is intended to alleviate pressure on the Hannes van Niekerk WWTW in future.

3.8.3 Electricity

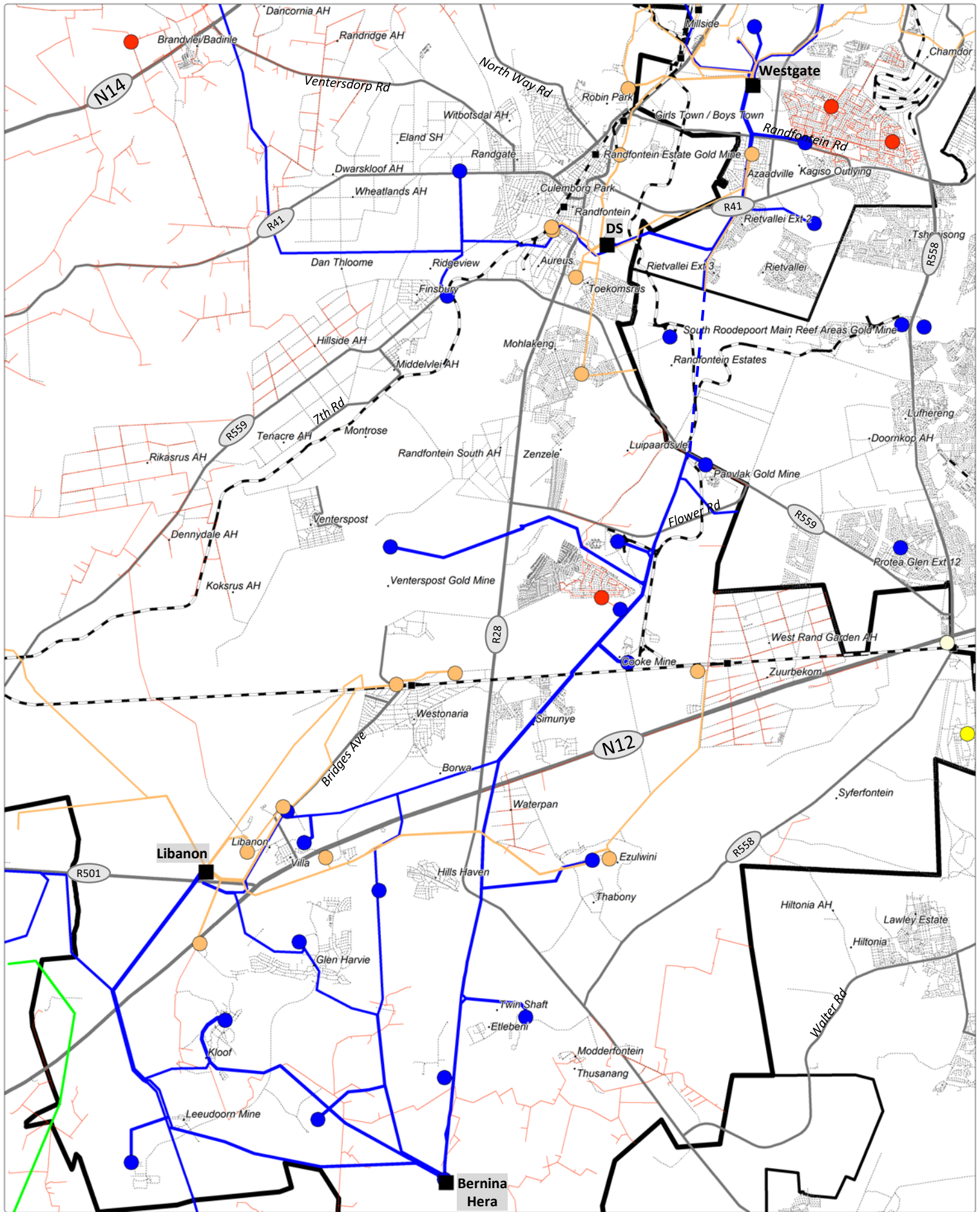
Figure 35 depicts the main Eskom 132kV line which serves the Rand West City area between the Hena substation to the south and Westgate substation to the north. The supplementary Eskom 44kv lines which serve the mining activities and towns around Westonaria, and Randfontein respectively are also shown on Figure 35.

The following notes from the RWC Electrical Infrastructure Master Plan are summarised for consideration in the compilation of the RWC SDF during the next phase of the project:

- Westonaria currently has three supply points from Eskom, namely:
 - Westonaria – Mars 44/6.6kV, 2 x 10 MVA substation.
 - Venters One – 132/6.6kV, 1 x 10 MVA substation.
 - Glenharvie – 132/6.6kV, 2 x 20 MVA substation.



Rand West City Local Municipality – Electricity Infrastructure



Transport Network	Power Line 400 kV	Major Sub Stations	Sub-Station 88 kV
National Roads	Power Line 132 kV	Sub-Station 132 kV	Sub-Station 6.6 kV
Main Roads	Powerline 44 kV	Sub-Station 44 kV	
Railway Line	Powerline 11 kV	Sub-Station 11 kV	

35

a) Borwa Mega Project

- To accommodate the new developments identified as part of the Borwa Mega Project and also future developments through private developers, the following infrastructure must be developed: two substations at Westonaria of which one will be an existing 132/11 kV Eskom substation (Glenharvie) and the other will be a new 132/11 kV substation (Borwa) which will belong to Rand West City LM.
- **New Borwa Substation:** A process was started in 2015 by the Developer of Borwa to establish a new substation for the Borwa development and funding needed to be obtained from the Department of Energy for the first phase of this project. It will need to be developed as a new 132/11 kV, 3 x 40 MVA (80 MVA firm) substation (calculated from the ADMD used for these types of developments at substation level) and the total calculated load at this substation will be 47 MVA.
 - **Glenharvie Substation:** This is an Eskom substation with an installed transformer capacity of 2 x 20 MVA, 132/6.6 kV and a notified maximum demand of 12 MVA. The existing township is supplied on 6.6kV and the new Wagterskop Ext 4 will require a demand of approximately 14 MVA. Eskom must install 2 x 20 MVA, 132/11 kV additional transformers at this substation since the distribution to Wagterskop Ext 4 will be done at 11 kV.
 - **132 kV lines feeding Borwa and Glenharvie:** The Borwa and Glenharvie substations will be supplied from the existing Glenharvie/ Libshaft 132 kV line and the total additional load required on this line is the load of Borwa substation and the additional load at Glenharvie substation which is 61 MVA.

b) Westonaria and Simunye

Westonaria is currently supplied from the Eskom Mars 44/6.6 kV, 2 x 10 MVA substation and Eskom has indicated that they will not upgrade this substation due to limitations on the 44 kV network. The existing load on this substation is 19 MVA and Simunye is also feeding from this substation. Provision has been made for a new 2 x 20 MVA 11/6.6 kV substation fed from the new Borwa substation to supply Westonaria and for a new Switching station to be established at Simunye also fed from Borwa substation to supply Simunye Township. To establish the two supply points the following must be done:

- **New Westonaria Munic Substation**
 - From Borwa substation 2 x 300mm² XLPE 11 kV copper cables will be installed with a transfer capacity of 10 MVA.
 - A new substation with metalclad switchgear and 2 x 20 MVA 11/6.6 kV transformers must be provided.
 - The existing 6.6 kV cable rings must be changed to be fed from the new substation.
 - The existing Mars substation must be decommissioned.

- **New Simunye Switching Station**
 - o From Borwa substation 2 x 300mm² XLPE 11 kV copper cables will be installed with a transfer capacity of 10 MVA.
 - o A new switching station with metalclad switchgear must be provided.
 - o The existing 6.6kV cable rings must be changed to be fed from the new substation.
 - o The existing feed from Mars substation must be decommissioned.

(The decommissioning of the existing Mars substation and the establishment of the new Borwa 132/11 kV substation will result in a totally new 132/11 kV line diagram for the Westonaria network).

c) Randfontein and Surrounds

- **Eskom 132kV Network:** Eskom has two networks in the Randfontein area, a 132kV and 44kV network. There are limitations on the 132kV line supplying Drowell substation from Randfontein DS and a new 132kV line must be built from Randfontein DS to Middelvlei to strengthen the 132kV network. Eskom must also upgrade the Westgate substation and it will entail the extension of the existing Westgate 275kV substation to accommodate the new Hera-Westgate 400kV line and a 400/132kV 500MVA transformer. This is scheduled to be completed between 2019 and 2024.

Most of the developments that must proceed are linked to the upgrades that must take place by Eskom since there is currently only 5MVA spare capacity on the 132kV line feeding Middelvlei and Drowell substations.

- **Drowell Substation:** Currently the installed transformer capacity at Drowell substation is 2 x 20MVA 132/11kV transformers with a maximum demand of 22MVA. Two new 20MVA transformers must be installed at Drowell substation in order for a firm 60MVA supply to be available.
- **Montrose Substation:** The Montrose development is part of the GDoHS development program and the projected demand for this substation is estimated at 50MVA. A new 132/11kV, 3 x 40MVA substations must be established for this development and also for the future subdivisions of the Finsbury AH to residential stands as is currently experienced. Currently, subdivisions have been placed on hold due to the electricity supply problems experienced in the area.
- **Middelvlei 132kV Supply Point – Mohlakeng Ext 11 Substation:** The Mohlakeng 132/11kV substation on the 132kV line feeds to the Eskom Middelvlei 132kV supply point. Currently this substation only has 1 x 20 MVA transformer which must be upgraded to 3 x 20MVA transformers in order to accommodate future Mohlakeng extensions.

- **Middelvlei 132kV Supply Point – Wheatlands Substation:** Several future developments around Montrose and Wheatlands will feed from the Lafarge-Montrose 132kV line from the Eskom Middelvlei 132kV supply point. A new 3 x 40MVA 132/11kV substation must be established for this development.
- **Westergloor Substation – 44 kV Network:** Westergloor Substation is on the Eskom 44kV network from Randfontein DS substation. The Mega Project associated with this substation is Toekomsrus Ext 4 and will consist of 4750 housing units with a demand of 10 000kVA. The installed transformer capacity at Westergloor substation is 2 x 10MVA and the current maximum demand is 13.65MVA. Westergloor is also the supply substation for Aureus, the Light Industrial Area in Randfontein.

3.8.4 Refuse Disposal

Currently the majority of industries and businesses within the RWC Local Municipality rely on private waste disposal contractors to remove waste from their premises. The majority of households also receive waste removal services. The areas without services are usually the informal settlements and agricultural holdings areas.

The RWC LM generates approximately 129 857 tonnes of general waste annually, i.e. around 1.1 tonnes of general waste per capita per year. It has one landfill site known as the Uitvalfontein landfill site at Toekomsrus and the second one at Libanon to the south. There are no hazardous waste disposal sites in the municipal area. The disposal of hazardous waste is done by accredited service providers, such as Sanumed, Envirocil (also disposes of animal carcasses), Waste-tech and Lancet Laboratories. Medical waste generated by the local public and private medical facilities is disposed of at an incinerator near Roodepoort.

The main sites where illegal dumping occur are at Mohlakeng, Toekosmrus, Bekkersdal, Finsbury, Kocksoord and Simunye. The amounts of waste dumped illegally are not recorded by the municipality.

3.9 CONCLUSIVE SUMMARY

The following Development Opportunities and Constraints have been identified in the RWC municipal area:

3.9.1 Development Opportunities

- Location and configuration of water bodies and environmental areas present opportunity for connected open space system.
- Two large areas comprise extensive agricultural potential (Agri Hubs).

- Badirile presents opportunity for establishment of an Agri Park/ Node which is in close proximity to agro processing facilities in Randfontein Town and agricultural markets in Gauteng Province.
- Good regional linkages are provided along N12, R28, N14, R41 and R559.
- Established nodes and potential corridors form part of an overall spatial structure to guide infill development, e.g. CBDs, industrial areas, mixed use along R28, N12 etc.
- Strategic open land has been identified in order to achieve infill development/ densification as opposed to sprawl in order to address housing backlogs.
- Progress in terms of residential infill developments contributes towards development of sustainable human settlements and Mohlakeng/ Montrose are identified as mega projects.
- Significant potential to consolidate urban fabric with Mogale City and City of Joburg around historic mining belt.
- Major settlements have been identified for upgrade and nodal development and precinct plans have been developed.
- Small local economic nodes must be supported in neighbourhoods in order to enhance the economic base of the municipality. The nodes can be used as the priority areas for provision of community facilities to add to the required “critical mass”, and infrastructure improvement is necessary in order to enhance these settlements and attract investment.
- The mining sector is still thriving (and should continue over medium term) - hence the potential positive contribution of mining to the RWC should be optimised.

3.9.2 Development Constraints

- Environmental sensitive areas and areas of high agricultural potential are not adequately protected.
- Environmental impact of mining not controlled; dust pollution, mine dumps.
- Vast tracks of land in the municipality are underlain with dolomite.
- Large, uninterrupted areas of high agricultural potential are not optimally used.
- Poor spatial integration and dispersed informal settlements due to historic mining activity and Apartheid.
- Uncontrolled sprawl due to scattered informal settlements throughout the municipality causing further weakness in structure and service delivery.
- Some major settlements (e.g. Zenzele and Bekkersdal) are located on unstable dolomitic land.
- Community facilities and infrastructure development do not fully support residential and economic activity areas, further hampering attraction of investment into these areas.
- Lack of access to economic opportunity to support the main settlements in Randfontein (Mohlakeng, Toekomsrus, Finsbury) and Westonaria (Bekkersdal, Simunye, Thusanang).
- Urban decay in and around the CBDs and industrial areas, and industrial areas are not fully developed.
- Open sites in industrial areas are neglected (not maintained).

4. RAND WEST CITY MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK

4.1 MUNICIPAL DEVELOPMENT VISION AND LAND USE PROJECTIONS

The **Vision** for the future development of the Rand West City Local Municipality is graphically illustrated on **Figure 36** and is based on the following directives as points of departure:

- The fragmented urban structure should be consolidated around Randfontein town to the north and Westonaria town to the south with infill development, densification and redevelopment being promoted. The overall aim is to eventually consolidate these two urban areas with the larger urban fabric of the Gauteng City Region and more specifically:
 - Randfontein north-eastwards towards Mogale City and the CoJ Mining Belt; and
 - Westonaria eastwards along route N12 towards Protea Glen, Soweto and Lenasia (the future Syferfontein precinct).
- Routes N14 and N12 represent the major east-west movement corridors serving the northern and southern parts of the municipality respectively, while route R28 serves as a north-south transport corridor linking the urban nodes of Westonaria, Randfontein and Mogale City to one another in line with the “beads on a string” concept;
- Routes N17 and PWV5 will play an important role towards unlocking the future development potential of the mining land north and north-east of Randfontein as well as the Syferfontein area; linking these areas to sub-continental export harbours like Maputo, Richards Bay and Durban-eThekweni via routes N4, N17/N2 and N3 respectively;
- Tourism and conservation are mainly promoted towards the south along the Gatsrant ridge series;
- Extensive agriculture is promoted in the north-western and southern parts of the RWC LM which form part of the Gauteng Agricultural Hubs, as well as a potential small-scale farming area located on the central dolomitic belt between Simunye and Bekkersdal;
- Badirille becomes the Agri Hub in the northern rural parts of the municipality;
- Mining will continue in an east-west orientated belt along the southern parts of the RWCLM in the areas between Syferfontein and Leudoorn Mines.

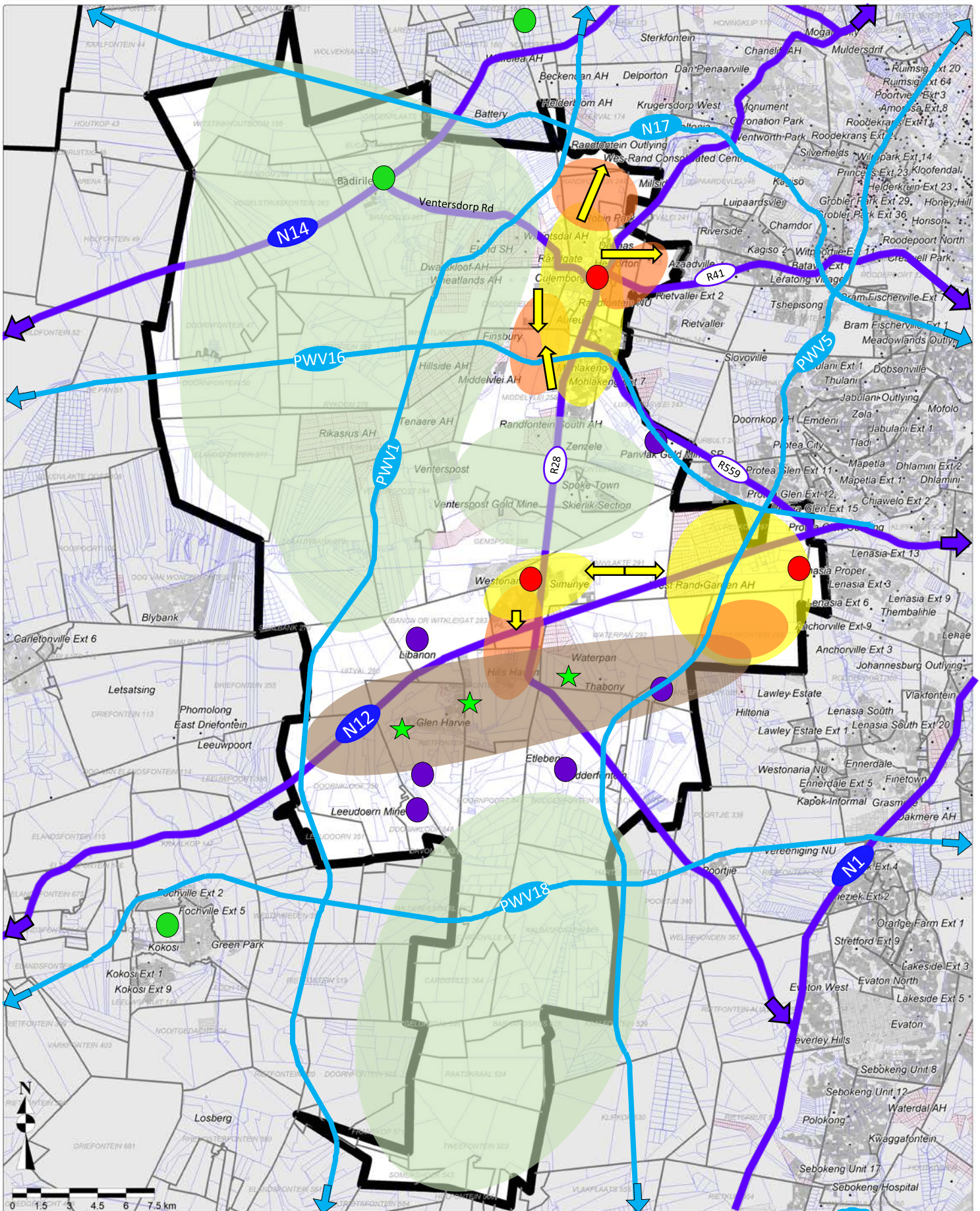
Supplementary to the above spatial vision and subsequent points of departure, the existing and projected future population, job opportunities, and households to be catered for in the RWC Local Municipality also need to be taken into consideration.

Table 17 comprises the future projections of households, population and job opportunities for the Rand West City Local Municipality from 2016 up to 2037 and are briefly summarised as follow:

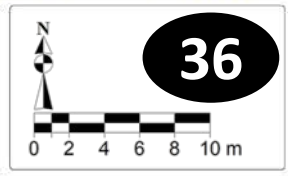
- The RWC population is projected to increase by about 153 619 people from 265 887 in 2016 to 419 506 by 2025. By 2037 it will increase to 511 835 people representing an increment of 92 330 people during this period (2016-2037).
- The average annual increment for the period 2016-2037 is around 11 712 people per annum at an average growth rate of 3.2% per annum.



Rand West City : Development Vision



- Ridges / Biodiversity
- Agri Hubs / Focus Areas
- Urban Nodes
- Priority Housing Development Areas
- Economic Core Areas: Business/Industrial
- Economic Core Areas: Mining
- Economic Core Areas: Badirile Agri Park
- Economic Core Areas: Tourism
- Strategic Linkages
- Expansion / Consolidation Areas



- The projected population from 2016 to 2037 translates to about 88 344 additional households which represent an average annual increment of 4207 households during this period.
- The projected number of job opportunities in RWC by 2037 is 169 321 compared to the 92 346 job opportunities in 2016. This is an increment of 76 975 job opportunities during this period at an annual rate of 3665.
- The 88 344 new households will need additional space for human settlement, while land would also be required to accommodate the projected 76 975 new job opportunities in the municipal area. This needs to be catered for in the Spatial Development Framework through the identification and reservation of land most suitable for economic development as well as land for human settlement (housing) development purposes.

Table 18 provides a land use budget for the RWC municipal area to accommodate the incremental population/households and associated job opportunities in the RWC LM area for the period 2016-2025 and 2025-2037 respectively. It also provides for the eradication of the existing housing backlog of about 25 714 units (Table 11). The incremental dwelling units in the RWC LM up to 2025 will be 57 034, while the population will increase by approximately 153 618 people by the same time.

- High income residential demand will be approximately 2484 units requiring about 199 ha of land; middle/ medium income about 30 185 units requiring an estimated 1056 ha and low income about 24 365 units which would require about 487 ha of land.
- The residential increment in the RWC LM up to 2025 will require approximately 1742 hectares of land for housing purposes, while the current backlog will require about 514 ha to be eradicated. This brings the total amount of land required for human settlement purposes by 2025 to 2257 ha.
- The incremental population and backlog would require approximately 186 ha of additional land for educational purposes.
- Similarly, an estimated 117 ha will have to be earmarked for Sports and Recreation purposes while Health and Emergency facilities will require about 8 ha and 5 ha of land respectively up to 2025.
- The RWC LM area would also require approximately 118 891m² of retail space (40 ha) as well as 11 889m² of office floor space (4 ha).
- In accordance with the West Rand Industrial Development Strategy, about 96,4 ha of land will be required for industrial uses in the RWC municipal area.
- In total, the urban footprint of the RWC LM will expand over an area of approximately 3601 ha up to the year 2025.

For the period 2025 to 2027 the following should be noted:

- An additional 1695 ha of land will be required for urbanisation.
- This includes 983 ha for residential purposes, about 20 ha for business, 150 ha for industrial and 74 ha of land for educational purposes.

Table 17: Rand West City: Projections of Population, Households and Job Opportunities

Local Municipality	Population					Households					Job Opportunities				
	2001	2011	2016	2025	2037	2001	2011	2016	2025	2037	2001	2010	2016	2025	2037
Rand West City LM	237,045	261,053	265,887	419,506	511,835	65,808	83,400	85,377	142,410	173,720	63,444	77,876	92,346	120,197	169,321
	2001-2011	2011-2016	2016-2025	2025-2037	2016-2037	2001-2011	2011-2016	2016-2025	2025-2037	2016-2037	2001-2010	2010-2016	2016-2025	2025-2037	2016-2037
Increment	24,008	4,834	153,619	92,330	245,948	17,592	1,977	57,034	31,310	88,344	14,432	14,470	27,851	49,124	76,975
Increment p.a.	2,401	967	17,069	7,694	11,712	1,759	395	6,337	2,609	4,207	1,443	2,894	3,095	4,094	3,665
% Growth p.a.	1.0%	0.4%	5.2%	1.7%	3.2%	2.4%	0.5%	5.8%	1.7%	3.4%	2.3%	2.9%	3.0%	2.9%	2.9%

Sources: 2001: Gauteng Transportation Study (GTS-2000), 2005
2011: Population Census 2011, STATS SA
2016: Community Survey, STATS SA
2025, 2037: Gauteng 25-Year Integrated Transport Master Plan (GITMP 25), adjusted to incorporate Census 2011

Table 18: Rand West City LM: Incremental Land Use Budget, 2016-2025, 2025-2037

Facilities	Increment 2016-2025 (Based on expected population growth/migration into area)			Backlog 2018			Increment and Backlog (2016-2025)			Increment 2025-2037 (Based on expected population growth/migration into area)		
	Requirement			Requirement			Requirement			Requirement		
	number	ha	%	number	ha	%	number	ha	%	number	ha	%
Number of Units	57,034	1,742	63%	25,714	514	62%	82,748	2,257	63%	31,310	983	58%
High Income (@800m²)	2,484	199	4%			0%	2,484	199	3%	1,476	118	5%
Medium Income (@350m²)	30,185	1,056	53%			0%	30,185	1,056	36%	17,880	626	57%
Low Income (@200m²)	24,365	487	43%	25,714	514	100%	50,079	1,002	61%	11,953	239	38%
Population	153,619			79,713			233,332			92,330		
Nett residential Density	33			50			37			32		
Business (m²)	110,919	37	1%	7,971	3	0%	118,891	40	1%	55,398	18	1%
Offices (floor area in m²)	11,092	4	0%	797	0	0%	11,889	4	0%	5,540	2	0%
Education		122	4%		64	8%		186	5%		74	4%
Small Crèche	64	1		33	1		97	2		38	1	
ECD Hub and Care Centre	8	1		4	0		12	1		5	0	
Primary (including Grade R)	22	61		11	32		33	93		13	37	
Secondary	12	59		6	31		19	90		7	35	
Health Services		5	0%		3	0%		8	0%		3	0%
Primary Health Clinic	6	1		3	1		10	2		4	1	
Community Health Centre	3	4		1	2		4	6		2	2	
Safety and Security		3	0%		2	0%		5	0%		2	0%
Police	3	3		1	1		4	4		2	2	
Fire Station	3	1		1	0		4	1		2	0	
Social /Cultural		10	0%		5	1%		15	0%		6	0%
Local Library	8	0		4	0		12	1		5	0	
Worship Centre	51	8		27	4		78	12		31	5	
Post Office/ICT Access Point	15	1		8	0		23	1		9	0	
Communtiy Hall (large)	3	1		1	1		4	2		2	1	
Sports and Recreation		77	3%		40	5%		117	3%		46	3%
Sports Facilities and Parks	-	46			24		-	70			28	
Regional Parks	-	31			16		-	47			18	
Industrial		96	3%			0%		96	3%		150	9%
Streets		671	24%		202	24%		873	24%		411	24%
TOTAL		2,769	100%		832	100%		3,601	100%		1695	100%
Gross Density	21			31			23			18		

Notes: Standards based on CSIR Guidelines for Small-Medium Towns/ Regional Service Centres

4.2 MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK

The next section incrementally unpacks the RWC Spatial Development Framework in terms of each of its key components. It is important to note that the RWC SDF is defined within the broader development context of the Gauteng City Region and more specifically the City of Joburg to the east; Mogale City to the north; Merafong City to the west and Emfuleni Municipality to the south.

The following is a brief summary of the key principles which the RWC SDF is based on:

a) Environmental Management

- A **continuous regional open space system** comprising environmentally sensitive/ valuable areas like the major drainage system along rivers and wetlands, as well as the ridges located in the southern parts of the municipal area.



b) Spatial Targeting: Nodal System

- **Urbanisation will be consolidated** around **two primary nodes** in the municipality: Randfontein town to the north and Westonaria town to the south.
- The broader Syferfontein-Protea Glen area is earmarked as a **future secondary node** which will be functionally linked to the Soweto-Lenasia urban cluster in the City of Joburg.
- Badirile is earmarked as a **future Rural Node** within the north-western rural extents of the municipality.

c) Comprehensive Movement Network

- Routes N12, N14 and N1 are important **national transport corridors** linking the municipal area in sub-continental context. The second and third order road network enhances **access and accessibility** to and between the urban rural parts of the municipality and it provides linkages to the Mogale City and City of Joburg urban areas across the mining belt.

d) Sustainable Human Settlements

- Future expansion of the urban fabric will be confined to strategically located **Priority Housing Development Areas** which will contribute towards spatial justice, sustainability and efficiency within the urban parts of the municipality.
- **Community Facilities and Engineering Services** investment will be directed towards the four main nodal points within the municipality, and more specifically to Priority Housing Development Areas as well as economic activity areas like Central Business Districts and Industrial Areas within these nodes.

e) Economic Activity

- **Business development** will be promoted in the three Central Business Districts (Randfontein, Westonaria and Syferfontein (future)), as well as a number of lower order business nodes closer to residential neighbourhoods.
- **Industrial development** will be intensified around Aureus and the Westonaria Industrial Area while new Industrial Areas will be established adjacent to the north-east of the existing Tiger Mills (Delmas) area towards Bongweni; at the N12-R28 intersection in Borwa, and around route N12 north of Syferfontein in the Zuurbekom-West Rand Gardens areas.
- **Mining** will continue in the southern mining belt along Leeudoorn, Kloof, Libanon, Etlebeni and up to Ezulwini; as well as the Cooke and Panvlak mines to the south-east.
- The limited regional **tourism** potential available within the RWC Local Municipality will be concentrated around the N12-Treasure Route, and more specifically the Gatsrant ridge series.
- **Agriculture** will be promoted in all rural parts of the RWC LM with specific focus on the high potential agricultural areas around Badirile, the rural areas south of Thusanang in the far southern extents of the municipality; as well as the rural areas around Bekkersdal where several small-scale

farming activities are underway. These three areas are earmarked as agricultural focus areas with Badirille representing the Agri Hub (in line with the DRDLR Agri Parks initiative), and the other areas representing Farmer Production Support Units/ Areas (FPSU's).

The following section provides more detail on each of the key components of the Rand West City SDF as highlighted above. This is done by way of a set of Development Objectives which are fundamental to the RWC Spatial Development Framework.

4.2.1 Regional Open Space System

Development Objective 1: Utilise Biodiversity Guidelines and Dolomite Risk Database as management tools to maintain/ enhance the integrity of the municipal regional open space system.

Figure 37.1 illustrates the proposed regional open space system for the RWC Local Municipality. Essentially it comprises the areas of Critical Biodiversity (CBA 1 and 2) as well as Environmental Support Areas (ESA 1 and 2) as identified in the District Biodiversity Plan. This network is further supplemented by the river drainage systems as well as the ridges running through the municipal area to create an extensive network of functional ecological corridors as illustrated on Figure 37.1.

The proposed regional open space system should be an integral part of municipal spatial planning, resource conservation, biodiversity protection, strategic land use planning and land use management processes. In this regard it is recommended that the regional open space network as depicted on Figure 38.1 be used as an overlay zone to inform decisions relating to land use rights and township applications in all parts of the RWC LM.

The development guidelines and directives per Biodiversity Category contained in the West Rand District Biodiversity Report as summarised in **Table 19** should be utilized in the evaluation of individual applications to ensure that areas of high biodiversity are sufficiently protected from urbanisation pressures.

Supplementary to the above, the following principles should be adopted towards extending and integrating the open space system into the future urban fabric of the municipality:

- Open space areas within the urban footprint should be developed to ensure functionality and safety for users;
- Major recreational parks and facilities form part of the network of open spaces and should be easily accessible by public transport;
- The protected natural areas must be formally proclaimed and linked to the network of open spaces;
- Residential suburbs and economic activity areas (CBD/ Industrial Areas) should be greened and made aesthetically pleasing and linked to the broader network of open spaces.



Rand West City : Regional Open Space System

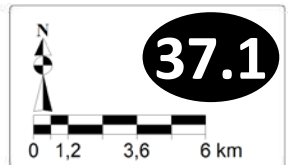
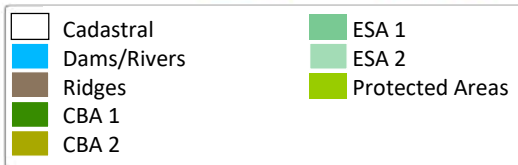
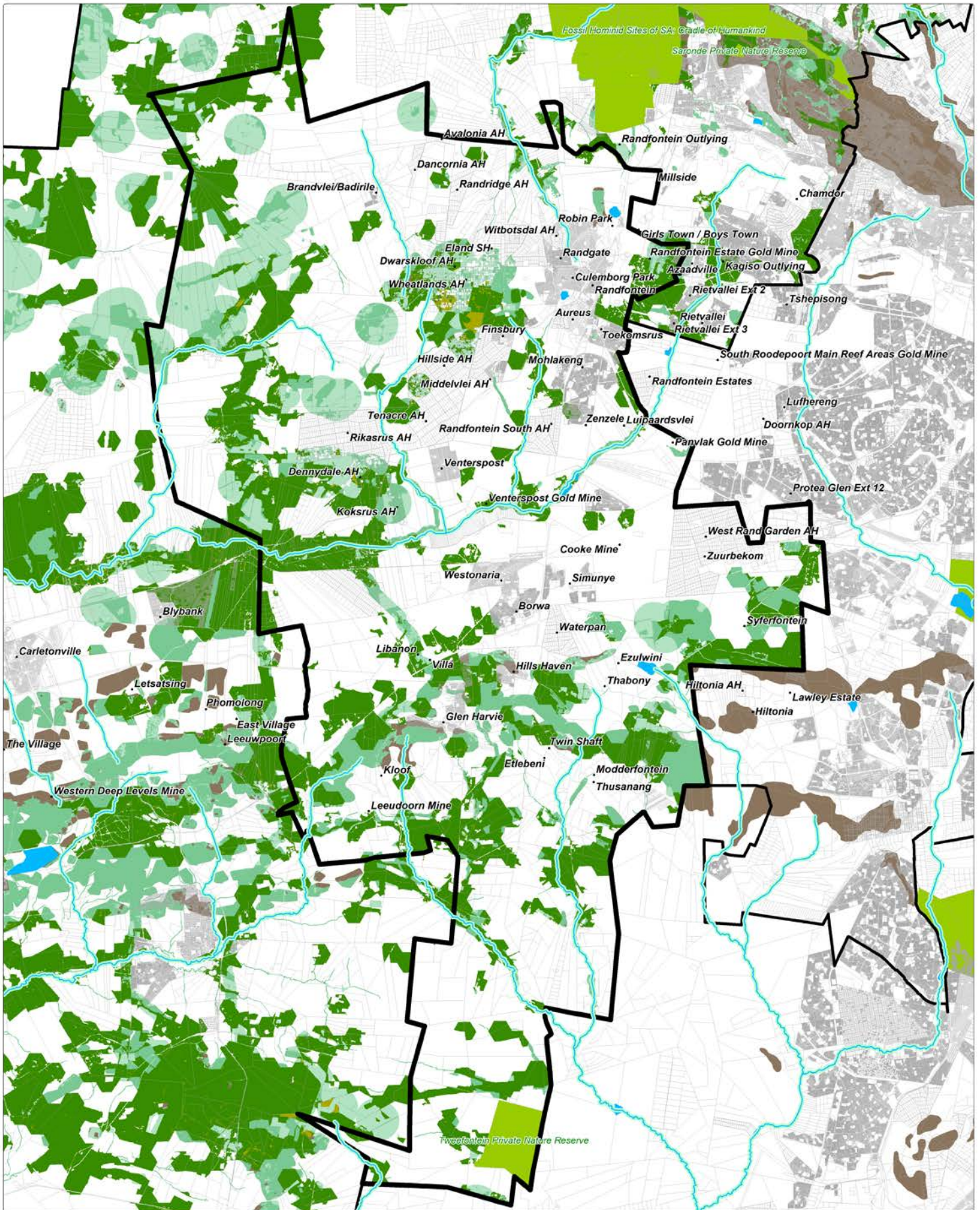


Table 19: West Rand Biodiversity Plan Guidelines

Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land Use	Incompatible Land Use
Protected Areas	Formal Protected Areas and Protected Areas pending declaration under NEMPA.	Maintain natural land. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Maintain or obtain formal conservation protection.	Conservation and associated activities.	All other land uses.
Critical Biodiversity Areas (1)	Areas required to be maintained in a natural or near natural state to meet targets for biodiversity pattern (features) or ecological processes.	Maintain natural land and ecological processes. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Obtain formal conservation protection where possible. Implement appropriate zoning to avoid net loss of intact habitat or intensification of land use.	Conservation and associated activities. Extensive game farming and ecotourism operations with strict control on environmental impacts and carrying capacities, where overall there is a net biodiversity gain. Extensive Livestock Production with strict control on environmental impacts and carrying capacities. Urban Open Space Systems.	Urban land uses including Residential (including golf estates, rural residential, resorts), Business, Mining and Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production (all types including dairy farming associates with confinement, imported foodstuffs, and improved/ irrigated pastures). Arable Agriculture (forestry, dry land and irrigated cropping). Small holdings.
Critical Biodiversity Area (2)	Cultivated landscapes which retain importance for supporting threatened species	Maintain current agricultural activities. Ensure that land use is not intensified and that activities are managed to minimise impact on threatened species.	Avoid conversion of agricultural land to more intensive land uses which may have a negative impact on threatened species or ecological processes.	Current agricultural practices including arable agriculture, intensive and extensive animal production, as well as game and ecotourism operations, as long as these are managed in a way to ensure populations of threatened species are maintained and the ecological processes which support them are not impacted.	Urban land uses including Residential (including golf estates, rural residential, resorts), Business, Mining and Industrial; Infrastructure (roads, power lines, pipelines). More intensive agricultural processes than currently undertaken on site.

Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land Use	Incompatible Land Use
Ecological Support Areas (1)	Natural, near natural and degraded areas required to be maintained in an ecologically functional state to support Critical Biodiversity Areas.	Maintain ecological processes.	Implement appropriate zoning and land management guidelines to avoid impacting ecological processes. Avoid intensification of land use.	Conservation and associated activities. Extensive game farming and ecotourism operations. Extensive Livestock Production. Urban Open Space Systems. Low density rural residential, smallholdings or resorts where development design and overall development densities allow maintenance of ecological functioning.	Urban land uses including Residential (including golf estates), Business, Mining and Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production (all types including dairy farming associated with confinement, imported foodstuffs, and improved/ irrigated pastures). Arable Agriculture (forestry, dry land and irrigated cropping). Note: Certain elements of these activities could be allowed subject to detailed impact assessment to ensure that developments were designed to maintain overall ecological functioning of ESAs.
Ecological Support Areas (2)	Areas with no natural habitat which retain potential importance for supporting ecological processes.	Avoid additional impacts on ecological processes.	Avoid intensification of land use, which may result in additional impact on ecological processes.	Existing activities (e.g. arable agriculture) should be maintained, but where possible a transition to less intensive land uses should be favoured.	Any land use or activity which results in additional impacts on ecological functioning, mostly associated with the intensification of land use in these areas (e.g. Change of floodplain from arable agriculture to an urban land use or from recreational fields and parks to urban).

The RWC LM should also ensure that all land use planning and development applications take the underlying geology into account (i.e. geology, slope, risk of mass movement, expansive soils, sinkholes, undermining etc.). This is specifically applicable to areas within the RWC dolomitic footprint as illustrated on **Figure 37.2**. There is a detailed risk assessment available in GIS format for this entire area (refer to Figures 23 and 24 in this report), and it should be utilised as an overlay zone in the assessment of all township/ rezoning applications in the municipal area. Other tools to be considered as part of decision-making process include the following:

- Gauteng Biodiversity Stewardship Programme;
- Gauteng Provincial Environmental Management Framework;
- Gauteng Conservation Plan (C-Plan);
- Gauteng Ridges Guidelines;
- Threatened Ecosystems;
- Hydrology Priority Areas;
- Gauteng Protected Areas Expansion Strategies.

4.2.2 Spatial Targeting: Nodal Structure and Development Footprint

Development Objective 2: Consolidate urban activity and land use development around a number of functional nodal points in the municipal area in order to enhance spatial efficiency and financial sustainability

It is important to consolidate human settlement and economic activity around a number of activity nodes in the municipal area to serve as focal points for social and economic investment (spatial targeting). Consolidating the urban fabric results in high density mixed uses which not only enhances the viability of the public transport system, but also optimises the operational and financial efficiency of engineering services and infrastructure to be provided. Furthermore it significantly reduces travel costs within the urban area which is a major benefit to the poor.

Figure 38 depicts the priority nodal areas within the RWC LM area which are briefly summarised as follow:

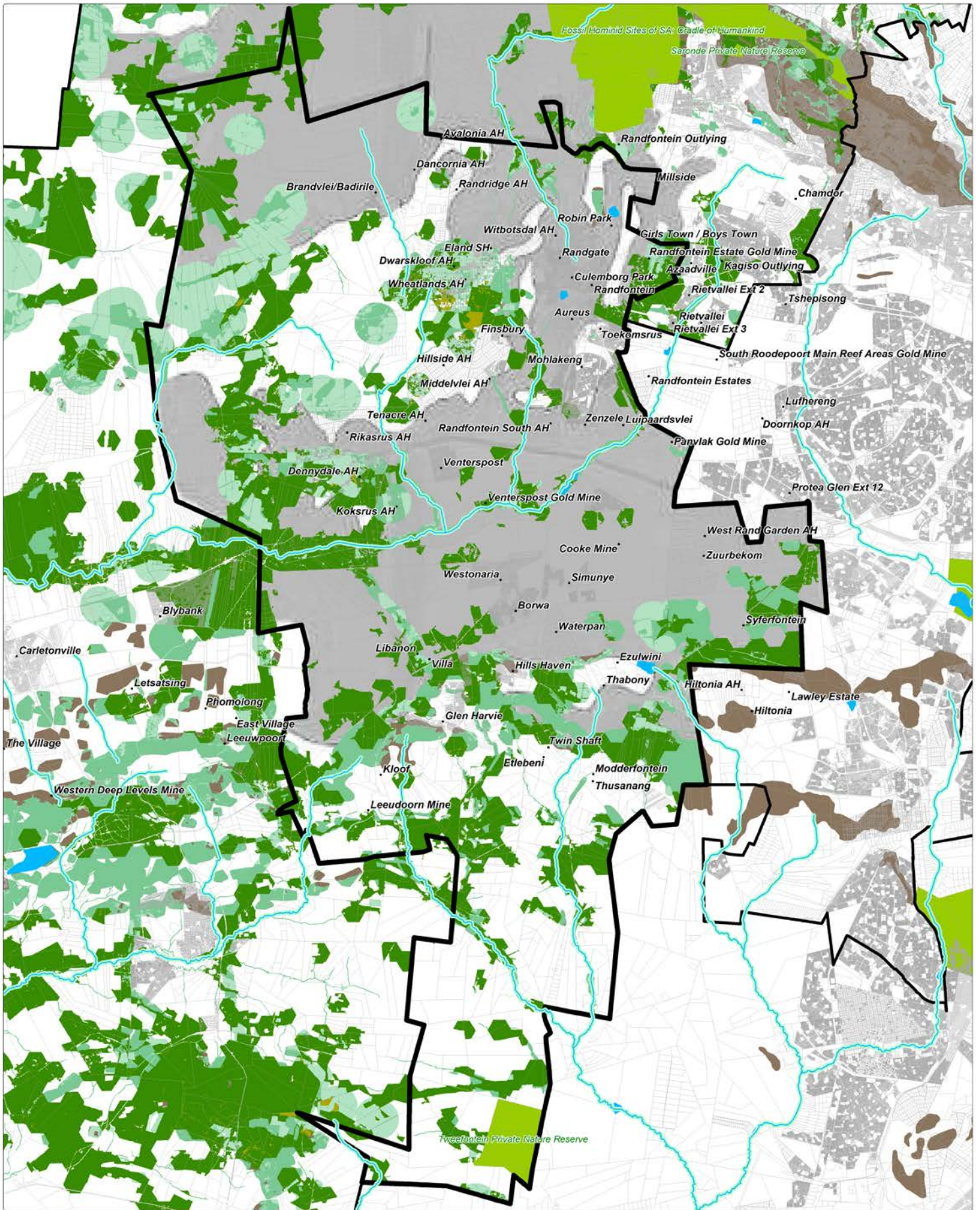
a) Urban Nodes

The primary nodes represent the existing Randfontein and Westonaria town areas which currently holds the bulk of residential use and economic activity and job opportunities in the municipal area.

The proposed future urban node is located in the Syferfontein area which is intended to be developed as a mega city that will eventually form part of the larger Soweto, Lufhereng, Protea Glen and Lenasia complex in the City of Joburg.



Rand West City : Dolomite Risk Area



Cadastral	ESA 1	Dolomite Risk Area
Dams/Rivers	ESA 2	Ingress
Ridges	Protected Areas	Dewatering
CBA 1		
CBA 2		

N

37.2

0 1,2 3,6 6 km

b) Rural Node

The identified rural node in Rand West City is located at Badirille at the intersection of routes N14 and D801 where there is an existing cluster of agro-industries and a rural community in excess of 1000 families.

Nodal areas in the RWC LM should be carefully planned, maintained and managed as these represent the major areas of future economic growth and service delivery. As a principle, residences for mines should be consolidated within the identified nodes in the municipality rather than being located at the mines which are only temporary economic activity areas with a limited lifespan and which are not sustainable in the long term.

In the case of new/emerging nodes like Badirille and Syferfontein it is essential to pre-actively compile Precinct Plans to guide and direct the location, type, extent and phasing of development in these areas rather than allowing the areas to grow in an organic (haphazard) manner. Precinct Plans should determine the future spatial structure, function and land use composition of such areas – not only to ensure orderly development, but also to establish private investor confidence and attract investment.

4.2.3 Municipal Movement Network

Development Objective 3: To establish a comprehensive, multi-modal movement network serving the urban and rural parts of the municipal area and functionally linking the municipality to the broader surrounding Gauteng City Region

a) Road Network

The priority road based movement network in RWC as illustrated on Figure 38 comprises the following:

- N14 which links the RWC LM to Mogale City, Lanseria and the City of Tshwane to the north-east and Lichtenburg/ Mahikeng in North West Province to the west;
- N12 which links the RWC LM to the City of Joburg to the east and Matlosana/ Tlokwe (JB Marks LM) to the south-west;
- Route R28 which links the urban fabric of Mogale City, Randfontein and Westonaria to routes N14, N12 and route N1 respectively;
- North Way Road which links Randfontein to Tarlton via route R24 and which is the main link between RWC LM and the Bojanala Platinum District (Rustenburg) to the north-west;
- Route R500 which is the main north-south route through the western parts of the District, mainly serving the Merafong City Municipality;
- Route R501 linking Westonaria to Merafong City past the Lebanon mine;
- Route R559 which links Randfontein town to Merafong City;

- Route R41 which is the western extension of Randfontein/Main Reef Road linking up with route R500 towards the west;
- Ventersdorp Road running from Randfontein towards Badirille where it links into N14, and from there it extends northwards towards Rustenburg;
- Route K13 which runs from north (Mogale City CBD) to south (Syferfontein) past the RWC LM area and which provides a link between R41 and Randfontein Road in the mining belt area;
- Route R559 providing a link between Randfontein (Mohlakeng) and Protea Glen/ Lenasia/ Syferfontein to the south-east;
- Route R558 which links the Syferfontein area to the Leratong Node and Chamdor to the north and to route R28 to the south;
- It is also important to note that most of the regional road network converge at Randfontein town which is due to the historical role of Randfontein as a central place to surrounding rural/ agricultural communities;
- There are two important railway lines from North West Province running through the RWC municipal area as depicted on Figure 38: the Randfontein-Joburg-Springs commuter line to the north and the Westonaria-Zuurbekom-Joburg line to the south.

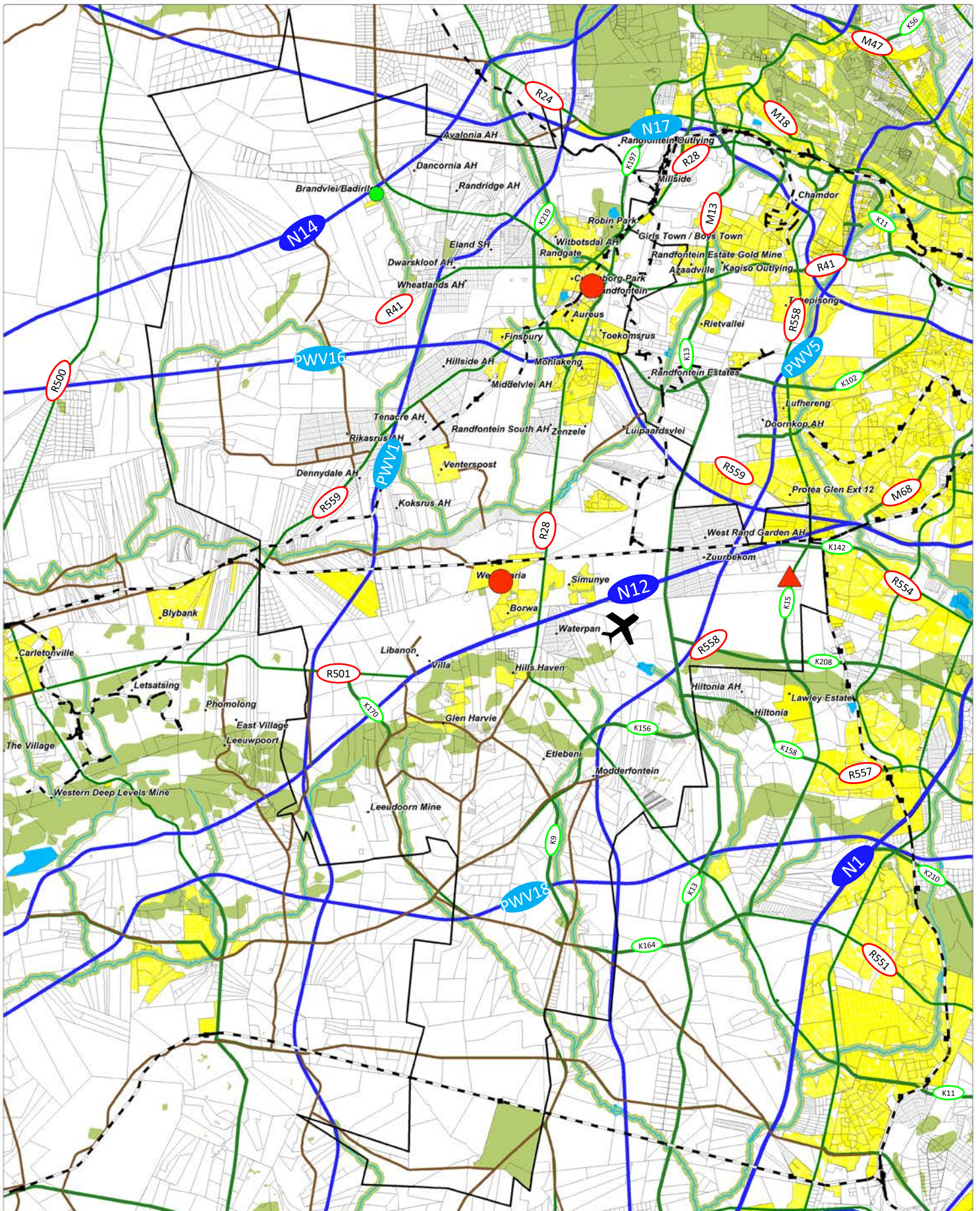
b) Strategic Road Network Priorities

Figure 39.1 illustrates the Gauteng Strategic Road Network (short, medium, and long term) which needs to be taken into consideration in all spatial development proposals. The most significant in this regard which impacts on the Rand West City Local Municipality include:

- Route PWV5 and PWV12/ N17 to the north-east in the vicinity of Kagiso which will link the north-eastern extents of Rand West City to three major export harbours (Maputo, Richards Bay and Durban-eThekweni);
- Route PWV16 which is aligned through the Bundu Inn intersection and which will replace route N12 as the main link between North West Province and Gauteng Province;
- Existing Route N12 will be downscaled and linked to route K208 south of Syferfontein to serve the southern parts of Gauteng Province past Walkerville and the Waterfall Node along R59 towards OR Tambo Airport in Ekurhuleni;
- Route PWV1 which will provide a strong north-south link parallel to PWV5 but to the west of Randfontein and Westonaria (long term);
- Route PWV18 to the south which completes the “lattice” of first order mobility routes planned to serve the majority part of the RWC municipal area in future (long term);
- K197 north (west of the railway line) which will unlock the mining belt area to the north of Greenhills and Robin Park in Randfontein town;
- K13 which is intended to open up the mining belt area east of Randfontein Town in the Mogale City area;
- Route R28 will be realigned to bypass the Randfontein CBD as a mobility road to the east of the CBD.



Rand West City : Strategic Road Network



Cadastral	Urban Node	1 st Order Roads
Dams/Rivers	Future Urban Node	2 nd Order Roads
Ridges	Rural Node	3 rd Order Roads
Protected Areas	Future Airfield / Logistics Hub	Railway Line
Towns and Settlements		Railway Station

39.1

c) Public Transport Corridors

The West Rand Municipality Integrated Transport Plan (ITP) identified a number of regional public transport corridors which were confirmed in the Gauteng Integrated Transport Master Plan (2013) as being priority for public transport in provincial context as well. The following is a brief summary of the combined public transport priority routes within the RWC LM area of jurisdiction (refer to **Figure 39.2**):

- Route R28
- Route R41
- Route R501/N12
- Route R559

In view of the proposed initiative around Badirile, route N14 could also become an important regional public transport route in future.

d) Rail

- **Figure 39.3** illustrates the stations around which Transit Oriented Development can and should be promoted in the RWC – especially along the section from Mogale City to Randfontein Town;
- There are four railway stations located within the Randfontein urban fabric: Randfontein, Homelake, Robinson and Millsite further to the north;
- The long distance commuter line running parallel to route N12 with railway stations at Westonaria, Zurbekom and Waterworks in the vicinity of Syferfontein, is located in the southern parts of the RWC;
- None of these railway stations, apart from Randfontein Station are currently optimally utilised or represent Transit Oriented Development.

e) Airfield

- A regional airfield/airport (relocation of current Baragwanath airfield in Syferfontein) is proposed as part of an envisaged future logistics hub to be located south of route N12 in the vicinity of Syferfontein (refer to Figure 39.1)

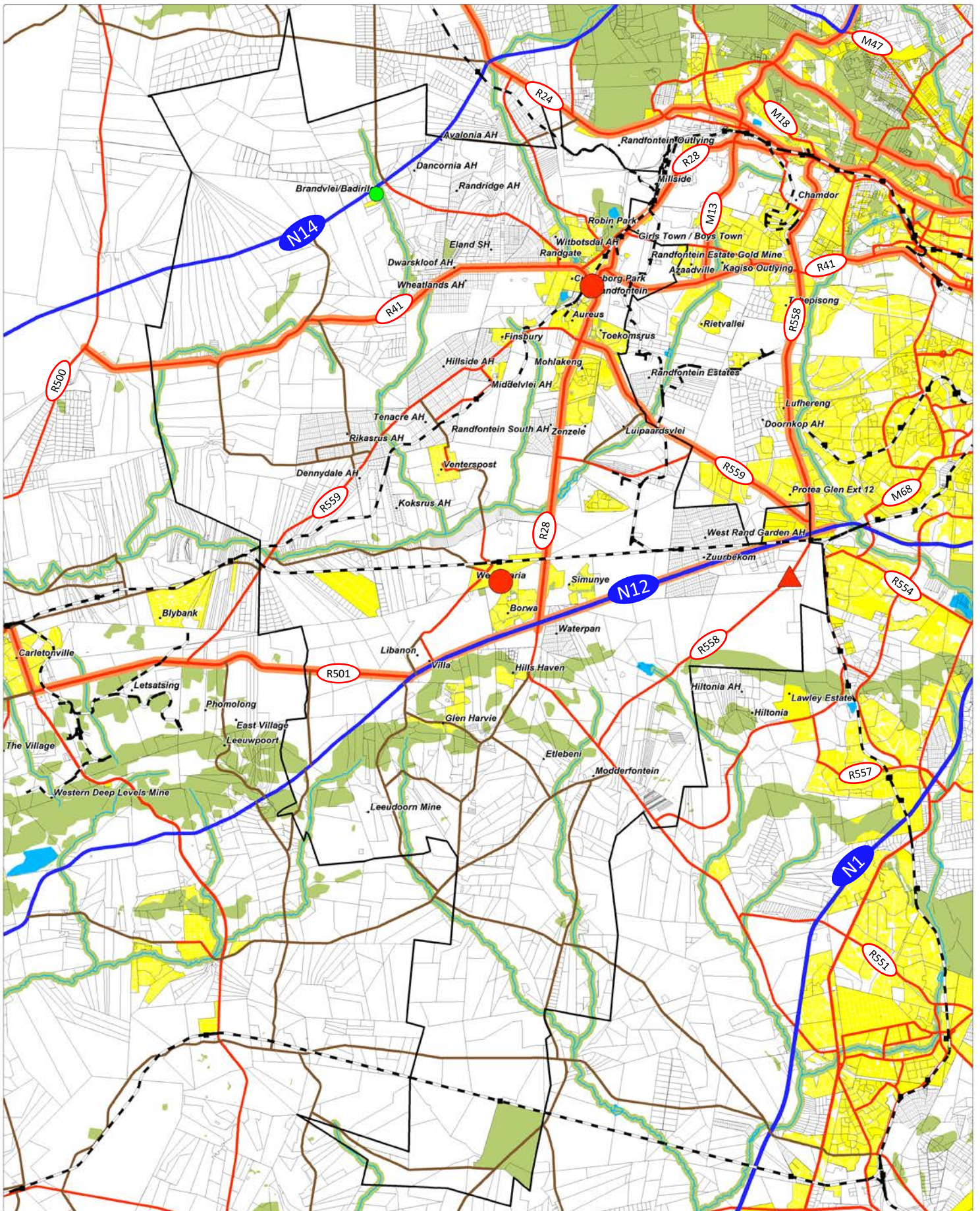
4.2.4 Priority Housing Development Areas

Development Objective 4: Promote Urban Restructuring and Spatial Justice by consolidating mixed income residential development (bonded and subsidized) in well-located Priority Housing Development Areas.

Randfontein and Westonaria towns still carry the spatial legacy of both the previous political dispensation and historic mining activity in the area which resulted in a highly fragmented urban form.



Rand West City : Public Transport Network

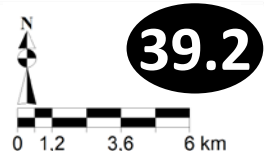


- Cadastral
- Dams/Rivers
- Open Space
- Towns and Settlements

- Urban Node
- Future Urban Node
- Rural Node

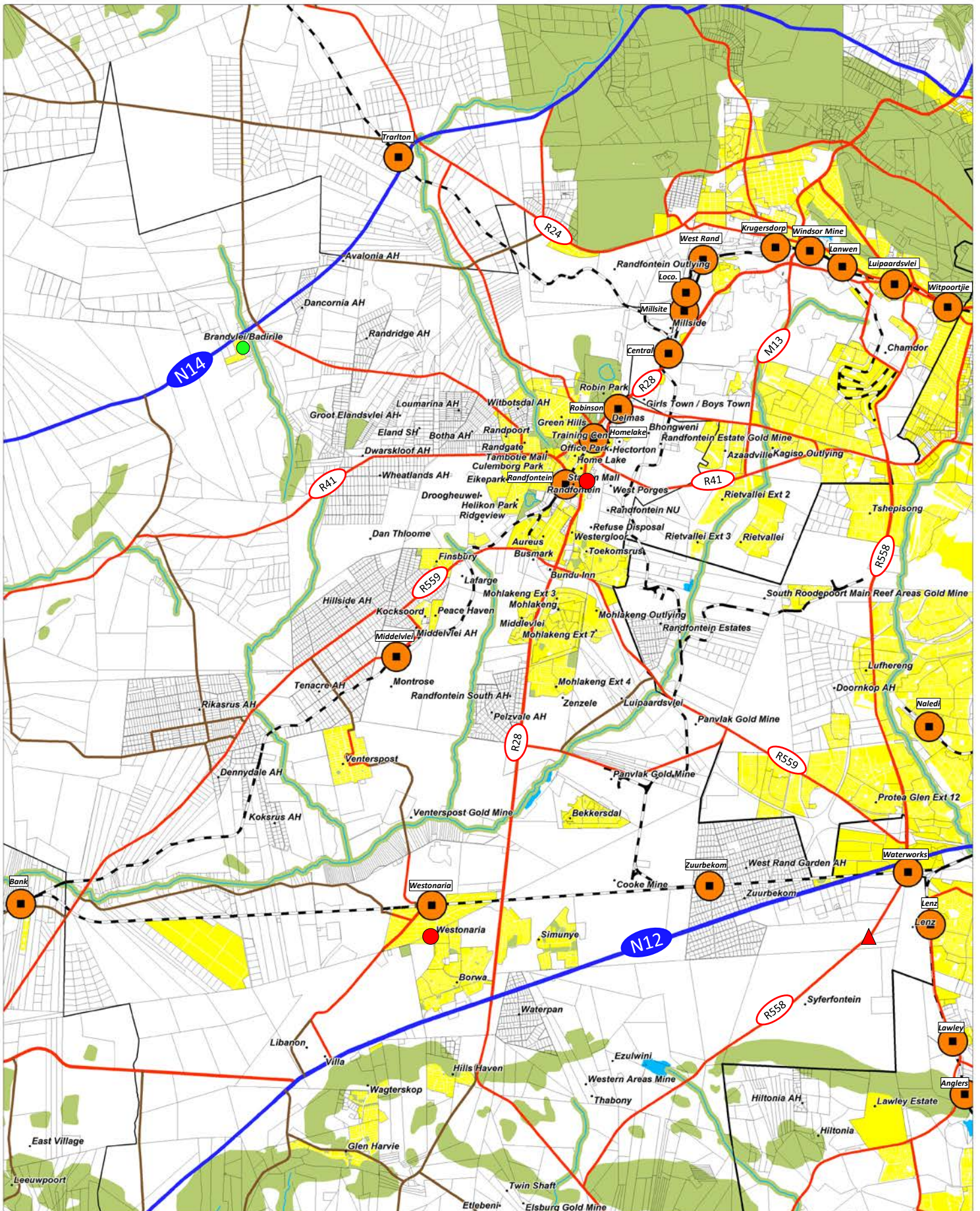
- 1st Order
- 2nd Order
- 3rd Order
- Railway Line
- Railway Station

- Public Transport Network





Rand West City : Rail Network



Cadastral	Urban Node	1 st Order Road Network	500m Radius TOD Potential
Dams/Rivers	Future Urban Node	2 nd Order Road Network	
Open Space	Rural Node	3 rd Order	
Towns and Settlements		Railway Line	
		Railway Station	

39.3

In response to the above the RWC LM needs to ensure that the spatial imbalances of the past are corrected and that people are located closer to places of work and economic opportunities, and that the urban fabric of the municipality is consistently consolidated in a cost effective manner over an extended period of time in future.

Housing, and more specifically subsidised housing, is a very powerful instrument at the disposal of government to influence development patterns in and around towns, and to give effect to the spatial restructuring objectives of municipalities.

Housing Backlog Eradication Strategy

Figure 40.1 and **Table 20** reflect the proposed Human Settlement Strategy for RWC LM based on information available at the time of compilation of this report. It is briefly summarised as follow:

- The RWC housing backlog of 25 714 units results from the 18 informal settlement areas as depicted at the top of Table 20.
- On the left hand side of Table 20 is the list of Priority Housing Development Areas identified in the municipal area, as well as the estimated development capacity of each of these.
- The table then indicates the current thinking around where the existing informal settlements should be formalised e.g.
 - Siyahhlala and Crusher in Badirile X2;
 - OR Tambo, Elandsvlei and Baipei in Elandsvlei X1;
 - Jabulani in-situ in Jabulani;
 - Master in Greenhills X12;
 - Zenzele in Mohlakeng X13-15; Mohlakeng East; and Toekomsrus Phase 2, 3 and 5;
 - Bundu Inn, Manganese and Scrapyard at Mohlakeng X13-15;
 - Randfontein Dumping Site at Toekomsrus X8 and X9;
 - Bekkersdal at Middelvei X11, Mohlakeng East, and Bhongweni/ Azaadville Gardens and/ or in Borwa X1, 2 and 3 or Syferfontein;
 - Thusanang is earmarked to be formalised in-situ;
 - Waterworks, Jachtfontein and Doornpoort are earmarked to be formalised in Syferfontein.
- From the above scenario it is evident that there is still a surplus capacity of 146 474 units left in the identified Priority Housing Development Areas when the entire existing backlog is addressed.
- Even when the entire projected demand of 57 034 units by 2025 and the 31 310 units up to 2037 are added, it still leaves a surplus of about 83 130 units which shows that too much land is currently being considered for human settlement purposes within the RWC LM.
- Some form of prioritisation of land parcels for development is urgently required as it makes no financial and/ or technical sense to service 31 PHDAs simultaneously when the demand is limited.
- **Figure 40.2** graphically illustrates a proposed scheduling scenario for development of various Priority Housing Development Areas within the RWC LM based on Table 20.

■ **Table 21** below summarises the short term, medium term and long term priority areas for development (based on Table 20 and Figure 40.2).

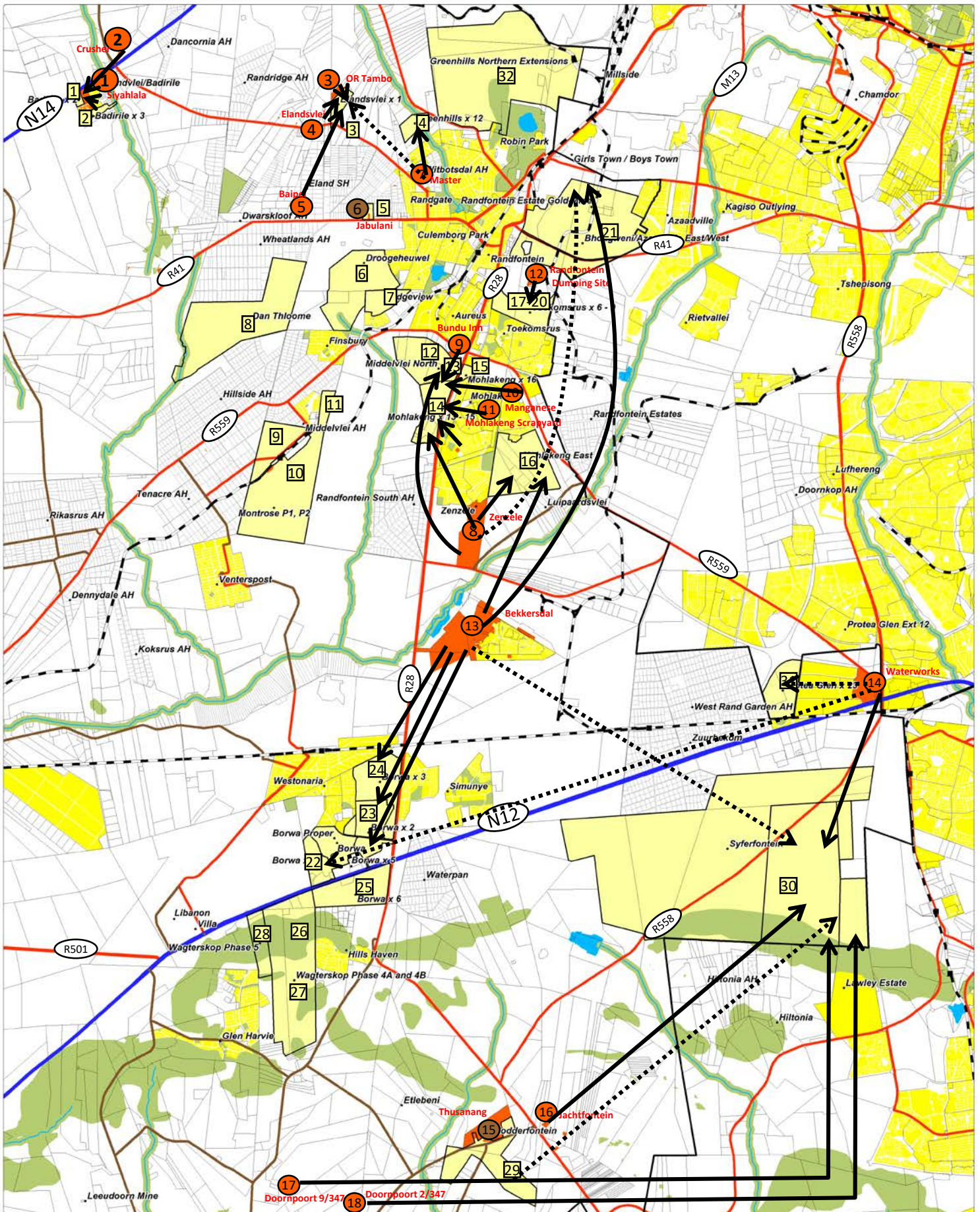
In principle, all large scale human settlement projects in the RWC area should be located in the Priority Housing Development Areas as part of an endeavour to consolidate the municipal urban fabric. This approach also provides strategic direction in terms of priority areas for the expansion of engineering services and provision of community facilities over the next few decades.

Table 20: RWC LM Settlement Strategy

BACKLOG		1. Siyahiala/ Badirile	2. Crusher	3. OR Thambo	4. Elandsvlei	5. Baipei	6. Jabulani	7. Master	8. Zenzele	9. Bundu Inn	10. Manganese	11. Mohlakeng Scrapyard	12. Randfontein Dumping Site	13. Bekkersdal	14. Waterworks	15. Thusanang	16. Jachtfontein	17. Doornpoort 9/347	18. Doornpoort 2/347	TOTAL INFORMAL	SURPLUS	INCREMENT 2016-2025	INCREMENT 2025-2037	SURPLUS 2	
No.	Area	Units																							
1	Badirille x2	640	450	70																520	120	120		-	
2	Badirille x3	700																		0	700	700		-	
3	Elandsvlei x1	2,600			648	128	700													1476	1,124	1,124		-	
4	Greenhills x 12	2,172						408												408	1,764	1,764		-	
5	Jabulani	700					129													129	571	571		-	
	Subtotal North West Rural	6,812	450	70	648	128	700	129	408	-	-	-	-	-	-	-	-	-	2533	4,279	4,279	-	-		
6	Droogeheuwel	4,000																		0	4,000	4,000		-	
7	Ridgeview	4,000																		0	4,000	4,000		-	
8	Wheatlands/Dan Thloome	22,500																		0	22,500	5,625	5,625	11,250	
9	Montrose Phase 1	5,602																		0	5,602	1,401	1,401	2,801	
10	Montrose Phase 2	8,155																		0	8,155	2,039	2,039	4,078	
11	Peacehaven	1,288																		0	1,288	1,288		-	
12	Middelvlei North	4,500																		0	4,500	4,500		-	
13	Middelvlei x11	2,435												2435						2435	-	-		-	
14	Mohlakeng x 13-15	2,269							1690	390	48	141								2269	-	-		-	
15	Mohlakeng x 16	1,080																		0	1,080	1,080		-	
16	Mohlakeng East	5,000							1634					3366						5000	-	-		-	
17	Toekomsrus x 6 (Phase 2)	1,037							1037											1037	0			0	
18	Toekomsrus x 7 (Phase 3)	935							935											935	0			0	
19	Toekomsrus x 8 (Phase 4)	1,341											1341							1341	0			0	
20	Toekomsrus x 9 (Phase 5)	863							704				159							863	0			0	
21	Bhongweni/Azaadville Gardens/West Porges	17,000												2580						2580	14,420		8,181	6,239	
	Subtotal Randfontein	82,006	-	-	-	-	-	-	6,000	390	48	141	1,500	8,381	-	-	-	-	-	16,460	65,546	23,932	17,245	24,369	
22	Borwa x 1	1,400												1400						1400	-			-	
23	Borwa x 2	1,875												1875						1875	-			-	
24	Borwa x 3	1,089												1089						1089	-			-	
25	Borwa x 6	3,500																		0	3,500			3,500	
26	Wagterskop Phase 4A	3,663																		0	3,663	3,663		-	
27	Wagterskop Phase 4B	3,015																		0	3,015			3,015	
28	Wagterskop Phase 5	2,628																		0	2,628			2,628	
29	Thusanang	1,200													1200					1200	-			-	
	Subtotal Westonia	18,370	-	-	-	-	-	-	-	-	-	-	4,364	-	1,200	-	-	-	-	5,564	12,806	3,663	-	9,143	
30	Syferfontein	60,000													714	300	120	11	12	1157	58,843	25,160	9,065	24,618	
31	Protea Glen x 23	5,000																		0	5,000		5,000	-	
	Subtotal South East Rural	65,000	-	-	-	-	-	-	-	-	-	-	-	714	300	120	11	12	1,157	63,843	25,160	14,065	24,618		
32	Green Hills Northern Extentions																							25,000	
	TOTAL	172,188	450	70	648	128	700	129	408	6,000	390	48	141	1,500	12,745	714	1,500	120	11	12	25,714	146,474	57,034	31,310	83,130



Rand West City : Informal Settlement Eradication Strategy

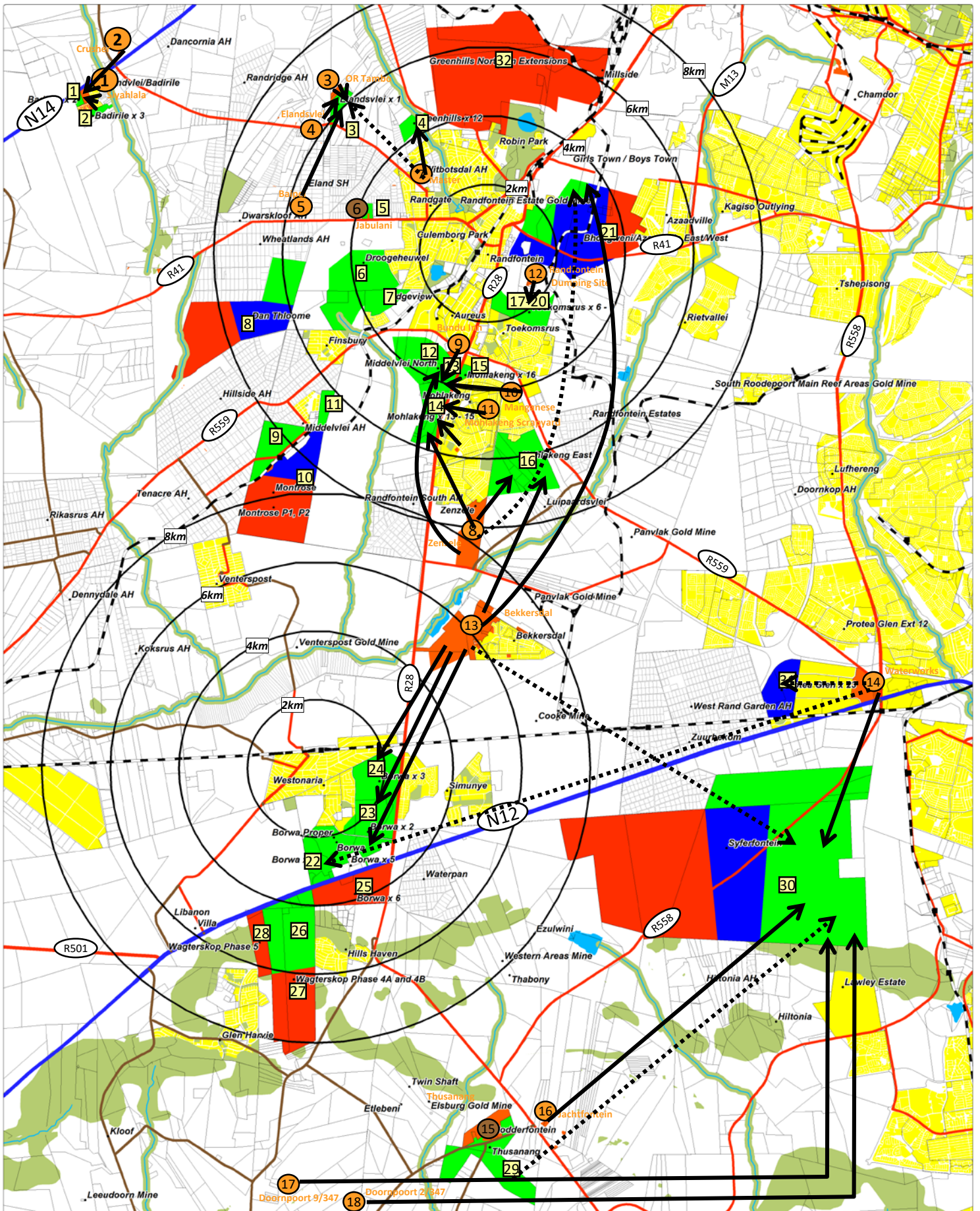


Cadastral	In-Situ Upgrading
Dams/Rivers	Strategic Development Areas
Open Space	Relocation Strategy
Towns and Settlements	Relocation Alternative
Informal Settlements	

40.1



Rand West City : Priority Housing Development Areas – Timeframe



Cadastral	Upto 2025	1 st Order Roads	Distance from CBD
Dams/Rivers	2025 to 2037	2 nd Order Roads	Relocation Strategy
Open Space	2037+	3 rd Order Roads	Relocation Alternative
Towns and Settlements	In-Situ Upgrading	Railway Line	
Informal Settlements		Railway Station	

40.2

Table 21: Rand West City LM: Priority Housing Development Areas: Timeframe

No.	Name	Area (ha)	Units	Short (2016-2025)	Medium (2025-2037)	Long (2037+)
1	Badirile Ext 2	10	640	640		
2	Badirile Ext 3	19	700	700		
3	Elandsvlei x1	34	2,600	2,600		
4	Greenhills Ext 12	38	2,172	2,172		
5	Jabulani	15	700	700		
6	Droogeheuwel	307	4,000	4,000		
7	Ridgeview	65	4,000	4,000		
8	Wheatlands/Dan Thloome ¹	554	22,500	5,625	5,625	11,250
9+10	Montrose P1 and P2 ¹	599	13,757	3,439	3,439	6,879
11	Peacehaven	34	1,288	1,288		
12+13	Middelvlei x11/ North	189	6,935	6,935		
14	Mohlakeng x 13-15	124	2,269	2,269		
15	Mohlakeng x 16	15	1,080	1,080		
16	Mohlakeng East	279	5,000	5,000		
17-20	Toekomsrus x 6-9	115	4,176	4,176		
21	Bhongweni/Azaadville Gardens/West Porges ¹	701	17,000	2,580	8,181	6,239
22	Borwa x 1	103	1,400	1,400		
23	Borwa x 2	141	1,875	1,875		
24	Borwa x 3	189	1,089	1,089		
25	Borwa x 6 ¹	189	3,500			3,500
26	Wachterskop Phase 4A	289	3,663	3,663		
27	Wachterskop Phase 4B ¹	289	3,015			3,015
28	Wachterskop Phase 5 ¹	83	2,628			2,628
29	Thusanang	241	1,200	1,200		
30	Syferfontein ¹	3,021	60,000	26,317	9,065	24,618
31	Protea Glen x 23	139	5,000		5,000	
32	Green Hills Northern Extentions ¹	1,220	25,000			25,000
	TOTAL	9,001	197,187	82,748	31,310	83,129
	%			42%	16%	42%

Notes: ¹ Phased approach

4.2.5 Community Facilities

Development Objective 5: Consolidate community facilities at strategic locations within the municipal area in order to enhance access to such facilities and to contribute towards creating “critical mass” required to stimulate local economic development at these points.

The fragmented settlement structure of the RWC has resulted in both a lack of, and the need for costly duplication of essential social services/ community facilities and engineering infrastructure. In principle, the objective is to provide a full range of social services/ community facilities within a reasonable distance of all communities (urban and rural) in the Municipality. These services need to be consolidated/ clustered together in precincts/ buildings for maximum efficiency as there are spin-off benefits to be derived from such consolidation such as enhanced access to services; increased economic potential (“critical mass”) in surrounding areas; and greater sense of “community identity” around such centres.

It is thus proposed that a full range of social services/ community facilities be incrementally provided at all identified nodal points in the RWC as depicted on **Figure 41**. The level of services provided is to be in line with the proposed nodal hierarchy (i.e. higher order community facilities like hospitals, magistrates courts, tertiary education facilities etc. located at the Randfontein and Westonaria CBD's as well as the future Syferfontein CBD). The proposed future business area in the area between Mohlakeng and Toekomsrus could also function as a CBD which would justify the provision of higher order community facilities, but this is subject to the construction of future route PWV16 and the resulting establishment of a business area in this vicinity.

Lower order facilities like primary schools, clinics etc. should be provided more extensively in all neighbourhoods – preferably in close proximity to neighbourhood business nodes. In this manner, all communities in the Municipality will be served with at least a basic range of social infrastructure in a Thusong Centre format within a convenient/reasonable distance from surrounding places of residence.

The establishment of such one-stop service centres in the RWC area holds the following advantages:

- Provides a one stop comprehensive service to members from surrounding communities which are in many cases very poor and cannot afford multiple trips.
- It promotes nodal development which is conducive to targeted infrastructure spending, local economic development and corridor development.
- Consolidates human settlement around nodal points and protect valuable agricultural land from urbanisation pressures.
- Provides guidance for the development and provision of engineering services.
- Indicates where to provide tarred road infrastructure and multi-modal transport facilities.
- Basic services are provided by government in a financially sustainable manner.
- Provides a platform for entrepreneurship and small business development (LED).
- Provides government with a platform from which to develop ICT in rural areas, as well as rural energy centres.
- Supports the rural nodal concept as contained in the Comprehensive Rural Development Plan and the National Development Plan.

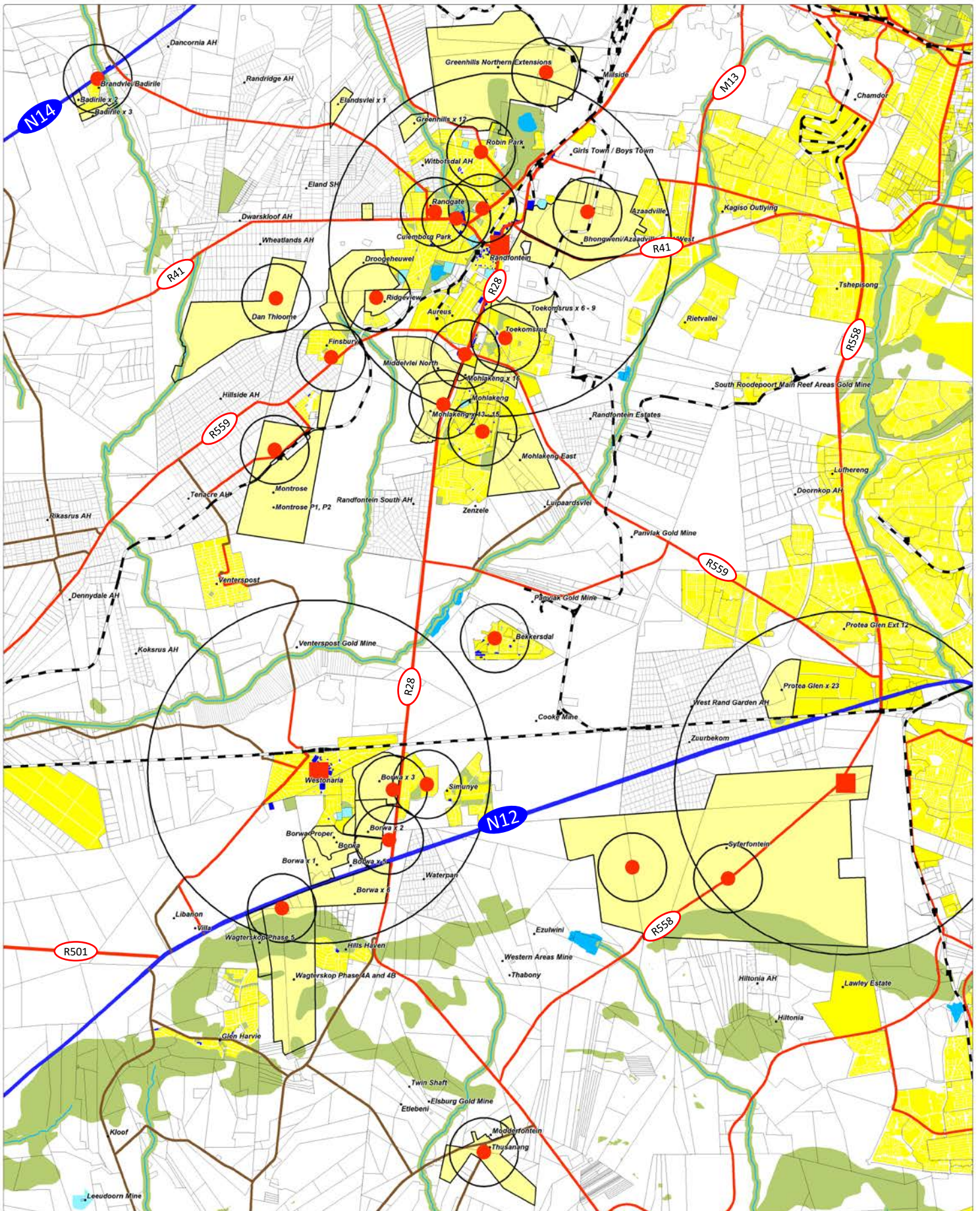
4.2.6 Business

Development Objective 6: Actively manage and maintain a hierarchy of business nodes (CBD's, Regional and Neighbourhood/ Community Nodes) to accommodate mixed retail, office and residential uses.

Figure 42 and **Table 22** depict the proposed three tier Business Node Hierarchy for RWC. The Central Business District (CBD's) of Randfontein and Westonaria play an important role in serving the retail and office needs of communities, but also represent significant opportunities for economic development and job creation to the informal sector.



Rand West City : Communities Facility Clusters (Thusing Centers)



- Cadastral
- Dams/Rivers
- Open Space
- Towns and Settlements
- Priority Housing Areas
- High Order Community Facility with 5km Radius
- Low Order Community Facility with 1km Radius
- 1st Order Roads
- 2nd Order Roads
- 3rd Order Roads
- Railway Line
- Railway Station

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Table 22: Rand West City: Proposed Business Nodes Hierarchy

Business Node Ranking	No.	Name	Existing	Future
CBD	1	Randfontein CBD	•	
CBD	2	Westonaria CBD	•	
CBD	3	Syferfontein CBD		Δ
Regional Business	4	Tambotie Mall	•	
Regional Business	5	R28/ PWV -16 Crossing (Aureus)		Δ
Regional Business	6	R28 /N - 12 Crossing (Borwa)		Δ
Regional Business	7	R558 (Syferfontein)		Δ
Regional Business	8	Bhongweni/Azaadville Gardens/West Porges		Δ
Regional Business	9	K 197 (Greenhills Northern ext)		Δ
Community/Neighbourhood Business	10	Randgate Business Strip	•	
Community/Neighbourhood Business	11	Green Hills P&P	•	
Community/Neighbourhood Business	12	Green Hills Circle	•	
Community/Neighbourhood Business	13	Toekomsrus	•	
Community/Neighbourhood Business	14	Mohlakeng x13-15	•	
Community/Neighbourhood Business	15	Bekkersdal	•	
Community/Neighbourhood Business	16	Simunye	•	
Community/Neighbourhood Business	17	Mohlakeng	•	
Community/Neighbourhood Business	18	Droogeheuwel		Δ
Community/Neighbourhood Business	19	Finsbury	•	
Community/Neighbourhood Business	20	Dan Thloome		Δ
Community/Neighbourhood Business	21	Kocksoord	•	
Community/Neighbourhood Business	22	Borwa		Δ
Community/Neighbourhood Business	23	Wagterskop		Δ
Community/Neighbourhood Business	24	Syferfontein		Δ
Community/Neighbourhood Business	25	Badirile		Δ
Community/Neighbourhood Business	26	Culemborg Park	•	
Community/Neighbourhood Business	27	Heilbron Park	•	

Note: Regional Business: 25 000-100 000m² floor area
Community/ Neighbourhood Business: 5000-25 000m² floor area

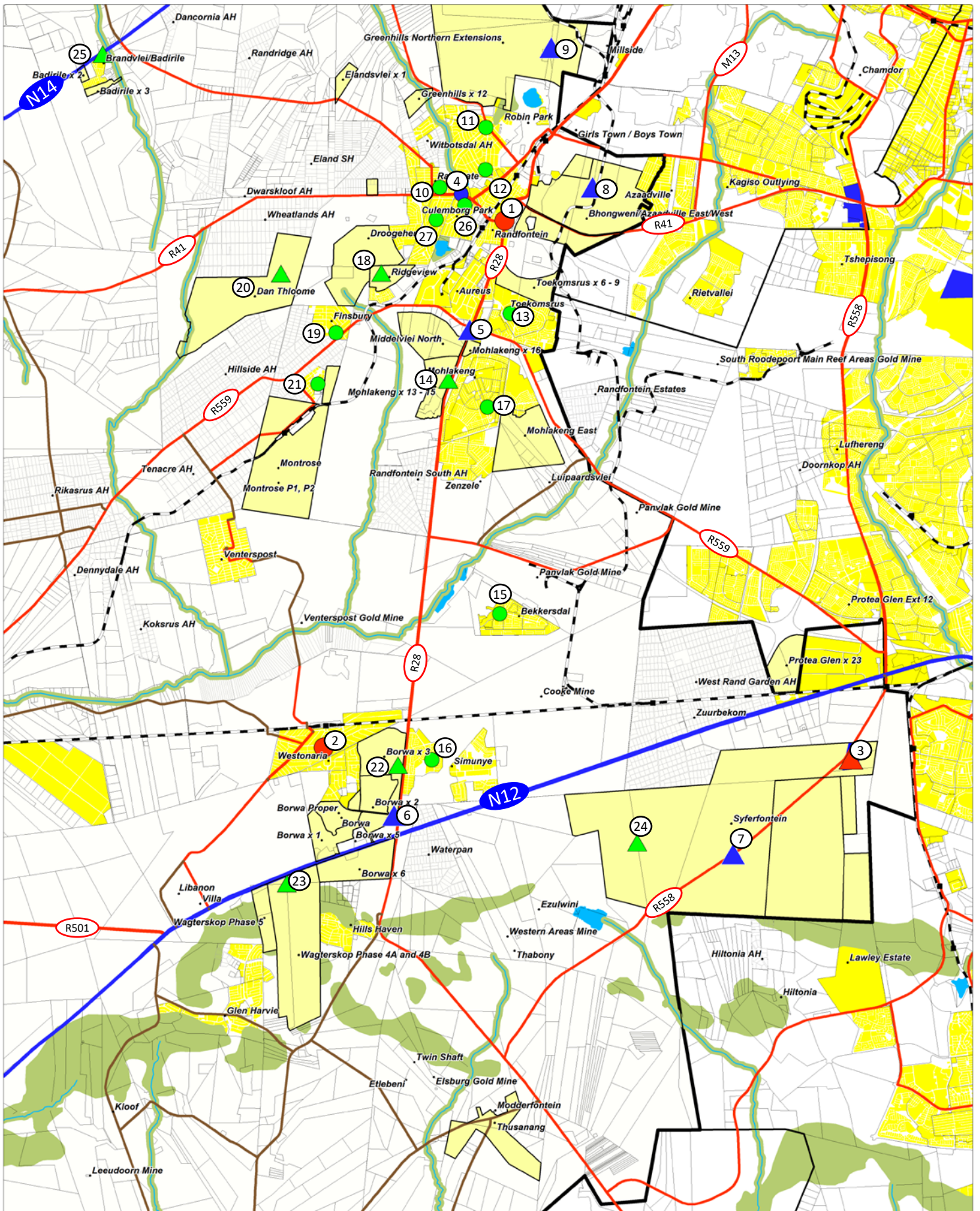
These two areas should be treated as special precincts requiring dedicated management in order to prevent urban decay and/or the excessive relocation of economic activities to decentralised business nodes. Decentralised nodes normally establish closer to the middle and higher income residential areas of towns along mobility routes. In most instances this is to the detriment of low income communities as it leads to urban decay in the Central Business Districts which are the most accessible business nodes to these communities (public transport users).

As noted above the Syferfontein layout plan makes provision for a future Central Business District within this area and there is potential for a significant future business area between Mohlakeng and Toekomsrus as and when route PWV16 is constructed.

Apart from these larger CBDs, lower order business activity (in terms of scale and range of activities) should be supported at each of the Neighbourhood Nodes depicted on Figure 42. The more detailed layout plans in all Priority Housing Development Areas will identify the location and extent of additional Neighbourhood Nodes to be developed in each of these areas in future.



Rand West City : Proposed Business Node Hierarchy



Cadastral	CBD Existing	Community/Neighbourhood Business Existing
Dams/Rivers	CBD Future	Community/Neighbourhood Business Future
Open Space	Regional Business Existing	
Towns and Settlements	Regional Business Future	
Priority Housing Development Areas		

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4.2.7 Industrial

Development Objective 7: Expand and consolidate industrial development around existing industrial areas and along development corridors identified within the municipal area.

Industrial Vision

“Transform the West Rand industrial offerings into new, modern and diversified nodes and proactively stimulate the development of optimally located new industrial nodes to attract clean industry and logistics orientated industrial enterprises, whilst promoting the settlement of a broad spectrum of enterprises (SMME through to large corporates) that promote value chain extension of local resources”: WRDM Industrial Strategy (2013).

The following industrial development objectives should inform/guide future industrial development in the RWC LM:

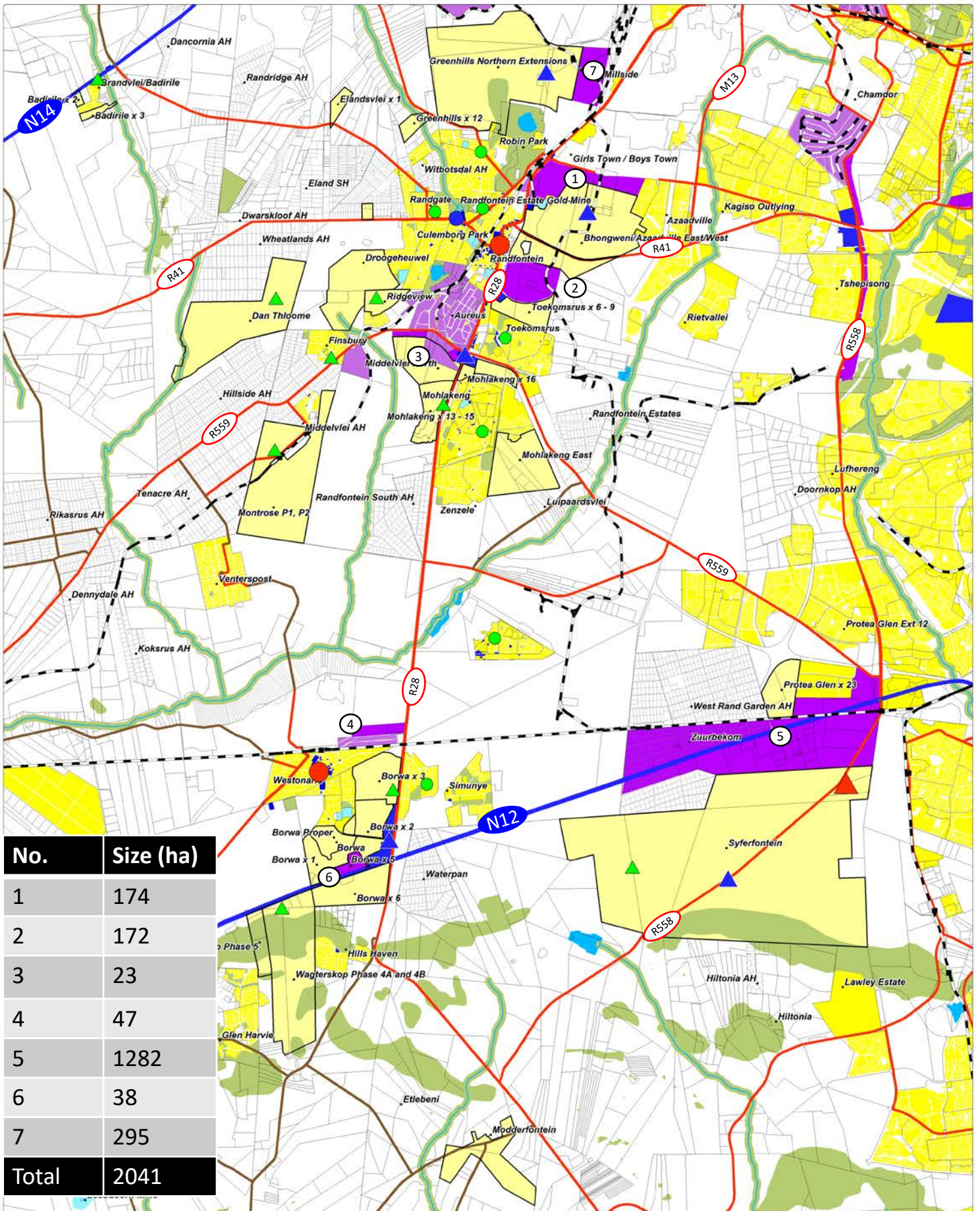
- Strengthen the functionality and performance of existing industrial nodes at Aureus, Tiger Foods and Westonaria Industrial;
- Diversify the existing industrial base of the industrial nodes and unlock local resources by developing/ expanding industrial activity where potential exists – especially along route N12 in the vicinity of Syferfontein;
- Strengthen existing agglomeration advantages which would contribute to the establishment of sustainable clusters;
- Contribute to industry related skills development and capacity building of the local labour force and contribute to SMME development;
- Promote the incorporation of green industries/technology in all industrial areas;
- Ensure availability/flexibility of engineering services and related infrastructure serving industrial areas;
- Exploit the opportunities offered by the existing strong agricultural base by encouraging development of agro-processing and related downstream activities and industries around the Badirile rural node with functional linkages to the higher order agro industries located at Tiger Brands and Aureus.

As illustrated on **Figure 43** industrial expansion in Randfontein Town is proposed along Randfontein Road (174 ha) to the east of Delmas/ Tiger Brands (number 1); around the existing Randfontein Waste Disposal Site (172 ha) to the north of Toekomsrus (number 2); and along a strip of land (23 ha) to the south of Aureus and parallel to route R559 (number 3).

In Westonaria Town it is recommended that the northward expansion (47 ha) of the existing industrial area and the proposed industrial area north of route N12 in the Borwa area (38 ha) be supported.



Rand West City : Proposed Industrial



No.	Size (ha)
1	174
2	172
3	23
4	47
5	1282
6	38
7	295
Total	2041

Cadastral	Priority Housing Development Areas	Regional Business Future
Dams/Rivers	CBD Existing	Community / Neighbourhood Business Existing
Open Space	CBD Future	Community / Neighbourhood Business Future
Towns and Settlements	Regional Business Existing	Industrial / Commercial Proposed Roads

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Further to the east along route N12 in the vicinity of Syferfontein there is extensive potential for commercial/ industrial activity (1282 ha). The area already holds a number of formal/ informal industrial activities and the railway line (with two existing railway stations) could also enhance the development potential of this area in future.

In the long term (beyond 2037) the area (number 7) in the vicinity of the Millside railway station (295 ha) north of Robin Park could also be considered for industrial development.

This brings the total area earmarked for industrial development (short, medium and long term) to approximately 2041 ha.

In line with the WRDM Industrial Development Strategy the following industrial development themes should be facilitated in the RWC LM:

- Promoting manufacturing through the development of industrial clusters around growth sectors that appear to have a (potential) comparative advantage, e.g. industries linked to the mining sector, textiles, and agriculture;
- Organic food supplements and bio-medical products;
- SMME manufacturing, including clothing, upholstery, arts and crafts, etc.;
- Agro-industrial processing, e.g. dairy processing, grain milling, oil extraction, packaging etc.;
- Manufacturing firms that are currently successful or have a strong presence in the RWC could increase its positive impact on employment in the area if its operations were expanded through further investment. Targeted investment incentives should be investigated;
- The RWC LM should investigate opportunities in the waste disposal sector, which includes the safe and appropriate disposal of waste, as well as the utilisation/ recycling of waste, e.g. chemical waste processing and refinement.

Strategy	Rand West City Industrial Nodes
Pillar 2: Industrial Maintenance Strategy	
<ul style="list-style-type: none"> • Existing stable industrial nodes • In need of long term Maintenance Plan 	<ul style="list-style-type: none"> • Westonaria existing node • Aureus existing node
Pillar 3: Industrial Growth Management Strategy	
<ul style="list-style-type: none"> • Existing, expanding and new industrial nodes • In need of Growth Management Strategy 	<ul style="list-style-type: none"> • Tiger Brands Expansion • Aureus • Proposed Badirile/N14 Intersection node • Westonaria proposed new N12 corridor

4.2.8 Mining

Development Objective 8: Utilise the mining potential of the RWC LM along the southern mining belt in a sustainable, well-managed manner.

Mining is still a very important economic sector in the Rand West City area; both in terms of production and employment and is set to play an important role in the economy of the municipality for many years to come. With an average life span of 26 years per mine, there is still considerable potential to utilize the mining sector as a catalyst for developing other economic activities, by strengthening local backward and forward linkages e.g. mining tourism, mineral processing, jewellery production, manufacturing of bricks etc.

As illustrated on **Figure 44** the bulk of mining activity in the RWC LM over the next few decades will be along the southern mining belt, around Westonaria and towards Syferfontein. This will comprise primary mining and associated activities. In view of the limited lifespan of these mines it is important that appropriate environmental management processes be put in place to ensure the continuous rehabilitation of mining land with a view to eventually restoring the agricultural and tourism value of the land once mining activity ceases.

Housing development associated with mining activity should be carefully managed to prevent the establishment of small, unsustainable human settlements with no secondary economic base to support it once the mine closes down.

Workers and their families should rather be integrated into the urban fabric of the main nodes like Westonaria, Randfontein and Syferfontein where they can share social and economic infrastructure and services with the broader community and enhance the economic viability of such towns.

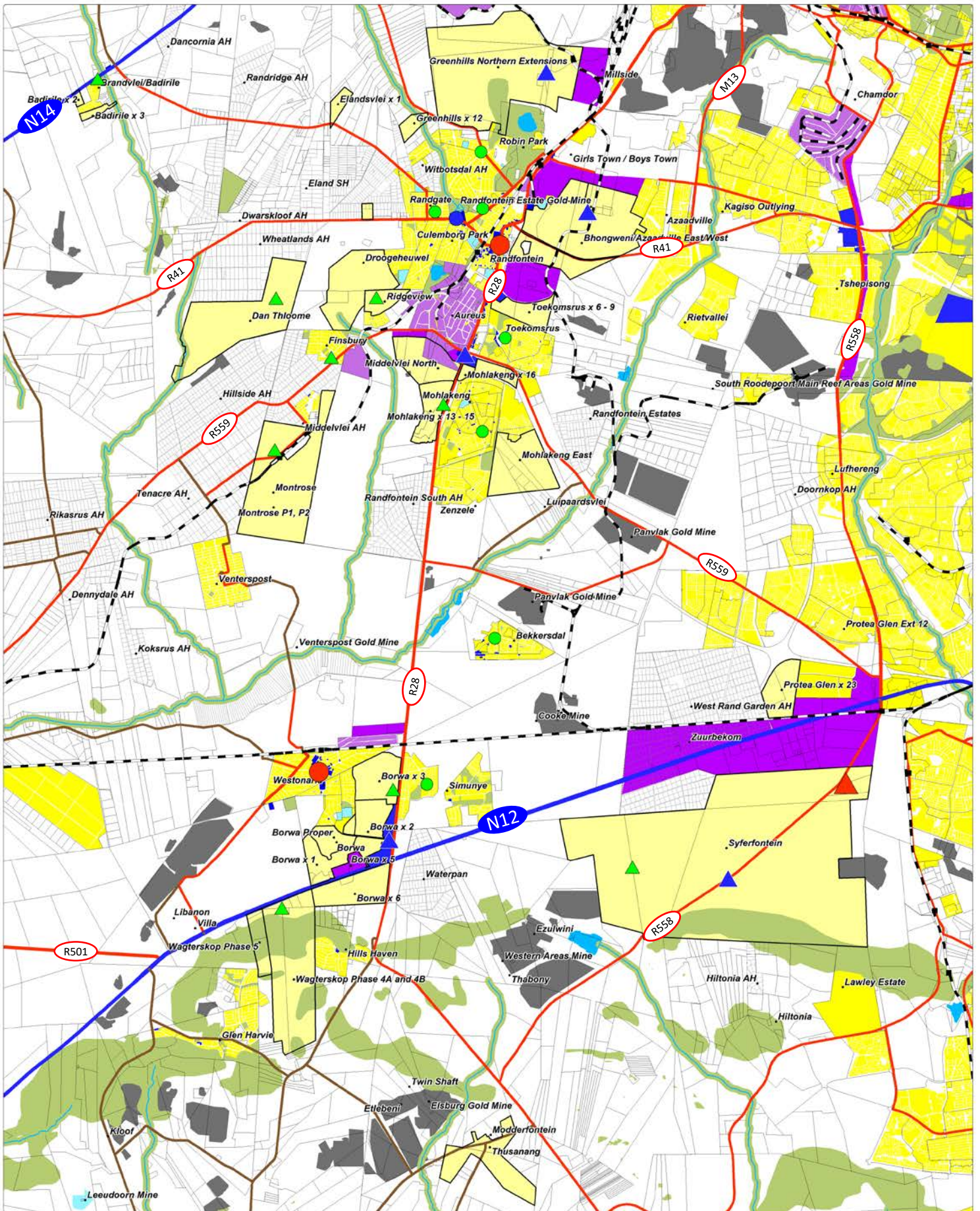
Although it implies that workers will have to commute to work during the lifespan of the mine it is still more sustainable than creating several small mining towns/villages requiring duplication of infrastructure etc. and which further fragment the urban footprint of the RWC LM.

The Thusanang initiative currently underway in the Westonaria municipality is a concern in this regard as it does not comply with the sustainability and efficiency norms and principles of SPLUMA.

In the northern mining belt between Randfontein and Mogale City the main focus will be on the reclamation of the existing mine dumps, ash processing for the refilling of mines, manufacturing of construction aggregate and a variety of other associated activities. The last step in this process is the environmental rehabilitation of the mining land to make it suitable for future residential/ commercial development.



Rand West City : Mining



	Cadastral		Priority Housing Development Areas		Regional Business Future
	Dams/Rivers		CBD Existing		Community / Neighbourhood Business Existing
	Open Space		CBD Future		Community / Neighbourhood Business Future
	Towns and Settlements		Regional Business Existing		Industrial / Commercial
					Mining

0 0,6 1,8 3 km

44

4.2.9 Agriculture

Development Objective 9: Optimise agricultural production in the Farmer Production Support Areas and facilitate agri processing in and around the Badirile Agri Hub.

As noted earlier in this report the RWC Local Municipality shares two of the declared Agricultural Focus Areas of Gauteng Province: the one to the north-west around Badirile; and the other in the areas south of the Gatsrant towards Sedibeng. These areas are depicted on **Figure 45**.

In line with the national Agri Park initiative, the Badirile node is earmarked as a future Agri Hub. This is a production, equipment hire, processing, packaging, logistics and training unit serving the surrounding agricultural production areas. The two Agricultural Focus Areas referred to above, as well as the rural area between Randfontein and Westonaria are furthermore classified as Farmer Production Support Unit areas in the RWC SDF. The FPSU is a rural outreach unit connected with the Agri Hub which does capacity building, infrastructure development, primary collection, storage, processing for the local market, and provides extension services to farmers. It is proposed that a FPSU be established in each of the 3 areas earmarked as such, with the FPSU and Agri Hub functions being combined at Badirile.

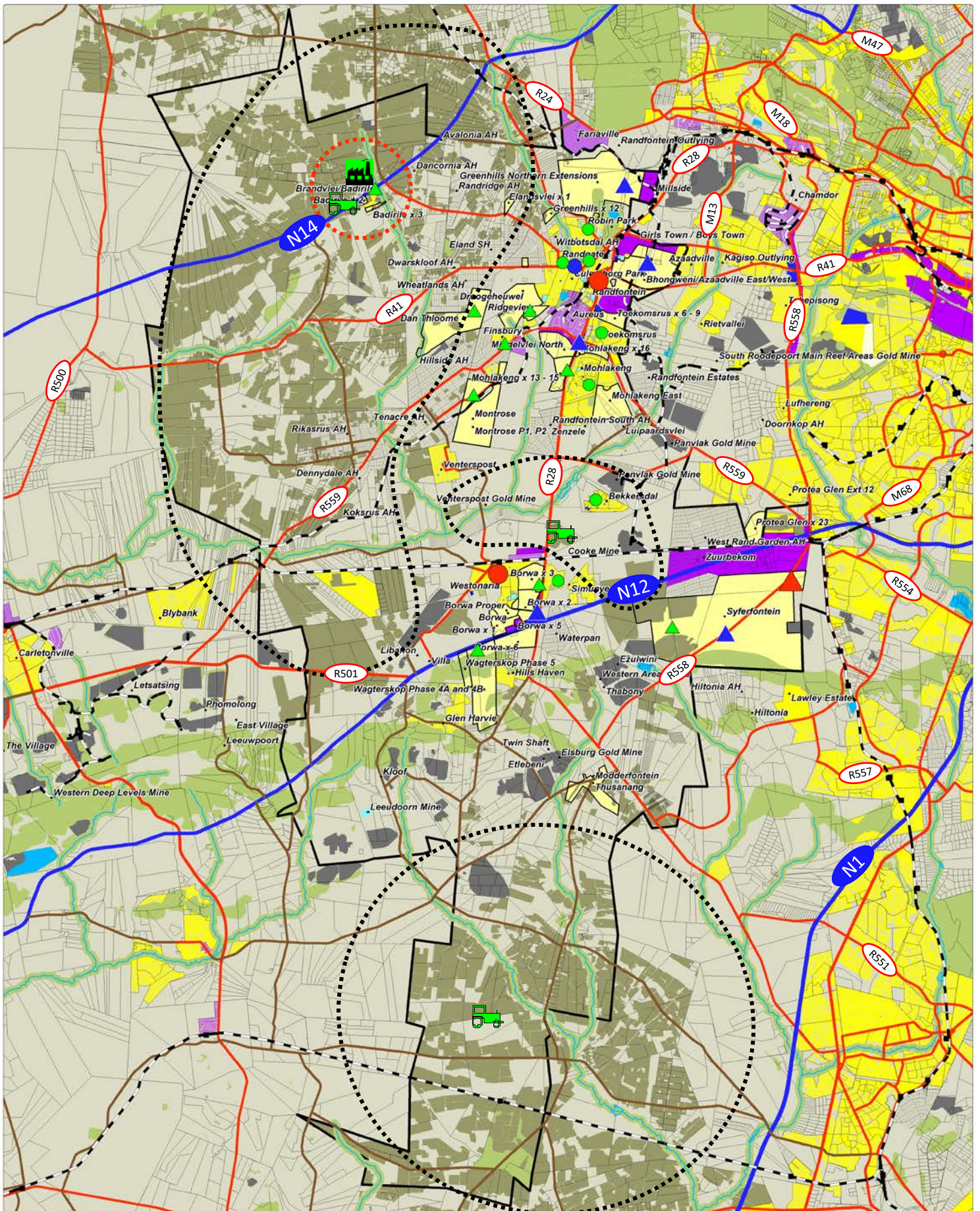
The Bekkersdal-Simunye FPSU should focus on small scale farming and various forms of intensive production like hydroponics and various forms of in-house vertical farming to assist emerging farmers from the surrounding communities.

The RWC LM should utilise these areas of high agricultural potential to promote the agricultural industry within the municipal area, and specifically by way of the following measures:

- Exploiting the opportunities offered by the high potential agricultural land identified within these areas;
- Significantly increasing the yield per hectare (relative to extensive farming) and therefore providing more affordable food to the consumer;
- Providing support to emerging and small-scale farmers, and ensuring that appropriate skills development takes place in line with the principles of the national Comprehensive Rural Development Programme – especially around the Badirile node and the Bekkersdal-Simunye FPSU;
- Increasing land availability for agricultural purposes through partnerships with the current mining houses and through mining rehabilitation and land reform (where relevant);
- Increasing job creation in these rural areas through labour-intensive agricultural projects and extending the agriculture value chain of the priority commodities in the area (refer to **Diagrams 11-18** overleaf);
- Encouraging the use of different crops and new planting, harvesting and processing techniques;



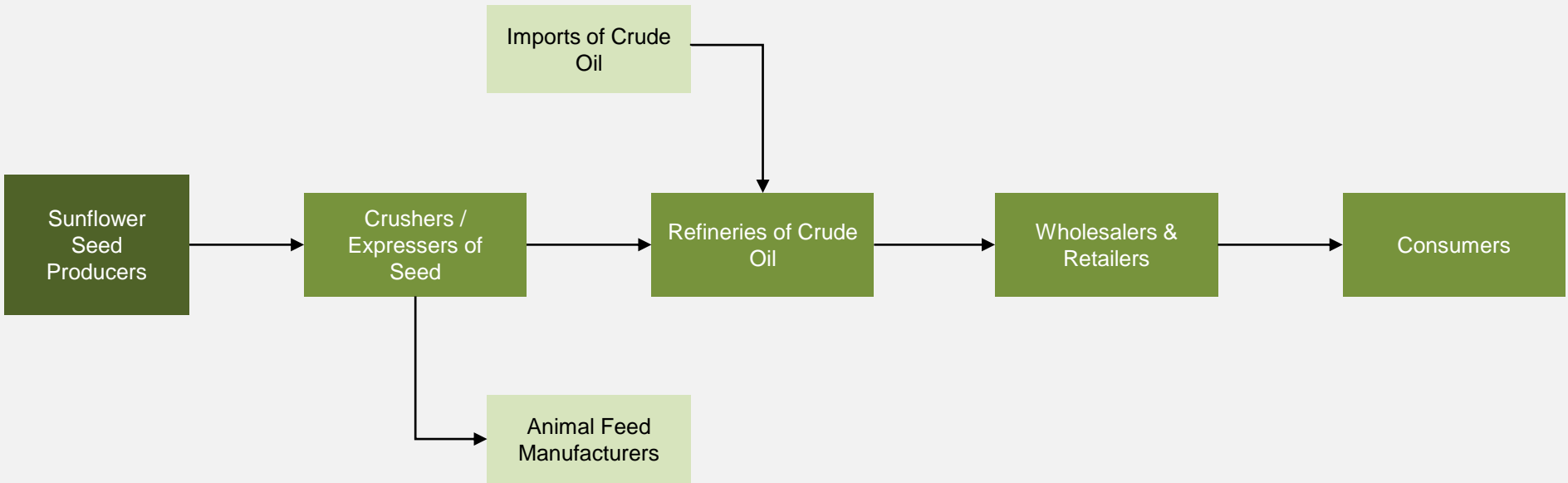
Rand West City : Agriculture



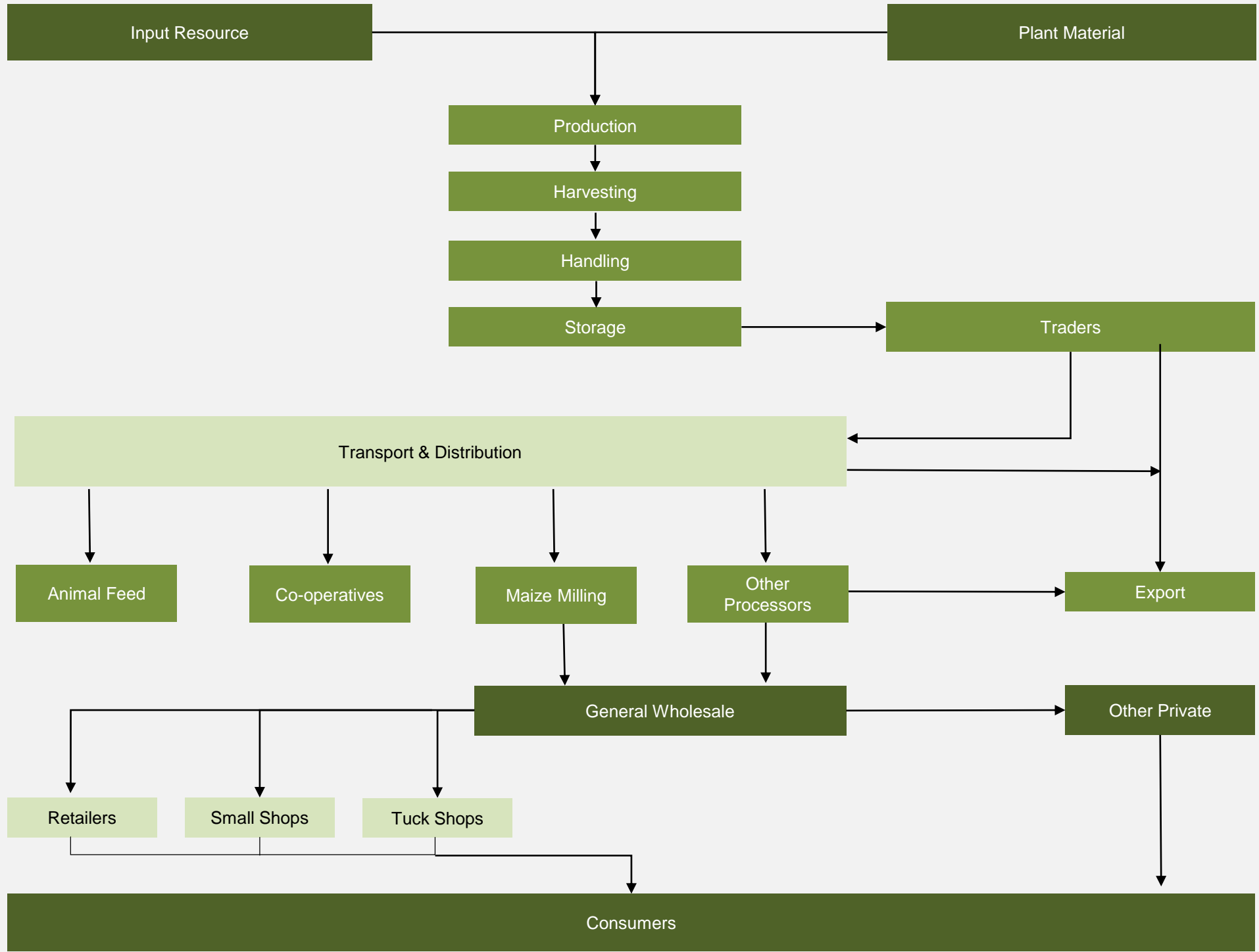
Cadastral	CBD Existing	Community / Neighbourhood Business Future	Agri Hub
Dams/Rivers	CBD Future	Industrial / Commercial	Farmer Production Support Unit
Open Space	Regional Business Existing	Mining	Rural Intervention Areas
Towns and Settlements	Regional Business Future	Extensive Agriculture	
Agricultural Holdings	Community / Neighbourhood Business Existing	Cultivated Land	
PHDA			

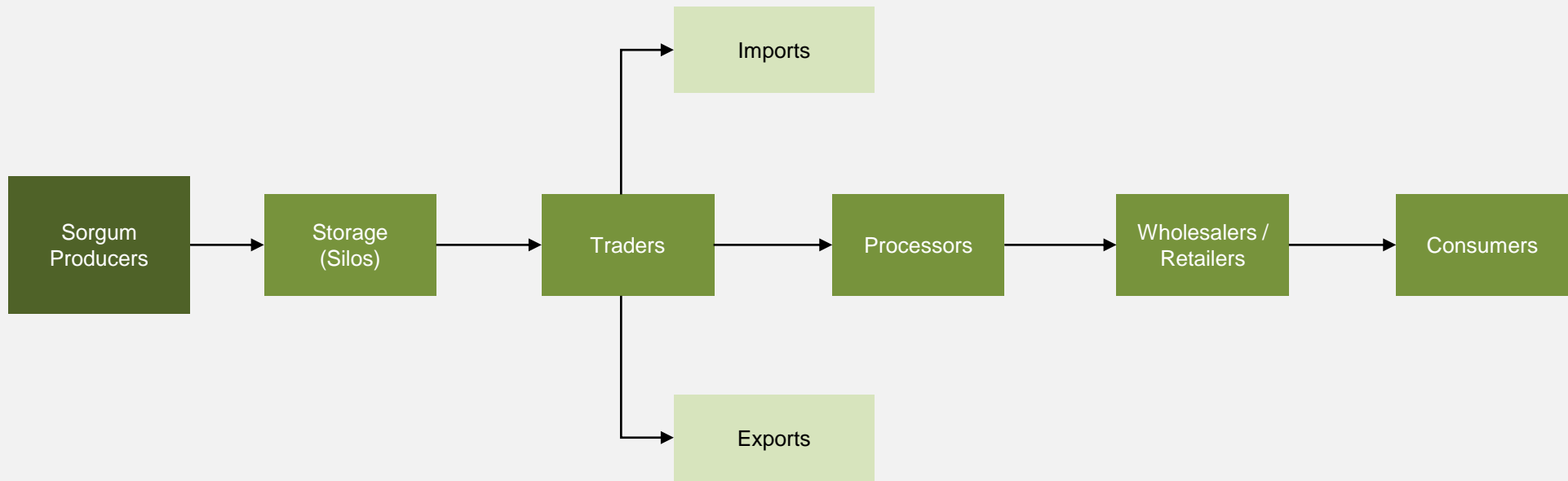
0 1,2 3,6 6 km

45

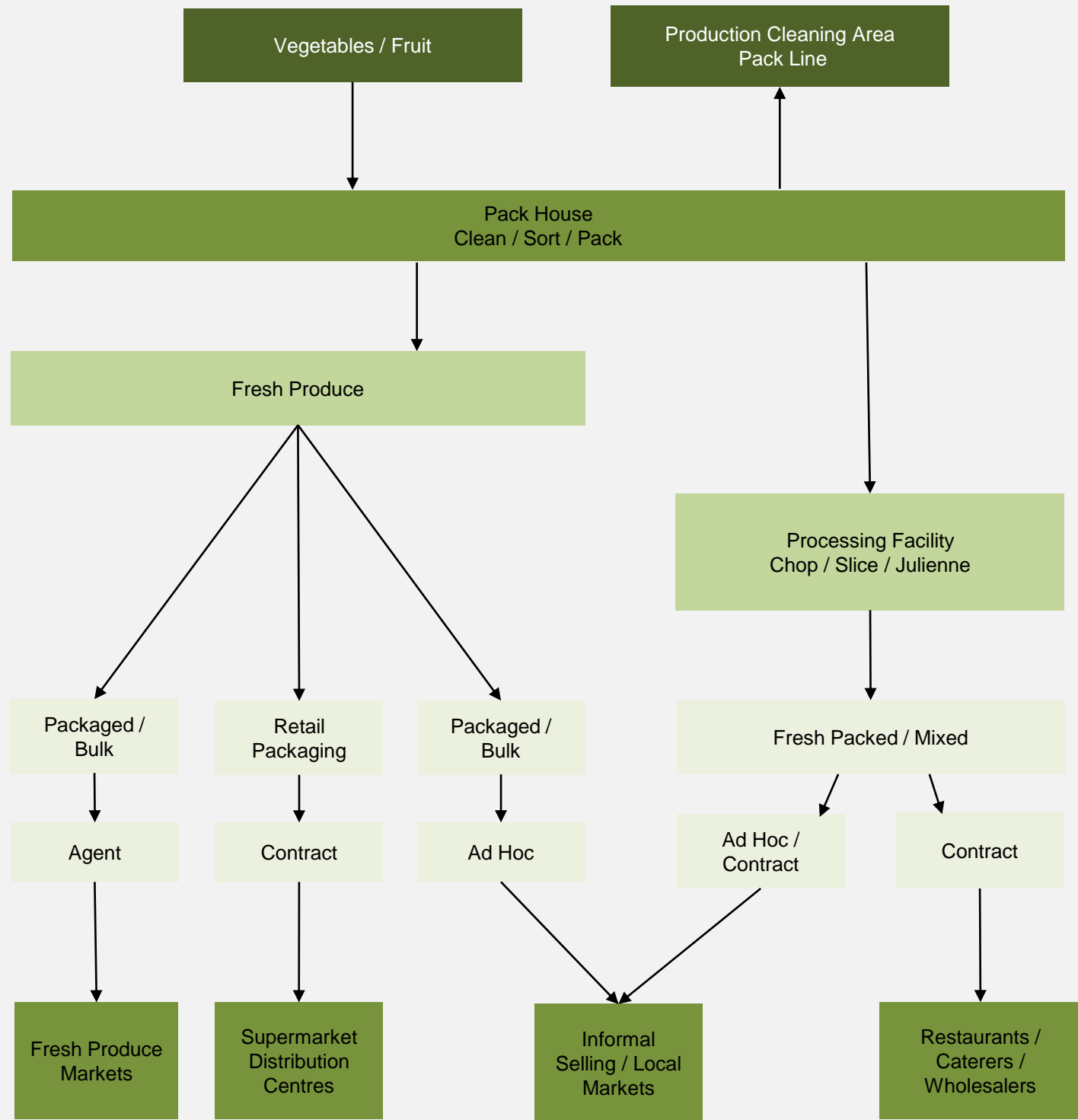
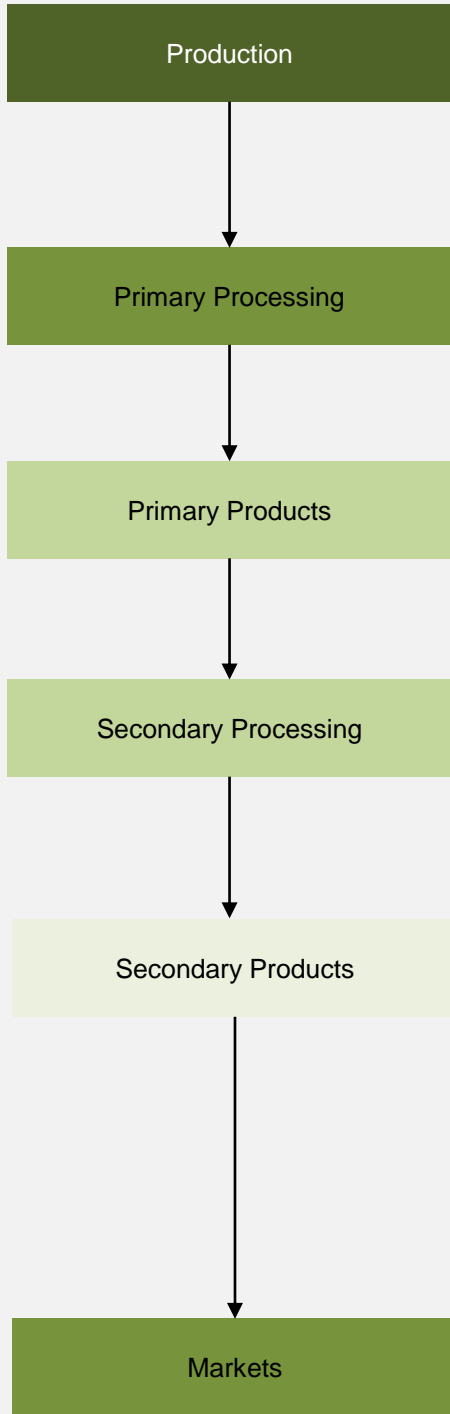


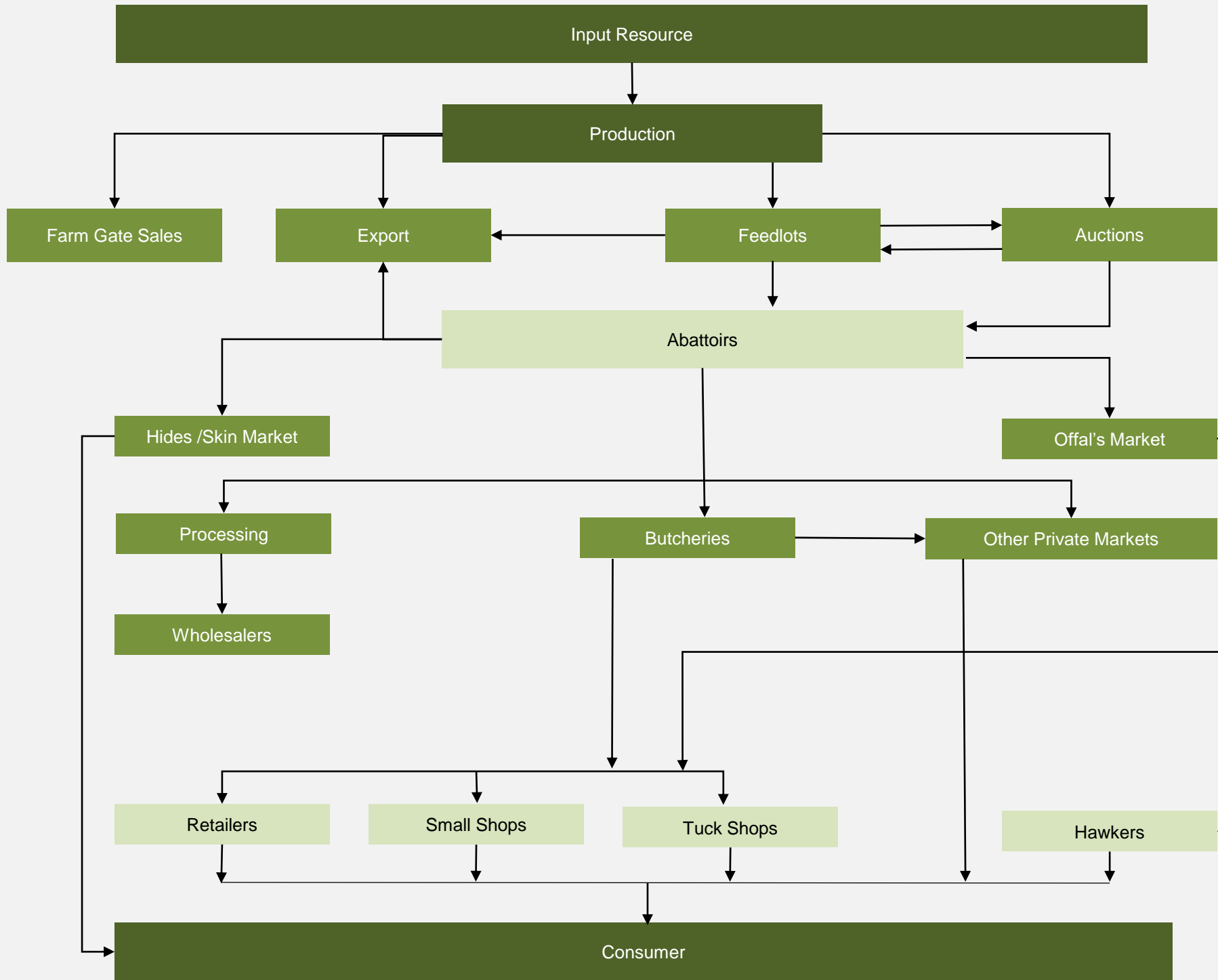
Source: Department of Agriculture, Forestry and Fisheries

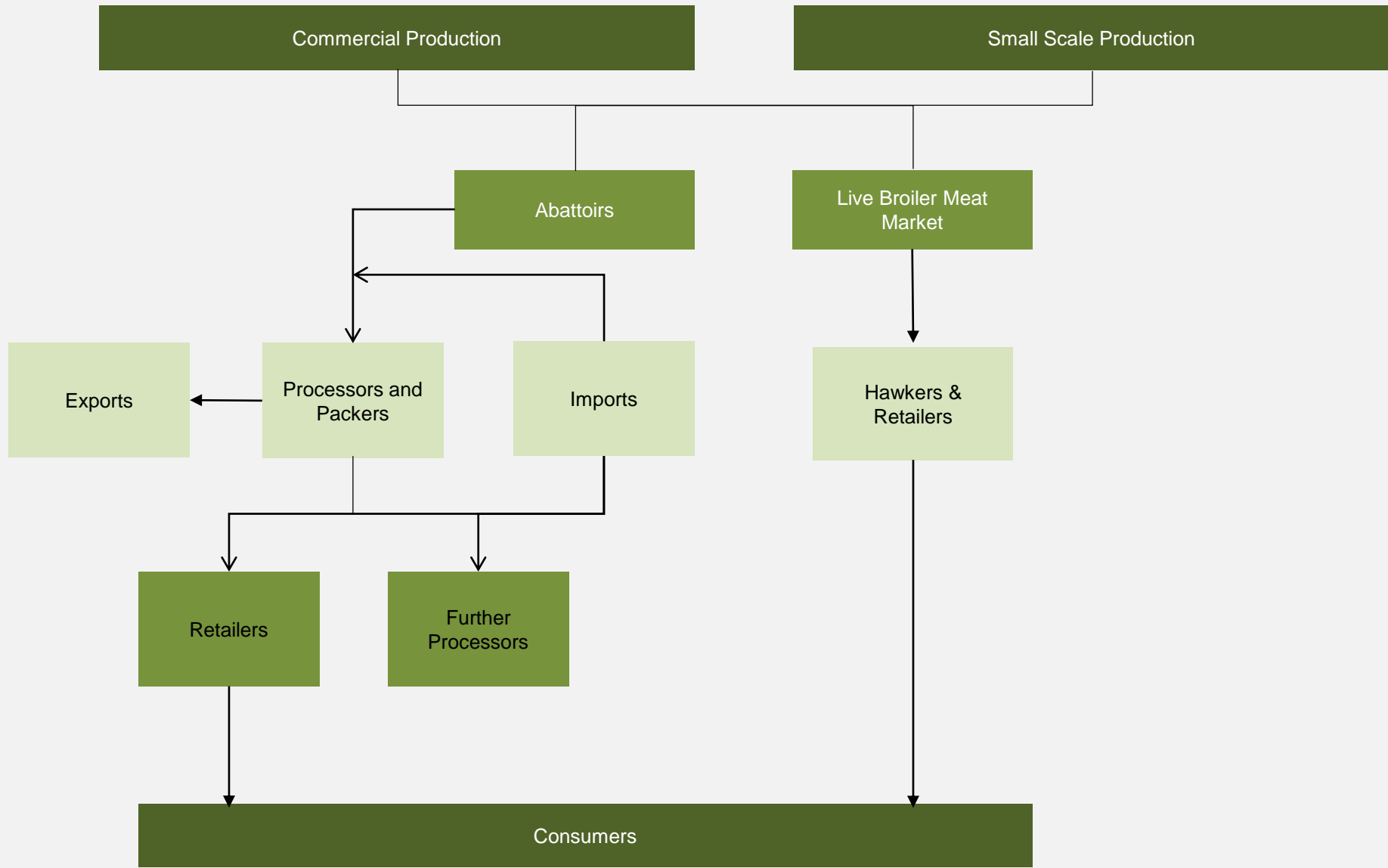


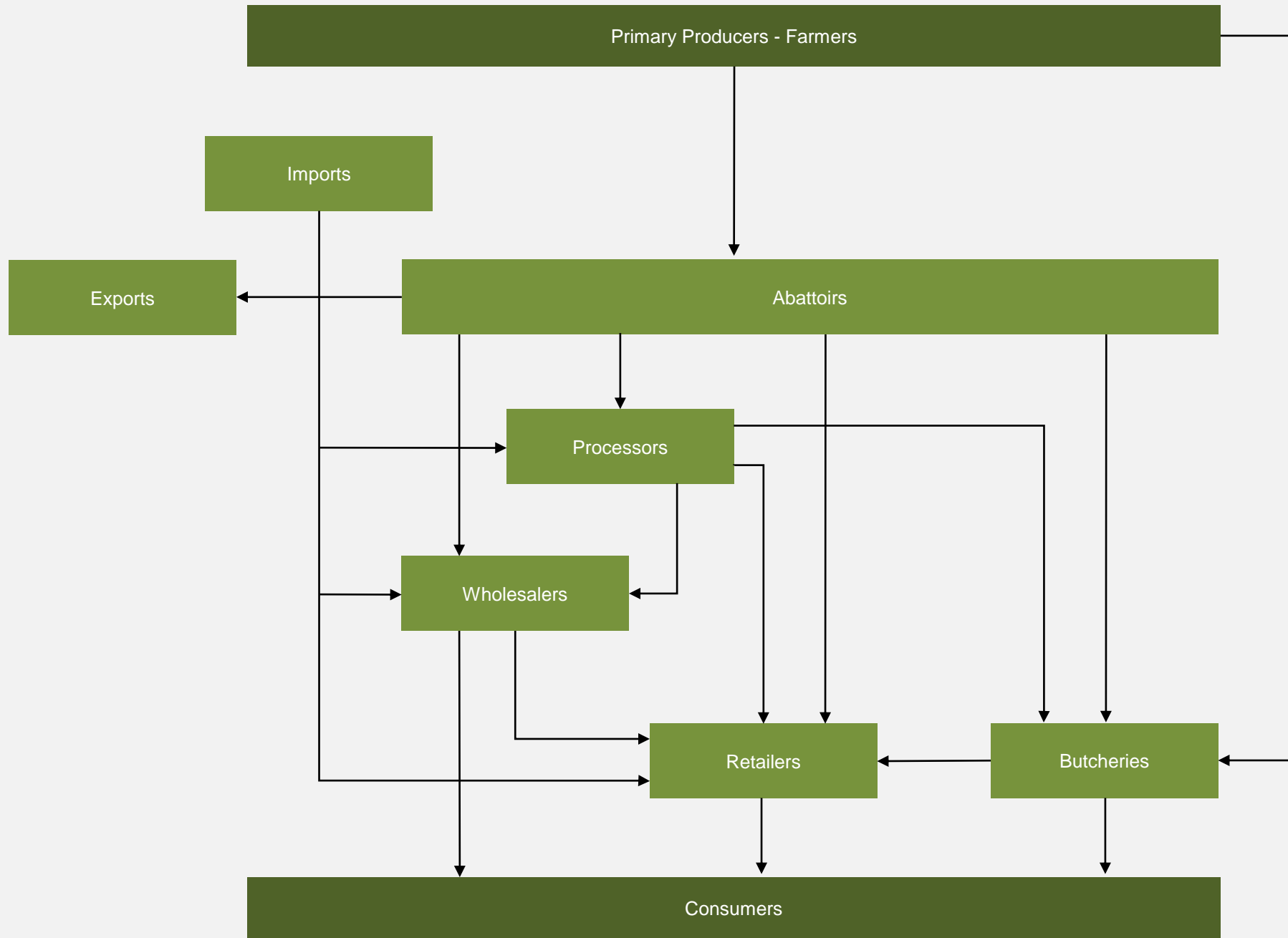


Source: Department of Agriculture, Forestry and Fisheries

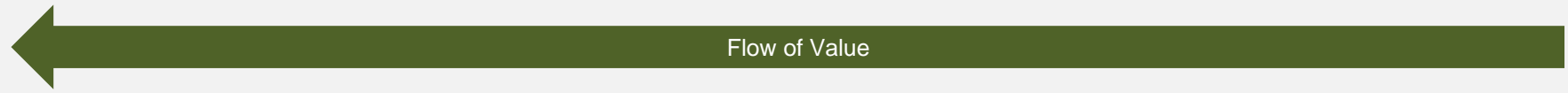
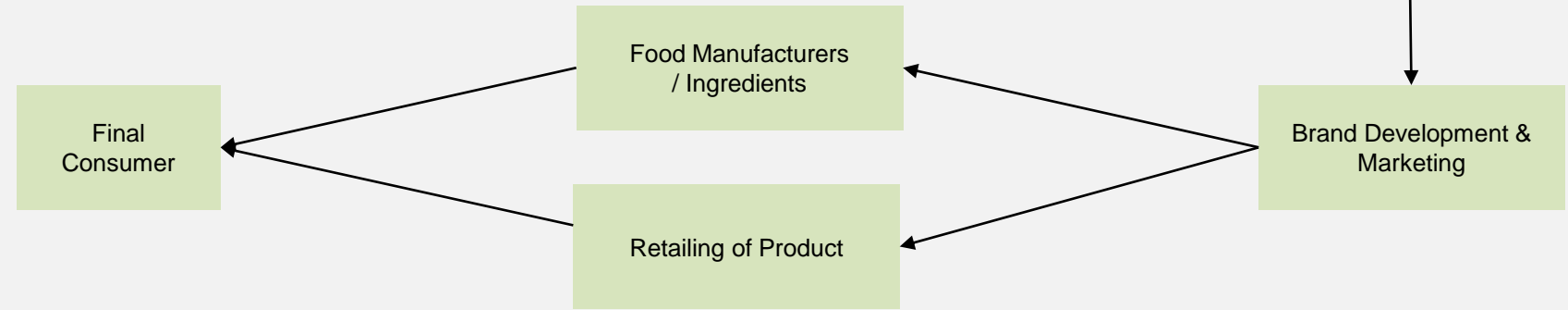
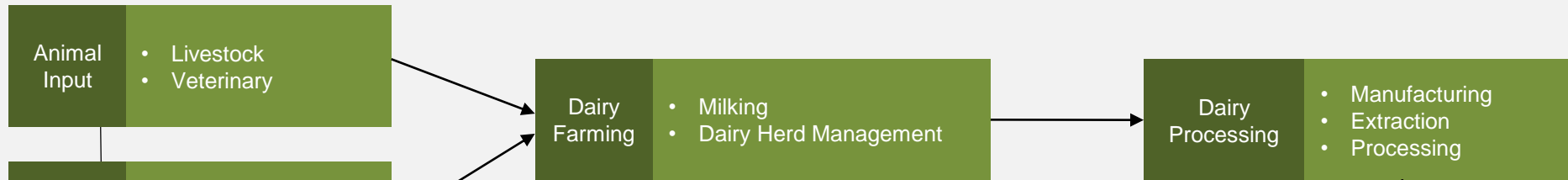
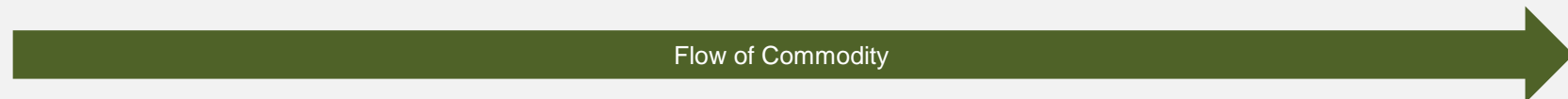








Source: A Profile Of The South African Pork Market Value Chain, 2014



- Supporting a variety of farming concepts including intensive commercial farming, small scale commercial farming, subsistence farming, aquaculture development, agri-villages, demonstration plots and agro processing industries;
- Availing rehabilitated/unused mining land for agricultural purposes/projects (especially within the mining belt between Westonaria and Randfontein around Bekkersdal);
- Skills development in agriculture and farming practices;
- Developing a partnership between established commercial farmers and the Agriculture FET College;
- Land Reform Support to enhance access to the natural resources of the RWC LM;
- The following types of agro-industries could be established in the RWC LM (at Badirile Agri Hub or Tiger Brands/ Aureus industrial areas):
 - Increased poultry and pig feed manufacturing from maize to promote expansion of the chicken industry and piggeries;
 - Seed oil processing to process the full range of seed oils available in the region. Medium-term down-stream value-adding activities could further include manufacturing of margarine, mayonnaise, etc. thus, establishment of a food-processing cluster;
 - Livestock by-product utilisation whereby hides and skins could be sourced from abattoirs for down-stream manufacturing of shoes, bags, safety shoes, furniture and tourism items;
 - Manufacturing of maize and potato snacks such as chips, popcorn, etc.;
 - Further down-stream manufacturing of paper and plastic packaging for maize products and animal feed;
 - Manufacturing of plastic containers for items such as mayonnaise and margarine, achieving backward linkages.

Within the RWC Agri-park the following activities will take place:

- **Knowledge Transfer and Innovation** – this will include development and training of farmers as well as people involved in agri-business, food production as well as agro-tourism. There will also be vertical and horizontal learning between emerging and established agri-business entrepreneurs. The agri-hub will act as centre for harnessing competitiveness, resource efficiency, and environmental consciousness.
- **Advisory Services** – The Agri-park will be a centre of excellence where experts like agricultural research centres and firms disseminate information related to markets, investments, funding and other agriculture-oriented modalities.
- **Cooperation** – there will be incubation of small-scale farmers as well as cooperatives within the district. This will allow for small-scale agri-business operators to forge a critical mass that would enable them to compete in both local and global markets.
- **Investment in Physical Assets** – the introduction of the Agri Hub in Badirile will be accompanied by investments in physical infrastructure i.e. road, pack-houses, and other related supporting amenities. Tied to this is the provision of basic services such as water and electricity.
- **Agri-Business Development** – The Agri Hub will act as means for the identification and harnessing of agricultural value-chains. The spin-offs from agri-business development will transform the rural landscape into a vibrant economy.

The Badirile Node is also classified as a Rural Intervention Area where extensive infrastructure investment to serve the existing community residing here should take place (refer to Section 5.4 for more detail).

4.2.10 Tourism

Development Objective 10: Consolidate the tourism activities around the Treasury Route along route N12 and the Gatsrant ridge.

The main tourism feature in the RWC LM is the Treasure Tourism Route which runs along the N12 highway (the main Johannesburg-Cape Town route via Kimberley). (Refer to **Figure 46**). This route includes Merafong City and Westonaria and it is proposed that it be developed around the mining industry as its primary draw card, aiming to benefit local communities through the use of SMMEs, local labour, etc.

The RWC LM should provide support to local hospitality industries and existing attractions along this route, as well as establishment of a Crafters Market and Cultural Village along the N12 at the N12-R28 intersection (possibly in future Borwa X6?).

Furthermore, it could also enhance tourism in the following ways:

- Development of Agri-Tourism in the northern parts around Badirile.
- Eco-tourism opportunities at Riebeeck Lake and at disused mining shafts in Randfontein LM.

Signage and branding of the tourism activities along the N12 Treasure Corridor are important first steps towards establishing Treasure Corridor concept in the minds of local stakeholders and visitors/ tourists to the RWC area.

4.2.11 Growth Management

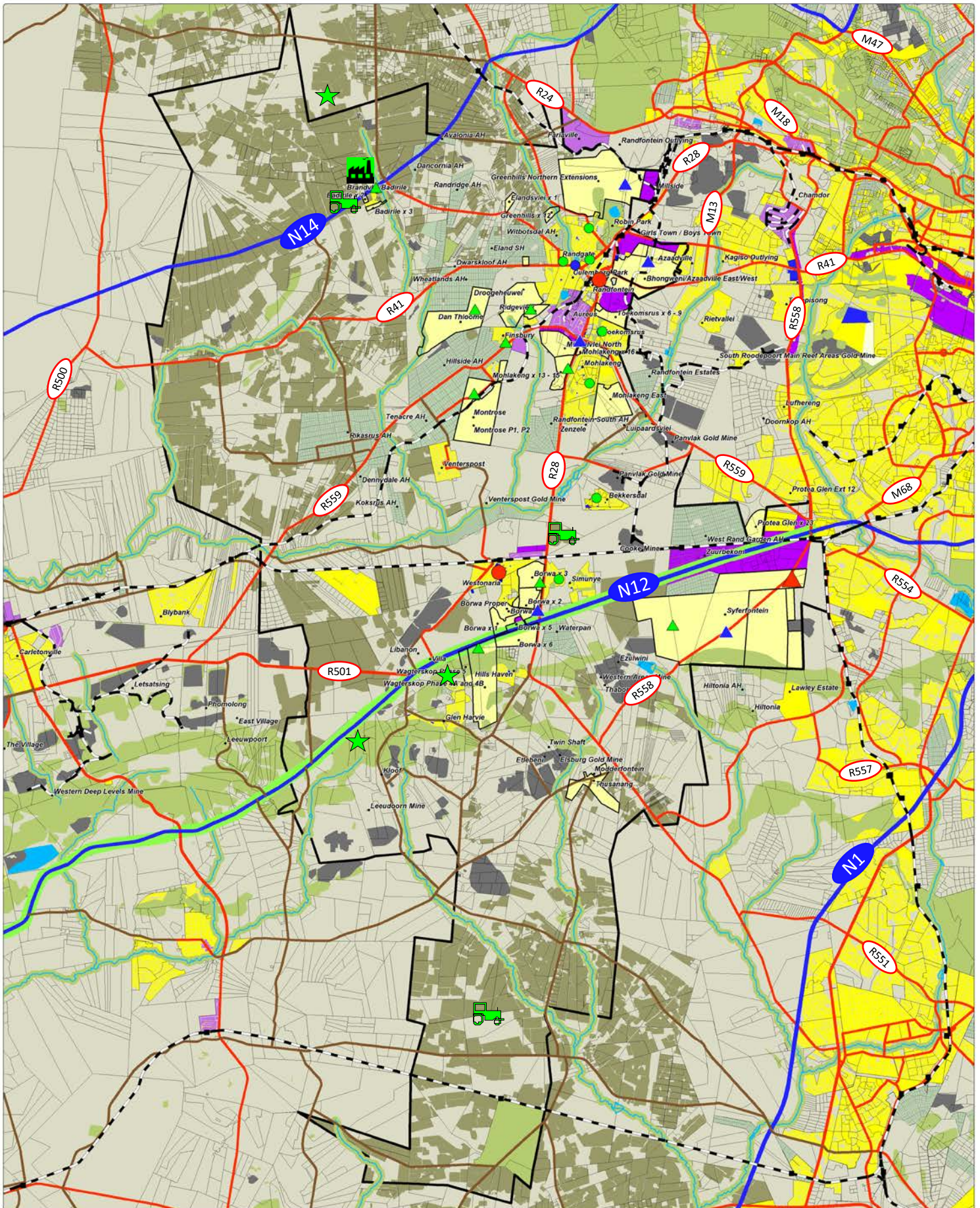
Development Objective 11: Facilitate Urban Restructuring by way of a Comprehensive Growth Management Strategy.

It is important that development follow in line with the objectives contained in the RWC SDF as discussed above. This would require the implementation of a Growth Management Strategy for the municipal area based on the following conditions:

- Determine priority areas for short-medium term investment and principal allocation of future development rights (as done in the identification of Priority Housing Development Areas for housing development);
- Re-direct the capital investment programme of the RWC LM and other government departments to focus on investment in the strategic priority areas (spatial targeting);



Rand West City : Tourism



Cadastral	CBD Existing	Community / Neighbourhood Business Future	Agri Hub
Dams/Rivers	CBD Future	Industrial / Commercial	Farmer Production Support Unit
Open Space	Regional Business Existing	Mining	Rural Intervention Areas
Towns and Settlements	Regional Business Future	Extensive Agriculture	Tourism Corridors
Agricultural Holdings	Community / Neighbourhood Business Existing	Cultivated Land	Tourism Nodes
PHDA			

N

46

0 1,2 3,6 6 km

- Limit future development rights in infrastructure problem areas within the municipal area until backlogs have been addressed;
- Introduce development conditions that are congruent with best-practice standards relating to resource efficiency (e.g. Green IQ, energy, water) which would alleviate pressure on engineering bulk infrastructure and fast track applications complying with these;
- Introduce development obligations relating to the full spectrum of inclusionary housing (i.e. subsidised housing, bonded, rental/ social housing) in identified priority areas;
- Apply a package of incentives to promote and facilitate development that subscribes to the socio-economic and spatial imperatives of the municipality; and
- Establish monitoring and evaluation mechanisms to review the status of the infrastructure problem areas and the limitations placed on these areas.
- Formulate a policy to guide the management of land uses to be allowed on agricultural holdings and farms outside the urban development boundary (urban edge).

The successful implementation of the RWC Growth Management Strategy will depend on the following:

- A range of financial incentives/ mechanisms aligned with the municipal rates policy to support projects which will bring about significant economic development and job creation or projects complying with the criteria of government's Breaking New Ground (BNG) Policy;
- Institutional support and arrangements in terms of the following:
 - High-level strategic decision-making based on the Growth Management Strategy;
 - Long term political endorsement and commitment of the principles fundamental to the RWC SDF to create investor confidence;
 - The District and Municipal IDP and Budget allocations for the municipal area be based on the principles of the Growth Management Strategy.

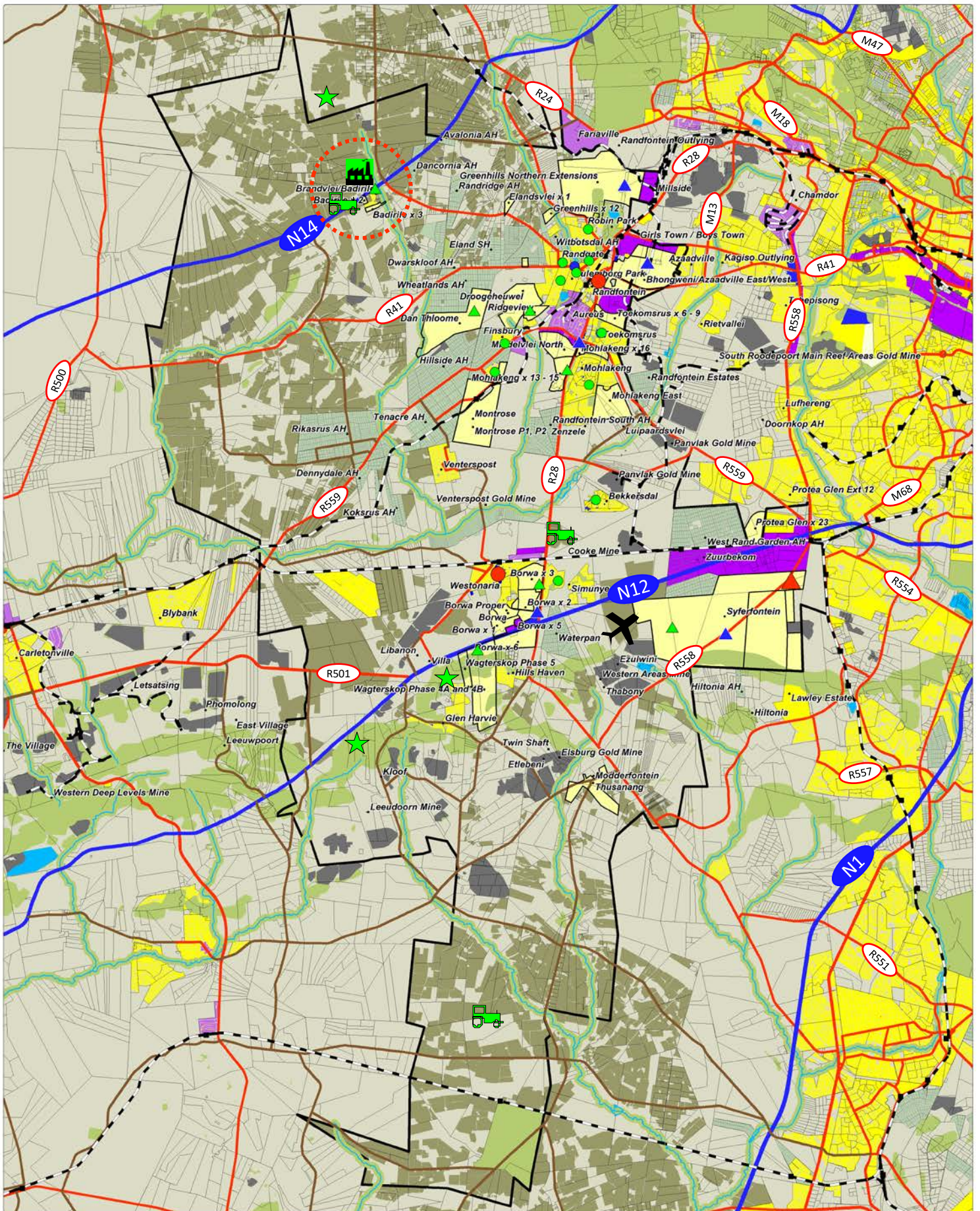
The RWC LM cannot achieve these goals in isolation and would require the private sector to buy into the Municipal Growth Management Strategy so that it can assist the process. It is therefore important to structure growth management tools like the Urban Edge and incentive packages in such a way that they effectively benefit the developers and future residents.

Other growth management instruments/ tools that can/ should be applied in conjunction with the urban edge include Land Use-Infrastructure Coordination; Urban Renewal/ Revitalisation Zones; Priority Housing Development Areas; Economic Growth Target Areas e.g. along corridors; Transit Oriented Development; Bulk Services Contributions; Zoning Incentives etc.

Figure 47.1 represents the Consolidated RWC Municipal Spatial Development Framework (without the future road network), whilst **Figure 47.2** shows the future road network as part of the consolidated map.



Rand West City : Consolidated Municipal Spatial Development Framework



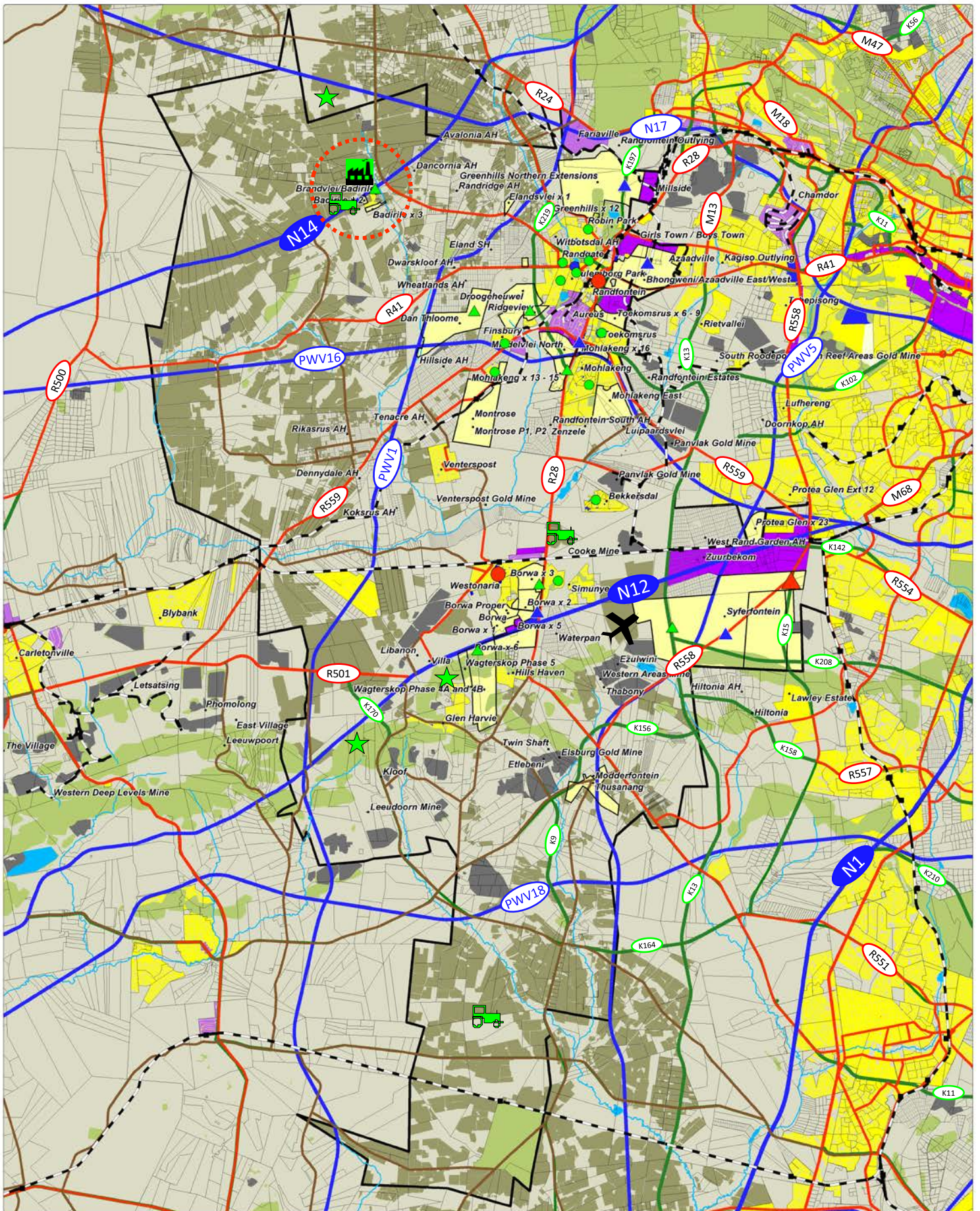
Cadastral	CBD Existing	Industrial / Commercial	Rural Intervention Areas
Dams/Rivers	CBD Future	Mining	Tourism Nodes
Open Space	Regional Business Existing	Extensive Agriculture	Future Airfield / Logistics Hub
Towns and Settlements	Regional Business Future	Cultivated Land	
Agricultural Holdings	Community / Neighbourhood Business Existing	Agri Hub	
PHDA	Community / Neighbourhood Business Future	Farmer Production Support Unit	

0 1,2 3,6 6 km

47.1



Rand West City : Consolidated Municipal Spatial Development Framework



Cadastral	CBD Existing	Mining	K-Routes (Proposed)
Dams/Rivers	CBD Future	Extensive Agriculture	Proposed Roads (Lower Order)
Open Space	Regional Business Existing	Cultivated Land	Rural Intervention Area
Towns and Settlements	Regional Business Future	1 st Order Roads (Existing)	Agri Hub
Agricultural Holdings	Community / Neighbourhood Business Existing	1 st Order Roads (Proposed)	Farmer Production Support Unit
PHDA	Community / Neighbourhood Business Future	2 nd Order Roads	Tourism Nodes
	Industrial	3 rd Order Roads	Future Airfield / Logistics Hub

47.2

5. LOCAL SPATIAL DEVELOPMENT PLANS

The following section provides some detailed guidelines towards the future development of the various nodes within the RWC municipal area:

5.1 RANDFONTEIN NODE

Figure 48 provides a more perspective on the Randfontein urban node from which the following should be noted:

1. The Randfontein CBD is the highest order business node in Randfontein Town and will be better defined (and enlarged) when the R28 eastern bypass is constructed.
2. The proposed future Regional Business Nodes Located at the Bundu Inn Crossing (between routes R559 and PWV16); at Bongweni; and in future northern extensions of Green Hills. The existing Tambotie Mall node is also classified as a Regional Business Node.
3. A number of lower order neighbourhood nodes providing convenience goods and services to residents within the various residential areas and which should also accommodate local community facilities (in the form of Thusong Centres).

All the above nodes are connected to one another by way of a local public transport route network along which densification and mixed use development should be promoted.

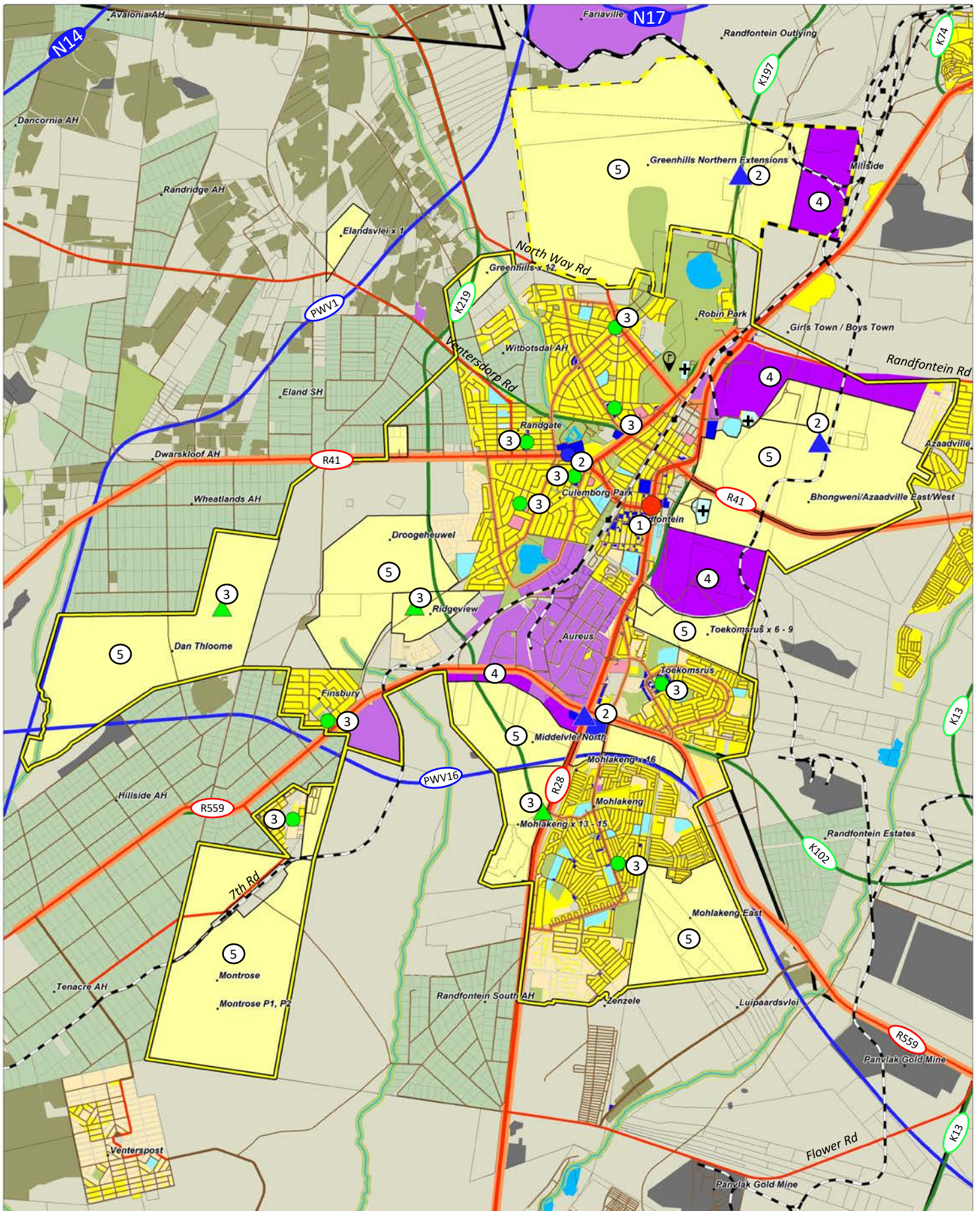
4. Industrial expansion is proposed to the south of Aureus and route R559; around the existing waste disposal site north of Toekomsrus; to the east of the existing Tiger Brands plant; and to the north in the vicinity of the Millside railway station (long term).
5. Priority Housing Development Areas at Droogeheuvel and Ridgeview, Dan Thloome, Montrose, Mohlakeng North and East, Toekomsrus and Bhongweni-Azaadville Gardens. In the long term (after 2037) the area north of Green Hills/ Robin Park will also become available for development.
6. An Urban Development Boundary is illustrated on Figure 48 and it is recommended that the RWC LM considers no applications for township establishment outside this line for the next two decades.

5.1.1 Randfontein CBD

The section below focuses on the development/ upgrading of the Randfontein CBD with the objective to revitalise and optimise local economic activity in the area. There are six relevant Urban Development Principles fundamental to the revitalisation of a CBD as listed below:



Rand West City : Randfontein Node – Development Framework



Cadastral	Mixed Use	Vacant	Neighbourhood Business Node Future	Proposed Roads (Lower Order)
Extensive Agriculture	Industrial / Commercial	Open Space	1 st Order Roads (Existing)	Railway Lines
Cultivated Land	Proposed Industrial	Regional Business Node Existing	1 st Order Roads (Proposed)	Railway Stations
Rural Residential	Mining	Regional Business Node Future	2 nd Order Roads	Urban Development
Residential	Hospital	Neighbourhood Business Node (Existing)	3 rd Order Roads	Boundary
Priority Housing Areas	Educational	Other Roads	Long Term Expansion	Public Transport Network
Business / Offices	Institutional	K-Routes (Proposed)		

0 0,3 0,9 1,5 km

48

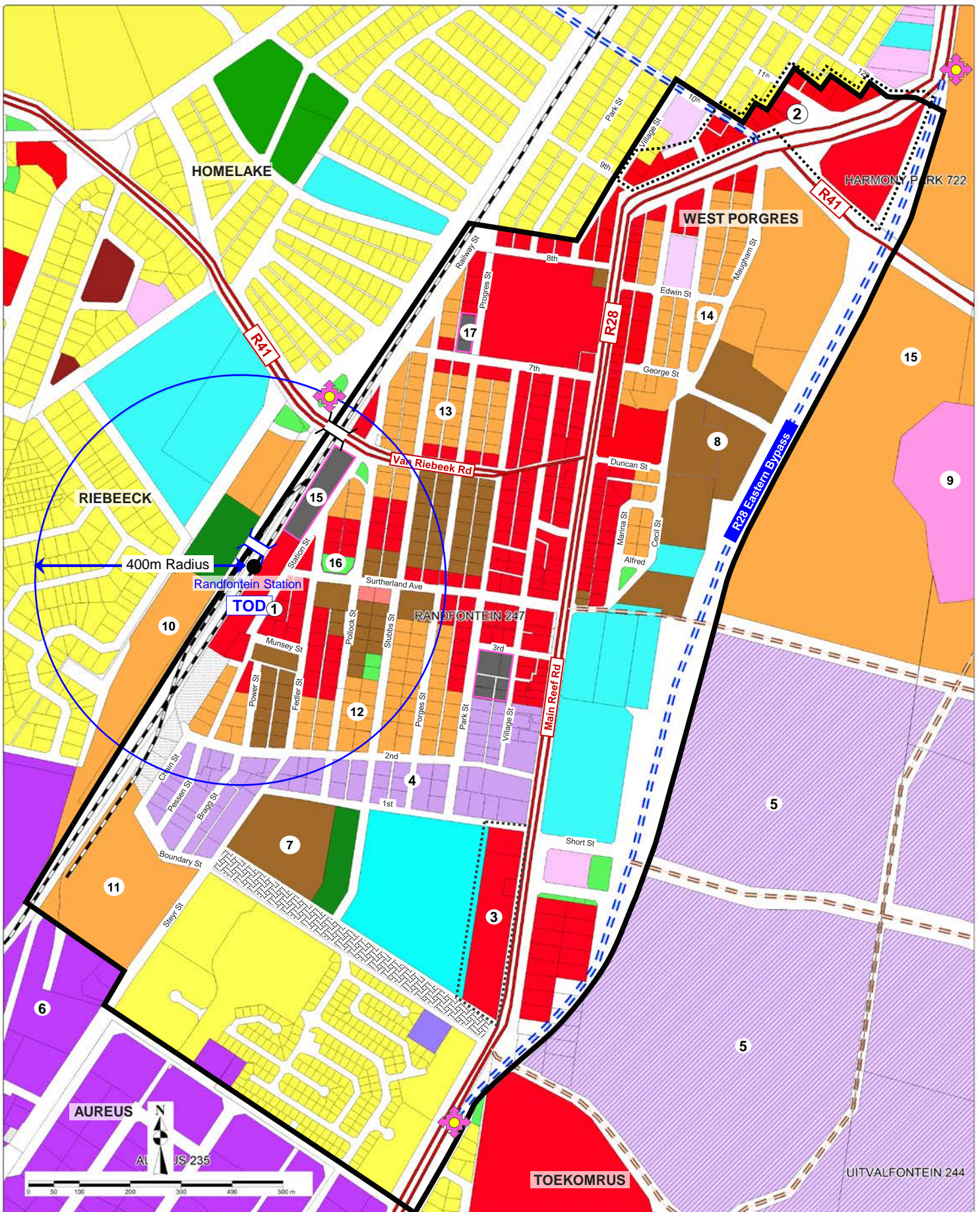
- Encourage **Compact Development**,
- Promote the **Diversity of Land Uses**,
- Support **Medium Density Mixed Use Development**,
- Enhance effective **Public Transport Systems**,
- Define and Improve **Pedestrian Movement Network**, and
- Invest in the **Public Environment**.

These principles are graphically illustrated on Diagrams 1 to 6 contained in Annexure D of this document. The diagrams briefly discuss the purpose of each principle, display several development features necessary to achieve the principle and provide graphic illustrations of the principle and its development features.

The following section summarises the development proposals for the Randfontein CBD in line with these six principles.

- It is envisaged that the Randfontein CBD will functionally expand to the east once the R28 eastern bypass is constructed, refer to **Figure 49.1** which also highlights the proposed CBD boundary.
- The expansion of the CBD will allow the existing Main Reef Road section through the CBD to be downscaled and converted into a functional boulevard catering for local vehicular and pedestrian movement.
- Promote intensive development within a walking distance of 400m radius around the Randfontein Station⁽¹⁾ in the form of Transit-Orientated Development (TOD). The TOD area will represent a walkable urban environment in close proximity to job opportunities and a wide-range of land uses such as medium density residential, retail and commercial activity, community facilities and public open spaces.
- It is proposed that business activity relating to retail and office development be encouraged and intensified within the CBD area and specifically along Main Reef Road and Sutherland Avenue towards the railway station.
- It is proposed that the northern⁽²⁾ and southern⁽³⁾ entrance points into the CBD be focus points for motor-related services such as motor-dealerships, motor services, and spare part sales.
- Properties within the existing commercial/ service industry area south of the CBD⁽⁴⁾ are almost fully developed, but these uses can be expanded to the east in future into the proposed commercial/ service industries⁽⁵⁾ area along the R28 Eastern Bypass.
- Further south along Steyr Street is the existing Aureus industrial area⁽⁶⁾ that comprises manufacturing industries, distribution depots, warehouses, brick-making industries, equipment and heavy vehicle hire, which, combined with the CBD creates an extensive economic activity area in the centre of the Randfontein node.
- Supplementary to the existing community facilities in the Randfontein CBD, it is proposed that the property located on Steyr and 1st Street should be developed into a Multi-Purpose Community Centre/ Thusong Centre that anticipates the relocation of the Department of Home Affairs⁽⁷⁾, to

RAND WEST CITY MUNICIPALITY – RANDFONTEIN CBD DEVELOPMENT PLAN



CBD Boundary	Commercial / Service Industry	Religious	Railway Line	Local Access Road
Single Residential	Industry	Sports and Recreation	Railway Station	Gateway Signage
Medium Residential	Community Facilities	Open Space	TOD	Regional Road
Retail	Education	Servitude	K-Route	
Informal Trading	Medical	Public Transport		



49.1

also accommodate community facilities such as a Community Hall, Youth Centre, and Skills Empowerment and Training Centre linked to the skills required in the surrounding commercial/ service industry and industrial areas.

As means to cater for the future residential expansion to the east of the CBD, it is proposed that the area with existing community facilities around the police station to the east of Main Reef Road⁽⁸⁾ be enhanced with additional community facilities which could be linked to the existing Randfontein Life Recovery Centre⁽⁹⁾ to the east thereof.

- Medium density residential development is proposed in several parts of the CBD including the following areas:
 - Within the proposed Transit-Orientated Development (TOD) demarcated area, specifically the area directly west of the Randfontein Station⁽¹⁰⁾ and to the south-west of the station⁽¹¹⁾. These properties are currently owned by Transnet and through negotiations with the municipality and private public partnerships, the land could be made available to be utilised for affordable housing with the benefits to surrounding public transport services;
 - North of the existing commercial/ service industry area⁽¹²⁾, and north and south of route R41 (Van Riebeeck Road)⁽¹³⁾;
 - To the east of Main Reef Road in the north-eastern parts of the CBD up to the R28 eastern bypass⁽¹⁴⁾.
- It is recommended that the establishment of medium density residential uses in areas 12, 13 and 14 be in the form of vertical mixed-use buildings comprising a combination of land uses such as retail and offices at ground floor and residential on upper floors.
- **Table 23** below indicates that the above five areas (10 to 14) could yield approximately 73 512m² of retail space, and about 4411 residential units (3 storey walk-up units). This is an ideal location for Social Housing which would require that the Randfontein CBD area be declared a “Restructuring Zone” in order to qualify for Rural Housing Subsidies.

Table 23: Randfontein CBD: Medium Density Inclusionary Housing Potential

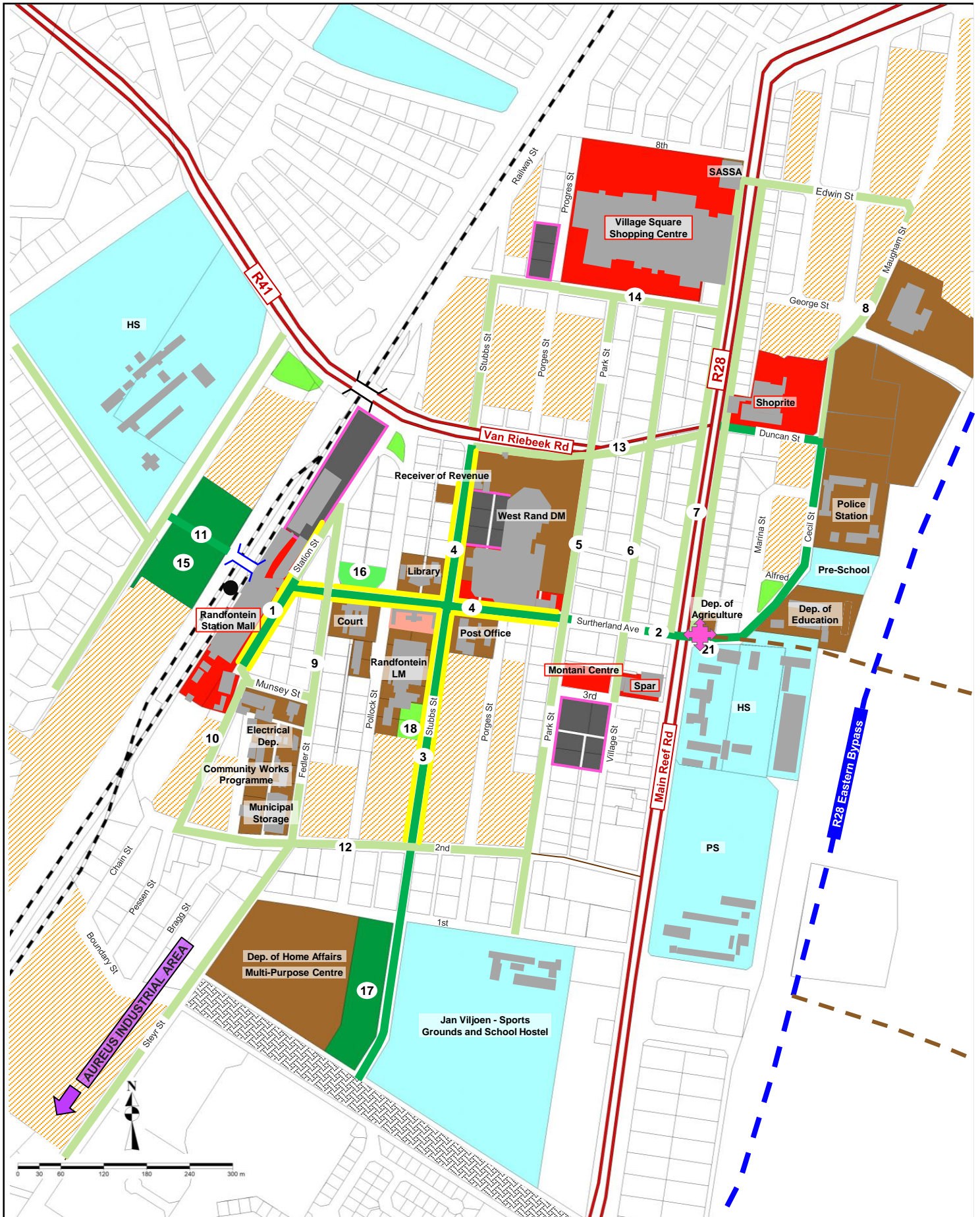
Table : Randfontein CBD: Medium Density Inclusionary Housing Potential								
Residential Clusters	Site Area (m ²)	Floor Area (m ²)					Total Units	Nett Density
		Total Business	First Floor	Second Floor	Third Floor	Total Residential		
10	51,189	15,357	15,357	15,357	15,357	46,070	921	180
11	53,020	15,906	15,906	15,906	15,906	47,718	954	180
12	52,960	15,888	15,888	15,888	15,888	47,664	953	180
13	42,612	12,784	12,784	12,784	12,784	38,351	767	180
14	45,260	13,578	13,578	13,578	13,578	40,734	815	180
Total	245,041	73,512	73,512	73,512	73,512	220,537	4,411	180

@ 30% coverage, ground floor Business, and 3 storeys Residential

- There is a fair distribution of public transport facilities in the CBD, with taxi ranks located fairly close to each other at distances between 100-400 meters apart.

- It is proposed that it be considered that the taxi rank north-east of the Randfontein Station⁽¹⁵⁾ be converted into a multi-storey facility and comprising a taxi rank for commuter services, taxi holding area and informal trading facilities in order to release the nearby taxi rank/ taxi holding area⁽¹⁶⁾ to serve other purposes such as a public open space. There is an additional taxi rank facility currently under-construction⁽¹⁷⁾ north of Van Riebeeck Road, will serve the northern part of the CBD.
- It is further recommended that the pedestrian movement routes along specific roads be classified according to their function and purpose as some pedestrian routes carry higher volumes of pedestrians which attracts higher volumes of informal trade activity. **Figure 49.2** depicts the proposed pedestrian network and public environment elements for the CBD area.
- The several identified primary pedestrian movement routes namely along Station Street, Sutherland Avenue-Cecil Street, Duncan Street, Stubbs Street, Village Street. These identified routes carry the highest volume of pedestrian traffic as a result of retail anchors, the majority of community facilities and subsequently informal trading being located along these.
- It is proposed that the following sections be recognised and upgraded as primary pedestrian movement routes:
 - Along the R28⁽¹⁾ which is main road through the retail core, and is characterised as a boulevard with palm trees along a median,
 - Along Station Street between the Randfontein Mall and taxi rank⁽²⁾,
 - Along Sutherland Avenue, Cecil Road and Duncan Road⁽³⁾ running east-west from the station through to the two clusters of community facilities located in the central part of the town and to the far-east, extending to the Shoprite and along Van Riebeeck Road.
 - Along Van Riebeeck Road R41⁽⁴⁾ between the Shoprite Shopping centre and the West Rand District Office.
 - Along Stubbs Street⁽⁵⁾ traversing north-south from the proposed Multi-Purpose Community Centre to the Village Square Shopping Centre.
 - Village Street⁽⁶⁾ connecting the taxi rank to the Spar retailer and Village Square Shopping Centre;
 - Along 7th Street⁽⁷⁾ runs adjacent and provides access to the Village Square Shopping Centre.
- As such, the existing sidewalks should be widened to accommodate the flow of pedestrians and cater for informal trading specifically.
- Due to the lack of public seating area within the CBD, it is proposed that dedicated public seating area be provided in the most social interactive part of the town, along Sutherland Avenue between Park Street and Station Street⁽⁸⁾, and along Stubbs Street between Randfontein municipal office and Rand West district office⁽⁸⁾,. The public seating area should be provided along the sidewalks in a concept of a Parklets, see examples on **Diagram 5c in Annexure D**. The concept of a parklet allows for the exchange of two on street parking bays to be converted and utilised for public outdoor seating space.
- There are also several secondary pedestrian movement routes proposed with the CBD. These should comprise paved pedestrian walkways as a minimum, linking people to anchor shopping centres, public transportation and community facilities.

RAND WEST CITY MUNICIPALITY – RANDFONTEIN CBD PLAN



Medium Residential	Public Transport	Railway Line	Servitude
Retail Anchors	Sports and Recreation	Regional Road	Gateway Public Art Feature
Informal Trading	Public Open Space	Pedestrian Bridge	
Community Facilities	Primary Pedestrian Route	Parklets	
Education	Secondary Pedestrian Route		



- The proposed secondary pedestrian movement routes are namely along the following streets:
 - Park Street⁽⁹⁾ which links the Jan Viljoen school hostel to the taxi rank and the Village Square Shopping Centre in the north;
 - Steyr and Fedler Streets⁽¹⁰⁾ both connecting the Randfontein Station and Randfontein Shopping Mall to the commercial and industrial areas in the south of the town;
 - Station Street and Pessen Street⁽¹¹⁾ linking the Randfontein Station to the proposed medium density residential area;
 - West of the railway line from the Randfontein Station extending through the proposed public open space and residential area⁽¹²⁾;
 - Along 2nd Street⁽¹³⁾ linking the proposed medium density residential to the Randfontein Station;
- There are four main public open spaces proposed within the CBD area and these are located at the following areas:
 - West of the Randfontein Station within the Transit-Orientated Development⁽¹⁴⁾. The proposed public space would be a transitional social space between the station and shopping activity and residential area, see **Diagram 6b**. Proposed social activities within the western public space should comprise a public park area, children's play park, outdoor gym area, soccer Field and netball Court.
 - East of the Randfontein Station along Sutherland Avenue⁽¹⁵⁾ close to the court, municipal office, library and formalised informal trading area;
 - Along Stubbs Street south of the Randfontein Municipal offices and would serve the proposed mixed-use development area with a combination of retail at ground floor and residential on the upper floor⁽¹⁶⁾, and unbounded
 - Along Stubbs Street at the proposed Multi-Purpose Community Centre⁽¹⁷⁾. It is proposed that the public open space comprise an outdoor amphitheatre to hold community meetings and public events and a park area for social interaction.
 - It is recommended that forthcoming *Residential 2 and 3* developments be internally provided with public open spaces as per the condition stipulated in the municipal Land Use Scheme.
- It is proposed that gateway signage be placed at the main entrance points to the CBD. This would include the area west of the railway line along the R41⁽¹⁸⁾ and at the entrance points north and south of the CBD along Main Reef Road (refer to **Figure 49.1**).
- The state of buildings in the CBD show signs of deterioration as the exterior of several buildings have broken windows, chipped-off paint and broken walls, and unkept and clustered building signage. It is recommended that the municipality invests in the upkeep of the public urban spaces, pedestrian walkways and see to the operation of street lights, and subsequently ensure that building owners carry out their responsibility to manage and conduct maintenance of their buildings, see example below.



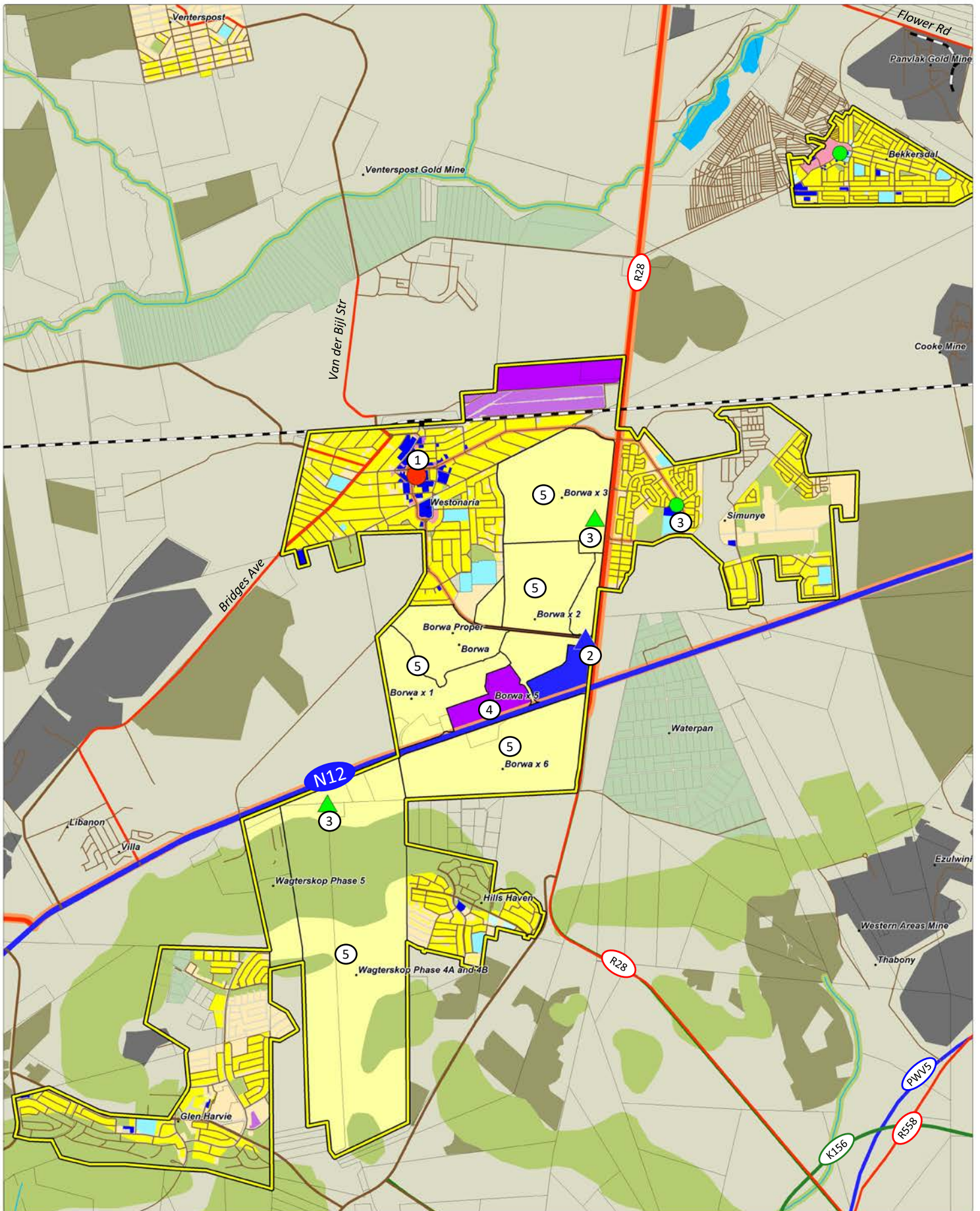
5.2 WESTONARIA NODE

Figure 50 illustrates the proposed Development Framework for the Westonaria Node with the following being notable:

- Business Use to be accommodated in the CBD, the future Borwa business node at the N12-R28 intersection and localised in Simunye and Bekkersdal. Mixed use should be promoted along the priority public transport network linking the nodes to one another as shown on Figure 50.
- Residential development will be focused in the Borwa-Wagterskop area which represents infill development between Westonaria, Hills Haven, Simunye and Glen Harvie.
- Industrial expansion is proposed to the north of existing Westonaria Industrial and along N12 in Borwa.
- Urban Development should be contained within the area demarcated by the Urban Development Boundary on Figure 50.



Rand West City : Westonaria Node – Development Framework



	Cadastral		Mixed Use		Vacant		Neighbourhood Business Node Future		Proposed Roads (Lower Order)
	Extensive Agriculture		Industrial / Commercial		Open Space		1 st Order Roads (Existing)		Railway Lines
	Cultivated Land		Proposed Industrial		CBD		1 st Order Roads (Proposed)		Railway Stations
	Rural Residential		Mining		Regional Business Node Existing		2 nd Order Roads		Urban Development
	Residential		Hospital		Regional Business Node Future		3 rd Order Roads		Boundary
	Priority Housing Areas		Educational		Neighbourhood Business Node (Existing)		Other Roads		Public Transport Network
	Business / Offices		Institutional		K-Routes (Proposed)				

50

5.2.1 Westonaria CBD

Figure 50.1 depicts the proposed Urban Development Boundary for the Westonaria CBD and proposed development guidelines. These are summarised as follow (also refer to Annexure D for Diagrams):

- It is generally recommended that intensification and densification be promoted within the town centre with a range of medium density residential and business activity so as to boost the town’s local economy and productivity, and ensure optimal use of existing services.
- Vertical mixed-use developments should be encouraged, comprising land uses such as office and retail on ground level and residential development on upper floors. Areas to encourage mixed use development should ideally be located along main internal roads of the town and close the CBD Core, see ⁽¹⁻⁵⁾ on Figure 50.1.
- Medium density residential developments should be promoted close to the town centre so as to increase viability of surrounding businesses and promote walkable environments. Such medium density residential establishments are to be established along the following roads close to business activity:
 - Forbes Street⁽⁶⁾,
 - Edwards Street⁽⁷⁾;
 - Botha Street⁽⁸⁻⁹⁾ and
 - Davies Street⁽¹⁰⁾.
- The area between De Wet Street and Normand Street⁽¹¹⁾ can be redeveloped for medium-density residential use in order to complete the densification trend in this part of the CBD.

Table 24 below indicates that these densification areas can accommodate approximately 3016 residential units which would significantly enhance the economic viability of the CBD. If the CBD is declared a Restructuring Zone then Social Housing could also be incorporated into the area.

Table 24: Westonaria CBD: Medium Density Inclusionary Housing Potential

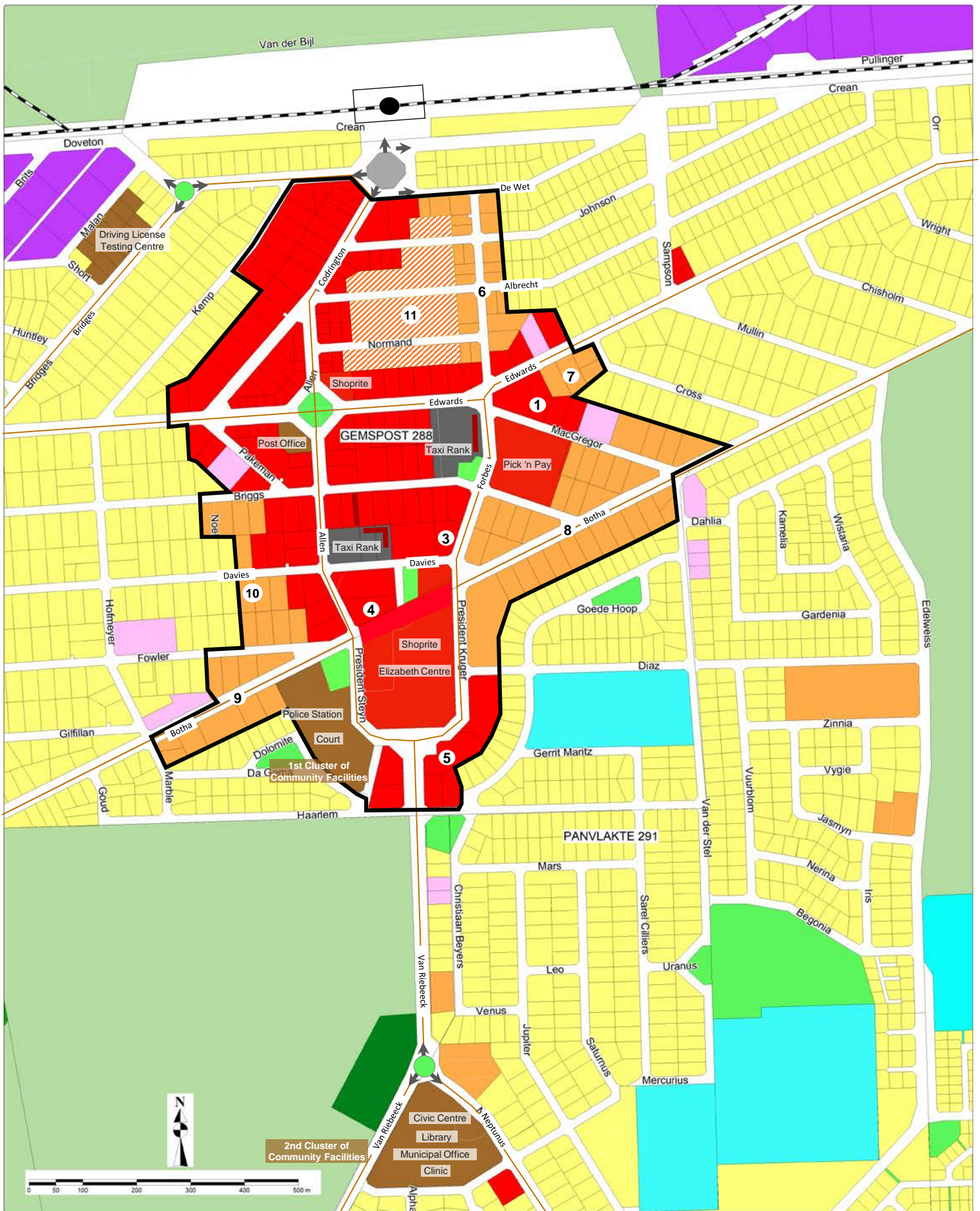
Residential Clusters	Site Area (m ²)	Floor Area (m ²)				Total Residential	Total Units	Nett Density
		Ground Floor	First Floor	Second Floor	Total			
6	22,936	6,881	6,881	6,881	20,642	413	180	
7	6,722	2,017	2,017	2,017	6,050	121	180	
8	57,892	17,368	17,368	17,368	52,103	1,042	180	
9	19,759	5,928	5,928	5,928	17,783	356	180	
10	23,177	6,953	6,953	6,953	20,859	417	180	
11	37,076	11,123	11,123	11,123	33,368	667	180	
Total	167,562	50,269	50,269	50,269	150,806	3,016	180	

@ 30% coverage, and 3 storeys Residential

- Enhance functional links between the railway station, two taxi ranks and routes R28 and N12 which provide regional mobility.



RAND WEST CITY MUNICIPALITY – WESTONARIA CBD DEVELOPMENT PLAN



- | | | | |
|---|--|-----------------------|------------------|
| CBD Boundary | Medium-Long Term Residential Development | Community Facilities | Public Transport |
| Single Residential | Retail | Education | Railway Line |
| Short-Medium Term Residential Development | Informal Trading | Religious | Railway Station |
| Industrial / Commercial | Public Open Space | Sports and Recreation | Traffic Circle |



- **Figure 50.2** displays the proposed pedestrian movement network within the central core area of the CBD comprising the following:

□ **Primary Pedestrian Movement**

- Through Elizabeth Retail Centre towards the taxi rank⁽¹⁾ located on Davies Street and to the north of the Shoprite⁽²⁾ between Allen Street and Forbes Street,
- Through the taxi rank towards Briggs Street⁽³⁾,
- The existing pedestrian shortcut link connecting pedestrians from Davies Street to Briggs Street⁽⁴⁾.

□ **Secondary Pedestrian Movement**

- Along the ring-road which links the business core area to the Westonia Station, specifically along Allen Street, Forbes Street and Edwards Street⁽⁵⁾ which direct pedestrians to the Shoprite Centre, Elizabeth Retail Centre and the Pick 'n Pay, as well as the cluster of community facilities along President Steyn Street and the two taxi rank facilities.
- Van Riebeeck Street⁽⁶⁾ which serves an effective role in connecting the CBD core area to the Civic Centre to the south, and further to the newly established Borwa residential areas further to the south.
- Internal link roads along Davies Street⁽⁷⁾, Briggs Street⁽⁸⁾ and Edwards Street⁽⁹⁾ to link pedestrians to the taxi ranks and businesses.

- The CBD has minimal public open spaces. As a result people utilise the open space at the recently established public space⁽¹⁰⁾ on Forbes Street and Briggs Street that forms part of the taxi rank. The second formalised public open space⁽¹¹⁾ is located along Van Riebeeck Street just next to the CBD core area between the business activity and residential area.

In addition, two public parks are proposed between the cluster of community facilities and the Elizabeth Shopping centre along President Steyn Street⁽¹²⁾, and along Davies Street close to the Elizabeth Shopping Centre⁽¹²⁾. It is proposed that a combination of hard and soft spaces be incorporated as part of the park's design, with durable street furniture.

5.3 SYFERFONTEIN NODE





















The Syferfontein Development Framework is graphically depicted on **Figure 51** and is based on the following proposals for the area:

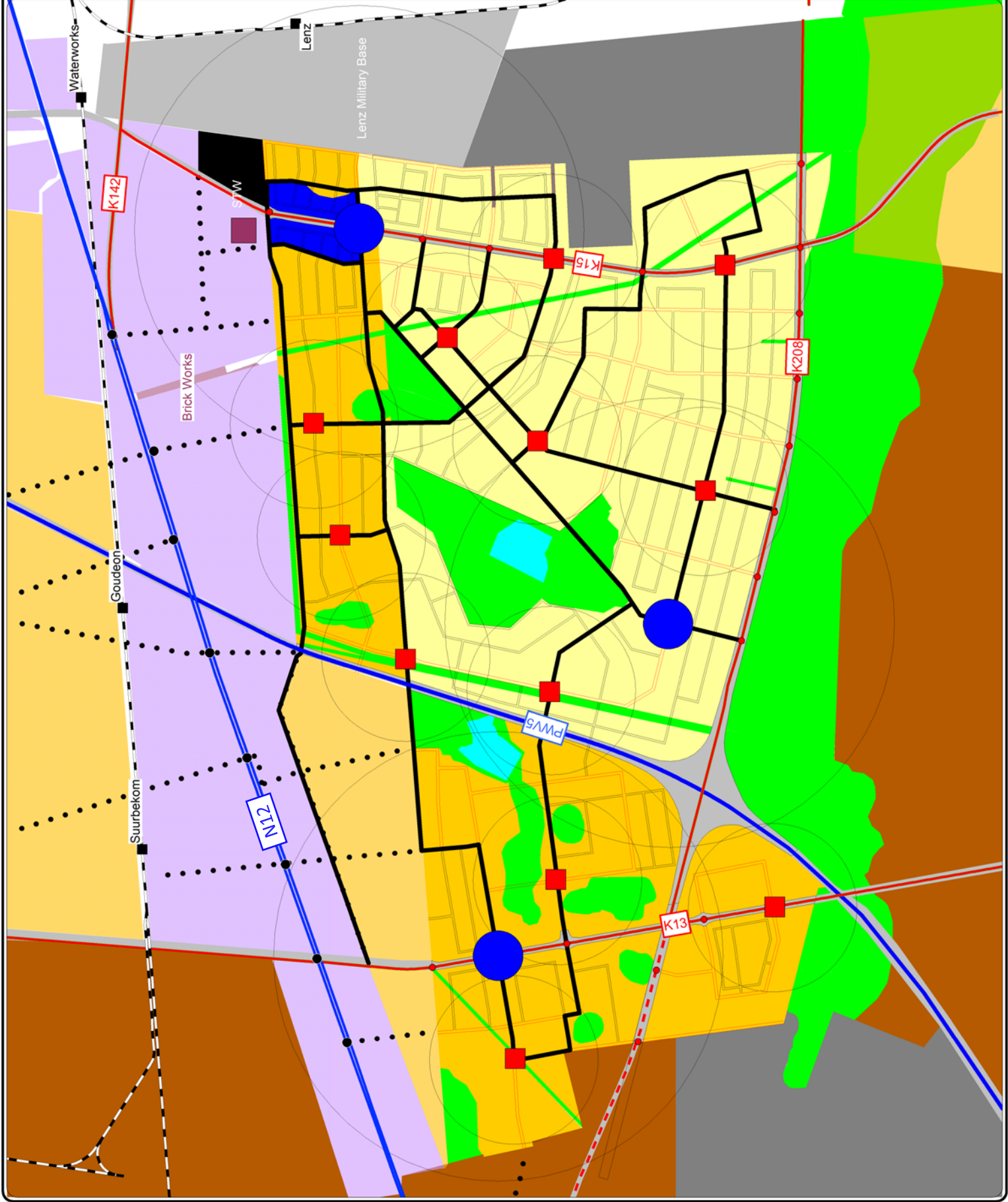
Regional Open Space

All undevelopable areas (wetlands, quarries, ridges, areas with mineral rights etc.) identified are to be incorporated into a comprehensive open space system for the area. It includes the existing wetland areas, areas not suitable for development due to dolomitic conditions and the two existing quarries on

PROPOSED TOWNSHIP SYFERFONTEIN

Development Framework

-  Cadastral
-  National Roads
-  Main Roads
-  Railway Line
-  Railway Stations
-  Open Space
-  Agriculture
-  Mines
-  Commercial/ Light Industrial
-  Water Feature
-  Electrical Sub-Station
-  Developable 80+ U/ha
-  Developable 60+ U/ha
-  Primary Nodes and CBD
-  Local Nodes
-  Road Linkages
-  Future Road Reserve
-  N12 Intersections
-  K-Route Intersections
-  Public Transport Network



the site. This open space system functionally links into the Regional Open Space System which the Gatsrant and Klip River forms part of.

At the next level of detail (beyond the regional open space system) the SDF proposes an integrated and connected network or 'green corridor' of public open spaces, whereby:

- Existing and future road servitudes are used to extend and link the open spaces.
- The street and pedestrian network is promoted as an extension of the open space system through planting of street-trees to reinforce and extend a green corridor network.

The plan also promotes the establishment of a variety of smaller public common spaces, such as:

- Formal squares at local nodal centres.
- Play-parks in residential areas.
- Smaller parks or squares within commercial districts.
- Sports fields that carry the interest of both schools and the community.

Movement Network

The Syferfontein Development Framework makes ample provision for regional connectivity and linkages. The proposed routes K15, K208 and K13 are optimally utilised in terms of providing access to and from the Syferfontein area. To the north routes K13 and K15 link Syferfontein to the West Rand and the City of Joburg areas. Towards the south route K15 provides sufficient linkages to the Lawley and Ennerdale communities and further southwards towards Evaton, Sebokeng, Van der Bijlpark and Vereeniging.

Public Transport

Provision was also made for a public transport network as highlighted on Figure 51.

Nodal Network

As illustrated on Figure 51 a three-tier hierarchy is proposed in terms of economic activity nodes for the Syferfontein area.

CBD

The first and higher order node is the proposed Syferfontein Central Business District (CBD) which is earmarked to be located at the north-eastern entrance of Syferfontein along route K15. All indications are that route K15 will become a future BRT route running through the area, and this is also the area closest to the economic activities associated with Protea Glen and Soweto further towards the north.

Neighbourhood Nodes

At the next level two neighbourhood nodes are proposed to be located at the two other most accessible points within the study area.

Community Nodes

As convenience and access is one of the main principles of the Syferfontein precinct plan, provision was also made for twelve community nodes as illustrated on Figure 51. Schools, clinics, post offices, churches, libraries, community halls and sports grounds, supplemented by a cluster of medium density residential units, could form part of these local nodal points.

Industrial/ Commercial Development

Another important feature to note from Figure 51 is the proposed extent of industrial/ commercial activity along route N12. The entire strip of land both north and south of route N12 is earmarked to accommodate a mix of industrial and commercial land uses in future. At present there are already a variety of activities located along this strip, amongst others the brickworks. It is suggested that the local road network in the Suurbekom and West Rand Agricultural Holdings area be utilised to open up the land parcels which front onto route N12 and to allow for the redevelopment of this area and specifically the promotion of economic activity.

Residential Development

The northern and north-western parts of the Syferfontein area are suitable to accommodate 80 u/ha and more in terms of residential densities, while the south-eastern block has a density limit of approximately 60 u/ha. In line with this principle the area will develop with a range of residential typologies including row housing, 2 and 3 storey walk-ups, catering for rental and full ownership, totaling approximately 60 000 units.

It is also anticipated that RDP flats, gap-market bonded housing, and fully-fledged bonded housing will be provided with the private sector playing an active role towards the development of the Syferfontein area.

Mixed Uses

Adjacent to the north and south of route N12 the remainder parts of Suurbekom and the West Rand Agricultural Holdings may be used for mixed use development as soon as the Zuurbekom Waste Water Treatment Works has been completed.

5.4 BADIRILE NODE

The RWC SDF indicated the Badirile Node as a rural node in municipal context. The Gauteng Rural Development Plan and the West Rand District Rural Development Plan classified Badirile as an Agri Hub which should serve as agro-processing centre for a number of surrounding Farmer Production Support Units (areas of high agricultural production).

Simultaneously Badirile is characterised by a significant housing backlog (\pm 450 units) and an existing low income residential community in excess of 1000 households.



Figure 52 shows that the surrounding area is characterised by extensive irrigated farming and high intensity tunnel farming. Several chicken hatcheries exist to the south-west and the Denny mushroom plant is located to the north-west.

Given all the elements noted above, the RWC SDF earmarked the Badirile Node and surrounds as a Rural Intervention Area where the collective effort/ investment of a number of government departments and the private sector could convert the area into an “integrated rural area where residents will be economically active, have access to food security, access to basic services, health care and quality education” as noted in the National Development Plan (2011).

Achieving this vision will require leadership on land reform (giving people access to natural resources in the area), individual or communal tenure security, infrastructure, financial and technical support to local farmers and institutional capacity to implement the necessary interventions.

Apart from the high intensity commercial farming in the surrounding area, the Badirile Node as depicted on Figure 52 comprise a number of strategic elements to direct the interventions required in the area, including:

- ❑ Route N14 and Ventersdorp Road intersecting at the node;
- ❑ The existing low income resident community in the area;
- ❑ The large pocket of public owned land located to the north of Badirile township;
- ❑ The strategically located land in the south-western quadrant of the intersection;
- ❑ Low intensity agricultural use of land in the south-eastern quadrant

All these elements should be put together into a Community Based Rural Intervention Area Plan for the Badirile Node which will guide the incremental development of the node as an Agri Hub over a period of time. This plan will replace the existing Badirile Precinct Plan which is contained in **Annexure C** of this document.

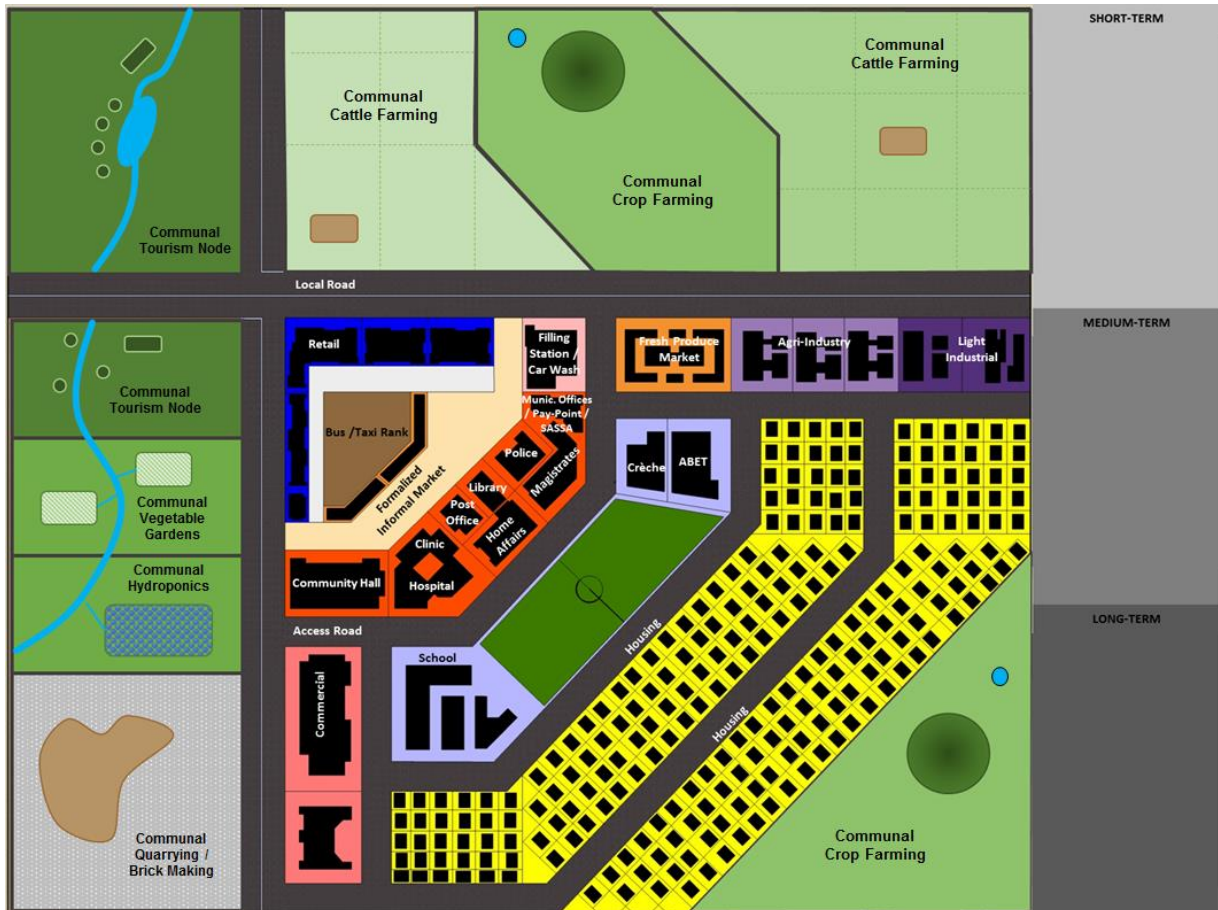
Roleplayers would include the RWC LM and West Rand District Municipality, Gauteng Department of Human Settlement; Gautrans; Department of Rural Development and Land Reform; Department of Agriculture, Forestry and Fisheries; Department of Water Affairs; Department of Trade and Industry and Departments of Health and Education respectively.

The collective impact of investment/ support of these stakeholders should transform the Badirile Node into a sustainable precinct as conceptually illustrated on **Diagram 19**, comprising:

- ❑ A formal residential component with subsidized and bonded housing offering full ownership and/ or rental opportunities;
- ❑ A comprehensive range of community facilities clustered together and serving the local community and families residing on farms in the surrounding Farmer Production Support Areas;
- ❑ A number of retail facilities catering for the formal and informal sector in close proximity to the cluster of community facilities;

- ❑ A fresh produce market and a number of agro industries extending the value chain of priority commodities relevant to the area;
- ❑ A diverse range of high intensity farming units (individual and/ or communal) on agricultural land in the surrounding areas;
- ❑ Reliable water, sanitation and electricity supply to serve all activities in the area;
- ❑ Continuous mentorship and support programmes to local beneficiaries.

Diagram 19: Rural Node/ Agri Village Concept

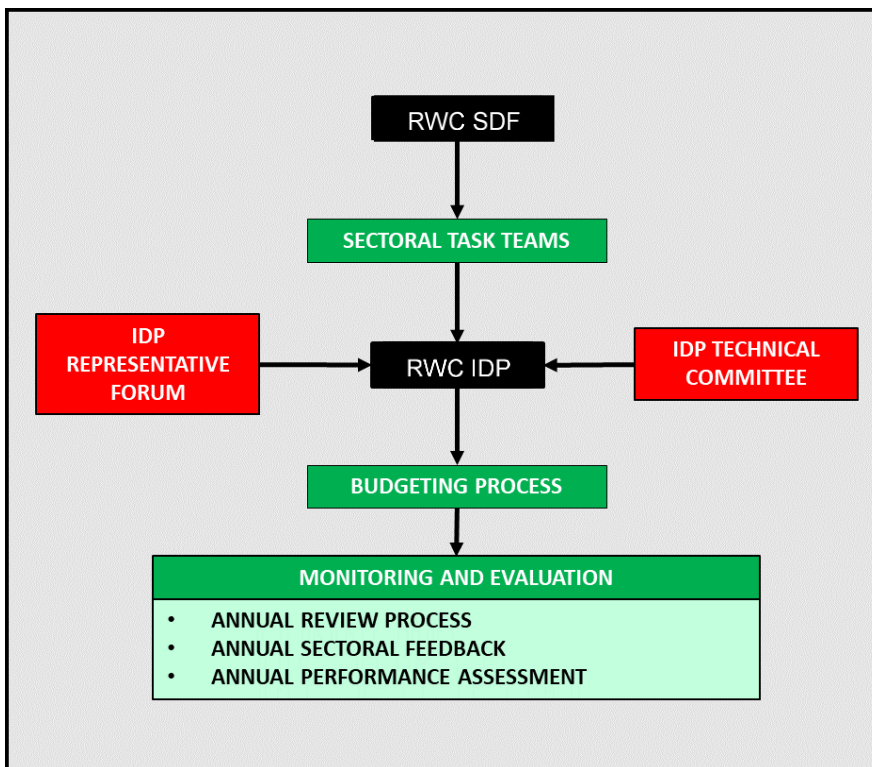


6. IMPLEMENTATION PROGRAMME

Following from the Situational Analysis (Section 3) the Spatial Development Framework (Section 4) and Local Spatial Development Proposals (Sections), the projects/ initiatives which are deemed critical towards the sustainable future development of the RWCLM were identified. These projects/ initiatives are listed in Table 25, as part of a Capital Investment Framework derived directly from the proposed RWC SDF.

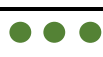
The next step would be for these projects to be incorporated into the Objectives, Strategies and Projects of the various Priority Issues as contained in the RWC IDP. (Refer to **Diagram 20**) For example, the proposed environmental projects/ actions emanating from the SDF should feed into the Objectives, Strategies and Projects under the Environmental and Health Services in the municipal IDP, from where the projects can be incorporated into the budgeting process of the Municipality.

Diagram 20: RWC SDF Implementation Strategy



It is important to note that the RWC SDF forms part of the Integrated Development Plan of the Municipality (in line with section 26(e) of the Municipal Systems Act) and that it does not represent a parallel process thereto. Many of the projects following from the SDF may already be listed in the RWC IDP, but the SDF may serve to better illustrate the strategic significance and spatial logic of such a project.

In essence, the SDF incorporates, aligns, and integrates various sectoral issues, and highlight the functional relationship between various elements e.g. the importance of the construction of a certain section of road to unlock the development potential of a specific underdeveloped area.



Another important aspect to consider is the fact that a SDF does not entail the compilation of a number of sectoral studies as part of the process. Instead, it rather focuses on capturing the findings and recommendations of various sectoral studies, and superimposing these spatially over each other in order to assess the collective impact these may have on the area.

In this way the SDF provides a multi-sectoral, integrated perspective on future development in the RWC. Having identified the important projects/ initiatives to be implemented following from the SDF, it is important for RWC officials to continuously monitor whether these projects/ initiatives are being incorporated into the relevant development Objectives, Strategies and Projects in the IDP of the Municipality, and that these projects are appropriately prioritised in the budgeting process, from where implementation will follow.

This is a continuous process which should be followed as part of the annual IDP Review process, and should also be dealt with as part of the annual Performance Management Assessment.

The following is a list of priority projects to be initiated in the Rand West City area, based on the findings and development proposals contained in the SDF:

Table 25: Proposed RWC SDF Capital Investment Framework

	Project / Activity	Responsibility	Priority			Cost Estimate
			Short Term	Medium Term	Long Term	
1	Establishment of Environmental GIS System with CBA, Dolomite and Ridges overlay zones to asses Land Use Applications	RWC Land Use Planning/GDARD	X			In-House
2	Utilize the Land Use Development Toolkit issued by NEMA for the RWC Area	RWC Land Use Planning/GDARD	X			In-House
3	Compile detailed Randfontein CBD Revitalization Plan	RWC Land Use Planning	X			R300 000
4	Compile detailed Westonaria CBD Revitalization Plan	RWC Land Use Planning	X			R300 000
5	Negotiate construction of R28/N11 bypass around Randfontein CBD and implement Strategic Freight Network Initiative	RWC Transport / Gautrans	X			TBD
6	Establish public transport facilities along priority public transport routes: R28, R41, R501 and R559	RWC Transport	X	X		TBD
7	Upgrade the main modal transfer facilities (bus/taxi routes) and integrate with surrounding land uses in the two CBDs, Mohlakeng, Toekomsrus, Bekkersdal and Simunye	RWC Transport		X		TBD
8	Investigate TOD potential around each of the four main railway stations in Randfontein and follow up on relevant land parcels	RWC Land Use Planning	X	X		In-House
9	Incremental implementation of priority housing projects Compile a RWC Human Settlement Implementation Programme based on the proposed strategy(Table 20) mainly comprising the following: <ul style="list-style-type: none"> - Badirile - Elansvlei - Greenhills - Jabulani - Montrose - Wheatlands - Mohlakeng - Toekomsrus - Borwa - Thusanang 	RWC Land Use Planning / Human Settlement / GDOHS	X	X	X	R500 000
10	Continue preparatory work on longer term strategic housing projects like Syferfontein	RWC Land Use Planning / Human Settlement / GDOHS	X			In-House
11	Compile detailed precinct plan for Bhongweni-West Porges Precinct in conjunction with Sibanye Still Water	RWC Land Use Planning / Human Settlement / GDOHS	X			R500 000

Project / Activity		Responsibility	Priority			Cost Estimate
			Short Term	Medium Term	Long Term	
12	Assess range of community facilities available at each node in RWC and ensure that new facilities are added where necessary (not duplicate) - Compile Prioritization Programme	RWC Land Use Planning/Social Services	X			In-House
13	Oversee incremental expansion of industrial areas as illustrated in SDF	RWC Land Use Planning	X			In-House
14	Compile a detailed Precinct Plan and Implementation Strategy for the proposed Badirile Agri Hub and surrounds	RWC Land Use Planning / DRDLR	X			R1,200,000
15	Investigate ways and means to further enhance the Bekkersdal Farmer Production Support Unit, and specifically also the Vertical Farming facility	DRDLR	X			TBD
16	Focus on improvement of the existing tourism facilities in Randfontein town (Around the Riebeck Lake and possibly disused mine shaft)	RWC LED	X			In-House
17	Ensure that Engineering Services Plans are aligned to serving Priority Nodes and Priority Housing Development Areas as described in SDF, with main focus on the following; - Upgrading of Reservoir Network: Western Central, Hillshaven, Westingloor, Droogeheuvel, Badirile - Upgrading of Waste Water Treatment Works: Hannes v Niekerk, Badirile, Zuurbekom (future) - Bulk MV and LV Electrical Networks upgrading various - Assist planning of WRDM Regional Landfill	RWC Technical Services				R133 million R358 million R859 million
18	Formulate a policy on land use development outside the RWC Urban Edge to guide development of non-residential uses on Agricultural Holdings and Farms.	RWC Land Use Planning	X			R300,000
19	Formulate a Student Accommodation Policy in order to efficiently cater for this growing market.	RWC Human Settlement / Land Use Planning		X		R150,000

In conclusion, the following general actions should be taken to ensure the successful implementation of the proposed Spatial Development Framework:

- Through the **IDP Review Process** ensure that the RWC IDP Programmes are aligned with, and adhere to the spatial proposals, guidelines and principles advocated by the SDF.
- **Engineering Services** should ensure that:
 - The bulk of its capital expenditure is focused on infrastructure development and service delivery within the proposed nodes, Strategic Development Areas and PHDAs. The reason being, that these areas not only serve to indicate where the greatest need for infrastructure spending could possibly be in the future, but also indicate where the municipality would receive the best value for money spent on infrastructure development and service provision; and
 - The strategic road linkages constituting the proposed municipal movement network are established through entering into discussions with the South African National Roads Agency (SANRAL) and the Provincial Department of Transport (Gautrans).
- The department responsible for **housing** should ensure that the bulk of the subsidised housing stock is provided for within the Priority Housing Development Areas. This will help to consolidate the Municipality's urban/ rural structure.
- The department responsible for **social services** should ensure that all community facilities and services are provided for within the proposed Thusong/MPCC nodes.
- The departments responsible for **conservation, tourism** and **economic development** should ensure that a balance is kept between conservation activities and tourism, agricultural and mining development. Due to the occurrence of prime agricultural land and environmentally sensitive areas, amidst and in close proximity to the mining activity, it is recommended that mining activity and rehabilitation of mining land be carefully monitored.
- The **Finance Department** should on an annual basis, evaluate whether or not the Municipality is spending the bulk of its capital within the proposed key focus areas – i.e. the proposed corridors, nodes, Economic Activity Areas, PHDAs and the Agri Hub.
- The department responsible for **land use planning** should:
 - Launch a capacity building programme aimed at establishing a “paradigm shift” amongst all service providers and stakeholders (politicians and officials of all spheres of government) towards a “principles based” planning and management approach for the Municipality. This would ensure that unnecessary political pressure(s) does not derail the collective actions needed to restructure the spatially fragmented and unsustainable spatial structure of the Municipality. Ensure that each Precinct Plan process in the RWC focuses on incorporating the RWC SDF Directives as contained in the Precinct Plan; and

- Lastly, ensure that the Rand West Land Use Scheme is properly aligned to the RWC SDF functional areas. Table 26 is the “Linkage Table” between the SDF and LUS, illustrating which use zones are compatible (and could be considered for approval) in each of the SDF functional areas.

7. CONCLUSION

In line with the Development Principles for spatial planning as contained in the Spatial Planning and Land Use Management Act, the Rand West City District Spatial Development Framework seeks to achieve the following:

Spatial Sustainability:

- Create a more consolidated settlement structure in the RWC LM, so as to allow for the cost-effective and sustainable provision of engineering and community services and infrastructure;
- Ensure the sustainable use of land and other resources in the Municipality.

Spatial Justice:

- Mitigate existing and future conflicts between urban development, mining, industry, agriculture, and tourism which are the main economic sectors in the Municipality;
- Achieve spatial justice by way of inclusion of communities that were previously excluded from services and facilities through processes of urban restructuring and consolidation;
- Provide all communities access to resources to improve their living conditions.

Spatial Efficiency:

- Ensure the channelling of resources to areas in the RWC LM displaying both economic potential and development need;
- Functionally link the main growth centres / areas of greatest economic activity in the Municipality to one another and to the regional economy of the West Rand District and Gauteng City Region;
- Enhance the development potential of existing towns and smaller settlements in rural areas of the Municipality.

Good Administration:

- Ensure alignment between different sectoral plans and initiatives from various spheres of government, surrounding districts, metropolitan municipalities, and the local municipalities surrounding the RWC LM.

The Spatial Development Framework for the Rand West City thus facilitates the consolidation of the municipal settlement structure; encourages rural-urban interaction; provides a framework (spatial logic) for the efficient, equitable and sustainable provision of community infrastructure and services; unlocks the development potential of urban areas through proposals for developing industry specific economic clusters in line with the municipal space economy; functionally links the main internal and external growth centres via well-developed corridors; and mitigates existing and potential future land use conflict(s) between industrial developments, mining, agriculture, and tourism.